

ORIGINAL

NEW APPLICATION



0000124141

BEFORE THE ARIZONA CORPORATI

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

COMMISSIONERS

GARY PIERCE - CHAIRMAN
BOB STUMP
SANDRA K. KENNEDY
PAUL NEWMAN
BRENDA BURNS

G-04204A-11-0158

IN THE MATTER OF THE APPLICATION OF)
UNSGAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

DOCKET NO. G-04204A-11-_____

Arizona Corporation Commission

DOCKETED

APR - 8 2011

DOCKETED BY *MM*

UNSGAS, INC.

APPLICATION

TESTIMONY AND EXHIBITS

VOLUME 1 of 3

April 8, 2011

AZ CORP COMMISSION
DOCKET CONTROL

2011 APR - 8 P 1:54

RECEIVED

BEFORE THE ARIZONA CORPORATION COMMISSION

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

COMMISSIONERS

GARY PIERCE
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-_____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE) APPLICATION
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

UNS Gas, Inc. ("UNS Gas" or "Company"), pursuant to A.R.S. §§ 40-250, 40-251 and A.A.C. R14-2-102 and R14-2-103, through undersigned counsel, hereby files an Application for an increase in its base rates of \$5.6 million, or approximately 4% over test year retail revenues, and to set UNS Gas' fair value rate base at \$254 million. UNS Gas requests that the new rates become effective not later than May 1, 2012.

I. INTRODUCTION.

A. Background and Necessity for Increase to Revenue Requirement.

UNS Gas is a local gas distribution company that serves approximately 146,500 customers in Coconino, Yavapai, Santa Cruz, Navajo, and Mohave counties. Residential customers comprise approximately 91% of the Company's customer base as of the end of the Test Year (from January 1 through December 31, 2010). From the end of the test year used in the Company's last completed rate case (June 30, 2008), through the end of the Test Year (December 31, 2010), UNS Gas invested approximately \$30.8 million in its gas distribution system and other plant assets required to provide service to its customers. Because the Company's customer growth rate has slowed significantly, most of its capital expenditures have been to ensure safe and reliable service to its existing customers, including \$12.3 million for

1 system reinforcement; \$3.1 million for public/capital improvement projects; and \$3.7 million for
2 general plant.

3 Further, UNS Gas has experienced flat sales levels since the last test year, even while its
4 expenses have increased. As a result, operating expenses recovered through UNS Gas' current
5 rates are \$24.2 million, while operating expenses in this current rate filing are \$25.0 million
6 (both figures excluding gas costs and income taxes).

7 UNS Gas is therefore filing this rate case to: (i) ensure its ability to provide safe and
8 reliable service; (ii) recover its full cost of service, including an appropriate return on invested
9 capital; and (iii) maintain or improve its credit rating, all of which will benefit UNS Gas and its
10 customers.

11 The Company's requested increase is necessary for UNS Gas to operate as a financially
12 healthy utility that can ensure continued reliable service, on demand, and at reasonable prices
13 into the future for its customers. UNS Gas' current rates and charges – which the Arizona
14 Corporation Commission ("Commission") approved in Decision No. 71623 (April 14, 2010) -
15 not produce a reasonable return on the fair value of the Company's property devoted to public
16 service and are therefore not just and reasonable. The rate increase sought is required to enable
17 the Company to earn a fair rate of return on the fair value of its assets devoted to public service,
18 and will provide for recovery of the Company's operating and capital costs necessarily and
19 prudently incurred in rendering adequate utility service to customers.

20 **B. Rate Base, Cost of Capital and Rate of Return.**

21 UNS Gas' Test Year Original Cost Rate Base ("OCRB") is \$184 million. UNS Gas'
22 Replacement Cost New Less Depreciation ("RCND") is \$324 million. Using a traditional 50/50
23 weighting of OCRB and RCND to determine Fair Value Rate Base ("FVRB"), the Company's
24 proposed value for FVRB is \$254 million.

25 UNS Gas proposes to use its actual capital structure in determining the weighted average
26 cost of capital ("WACC"). This capital structure is comprised of 49.18% long-term debt and
27 50.82% common equity.

1 UNS Gas' cost of debt is approximately 6.74%, although this cost is expected to change
2 as a result of a \$50 million refinancing of long-term debt that matures in August 2011. The
3 Company proposes a cost of equity of 10.5%. This reflects current market conditions and UNS
4 Gas' specific circumstances and level of risk. The Company's WACC, based on these cost rates
5 and the test year capital structure, is 8.65%.

6 UNS Gas is further proposing that a fair value rate of return ("FVROR") of 6.81% be
7 applied to its FVRB of approximately \$254 million. This FVROR is based on the methodology
8 the Commission approved for Southwest Gas Corporation ("SWG") in Decision No. 70665
9 (December 24, 2008), and is significantly less than the FVROR that the Company could justify
10 under alternative methods the Commission has approved in other rate proceedings. This
11 FVROR, however, will provide the Company with a more realistic opportunity to earn its
12 requested return on equity ("ROE"), and also allow it to support its creditworthiness and to
13 attract capital on reasonable terms.

14 **C. Impact on Customers.**

15 The Company's proposed \$5.6 million base rate increase would result in a 2.2% increase
16 to an average residential customer's total bill compared to Test Year revenues, including gas
17 costs. The effect on the fixed monthly and delivery charges on an average residential customer's
18 bill, *excluding gas costs*, will be an increase of approximately 5.0%. The monthly bill for an
19 average UNS Gas residential customer would increase from \$56.04 to \$57.33. The median UNS
20 Gas residential customer bill would increase from \$40.58 to \$41.80.

21 **D. Revenue Decoupling Mechanism.**

22 The Company is proposing a revenue decoupling mechanism to assist it in recovering its
23 authorized fixed costs. The Company's proposed Conservation Adjustment Tracker ("CAT") is
24 designed to be consistent with the "Final ACC Policy Statement Regarding Utility Disincentives
25 to Energy Efficiency and Decouple Rate Structures" issued on December 29, 2010. The
26 Company needs such a mechanism, or a similar alternative mechanism, to mitigate the negative
27 financial impacts of complying with the new Gas Energy Efficiency Rules approved in Decision

1 No. 72042 (December 10, 2010) in order to provide the Company with a reasonable opportunity
2 to recover its authorized revenue requirement.

3 **E. Rate Design and Customer Assistance.**

4 UNS Gas is further requesting the Commission to approve its rate design, which recovers
5 a greater share of the Company's fixed costs through a higher fixed monthly customer charge.
6 Presently, customers in colder areas continue to subsidize customers in warmer areas. This
7 modification will reduce this inequity, help ensure that all customers are paying closer to their
8 fair share of fixed costs, and balance the interests of the Company and its customers. UNS Gas
9 proposes to increase the monthly customer charge for most residential customers from \$10.00 to
10 \$11.00 as part of its rate design, which will continue the gradual reduction of the location
11 inequity, reduce the economic disincentive to promoting conservation, and facilitate greater
12 revenue stability. The Company also proposes to increase the monthly customer charge for non-
13 residential customers in order to better reflect the cost of service for those customers.

14 The Company is also proposing two options to modify its Customer Assistance Residential
15 Energy Support ("CARES") program. Both of the Company's options are designed to (i) retain
16 the level of subsidy necessary to provide assistance to our low-income customers; (ii) balance the
17 level of subsidy needed against the impact on the Company's other customers; and (iii) allow the
18 Company to mitigate and account for the substantial losses associated with the growing number of
19 CARES customers (currently at approximately 10% of total residential customers and growing).
20 UNS Gas' preferred option is to make a revenue-neutral reduction to the purchased gas adjustor
21 ("PGA") rates paid by the CARES customers. This method will not reduce the total annual
22 CARES subsidy, but it will change how CARES customers are billed. The Company's alternative
23 proposal is to keep the current rate design in place for the CARES program, but to increase the
24 customer charge for CARES customers to \$9.00 (from \$7.00) and reduce the per-therm discount
25 in the billing months of November through April to \$0.10 per therm (from \$0.15 per therm).
26
27

1 The Company believes that one of these modifications is necessary to (i) mitigate further
2 erosion of UNS Gas' earnings due to the migration of customers to the discounted rate between
3 rate case filings; and (ii) help alleviate the added burden to non-CARES customers that occurs as
4 more and more customers migrate to the CARES rate. UNS Gas' preferred approach is to allow
5 for a gradual phasing in of the additional customers needing assistance - by providing the discount
6 within the PGA rate. This will maintain the current discount level and protect the Company from
7 being adversely harmed by discount programs designed to help low income customers. However,
8 if the Commission is inclined to reduce the discount and thus the burden on other customers, the
9 Company has also presented an alternative proposal to reduce the discount. The Company is also
10 proposing to modify its CARES enrollment process to better ensure that only eligible customers
11 receive the CARES discount.

12 **II. APPLICATION.**

13 In support of this Application, UNS Gas respectfully states as follows:

14 A. The Company is a corporation duly organized, existing and in good standing
15 under the laws of the State of Arizona. Its principal place of business is 2901 West Shamrell,
16 Flagstaff, Arizona 86001.

17 B. The Company is a public service corporation principally engaged in the
18 transmission and distribution of natural gas for sale in Arizona pursuant to Certificates of
19 Convenience and Necessity issued by the Commission.

20 C. All communications and correspondence concerning this Application, as well as
21 communications and pleadings with respect thereto filed by other parties, should be served upon
22 the following:

23 Phillip J. Dion, Esq.
24 Melody Gilkey, Esq.
25 UniSource Energy Corporation
26 One South Church, Suite 200
27 Tucson, Arizona 85701

 and

1 Michael W. Patten, Esq.
2 Roshka, DeWulf & Patten, PLC
3 One Arizona Center
4 400 East Van Buren Street, Suite 800
5 Phoenix, Arizona 85004

6 D. This Commission has jurisdiction to conduct public hearings to determine the fair
7 value of the property of a public service corporation, to fix a just and reasonable rate of return
8 thereon, and thereafter, to approve rate schedules designed to develop such return. Further, the
9 Commission has jurisdiction to establish the practices and procedures to govern the conduct of
10 such hearing, including, but not limited to, such matters as notice, intervention, filing, service,
11 exhibits, discovery, and other prehearing and hearing matters.

12 E. Accompanying this Application are the standard filing requirements and rate
13 design schedules described in A.A.C. R14-2-103. The Company also provides pre-filed direct
14 testimonies and related exhibits from several witnesses for UNS Gas supporting the requests
15 made within the Application and schedules:

16 **1. Nathan C. Shelley.**

17 Mr. Shelley is the General Manager for UNS Gas. He provides an overview of UNS
18 Gas' operations; describes the Company's achievements in safety, efficiency, cost savings,
19 system integrity and customer service; describes the Company's capital spending since the end
20 of the test year it used in its last rate case; testifies as to the benefits of the American Gas
21 Association; and provides an overview of the Company's customer assistance programs.

22 **2. Dallas J. Dukes.**

23 Mr. Dukes is Manager of Pricing and Economic Forecasting for Tucson Electric Power
24 Company ("TEP") and its affiliates, including UNS Gas. He testifies in support of the
25 Company's income statement and several of the adjustments to that statement, as well as rate
26 base and adjustments to rate base for regulatory purposes. Mr. Dukes also sponsors the
27 Company's Reconstructed Cost New study and sponsors Schedules A-1 (Computation of
Increase in Gross Revenue Requirements), A-2 (Summary Results of Operations), A-5

1 (Summary Changes in Financial Position), B-1 through B-5 (Rate Base and Adjustments), C-1
2 through C-2 (Income Statement and Adjustments) and C-3 (Gross Conversion Factor).

3 **3. Dawn Sabers.**

4 Ms. Sabers is the Assistant Controller and General Manager of Corporate Accounting for
5 TEP – and handles internal and external financial reporting, and payroll for all UniSource
6 Energy affiliates, including UNS Gas. She testifies in support of the Company’s pro forma
7 adjustments to payroll expense, employer payroll tax expense, pension and benefits, and short-
8 term incentive compensation. Ms. Sabers also sponsors Schedules E-1 through E-9 (Financial
9 Statements and Statistical Data).

10 **4. Gail Boswell.**

11 Ms. Boswell is the Assistant Treasurer and Manager of Tax Services for UniSource
12 Energy and its affiliates, including UNS Gas. She testifies in support of the Company’s financial
13 statements, income taxes, property taxes and accumulated deferred income tax within rate base
14 (“ADIT”). Ms. Boswell also sponsors the tax and plant data included on Schedules E-5 and E-8,
15 as well as the depreciation, property tax and the income tax pro forma adjustments in Schedules
16 B and C.

17 **5. Dr. Samuel C. Hadaway.**

18 Dr. Hadaway is a Principal in FINANCO, Inc., Financial Analysis Consultants. He
19 testifies in support of the Company’s cost of equity and estimates the fair market value of the
20 Company’s assets for purposes of comparison with the FVRB proposed by UNS Gas.

21 **6. Kentton C. Grant.**

22 Mr. Grant is the Vice President of Finance and Rates for UniSource Energy Corporation
23 and also serves as a Vice President for UNS Gas. He testifies regarding the Company’s financial
24 condition, capital structure, cost of debt, the WACC, the FVROR, and the cost of providing
25 credit support for the Company’s natural gas procurement program. Mr. Grant sponsors
26 Schedules A-3 (Summary of Capital Structure), A-4 (Construction Expenditures and Gross Plant
27 in Service), D-1 through D-4 (Cost of Capital), and F-1 through F-4 (Financial Projections).

1 **7. Dr. Ronald White.**

2 Dr. White is an Executive Vice President and Senior Consultant with Foster Associates,
3 Inc. He testifies in support of the Company's proposed depreciation rates.

4 **8. Craig A. Jones.**

5 Mr. Jones is Director of Pricing for all UniSource Energy affiliates, including UNS Gas.
6 He testifies in support of: the Company's revenue decoupling mechanism; the Company's
7 weather normalization and customer annualization adjustments; the Company's class cost of
8 service study; and UNS Gas' changes to rate design and CARES discounts. Mr. Jones sponsors
9 Schedules G-1 through G-7 (Cost of Service), and H-1 through H-5 (Effect of Proposed Rate
10 Schedules). Mr. Jones also sponsors clean and redlined versions of the Rules and Regulations
11 and Rate Tariffs.

12 F. UNS Gas respectfully requests that this Commission set a date for a hearing on
13 this Application such that new rates for the Company will become effective no later than May 1,
14 2012. At the hearing conducted pursuant to this rate request, UNS Gas will establish, among
15 other things, that:

- 16 (1) its current rates and charges do not permit the Company to earn either its currently
17 authorized ROE of 9.5% or its requested ROE of 10.5%, and that it is unable to
18 earn a fair return on the fair value of its assets devoted to public service, and that
19 as a result, its current rates and charges are therefore not just and reasonable;
- 20 (2) the requested increase is the minimum amount necessary to allow the Company
21 an opportunity to earn a fair return on the fair value of its assets devoted to public
22 service, for preservation of the Company's financial integrity and for the
23 attraction of new capital on reasonable terms;
- 24 (3) the Company's request for a permanent base revenue increase of at least \$5.6
25 million based on annualized test period sales is reasonable and necessary in order
26 for UNS Gas to continue to provide adequate and reliable gas service to its
27 customers as required by law;

- 1 (4) the proposed revenue decoupling mechanism is in accordance with Commission
2 policy, better aligns Company need to earn its revenue requirement with
3 promoting conservation and gas energy efficiency, and is in the public interest;
4 and
5 (5) the proposed rate design will better align the fixed and variable costs of service
6 with the rates paid by the customers causing those costs and is in the public
7 interest.

8 G. In addition to setting a hearing date, UNS Gas asks that the Commission issue a
9 procedural order setting forth the prescribed notice for the Application, establishing procedures
10 for intervention, and providing for appropriate discovery. UNS Gas further requests that the
11 Company should be authorized to serve all discovery requests, answers and objections
12 electronically. Hard copy service would remain available to parties upon request or where the
13 confidential nature of the information makes the use of electronic service impractical.

14 WHEREFORE, UNS Gas respectfully requests that the Commission:


- 15 (1) issue a procedural order establishing a date for hearing evidence concerning the
16 Application, prescribing the time and form of notice to UNS Gas customers and
17 establishing procedures for intervention and discovery as described above;
18 (2) issue a final order finding and concluding that the Company's rate application is
19 just and reasonable and granting the Company the permanent rate increase of \$5.6
20 million, equal to approximately 4% over Test Year Retail revenues to allow UNS
21 Gas to recover its expenses and earn a reasonable return on its investment;
22 (3) issue a final order approving the new or modified rate and service schedules and
23 the revised rules and regulations included with the Company's Application with
24 an effective date no later than May 1, 2012;
25 (4) issue a final order approving UNS Gas' proposed revenue decoupling mechanism;
26 (5) issue a final order approving the proposed rate design described in the testimony
27 accompanying this Application;

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

- (6) issue a final order approving the company's proposed depreciation rates as set forth in Dr. White's testimony; and
- (7) grant the Company such additional relief as the Commission deems just and proper.

RESPECTFULLY SUBMITTED this 8th day of April 2011.

UNS Gas, Inc.

By 
 Phillip J. Dion
 Melody Gilkey
 UniSource Energy Services
 One South Church Avenue, Suite 200
 Tucson, Arizona 85701

and

Michael W. Patten
 ROSHKA DEWULF & PATTEN, PLC.
 One Arizona Center
 400 East Van Buren Street, Suite 800
 Phoenix, Arizona 85004

Attorneys for UNS Gas, Inc.

Original and ¹³ copies of the foregoing filed this 8th day of April, 2011, with:

Docket Control
 Arizona Corporation Commission
 1200 West Washington Street
 Phoenix, Arizona 85007

Copy of the foregoing hand-delivered this 8th day of April, 2011, to:

Chairman Gary Pierce
 Arizona Corporation Commission
 1200 West Washington Street
 Phoenix, Arizona 85007

Commissioner Bob Stump
 Arizona Corporation Commission
 1200 West Washington Street
 Phoenix, Arizona 85007

1 Commissioner Sandra D. Kennedy
2 Arizona Corporation Commission
3 1200 West Washington Street
4 Phoenix, Arizona 85007

5 Commissioner Paul Newman
6 Arizona Corporation Commission
7 1200 West Washington Street
8 Phoenix, Arizona 85007

9 Commissioner Brenda Burns
10 Arizona Corporation Commission
11 1200 West Washington Street
12 Phoenix, Arizona 85007

13 Lyn A. Farmer, Esq.
14 Chief Administrative Law Judge
15 Hearing Division
16 Arizona Corporation Commission
17 1200 West Washington Street
18 Phoenix, Arizona 85007

19 Janice M. Alward, Esq.
20 Chief Counsel, Legal Division
21 Arizona Corporation Commission
22 1200 West Washington Street
23 Phoenix, Arizona 85007

24 Steve Olea
25 Director, Utilities Division
26 Arizona Corporation Commission
27 1200 West Washington Street
Phoenix, Arizona 85007

18
19 By 
20
21
22
23
24
25
26
27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE- CHAIRMAN
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-_____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

Direct Testimony of

Nathan C. Shelley

on Behalf of

UNS Gas, Inc.

April 8, 2011

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

TABLE OF CONTENTS

I.	Introduction.....	1
II	Overview of Gas Company Operations	2
III.	Achievements (Safety, Efficiency and Cost Savings, System Integrity, Customer Service)	4
	A. Safety	4
	B. Efficiency and Cost Savings	5
	C. System Integrity	7
	D. Customer Service	8
IV.	Capital Spending.....	11
V.	American Gas Association (“AGA”) Benefits and Dues	14
VI.	Customer Assistance Programs.....	18
	<u>Exhibits</u>	
	Exhibit NCS-1 Map of Gas Certified Area	
	Exhibit NCS-2 Map of Gas Certified Area	
	Exhibit NCS-3 Wilkinson Line – Prescott System 26	
	Exhibit NCS-4 Prescott 99# System 1	
	Exhibit NCS-5 Verde Valley Painted Cliff Project	

1 **I. INTRODUCTION.**

2

3 **Q. Please state your name and business address.**

4 A. My name is Nathan C. Shelley. My business address is 2901 W. Shamrell Blvd. Suite 110,
5 Flagstaff, Arizona 86001.

6

7 **Q. By whom are you employed and what is your position?**

8 A. I am employed by UNS Gas, Inc. ("UNS Gas"). I have operational responsibility for UNS
9 Gas as its General Manager of Operations. My official title and position at UNS Gas is
10 General Manager. My primary duties include oversight of operations, maintenance,
11 construction, and expansion of UNS Gas' systems. I also have management responsibility
12 for UNS Gas employees.

13

14 **Q. Please describe your experience and education.**

15 A. I have over 36 years experience working in the natural gas industry in Arizona. This
16 includes 24 years of experience in upper management positions as a Manager, District
17 Manager, Director of Operations and General Manager. My primary residence has been in
18 Arizona for over 55 years.

19

20 I received an Associates of Applied Science degree in Business from Northland Pioneer
21 College and attended Brigham Young University in Provo, Utah. I have also taken
22 courses at both Northern Arizona University and the University of Phoenix.

23

24 I was hired by UNS Gas as Director of Gas Operations when they purchased Citizens
25 Utilities Arizona Gas properties on August 11, 2003. I was promoted to General Manager
26 on July 15, 2009. Before joining UNS Gas, I worked in various capacities in operational
27 and management positions for both Citizens Utilities Company - Arizona Gas Division as

1 well as Southern Union Gas since 1975. Both these entities owned what are now UNS
2 Gas' natural gas distribution assets in Arizona, so I am very familiar with UNS Gas'
3 system.

4
5 **Q. What is the purpose of your direct testimony in this proceeding?**

6 A. I will testify on the following topics:

- 7 1. An overview of UNS Gas' operations.
- 8 2. The Company's achievements in; (1) safety; (2) efficiency and cost savings; (3)
9 system integrity; and (4) customer service.
- 10 3. The Company's capital spending.
- 11 4. The benefits of membership in the American Gas Association (AGA) to the
12 Company and its customers.
- 13 5. An overview of the Company's customer assistance programs.

14
15 **II. OVERVIEW OF UNS GAS' OPERATIONS.**

16
17 **Q. Please describe UNS Gas' service territories.**

18 A. UNS Gas is a local gas distribution company that serves a growing base of customers in
19 Mohave, Yavapai, Coconino, and Navajo Counties in northern Arizona and Santa Cruz
20 County in southeast Arizona. These Arizona counties comprise approximately 50% of the
21 state. Exhibits NCS-1 and NCS-2 (attached to my Direct Testimony) are maps that show
22 UNS Gas' certificated service territory.

23
24 **Q. Please provide a general description of UNS Gas' customer profile.**

25 A. UNS Gas serves approximately 146,500 customers. Approximately 91% of our customers
26 were residential customers as of the end of the Test Year (from January 1 to December 31,
27

1 2010). During the Test Year, UNS Gas delivered 28.76 billion cubic feet of gas to its
2 customers. We are a distribution infrastructure company, *not* a gas production company.

3
4 **Q. Has UNS Gas experienced significant customer growth since its last rate case?**

5 A. No. From 2008 to 2010, the customer growth rate averaged less than approximately 1%
6 per year. In contrast, from 2003 to 2007, the customer growth rate in UNS Gas' service
7 territory averaged approximately 3% per year. Additionally, during 2008 to 2010, the
8 customer sales rates grew less than approximately 1% per year as well.

9
10 **Q. Please describe UNS Gas' business operations and how it procures natural gas and
11 delivers it to customers.**

12 A. As alluded to above, UNS Gas is a gas distribution infrastructure company. We provide a
13 service by delivering gas to our customers. Most of the gas distributed by UNS Gas in
14 Arizona is procured from the San Juan Basin in the Four Corners region, and delivered on
15 the El Paso Natural Gas Company ("EPNG") and Transwestern Pipeline Company
16 ("Transwestern") interstate pipeline systems. UNS Gas has firm transportation agreements
17 with EPNG and Transwestern with combined capacity sufficient to meet its customers'
18 demands. UNS Gas has the capability to supply the three largest cities within its service
19 territory (Flagstaff, Prescott and Kingman) from either EPNG or Transwestern. The
20 Company delivers natural gas service to its residential, commercial and industrial
21 customers through high-pressure distribution mains and service lines.

22
23 UNS Gas owns, operates and delivers natural gas through approximately 2,994 miles of
24 distribution systems mains. Over 50% of UNS Gas' mains are less than 20 years old. The
25 company serves its customers through approximately 136,439 service lines. The entire
26 main and service systems, and known components, have been identified and placed into
27 the Company's Geographic Information System (GIS) mapping system.

1 **III. COMPANY ACHIEVEMENTS IN SAFETY, EFFICIENCY AND COST SAVINGS,**
2 **SYSTEM INTEGRITY, AND CUSTOMER SERVICE.**

3
4 **A. Safety.**

5
6 **Q. Please describe UNS Gas safety activities and how it is committed to the safety of its**
7 **employees, customers and public.**

8 **A.** UNS Gas is committed to providing safe and reliable natural gas service and promoting a
9 positive safety culture among its employees, customers and public. The UNS Gas safety
10 culture begins with the organization's top leaders. Management emphasizes and
11 demonstrates that the safety of employees, customers, the public and our pipeline systems
12 is a value that is paramount. All employees, as well as contractors and suppliers providing
13 services to UNS Gas, are expected to place the highest priority on employee, customer,
14 public and pipeline safety.

15
16 The following results highlight UNS Gas' safety commitment to its employees, customers
17 and the public:

- 18 1. Pipeline Safety: The Arizona Corporation Commission (Commission) performs an
19 annual pipeline safety audit on UNS Gas' gas distribution system. UNS Gas has
20 received excellent marks, which exemplifies the Company's commitment to
21 pipeline safety. Further, UNS Gas has never been assessed either a federal or state
22 fine due to pipeline safety.
- 23 2. Occupation Safety and Health: Occupational safety and health is a key component
24 in UNS Gas' risk management programs. UNS Gas management believes its
25 employees are the most valuable resource of the Company. UNS Gas utilizes
26 effective occupational safety programs to foster a proactive safety culture and the
27 use of workers qualified to perform their assigned tasks and functions. Operator

1 qualification, skill and safety training programs, safety audits, effective accident
2 investigation procedures and proper handling of hazardous materials are essential to
3 a safe and productive work environment. UNS Gas compares its overall
4 performance against the industry average Occupational Health and Safety
5 Administration (“OSHA”) recordable incident rate. The 2010 OSHA recordable
6 incident rate- industry average for natural gas distribution was 5.10. This is defined
7 as 5.1 employees experiencing a recordable injury out of 100 employees. The UNS
8 Gas recordable incident rates for 2007, 2008, 2009, and 2010 were: 4.43, 6.38,
9 1.63, and .86 respectively. Further, UNS Gas has never received an OSHA fine
10 due to unsafe work conditions or practices by its employees.

11
12 **B. Efficiency and Cost Savings.**

13
14 **Q. Describe any efficiency and cost saving measures implemented by UNS Gas.**

15 A. The Company continually strives to improve the efficiencies of its operations and reduce
16 costs without sacrificing service or safety. The importance of our efforts is even more
17 apparent during the difficult recent economic times. UNS Gas has implemented efficiency
18 and cost-saving measures that have collectively resulted in expense savings and have
19 included the following:

- 20 1. Between December 31, 2008 and the end of the Test Year, UNS Gas has reduced
21 personnel by 13 positions (6%). Because more than 60% of the direct managed
22 Operations and Maintenance (O&M) budget is labor expense, efficient staffing and
23 labor charging is a key focus at UNS Gas. In fact, we are close to the employment
24 levels that the Company had in 2005. As we lose employees from attrition, we
25 selectively replace personnel – based on the need for critical positions or skills. We
26 constantly ask our employees to do more and look for opportunities to leverage
27 employee skills and expertise. For example, when I was promoted to UNS Gas’

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

General Manager in June 2009, I retained the responsibilities I had while acting as the Director of Gas Operations. To this day, I perform the responsibilities previously performed by two employees, without an adverse affect to our service quality or safety. If growth picks up, however, we may need to add additional employees.

2. We utilize our company GIS application and system to create efficiencies for our operational personnel. For example, in 2010, we created an application to assist our cathodic protection personnel in more easily tracking and documenting their regulated and mandated work.
3. In order to reduce travel-related expenses, personnel working in departments providing state-wide service and support to operations work a four-day (10-hour a day) schedule, instead of a five-day (eight-hour a day) schedule. All operations personnel continue to work a normal five-day schedule. In addition, the Company now uses video conferencing and 'Go To Meeting' technology to reduce travel expenses.
4. In 2010, we had Managers and Supervisors focus on reducing overtime with an objective of reducing our expense to 2009 levels. We achieved that goal by actively managing this expense. UNS Gas overtime was \$130,000 below budget in 2010.
5. Because the economic slowdown has resulted in less annual capital growth-related expenses, company crews are now doing most of the new construction capital work that contractor crews performed a few years ago. By maintaining budgeted levels of capital labor charging, the Company is able to mitigate the negative impact of slow customer growth on operations and maintenance expense.
6. By efforts utilizing customer service personnel, business calls and on-site visits to customers with delinquent gas bills and utilizing a new third party collection

1 agency, UNS Gas has reduced potential charge-offs and loss of revenue to the
2 company.

3

4 **C. System Integrity.**

5

6 **Q. Describe steps taken by UNS Gas to promote system integrity of its operations of**
7 **natural gas systems.**

8 A. Among other things, UNS Gas performs continuing surveillance of its facilities to
9 determine and take appropriate actions concerning changes in class location, failures,
10 leakage history, corrosion, substantial changes in cathodic protection requirements, and
11 other unusual operating and maintenance conditions. In addition, the company installs an
12 excess flow valve (“EFV”) to protect single-family residences served by new and replaced
13 gas service lines from release of gas due to major damage to the line (except when gas
14 supply pressure is not continuously higher than 10 pounds-per-square inch (psig) or when
15 liquids/contaminants that could interfere with valve operation are present in the gas
16 stream). The approach is consistent with the requirements of the Pipeline Inspection,
17 Protection, Enforcement and Safety Act (PIPES Act) of 2006, Public Law 109-468

18

19 **Q. Are the Company’s main and service lines inspected to ensure the integrity of its**
20 **system?**

21 A. UNS Gas conducts an annual system review utilizing maintenance and leak data to
22 determine leak survey cycles. The Company performs its own quality assurance program
23 and reaches out to all emergency response agencies, emergency management and public
24 officials in the Company’s service territory – through its damage prevention liaison
25 activities. UNS Gas adheres to all U.S. Department of Transportation (“DOT”) Federal
26 Pipeline Safety Regulations, 49 CFR 191 and 49 CFR 192, and Arizona regulations as the
27 minimum standards regulating its natural gas pipeline operations. As I stated earlier, the

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

Commission also conducts an annual inspection of the company's distribution system; reviewing field and completion records, survey data, and the operations and maintenance records and manuals.

Q. Has any UNS Gas customer experienced a natural gas outage resulting from lack of supply (from interstate pipeline suppliers), equipment malfunction, or inadequate system gas?

A. No. UNS Gas has never had a customer outage caused from lack of supply (from interstate pipeline suppliers), equipment malfunction, or inadequate system gas. As I previously noted, the three largest towns served by UNS Gas, Flagstaff, Prescott and Kingman, all have the capability of having redundant gas supply from two interstate suppliers.

D. Customer Service.

Q. Please describe the processes in place to interface and provide customer and support service to all UNS Gas customers.

A. UNS Gas has divided its overall service territory in northern and southeastern Arizona into six geographic districts (Flagstaff, Show Low, Prescott, Verde Valley, Kingman and Nogales) to facilitate customer service and support (as shown in Exhibit NCS-1 to my Direct Testimony). UNS Gas has employees staffed at various locations located throughout the districts to provide operations, construction and maintenance service and support, including emergency support 24 hours a day and 7 days a week. UNS Gas customers also have direct access to support for service, construction and maintenance related activities during normal working hours at any of our operating locations.

1 **Q. How does UNS Gas handle calls from customers regarding issues ranging from**
2 **customer service to emergencies?**

3 A. UNS Gas (along with its affiliates UNS Electric, Inc. and Tucson Electric Power
4 Company) handle customer service inquiries through its Customer Call Center located in
5 Tucson. Call center employees provide service and support 24 hours a day and 7 days a
6 week to our customers. A toll-free phone number is provided (on our website and in other
7 materials) to UNS Gas customers for use on all calls and inquiries relating to initiation of
8 service, billing inquiries, payment arrangements, service requests and emergency service
9 requests. Calls are answered by trained customer service representatives and are dispatched
10 from the Call Center to the appropriate district service center for proper handling.

11

12 **Q. How many customer inquiries has the Call Center received during the Test Year?**

13 A. In 2010, the Call Center received a total of 2,421,977 customer calls for all companies, of
14 which 640,032 were calls specifically for UNS Gas and UNS Electric customers. The
15 average overall speed-of-answer for all non-emergency type calls in 2010 was 3.05
16 minutes.

17

18 **Q. Does the Call Center handle emergency calls?**

19 A. Yes. The Call Center also handles emergency calls at all times (24 hours a day; seven days
20 a week). These types of calls include calls regarding leaks, fires, over- or under-pressure,
21 natural disasters, and outage assistance. During the Test Year, UNS Gas averaged 17.2
22 minutes to respond to an emergency call (the response time being the amount of time
23 between when the Call Center received an emergency call and the time when UNS Gas
24 personnel arrived at the customer's premises).

25

26

27

1 **Q. What service and options are available to UNS Gas customers to receive and pay**
2 **their gas bills?**

3 A. UNS Gas understands that time is a precious commodity for its customers. Customers can
4 elect to receive their bills by mail or receive an e-mail notification when their current bill is
5 available for viewing; customers can also manage their account by using our online
6 service, anytime day or night. This access is free of charge to our customers. UNS Gas
7 had also made it easy for customers to pay their bills by their choice using any of the
8 following options:

- 9 1. 'e-bill' – paying their bill with a click of a mouse.
- 10 2. Sure No Hassle Automatic Payment (SNAP) Plan - automatic monthly payments
11 deducted from their checking or savings account.
- 12 3. Online Banking – using their financial institution's online services to pay their gas
13 bills.
- 14 4. Pay by Credit/Debit/Electronic Check – using a major credit card, debit card or
15 electronic check to pay their bill by either phone or online.
- 16 5. Mail – inserting their gas bill stub and check or money order into a provided
17 envelope and dropping in the mail.
- 18 6. Courtesy Drop Boxes – dropping their check or money order payment off at one of
19 our many courtesy payment boxes located in front of each district service center.
- 20 7. Walk-In Payment – paying their bill with cash or a debit card at any Walmart in
21 Arizona as well as various Western Union locations. The customer may be charged
22 a fee for this service.

23
24 **Q. Are there any other customer services available to UNS Customers?**

25 A. Yes, besides access described above to UNS Gas representatives for customer operations,
26 construction and maintenance service and support, the Company provides the additional
27 services to its customers:

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

1. The UNS Gas web site (<http://www.uesaz.com>) to provide information, and an on-line service and support interface to customers.
2. Bill inserts to provide timely customer and safety information to customers. Depending on the customer's preference, bill inserts are either mailed or provided electronically with their gas bill. It can also be viewed at the UNS Gas website (<http://www.uesaz.com/Customersvc/PaymentOptions/BillInserts/index.asp>)
3. Specific information promoting conservation of natural gas and reducing cost to customers. This information is provided at the UNS Gas website (<http://www.uesaz.com/Green/>).
4. UNS Gas provides free classroom materials on its website (<http://www.uesaz.com/Community/EducationalServices/>) dealing with natural gas safety, science, energy efficiency and our natural environment.

IV. CAPITAL SPENDING.

- Q. What level of capital investment has UNS Gas made since the Citizen's acquisition?**
- A. Since the acquisition of the Citizens properties on August 11, 2003, UNS Gas has invested approximately \$138 million in assets associated with providing safe, reliable service to its customers. Approximately 12% of this investment was for general plant (including communication facilities, information technology and fleet equipment).
- Q. Please describe the capital investment made by UNS Gas since the last rate case and what does this investment represent in terms of facilities that serve your customers.**
- A. UNS Gas has invested approximately \$30.8 million into plant-in-service from the end of the test year of its last filed rate case to the end of the test year in this case (that is, between June 30, 2008 and December 31, 2010). This significant investment can be generally categorized into the following four groups:

- 1 • Growth – \$11.6 million.
- 2 • System Reinforcement – \$12.3 million.
- 3 • Public/Capital Improvement Projects – \$3.1 million.
- 4 • General Plant – \$3.7 million.

5 This additional investment was needed to ensure safe, adequate and reliable service to UNS
6 Gas customers within its entire service territory.

7
8 **Q. Please describe the facilities added to address growth.**

9 A. Between the end of the test year from UNS Gas' last rate application (June 30, 2008) and
10 the end of the Test Year in this case (December 31, 2010), the Company has added 44.8
11 miles of gas distribution mains and 2,457 service lines. These capital investments were
12 necessary to provide requested and mandated service to new UNS Gas customers.

13
14 **Q. Please describe the capital investment for the upgrade and reinforcement of the
15 system.**

16 A. In order to provide safe and reliable service for UNS Gas customers, the Company
17 reinforced some of its distribution main systems. UNS Gas proactively uses an industry
18 modeling software tool (SynerGEE) to analyze and model its distribution systems
19 capabilities. This is done to plan for customer needs and prevent outages or loss of service
20 during peak loads and conditions. These efforts were again recently validated during the
21 February 2 to 5, 2011 cold snap, in which a new record flow through-put rate was
22 sustained and during which time no customer pressure or outage conditions were reported.
23 After these extreme real-time events, information is gathered to check and validate the
24 system and to provide for additional planning. Information gained through use of this tool
25 enables UNS Gas to make prudent capital investment to meet customer needs.
26 Approximately \$12.3 million or 40% of the overall UNS Gas capital investment, since
27 2008, has been made for system reinforcement to ensure safe and reliable service to UNS

1 Gas customers. UNS Gas rebuilt and enlarged a supplier tap, installed additional
2 distribution main supply lines and added new feeds from regulator stations as needed. The
3 largest specific reinforcement projects include:

- 4 1. Enlarging the tap at the EPNG Prescott Valley #3 location and installing and
5 installing approximately 7.1 miles of 6" pipe to Wilkinson Street in Prescott
6 (EPNG Prescott Valley Tap #3 to Wilkinson Street – \$3.4 million). This line
7 provided additional gas and pressure reinforcement to the northeast side of Prescott
8 in the Prescott Airpark, Country Club and Granite Dells areas. See Exhibit NCS-3
9 Wilkinson Line – Prescott System 26.
- 10 2. Installing approximately 2.3 miles of 6" pipe from Prescott Lakes Parkway and
11 Sundog Ranch Road to the UNS Gas easement behind Yavapai College in Prescott
12 (the Prescott 99# System 1 Reinforcement – \$2.0 million). This was necessary to
13 reinforce the 99 psig supply line to the central and southwestern areas of Prescott.
14 See Exhibit NCS-4 Prescott 99# System.
- 15 3. Installing approximately 1.8 miles of 6" pipe during the Sedona Hwy 179 road
16 replacement project to replace and upgrade gas facilities to provide additional
17 supply to customers in Sedona. (Sedona Hwy 179 Reinforcement – \$0.6 million).
18 See Exhibit NCS-5 Verde Valley Painted Cliff Project.
- 19 4. Building additional feeds and regulator stations in UNS Gas service areas to
20 reinforce distribution systems in order to meet increased customer demands
21 (Regulator Stations – \$1.7 million).

22
23 **Q. Please describe how the capital investment for Public Capital Improvement projects**
24 **has been utilized.**

25 **A.** Between the end of the test year from UNS Gas' last rate application (June 30, 2008) and
26 the end of the Test Year in this case (December 31, 2010), the Company spent \$3.1 million
27

1 of capital investment replacing mains and services in its service areas to meet requirements
2 from municipal franchise agreements regarding city capital improvement projects.

3
4 **Q. Please describe how the capital investment for General Plant has been utilized.**

5 A. Between June 30, 2008, and December 31, 2010, the Company spent \$3.7 million of
6 capital investment on general plant related items. The break down by category includes:

7 1. \$0.2 Million for General Communications. The Company installed additional
8 repeaters for communications purposes to provide company communications in a
9 growing service area.

10 2. \$0.8 Million for General Facilities. The majority was used for remodeling and
11 furnishing the outdated Flagstaff Service Center, which was built in 1967.
12 Warehouse space was remodeled and equipped to provide a needed welding shop,
13 work area, employee conference and training room, and offices for existing
14 employees. There were no offices or space used for supervisory personnel.

15 3. \$0.5 Million to provide and replace information technology equipment and
16 computers as needed for employees.

17 4. \$0.4 Million to purchase tools shop and laboratory equipment for employee use and
18 needs.

19 5. \$1.8 Million for normal fleet replacements for employee work needs. Fleet
20 equipment is replaced based upon age, condition, safety, and supervisor
21 recommendation.

22

23 **V. AMERICAN GAS ASSOCIATION (“AGA”) BENEFITS AND DUES**

24

25 **Q. Please describe how UNS Gas and its customers benefit from AGA’s activities.**

26 A. There are many benefits from AGA membership that UNS Gas could not efficiently obtain
27 on its own. Some specific examples are provided below:

- 1 (1) AGA conducts operating and engineering activities to improve the safety,
2 efficiency and productivity of UNS Gas and other member companies. An
3 example of AGA's operating and engineering activity is the development of
4 committees that address safety-oriented issues in areas such as: Safety and
5 Occupational Health, Distribution Construction and Maintenance, Distribution and
6 Transmission Engineering, Gas Control, Utility and Customer Field Service,
7 Building and Energy Codes and Standards, Plastic Materials, Corrosion, Operations
8 Safety Regulatory Action Committee, and Managing.
- 9 (2) To encourage greater performance in the safety of the natural gas delivery system,
10 AGA hosts annual Safety Leadership Summits. The most recent summit was held in
11 late 2010; the purpose is for AGA members to come together and discuss industry
12 aspects of safety, including case studies, roundtable discussions, and presentations by
13 government and industry safety leaders. UNS Gas, as a member company, utilizes
14 this information to maintain its safety performance.
- 15 (3) AGA periodically publishes the Gas Piping Technology Committee ("GPTC")
16 Guide. The GPTC Guide is prepared by safety experts from gas distribution and
17 transmission companies, federal and state regulatory agencies, manufacturers and
18 industry consultants and is updated when new materials and procedures are approved
19 for use. UNS Gas utilizes the GPTC Guide to design and select piping material
20 types. The Guide has saved UNS Gas time and some of the expense of designing
21 and developing its systems, and insures standardization.
- 22 (4) AGA is a supporting sponsor of the National Program known as the "Common
23 Ground Alliance (CGA)." The CGA works to reduce excavation damage through
24 shared responsibility with members and stakeholders involved in excavating near
25 underground facilities. UNS Gas continues to work to improve communication
26 with excavators and reduce third-party damage incidents, which are costly in terms of
27 injuries and repair expenses, and which, for the most part, are avoidable. AGA and

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

members promote the use of 811, the national number for people to call before they dig.

(5) The AGA's Plastic Materials Committee evaluates the use of plastic materials and new fabrication techniques for gas piping systems. This Committee published and updates the AGA Plastic Pipe Manual. This manual contains information on plastic pipeline materials, including factors affecting plastic piping performance, engineering consideration for plastic pipe utilization, installation guidance and other valuable information. Through the use of this information, UNS Gas and other member companies can more quickly, confidently and safely increase the use of more cost-effective plastic materials.

(6) The AGA Best Practices Program for Gas Distribution is an effort to identify procedures of superior performing gas industry companies and innovative work practices that can be used to improve participants' operations. The program focuses on improving the safety and efficiency of gas distribution system construction, maintenance, operation and inspection. Information is made available regarding a number of operational improvements in areas such as street repairs, safer trenchless technology, automated meter reading and automated dispatching. Savings to members from participation in this program has translated to lower costs for the customer.

(7) The AGA's Operating Section continues to provide support to its members who seek industry information on a variety of operations and engineering issues. The SOS Program is a resource for UNS Gas and AGA members who have the need to query others on a particular subject. The SOS program is a simple and effective way for members to better understand how others are addressing a particular issue/challenge. UNS Gas has utilized the SOS program to query the gas industry regarding tools and industry work methods. An example of member initiated surveys and requests include:

- 1 • Number of customer outages (over 1,000) in last 10 years, cause and
 - 2 duration;
 - 3 • Contractor safety oversight;
 - 4 • Gas network and web sites;
 - 5 • Gas operations productivity tracking;
 - 6 • Meter protection and;
 - 7 • Risk analysis.
- 8 (8) The AGA has taken the lead in developing easy-to-use personal computer software to
- 9 deal with a variety of operating and/or engineering issues faced by gas companies.
- 10 The cost of these programs to member companies is minimal in relation to costs
- 11 saved, specifically in development and labor costs. Software programs have been
- 12 developed in the following areas:
- 13 • Gas Measurement - performs orifice flow and super compressibility
 - 14 calculations; and
 - 15 • Gas Properties – Calculates natural gas speed of sound, critical flow
 - 16 coefficient and other thermodynamic properties.
- 17 (9) AGA Operating Section Committees produce industry publications, conduct
- 18 roundtables on topical issues and hold safety-related sessions during annual
- 19 Operations Conferences. The committees serve as a forum for UNS Gas and
- 20 companies to exchange information and strategies on company safety programs and
- 21 promote system integrity. By working collectively, UNS Gas and AGA members:
- 22 • Address common concerns;
 - 23 • Protect the interests of their industry;
 - 24 • Enhance their operational excellence; and
 - 25 • Promote safe and efficient use of natural gas.
- 26 These are just a few of the many operating and engineering related projects that benefit an
- 27 AGA member company and its customers. While all of these benefits cannot necessarily be

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

quantified in specific dollar amounts, it is clear that involvement and membership in AGA activities provide significant benefits to customers in terms of improving the reliability and safety of UNS Gas' natural gas system.

Q. Do you believe the benefits the Company receives from AGA membership outweighs the costs of membership?

A. Yes. Proposed federal legislation and regulation could have a profound impact on the future of UNS Gas. AGA represents natural gas companies and provides valuable input regarding the impacts of such proposals on its membership and the 65 million natural gas customers served by AGA member companies. In 2010, AGA's programs, services and advocacy efforts provided its members with \$3.8 billion in outright savings or avoided costs. AGA members invested \$19.64 million in dues; this means AGA members essentially get a \$197 return for every dollar in AGA dues.

Q. Is UNS Gas requesting recovery for the AGA's lobbying and marketing activities?

A. No. In accordance with previous Commission decisions, UNS Gas is not requesting recovery of the dues associated with lobbying and marketing activities.

Q. What amount of AGA dues is the Company requesting recovery of in rates?

A. AGA provided information that approximately 8% of the 2010 membership dues were related to lobbying and marketing activities. UNS Gas paid \$56,110 in total AGA membership dues in 2010; so, it is requesting recovery of \$51,622. As I discussed earlier in this section of my testimony, the information and services UNS Gas received from the AGA far exceeds this cost.

1 **VI. CUSTOMER ASSISTANCE PROGRAMS**

2

3 **Q. Does UNS Gas offer customer assistance programs?**

4 A. Yes. We have both the CARES program and the Warm Spirits Program.

5

6 **Q. Please briefly describe the CARES program.**

7 A. Qualifying residential CARES customers receive discounted service. UNS Gas Witness
8 Craig Jones provides a detailed discussion of the CARES program and proposed
9 modifications to that program.

10

11 **Q. Are CARES customers eligible for any other benefits?**

12 A. Yes, CARES customers may also be eligible for assistance through our Warm Spirits
13 Program and our Low-Income Weatherization Program, which is part of the Company's
14 gas energy efficiency program portfolio.

15

16 **Q. Please describe UNS Gas' Warm Spirits Program.**

17 A. The Company's Warm Spirits Program allows UNS Gas customers to contribute funding,
18 which is then used to assist customers experiencing hardship with paying their bills. The
19 Company offers three options for customers to contribute to the Warm Spirits Program.
20 Customers can either:

- 21 1. Pledge a fixed amount which is added to their monthly utility bill;
- 22 2. Make a specific contribution by entering the contribution amount on their bill
23 payment coupon and include the contribution amount when paying their monthly
24 bill; or
- 25 3. Use the 'round-up' option. Customers signing up for the 'round-up' option would
26 see their monthly bill rounded up to the next even dollar. The difference between
27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

their billed amount for actual usage and the next even dollar would be their contribution to the Warm Spirits Program.

In addition, the Company matches aggregate customer Warm Spirit contributions up to \$50,000 annually. The total amount of Warm Spirit Contributions is dispersed to the Arizona Community Action Association ("ACAA") on a quarterly basis. As an independent agency, the ACAA identifies the eligible assistance agencies, determines which agencies should receive funding, and ultimately disperses the specific amounts to be given to individual agencies. The ACAA then distributes those funds to the respective assistance agencies within the same community from which the contributions were received. This process ensures that UNS Gas customers' contributions remain in the community to help their less fortunate neighbors.

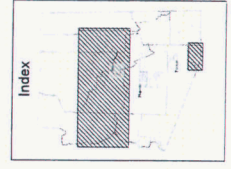
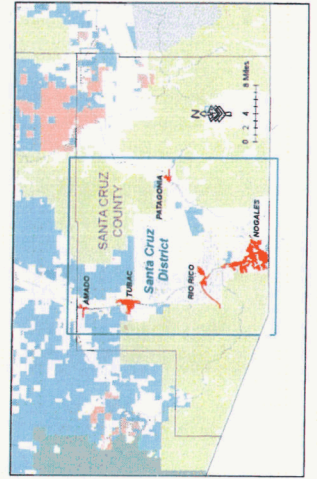
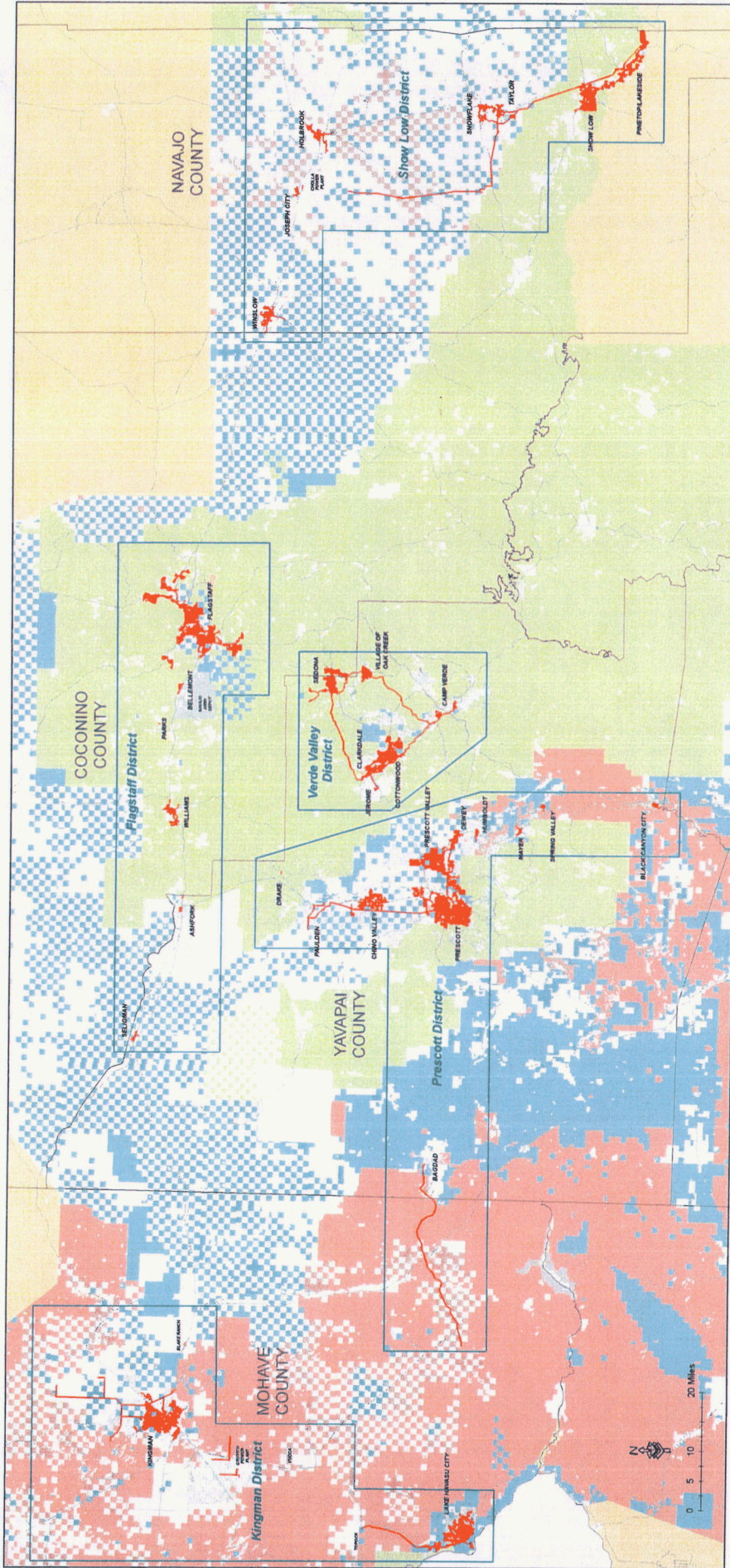
Q. Does this conclude your Direct Testimony?

A. Yes, it does.

EXHIBIT

NCS-1

UNS GAS - SERVICE AREA OVERVIEW






- Legend**
- UNS GAS SYSTEM
 - Land Ownership
 - PRIVATE
 - STATE OF ARIZONA
 - BUREAU OF LAND MANAGEMENT
 - NATIONAL FOREST/PARK/UNION/ETC.
 - INDIAN RESERVATION
 - MILITARY

EXHIBIT

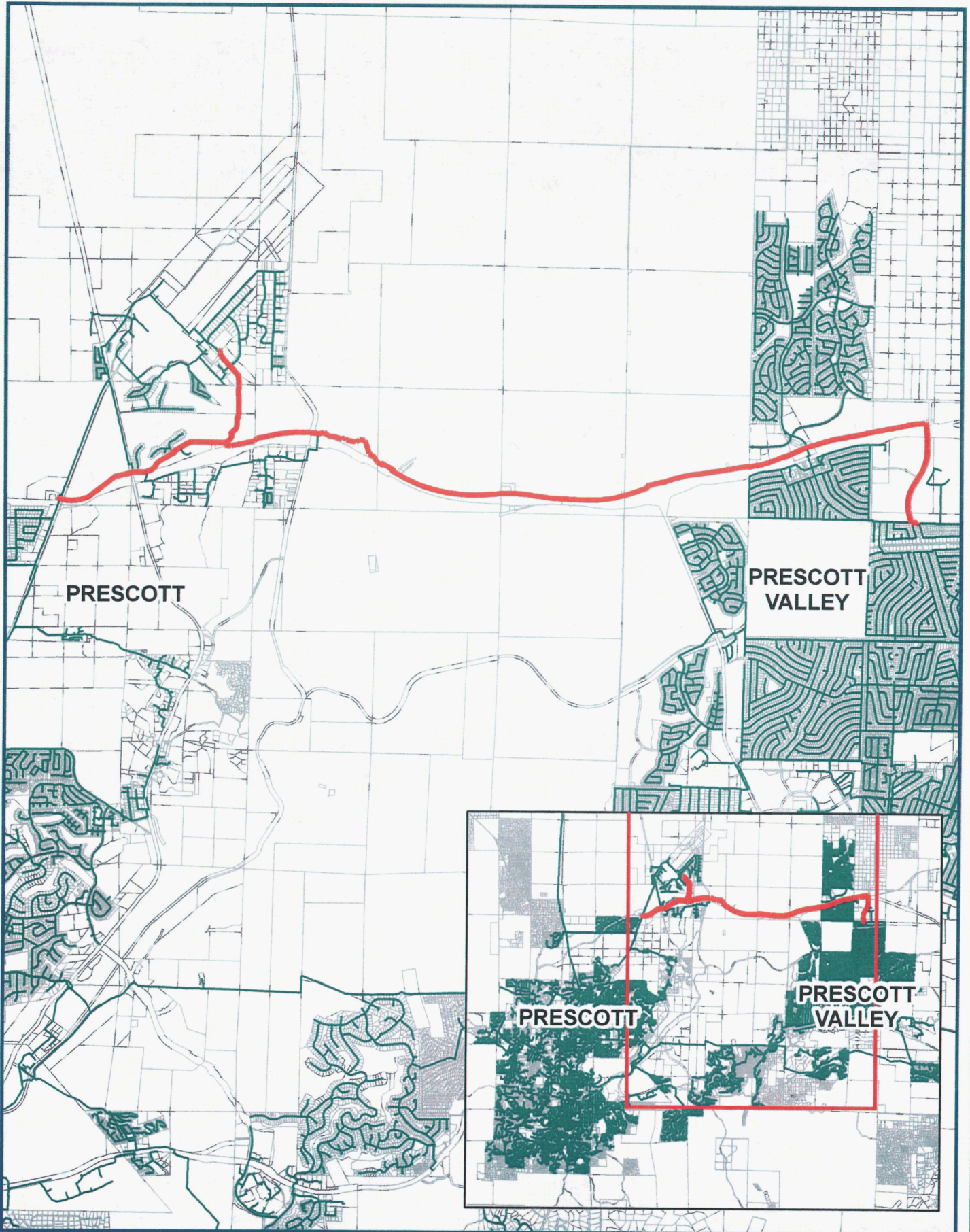
NCS-2



-  UES gas service areas
-  UES gas and electric service areas
-  UES electric service areas

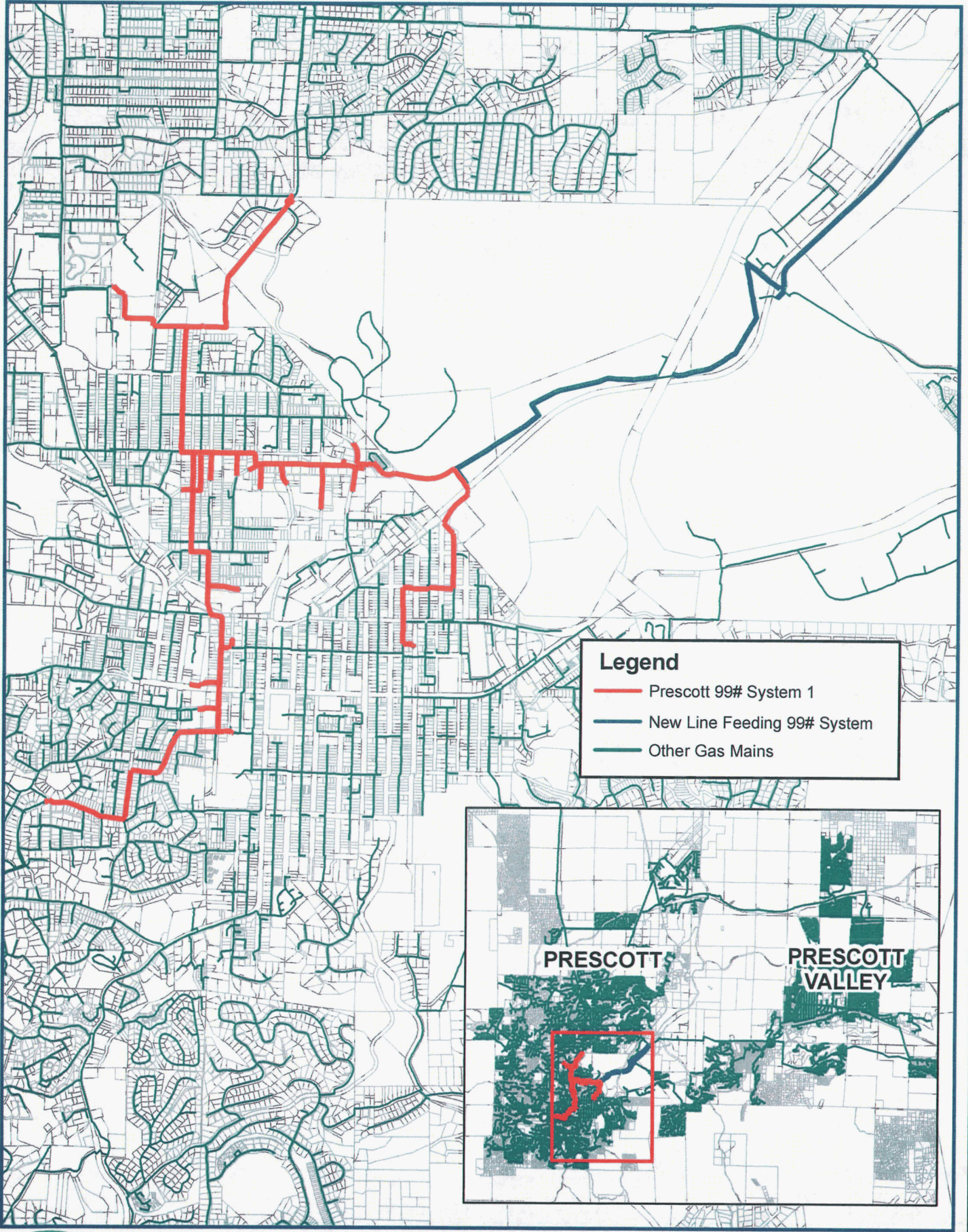
EXHIBIT

NCS-3



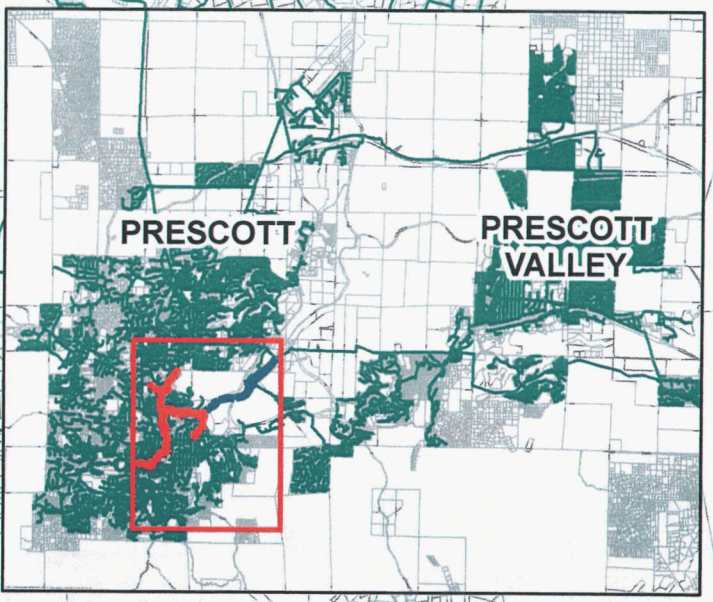
EXHIBIT

NCS-4



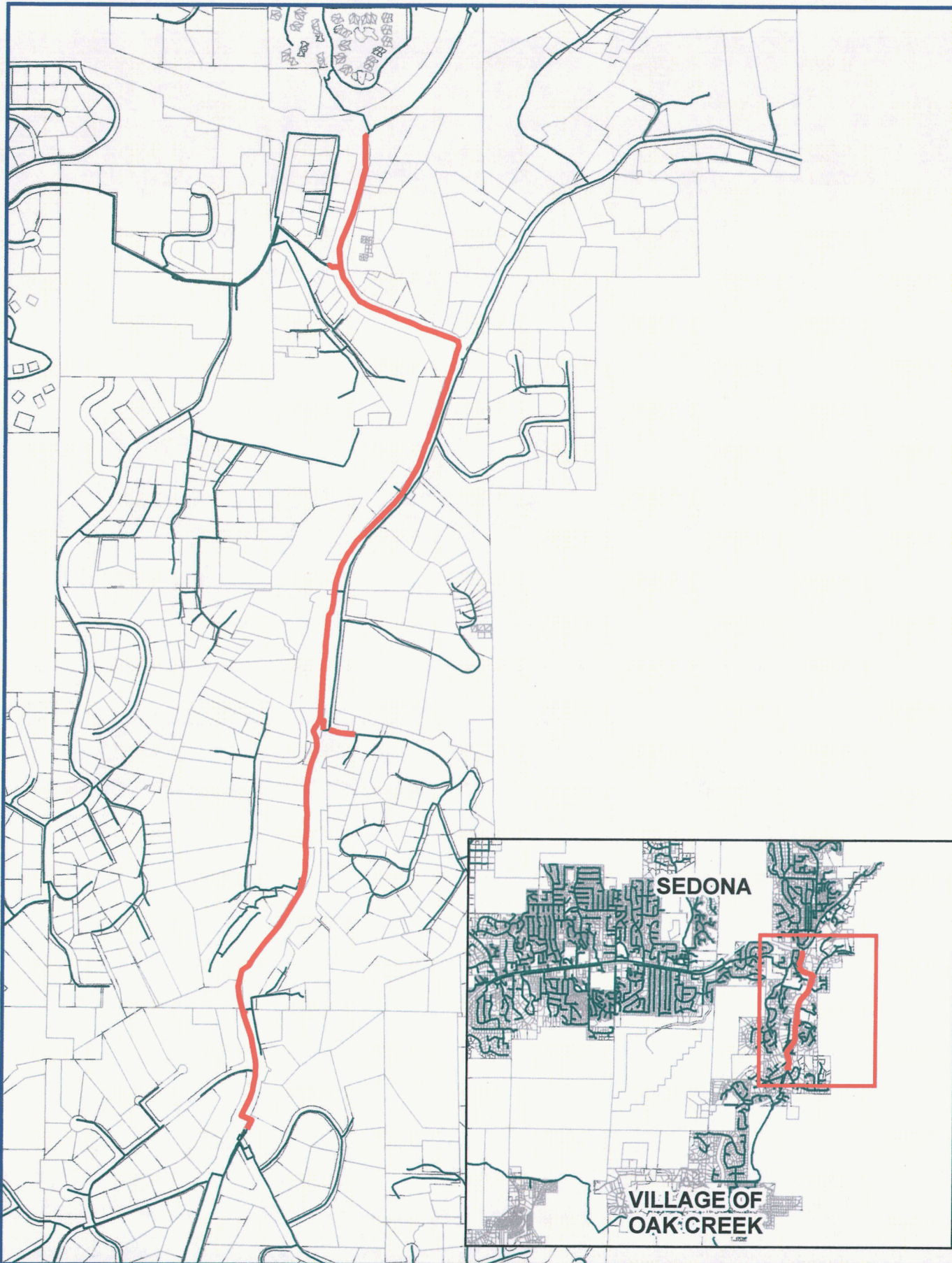
Legend

- Prescott 99# System 1
- New Line Feeding 99# System
- Other Gas Mains



EXHIBIT

NCS-5



UniSourceEnergy
SERVICES

Verde Valley, Painted Cliff Project

811
Know what's below.
Call before you dig.



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
GARY PIERCE - CHAIRMAN
BOB STUMP
SANDRA K. KENNEDY
PAUL NEWMAN
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-_____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

Direct Testimony of

Dallas J. Dukes

on Behalf of

UNS Gas, Inc.

April 8, 2011

TABLE OF CONTENTS

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

I. Introduction..... 1

II. Pro Forma Adjustments 4

III. Rate Base Adjustments 6

 i. Acquisition Discount 6

 ii. Griffith Plant 8

 iii. Build-Out Plant Write-Down..... 9

 iv. Golden Valley Pipeline10

 v. Working Capital.....11

IV. Operating Income Adjustments15

 vi. Griffith Plant Operations.....15

 vii. Golden Valley Pipeline Operations16

 viii. Purchased Gas Cost and Gas Cost Revenue16

 ix. Negotiated Sales Program Revenues and Gas Cost.....16

 x. Sales for Resale & Asset Management Agreement17

 xi. Rate Case Expense.....18

 xii. Demand Side Management (“DSM”) Revenue & Expense21

 xiii. Miscellaneous Adjustment.....22

 xiv. Normalization Adjustments22

 a. Bad Debt Expense.....22

 b. Injuries and Damages.....23

 c. Outside Legal Cost.....23

 d. Common Systems Allocations.....24

 e. Miscellaneous Normalization Adjustment.....24

1	V.	Overview and Discussion of Adjusted O&M in Filing	25
2	VI.	Summary of Schedules	27
3	i.	A Schedules	27
4	ii.	B Schedules.....	27
5	iii.	C Schedules.....	31
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

I. INTRODUCTION.

Q. Please state your name and business address.

A. My name is Dallas J. Dukes and my business address is One South Church Ave., Tucson, Arizona, 85702.

Q. By whom are you employed and what are your duties and responsibilities?

A. I am the Manager of Pricing and Economic Forecasting for Tucson Electric Power Company ("TEP" or the "Company"). As Manager of Pricing and Economic Forecasting, I am responsible for monitoring and determining revenue requirements, customer pricing, rates structures and sales/revenue forecasting for all the regulated subsidiaries of UniSource Energy Corporation ("UniSource Energy"), including UNS Gas, Inc. ("UNS Gas" or the "Company").

Q. Please describe your background and work experience.

A. I hold a Bachelors of Science degree with a concentration in Accounting from Indiana University and a Master of Business Administration degree from Anderson University. I am also a Certified Public Accountant. I have over twenty years experience within the utility industry. Before assuming my current position, I was employed as the Director of Accounting for TEP.

Prior to working for TEP, I was employed by Citizens Gas & Coke Utility ("Citizens Gas"), for approximately five years. Citizens Gas serves approximately 265,000 customers in the Indianapolis, Indiana area. The majority of my time at Citizens Gas was spent as the Controller.

1 Before then, I was the Controller and Director of Regulatory Affairs for Fountaintown
2 Natural Gas Company, and Southeastern Indiana Natural Gas Company. Prior to that, I
3 was employed by the Indiana Office of Utility Consumer Counselor ("OUCC") for
4 approximately seven years. The majority of my time at the OUCC was spent as a
5 Principal Accountant. My primary duties at the OUCC were to perform professional
6 investigative audits and to represent the public's interest as an expert witness in
7 proceedings before the Indiana Utility Regulatory Commission.
8

9 **Q. Could you please summarize your Direct Testimony?**

10 A. I am supporting the Company's request for a rate increase by sponsoring Schedules A-1,
11 A-2, and A-5, Schedules B-1, B-2, B-3, B-4 and B-5, and the pro forma accounting
12 adjustments on Schedule B listed below:

- 13 (i) Acquisition Discount;
- 14 (ii) Griffith Power Plant Facilities ("Griffith Plant");
- 15 (iii) Build-Out Plant Write-Down;
- 16 (iv) Golden Valley Pipeline;
- 17 (v) Working Capital.

18
19 I am also sponsoring Schedules C-1 and C-2 and the pro forma accounting adjustments
20 reflected on Schedules C listed below:

- 21 (vi) Griffith Plant Operations;
- 22 (vii) Golden Valley Pipeline Operations;
- 23 (viii) Purchased Gas Cost and Gas Cost Revenue;
- 24 (ix) Negotiated Sales Program ("NSP") Revenue and Gas Cost;
- 25 (x) Sales for Resale & Asset Management Agreement;
- 26 (xi) Rate Case Expense;

- 1 (xii) Demand Side Management Revenue & Expense;
- 2 (xiii) Miscellaneous Adjustment;
- 3 (xiv) Normalization Adjustments:
 - 4 a. Bad Debt Expense;
 - 5 b. Injuries and Damages;
 - 6 c. Outside Legal Cost;
 - 7 d. Common System Allocations;
 - 8 e. Miscellaneous Normalization Adjustment.
- 9

10 **Q. Please describe the information contained in summary Schedule A-1?**

11 A. Schedule A-1 provides a summary of the increase in revenue requirement that UNS Gas
12 is seeking through a rate increase in this case. Lines 1 through 8 of Schedule A-1 present
13 the data utilized in determining the Company's revenue requirement. The data is
14 presented pursuant to three valuation methodologies: (1) original cost; (2) reconstruction
15 cost new less depreciation ("RCND"); and (3) fair value. Fair value is determined by
16 adding together the original cost and RCND rate base amounts and dividing that total by
17 two. This gives equal weight to both methods when determining the fair value amount.
18 This method of determining the fair value rate base is consistent with prior Commission
19 practice and is reasonable when compared with the fair market value of the Company's
20 assets as described in the testimony of UNS Gas witness Dr. Samuel C. Hadaway. As
21 discussed in Dr. Hadaway's testimony, the fair market value of the Company's utility
22 plant falls within a range of 1.2x to 1.4x net book value, which is comparable to the 1.37x
23 ratio of fair value net plant to original cost net plant included in my rate base schedules.

24
25
26
27

1 The test year that the Company utilized for this rate case is the twelve months ending
2 December 31, 2010. As set forth in Schedule A-1, the original cost rate base is \$184
3 million and the RCND rate base is \$324 million. Under standard Arizona Corporation
4 Commission ("Commission") practice, the fair value rate base is considered to be \$254
5 million.

6
7 Schedule A-1 supports a finding that UNS Gas presently has an operating income
8 deficiency of \$3.4 million and is requesting an increase in revenues of \$5.6 million. This
9 results in just under a 4% increase to the test year retail revenues. The effect on the fixed
10 monthly and delivery charges on a total company basis will be an increase in those
11 components of approximately 10.5% compared to test year revenues, *excluding* gas cost
12 recovery. However, this 10.5% increase is only associated with a portion of the
13 customer's total bill. Therefore, assuming the remaining portion of a customer's bill, the
14 gas cost, is equivalent to test year levels, the *average* retail rate will increase by
15 approximately 4%. Lines 11 through 18 of Schedule A-1 present how the revenue
16 increase would be allocated among UNS Gas' customers by class excluding gas cost
17 recovery.

18
19 **II. PRO FORMA ADJUSTMENTS.**

20
21 **Q. Please explain the consideration of pro forma adjustments in the rate case process.**

22 **A.** Public utility rates are based on the reasonable and prudently incurred costs of providing
23 safe, reliable service. The revenue requirement underlying rates is developed on the basis
24 of a test year that reflects a level of operating revenues and expenses and net plant
25 investment that is representative of normal conditions that are expected to exist during
26 the time that resulting rates may be in effect. The revenue requirement calculation also

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

contains a component that is intended to afford the utility a reasonable opportunity to achieve a fair rate of return, as authorized by the respective regulatory authority.

Pro forma adjustments are made to recorded test-year amounts that are not required for the provision of service or that are not representative of the levels expected to occur during the period in which the new rates will be in effect. Such adjustments may be made in the form of eliminations, annualizations, or normalizations.

Elimination adjustments are made to remove out-of-period or non-recurring transactions, or items that are not costs or revenues related to the provision of utility service; thus, not eligible for reflection in revenue requirements.

Annualization adjustments are made to reflect the full, twelve-month revenue or expense level of certain components of operating income. They are typically computed using end-of-test-year quantities and the most current known and measurable prices and rates. Examples in this case include restating test-year operating revenues to reflect customer levels at the end of the test year, adjusting payroll expense to reflect current salary rates and changes in employee levels during the test year, and adjusting recorded depreciation expense to reflect the full effect of plant additions and retirements during the test year.

Normalization adjustments reflect that the recorded test-year operating revenues and expenses may not be representative of a normal level for ratemaking purposes. Certain events may have affected recorded transactions in an atypical manner. Moreover, some transactions eligible for reflection in revenue requirements are incurred at intervals less frequently than annually, provide benefits extending beyond a single year, or reoccur in significantly different amounts each year. As a result, the amounts recorded in the test

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

year may not be viewed as “normal,” thus requiring a restatement for ratemaking purposes. Normalization adjustments are made in such instances when a test-year level of revenues or expenses is not representative of what would be expected on an on-going basis. Examples in this case include the adjustment for bad debt expense, the overtime factor implicit in the payroll adjustment, and the adjustment to normalize the level of outside legal expense.

Q. Were the pro forma adjustments that you are sponsoring in your Direct Testimony prepared by you or under your supervision?

A. Yes, they were.

III. RATE BASE ADJUSTMENTS.

i. Acquisition Discount.

Q. Please explain the Acquisition Discount adjustment.

A. Effective August 11, 2003, UniSource Energy acquired from Citizens Communications Company (“Citizens”) its remaining gas assets located in Arizona. The Commission approved this acquisition in Decision No. 66028 (July 3, 2003) pursuant to a Settlement Agreement. This adjustment is necessary in order to properly reflect the discount, or negative acquisition premium, authorized by the Commission when UniSource Energy acquired Citizens. Decision No. 66028 calls for the use of a \$30.7 million “negative acquisition premium” (see page 8, lines 17 through 22 of the Decision) in the calculation of rate base for ratemaking purposes to reflect this lower purchase price.

1 **Q. Is an acquisition adjustment normally appropriate?**

2 A. No. Normally original cost rate base is just that "original cost" and under Commission
3 rules, the original cost of utility property is the cost "at the time it is first devoted to public
4 service."¹ In the case of an asset sale, the assets will have been devoted to service before
5 the sale. Thus, the sale does not affect the original cost of the assets, either positively or
6 negatively. In other words the relevant cost is the "cost of [the] property to the person
7 first devoting it to public service."² Thus, an acquisition adjustment is normally not
8 appropriate. However, UniSource Energy did agree to the specific negative acquisition
9 adjustment noted above (*i.e.* the acquisition discount adjustment). This pro forma
10 adjustment is necessary so that the acquisition adjustment is limited for ratemaking
11 purposes to the specific value agreed to by the Company and approved by the
12 Commission.

13
14 **Q. Please explain further.**

15 A. UniSource Energy actually paid \$50.1 million less than the original cost for the gas assets
16 acquired from Citizens. In accordance with United States Generally Accepted Accounting
17 Principles ("GAAP"), this amount had to be shown on the Company's books as a negative
18 acquisition adjustment. This GAAP acquisition discount is larger than the acquisition
19 discount approved by the Commission as described above. Normally, an acquisition
20 discount would not be considered for ratemaking purposes at all. However, in this case,
21 the discount agreed to by the Company must be recognized. Essentially, this pro forma
22 adjustment takes the GAAP discount and reduces it to the value of the discount authorized
23 by the Commission. Put another way, the GAAP discount must be reduced for ratemaking
24 purposes, which increases rate base.

25
26 ¹ Arizona Administrative Code ("AAC") R14-2-102.A.6

27 ² A.A.C. R14-2-103.A.3.e

1 **Q. Please explain the accounting details further.**

2 A. When I say the “value” of the agreed upon discount, I mean the \$30.7 million figure
3 stated in the 2003 Settlement Agreement, less amortization. The amortization has been
4 calculated through December 31, 2010. Amortization reflects the fact that the assets
5 which were purchased do not have an infinite life. Pursuant to the Settlement Agreement
6 approved by the Commission, the amortization rate is the same as the depreciation rate
7 for corresponding plant accounts. According to Commission and the Federal Energy
8 Regulatory Commission (“FERC”) directives, the acquisition adjustment was a credit to
9 accumulated depreciation.
10

11 **Q. Is the Acquisition Discount adjustment consistent with the last UNS Gas rate case,**
12 **Docket No. G-04204A-08-0571?**

13 A. Yes. The adjustment was prepared and calculated in the same manner as was approved
14 by the Commission in the last UNS Gas rate case order, Decision No. 71623 (April 14,
15 2010) (hereinafter sometimes referred to as “the 2010 UNS Gas Rate Order”).
16

17 **ii. Griffith Plant.**

18
19 **Q. Please explain the Griffith Plant adjustment.**

20 A. This adjustment removes from Plant in Service the cost of facilities that connect the
21 Griffith Plant with the El Paso Natural Gas and Transwestern Pipeline Company
22 interstate pipelines. Such facilities were constructed by and are owned by UNS Gas. The
23 Griffith Plant costs are recovered pursuant to a specific contract between UNS Gas and
24 the owners of the Griffith Plant. The facilities, revenue and expenses relating to the
25 Griffith Plant are excluded from rate base and revenue requirements for the purposes of
26 general retail ratemaking.
27

1 Q. Is the Griffith Plant adjustment consistent with the last UNS Gas rate case, Docket
2 No. G-04204A-08-0571?

3 A. Yes. The adjustment was prepared and calculated in the same manner as was approved
4 by the Commission in the 2010 UNS Gas Rate Order.

5

6 iii. Build-Out Plant Write-Down.

7

8 Q. Please explain the Build Out Plant Write-Down adjustment.

9 A. In Decision No. 66028, the Commission approved a Settlement Agreement which
10 included "an additional \$10 million permanent disallowance to gas rate base ... to
11 recognize excessive costs associated with Citizens' Build-Out Program." (See page 8,
12 lines 21-22 of the Decision.) This adjustment takes the required adjustment to December
13 31, 2001 rate base and separates that adjustment into components for gross plant in
14 service and accumulated depreciation. Then the adjustment also quantifies additional
15 depreciation provided through December 31, 2010 – removing the respective plant and
16 accumulated depreciation from rate base.

17

18 Q. Is the Build Out Plant Write-Down adjustment consistent with the last UNS Gas rate
19 case, Docket No. G-04204A-08-0571?

20 A. Yes. The adjustment was prepared and calculated in the same manner as was approved
21 by the Commission in the 2010 UNS Gas Rate Order.

22

23

24

25

26

27

1 **iv. Golden Valley Pipeline.**

2
3 **Q. Please explain the Golden Valley Pipeline (“GVP”) adjustment.**

4 A. This adjustment removes from Plant in Service the majority of the cost of the GVP
5 facilities that connect the Black Mountain Generating Station (“BMGS”) with the
6 Transwestern Pipeline Company interstate pipeline. Such facilities were constructed by
7 and are owned by UNS Gas. The majority of the GVP costs are recovered pursuant to a
8 specific contract between UNS Gas and the owner of the BMGS.³ This portion of the
9 facilities, revenue and expenses relating to the GVP, in accordance with the agreements
10 approved in Decision No. 70186, (February 27, 2008), are excluded from rate base and
11 revenue requirements for the purposes of general retail ratemaking.

12
13 **Q. What amount of the facilities, revenue and expenses related to GVP is being**
14 **included in rate base and revenue requirements?**

15 A. Per the agreement between the owner of BMGS and UNS Gas, approximately 82% of the
16 costs are being recovered from the owner of BMGS and thus only 18% is being included
17 in rate base and revenue requirements in this proceeding. This amount is being included
18 for capacity made available to serve UNS Gas retail customers in the area of the pipeline.

19
20 **Q. Are there retail customers currently being served by the GVP?**

21 A. Yes. The Kingman prison is currently being served by the distribution line and is
22 providing for partial recovery of the annual estimated cost of the GVP included in rate
23 base, and thus the Company’s proposed revenue requirements. Additionally, a

24
25 _____
26 ³ The BMGS is currently owned by UniSource Energy Development Company (“UED”), a subsidiary of UniSource
27 Energy. In Decision No. 71914 (September 30, 2010), the Commission approved rate base treatment for BMGS
including the corresponding rate reclassification. Decision No. 72213 (March 3, 2011) confirmed the rate base
treatment for BMGS in UNS Electric rates, upon completion of the acquisition of BMGS by UNS Electric from UED.
UNS Electric is in the process of receiving FERC approval for the acquisition and closing the transaction.

1 manufacturing facility has been connected to the line but is not presently operational due
2 to economic reasons.

3
4 **Q. Are there provisions in the contract that allow for the allocation of cost to be
5 recovered from UED to be re-evaluated and adjusted?**

6 A. Yes. The contract includes a provision that in five years from the date of the agreement,
7 the allocation will be re-evaluated in the first half of 2013. Any cost not being recovered
8 from new retail customers taking service from the GVP distribution line will be re-
9 allocated to the owner of the BMGS. Essentially, if the new customers do not hook-up,
10 then those cost will be recovered from the owner of BMGS for the remainder of the
11 contract and the retail customers of UNS Gas will be held harmless.

12
13 **Q. Is the GVP adjustment consistent with the last UNS Gas rate case, Docket No. G-
14 04204A-08-0571?**

15 A. Yes. The adjustment was prepared and calculated in the same manner as was approved
16 by the Commission in the 2010 UNS Gas Rate Order.

17
18 v. **Working Capital.**

19
20 **Q. What is Working Capital?**

21 A. Working Capital is generally viewed as investor funding in excess of the balance of net
22 utility plant reflected in rate base that is required for the provision of utility service.

23
24 **Q. What are the items of Working Capital for which the Company requests a return?**

25 A. The components of Working Capital that the Company is requesting be included in rate
26 base are:

27

- 1 (i) Materials and Supplies;
- 2 (ii) Prepayments; and
- 3 (iii) Cash Working Capital.

4 As more fully explained later in my Direct Testimony, the amounts requested for rate
5 base inclusion for the materials and supplies and prepayments are based on test-year
6 recorded balances, adjusted to reflect normal levels. The cash working capital component
7 was determined by the use of the Lead-Lag Study Methodology, to be covered in-depth
8 later herein.

9

10 **Q. What is Cash Working Capital?**

11 A. The receipt of customer revenues for the provision of service, and the disbursement of
12 cash for the payment of the various costs of providing service rarely occur
13 simultaneously. This is the fundamental consideration underlying the concept of Cash
14 Working Capital. Cash Working Capital is generally viewed as the component of
15 working capital that represents the amount of invested cash required to pay day-to-day
16 operating expenses incurred in rendering service to customers. It may either increase or
17 decrease rate base. If the computation of Cash Working Capital produces a positive
18 result, it is indicative that there is an additional investment for which a return is
19 warranted, and thus, the amount is added to rate base. If the computation produces a
20 negative result, there is an implicit non-investor funding of Cash Working Capital,
21 requiring a rate base deduction.

22

23 **Q. Please explain the Working Capital adjustment.**

24 A. The Working Capital adjustment was computed in two pieces. First, as indicated on page
25 2 of Schedule B-5, the recorded end-of-test-year balances for Materials and Supplies, and
26 Prepayments are adjusted to reflect the 13-month average monthly balances, in
27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

recognition of the variability in the monthly balances of the accounts. This is consistent with the treatment of such accounts in prior rate cases.

Second, Working Capital is adjusted for the reflection in rate base of a measure of Cash Working Capital, developed through the preparation of a comprehensive lead-lag study.

Q. What is a lead-lag study?

A. A lead-lag study is a detailed analysis of the dynamic movement of funds throughout the organization, between the receivable and payable balance sheet accounts and related revenues and expenses that are reflected in the operating income component of revenue requirements. The method is generally viewed as the most accurate measure of Cash Working Capital. The Commission has stated a clear preference for the use of lead-lag studies in support of requested working capital amounts in rate cases.

The focal point of all lead-lag studies is the "point of service." That is the instant in time at which customers receive service and, coincident therewith, the utility incurs the cost of providing that service. A lead-lag study measures the average length of time between the provision of service and the ultimate receipt of payment from the customer ("revenue lag"). The result is compared with the average length of time between the point at which the utility incurs a cost of providing that service and the date upon which it makes the related cash disbursement ("payment lead" if payment precedes the cost benefit, or "payment lag" if the payment occurs after the cost benefit). Cash Working Capital reflects the effect on costs of service of the difference between the revenue lag and payment leads or lags.

1 As may be seen on page 3 of Schedule B-5, a lead-lag study computes the Cash Working
2 Capital associated with each component of cost of service. The revenue lag is constant
3 for all cost categories. The various major expenses are analyzed separately for purposes
4 of developing a specific payment lead or lag. Once the applicable expense lead or lag is
5 known, it is compared with the revenue lag to determine the net lead or lag for that study
6 category. After dividing the net lead or lag by 365 days to arrive at an annual percentage
7 factor, the result is multiplied by the corresponding adjusted test-year expense amount to
8 quantify the Cash Working Capital requirement associated with that cost of service item.
9 Consistent with past Commission policy, the effect of non-cash expenses such as
10 depreciation and deferred income taxes are reflected in the study at a zero requirement.

11
12 **Q. How was the average revenue lag computed?**

13 A. The revenue lag is comprised of three distinct parts: the service lag, the billing lag, and
14 the customer payment lag.

15
16 The service lag is measured from the midpoint of the period of service to the end of the
17 period, the date upon which meters are read. A key underlying assumption is that service
18 is taken uniformly throughout the period. With each customer being billed under twelve
19 monthly billing cycles during the year, the average service lag is computed as 15.21 days
20 [365 days / (12 X 2)].

21
22 The billing lag is typically measured from the meter read date to the date customer bills
23 are prepared and balances entered into accounts receivable. The billing lag was computed
24 based on actual meter read dates and bill mailing schedules used by UNS Gas during the
25 test-year.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

The customer payment lag is measured from the point at which the customer bill enters accounts receivable to the date that either a payment is received or the account is written off as uncollectible. The lag was determined by computing the average accounts receivable turnover for the 12 months during the test year. The Accounts receivable turnover is calculated by weighting the average aging daily balances by the sum of the total revenues charged during the study period.

Q. How were the payment leads and lags computed?

A. The payment leads and lags were developed based on analyses of actual payment history, contractual and statutory payment dates, and samples of expenditures.

Q. What was the overall result of the lead-lag study?

A. The study showed that there was negative cash working capital and a corresponding decrease was made as a pro forma adjustment to rate base.

IV. OPERATING INCOME ADJUSTMENTS.

vi. Griffith Plant Operations.

Q. Please explain the Griffith Plant Operation's adjustment.

A. This adjustment removes the revenues and expenses associated with serving the Griffith Plant. The Griffith Plant costs are recovered pursuant to a specific contract between UNS Gas and the owners of Griffith Plant. This special contract was approved by the Commission in Decision No. 61835 (July 21, 1999). Pursuant to that Decision, the plant, revenue, and expenses are excluded from rate base and revenue requirements for the purpose of general retail ratemaking.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

vii. Golden Valley Pipeline Operations.

Q. Please explain the Golden Valley Pipeline Operation’s adjustment.

A. This adjustment removes the revenues and expenses associated with the GVP. The GVP costs are recovered pursuant to a specific contract between UNS Gas and the owners of BMGS. This special contract was approved by the Commission in Decision No. 70186 (February 27, 2008). Pursuant to that Decision, the plant, revenue, and expenses are excluded from rate base and revenue requirements for the purpose of general retail ratemaking.

viii. Purchased Gas Cost and Gas Cost Revenue.

Q. Please explain the Purchased Gas Cost and Gas Revenue adjustment.

A. This adjustment removes the base cost of gas charged to the customers, Purchased Gas Adjustor (“PGA”) rates charged to the customers and approved surcharges charged to customers during the test year.

ix. Negotiated Sales Program Revenues and Gas Cost.

Q. Please explain the Negotiated Sales Program Adjustment.

A. The Negotiated Sales Program (“NSP”) allows the Company to participate in the competitive bidding process of its transportation customers who are seeking to purchase gas supplies for their own use in accordance with a transportation tariff. The Company, in accordance with Decision No. 59399 (November 28, 1995), credits the PGA bank account for a percentage of the sales margin that was previously approved by the Commission, unless the NSP customer is a transportation customer who was a bundled

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

sales customer any time during the most recent three-year period. In that case, the Company credits the PGA bank 100% of the sales margin.

The test-year income statement reflects revenues received and the gas cost incurred to serve NSP customers excluding the sales margin recorded into the PGA bank. The adjustment removes all remaining revenues and purchased gas expense from the sale of natural gas to NSP customers. This is necessary because the remaining sales margin is the portion to be retained by the Company.

Q. Is the Negotiated Sales Program Revenue and Gas Cost adjustment consistent with the last UNS Gas rate case, Docket No. G-04204A-08-0571?

A. Yes. The adjustment was prepared and calculated in the same manner as was approved by the Commission in the 2010 UNS Gas Rate Order.

x. **Sales for Resale & Asset Management Agreement adjustments.**

Q. Please explain the Sales for Resale adjustment.

A. The Sales for Resale adjustment removes revenue produced by the non-firm sale of excess purchased gas with a corresponding adjustment to purchased gas expense. When these excess amounts are sold the revenue and expense are set equivalently within the income statement. The customers benefit from all profit made on these types of sales as the debit to gas cost expense to make it equivalent to the revenue associated with the sale has a corresponding credit to the PGA regulatory liability account. This credit represents a reduction in the ultimate cost passed on to the retail customers of UNS Gas through the PGA process equal to any profit on the sale.

1 **Q. Please explain the Asset Management Agreement adjustment.**

2 A. UNS Gas has asset management agreements where it releases pipeline capacity (with first
3 right to recall) under UNS Gas' transportation agreement with Transwestern Pipeline to
4 suppliers (Tenaska in 2009, Iberdrola in 2010). The supplier then issues a credit against
5 amounts UNS Gas pays for the purchase of gas commodity in exchange for this non-firm
6 capacity on Transwestern's pipeline. These transactions are recorded as other revenue
7 under Account No. FERC 495, with a corresponding credit to the PGA regulatory
8 liability account. The Asset Management Agreement Revenue adjustment removes
9 revenue UNS Gas receives under these management agreements with a corresponding
10 adjustment to purchased gas expense. The retail customers benefit by reduced cost for
11 purchased gas through the PGA process.

12
13 **xi. Rate Case Expense.**

14
15 **Q. Please explain the Rate Case Expense adjustment.**

16 A. UNS Gas is estimating that it will incur \$400,000 of non-affiliate rate case expense in this
17 proceeding. That value is made up of the following cost estimates:

18

19	Outside Legal Representation	\$250,000
20	Depreciation Study & Witness	\$50,000
21	Cost of Equity & Fair Market Value Witness	\$50,000
22	Other Cost (Travel, Lodging, Printing & Etc...)	<u>\$50,000</u>
23	Total Estimate Cost (Excluding TEP Labor)	\$400,000
24	Estimated Rate Effective Period (years)	<u>2.25</u>
25	Annualized Non-affiliate Rate Case Expense	<u>\$177,778</u>

26
27

1 This amount is an estimate of the annualized final cost that are not accounted for in the test
2 year operating cost of UNS Gas and can be updated before this proceeding concludes if
3 actual cost are materially different.
4

5 **Q. Will there be other cost incurred by UNS Gas that are not accounted for somewhere**
6 **in the test year operating cost of UNS Gas?**

7 A. Yes. UNS Gas estimates it will also be charged \$300,000 to \$400,000 in outside labor cost
8 from TEP. UNS Gas is requesting that an annualized amount of \$133,333 ($\$300,000 / 2.25$
9 $= \$133,333$) be included in cost of service for recovery of these direct charges for rate case
10 support.
11

12 **Q. Why is UNS Gas requesting recovery of an annualized level of labor cost charged**
13 **from TEP to UNS Gas for rate case preparation and support?**

14 A. Most utilities the size of UNS Gas have some level of legal, rates and regulatory support
15 staff cost built into their cost structure - either in the form of full-time employees or
16 through a recurring allocation from some type of support division. For example,
17 Southwest Gas Corporation ("SWG") has a shared services group that is allocated to each
18 of its regulated operations in three states (Arizona, Nevada and California), and which is
19 included in recurring operating cost and recovered through each operation's base rates.
20 SWG allocates these recurring internal legal, rate, regulatory support staff cost annually
21 regardless of rate proceedings and ultimately into each test-year's operating costs
22 presented to the Commission in a rate proceeding.
23

24 By contrast, UNS Gas does not have full-time employees devoted to these types of
25 proceedings; such support costs are also not allocated to it annually from TEP or
26 UniSource Energy. So for any rate case support services provided to it (primarily from
27

1 TEP), UNS Gas is directly-charged only for actual cost incurred. In other words, UNS Gas
2 has no recurring cost for these services built in to its test year operating cost, unlike SWG.

3
4 If these annualized costs, directly attributable to service provided to UNS Gas by TEP
5 employees, are not incorporated in to the cost of service of UNS Gas at a reasonable
6 annualized/normalized level – then by default the cost will be incorporated in to the cost of
7 service of TEP. This leaves TEP customers to subsidize the rate case support cost on
8 behalf of UNS Gas customers.

9
10 **Q. How did you arrive at the estimate of \$300,000 to \$400,000 for direct charges from**
11 **TEP to UNS Gas?**

12 A. In the two previous rate proceedings, UNS Gas has incurred \$374,000 and \$440,000 in
13 outside labor charges directly charged from TEP for rate case activity. If fully adjudicated
14 this proceeding should result in a similar level of direct support. This shows that my
15 estimate is very conservative.

16
17 **Q. How did you arrive at the 2.25 effective rate period used to annualize the cost**
18 **recovery?**

19 A. UNS Gas has had rates go in to effect December 2007 (for an application filed July 13,
20 2006), and April 2010 (for an application filed November 7, 2008). The Company
21 anticipates rates in this case going into effect no later than June 2012 (for an application
22 filed in early-April 2011). Those effective periods equate to an average period rates are in
23 effect of 2 ¼ years.

24
25
26
27

1 **Q. What is the amount you are requesting be included in test year cost of service and is**
2 **that amount reasonable?**

3 A. UNS Gas is requesting that \$177,778 be included in cost of service for recovery of non-
4 affiliate outside service costs incurred as a direct result of this proceeding. Additionally,
5 we are requesting that \$133,333 be included in cost of service for recovery of affiliate
6 outside service costs charged directly to UNS Gas from TEP directly related to this
7 proceeding and incremental to any cost charged to UNS Gas during the test year.

8
9 The Company's request to include \$311,111 (\$177,778 + \$133,333) in its cost of service
10 on an annualized/normalized basis is reasonable. Notably, if UNS Gas were to hire just a
11 revenue requirement analyst, a rate analyst, a rate attorney and one support staff member
12 giving it a bare bones regulatory support group – and ignoring all other reasonable costs
13 (e.g., office space, office equipment, consultants) – \$311,111 would not be a sufficient
14 annual amount to support even that minimal group in providing regulatory support to UNS
15 Gas.

16 **xii. Demand-Side Management (“DSM”) Revenue & Expense.**

17
18 **Q. Please explain the DSM Revenue & Expense adjustment.**

19 A. This adjustment excludes from test year revenue and expenses the activity directly related
20 to the DSM adjustor mechanism approved in Commission Decision No. 71623 (April 14,
21 2010).

22
23
24
25
26
27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

xiii. Miscellaneous Adjustment.

Q. Please explain the Miscellaneous Adjustment.

A. The Miscellaneous Adjustment has two parts – the elimination of non-recurring and/or out-of-period expenses from the test year and the reduction of test year charges for the portion of American Gas Association (“AGA”) dues associated with lobbying.

The non-recurring and/or out-of-period expenses being removed from the test year are self explanatory. They do not represent expenditures that should be included in the cost of service being established in this proceeding as they are not representative of on-going levels.

The AGA dues and the benefits associated with that membership are discussed at length in the testimony of UNS Gas witness, Nathan C. Shelly. The adjustment being discussed here is simply to remove the portion of the annual dues recognized as in support of lobbying activity.

xiv. Normalization Adjustments.

a. Bad Debt Expense.

Q. Please explain the Bad Debt Expense adjustment.

A. Bad Debt Expense is adjusted to a level reflective of final, pro forma weather-normalized, customer-annualized test-year operating revenues, and the average percentage of actual account write-offs experienced during the past three years. This

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

method of calculating bad debt expense is consistent with past Commission accepted practice.

Q. Is the Bad Debt Expense adjustment consistent with the last UNS Gas rate case, Docket No. G-04204A-08-0571?

A. Yes. The adjustment was prepared and calculated in the same manner as was approved by the Commission in the 2010 UNS Gas Rate Order.

b. Injuries and Damages.

Q. Please explain the Injuries and Damages adjustment.

A. The test year included \$644,000 in general liability expense and worker compensation expense within FERC Account 925, Injuries and Damages. The three-year average for those costs was \$428,000 – I have included an adjustment to reduce operating cost by \$216,000 to recognize that test year expenses were not reflective of a normal level of expenses.

c. Outside Legal Cost.

Q. Please explain the Outside Legal Cost adjustment.

A. The test year outside legal expense was \$334,326 excluding costs directly associated with the 2008 rate case. The three year average for the comparable costs was \$182,902 – I have included an adjustment to reduce operating cost by \$151,423 to recognize that test year expenses were not reflective of a normal level of expenses.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

d. Common System Allocations.

Q. What costs are allocated through the Common System Allocation?

A. The cost are for business application systems used by UNS Gas, UNS Electric, TEP and other affiliate entities in support of their business activities. The system cost being allocated are the customer support, payroll, and Oracle (general ledger, accounts payable, plant, projects and etc...) applications. Additionally, desktops and data warehouse system cost are allocated as part of the Common System Allocation process.

Q. Have the Common System Allocation processes and procedures remained the same since Staff's review from UNS Gas' last rate filing?

A. Yes. The process and procedures are the same as they were from the Company's 2008 rate filing.

Q. Please explain the adjustment.

A. The test-year level was reviewed and compared to the most recent three year average level and found to be materially higher than the average. Therefore, I am proposing to reduce test-year operating expense by \$106,648 to recognize that test-year expenses were not reflective of an expected level.

e. Miscellaneous Normalization Adjustment.

Q. Please discuss the Miscellaneous Normalization Adjustment.

A. Test-year expense activity was evaluated by FERC Account and by expenditure type – looking for significant differences from the prior calendar year, the prior test year and from two- and three-year averages (including for postage, fleet fuel, outside legal,

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

software maintenance and other expenses). If a certain expenditure activity is not reflective of a normal level, then it was identified for adjustment.

The more significant adjustments were singled out and explained individually within my testimony previously. Rather than adding an additional 12 smaller normalization adjustments to our schedules and to my testimony I have chosen to provide them as one Miscellaneous Normalization Adjustment. These adjustments are for expenditures like postage, printing cost, software maintenance and equipment rental. These adjustments are primarily based on adjusting test-year levels to be reflective of three-year average levels.

V. OVERVIEW AND DISCUSSION OF ADJUSTED O&M WITH THIS FILING.

Q. Please discuss the level of adjusted operating cost that is reflected in UNS Gas' filing and why you believe it is reasonable.

A. In the pursuit of normal and recurring levels of expense to be recovered through rates as part of a regulated utility's cost of service analysis we can sometimes lose sight of the bigger picture by getting so focused as witnesses only on the merits of individual expense items. That bigger picture is to establish rates that are fair and allow for a reasonable opportunity to recover prudent and recurring cost incurred in the course of providing service to customers. Individual cost areas will always fluctuate over time. The real goal should be to set an O&M level that is reflective of a normal and recurring overall expense level that the Company has and will experience going forward. In short, the Company's proposed adjustments result in an O&M level that is reasonable.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

A tool that can be used to aid in this evaluation is to analyze total operation and maintenance (“O&M”) cost levels in comparison to historical levels, recently-approved recovery levels, and to evaluate how they have changed in comparison to inflation. This analysis shows that the Company’s proposed O&M (excluding purchased gas) after all the proposed pro forma adjustments is 3.2% greater than then the adjusted O&M level approved in the 2010 rate case order (which was based on a test year that ended June 30, 2008 – almost three years ago). When the approved O&M level from the prior test year is adjusted for inflation the Company’s proposed O&M in this Application is actually 0.9% *less* than the level approved for UNS Gas in Decision No. 71623.

This is not the only tool to use in determining whether UNS Gas’ operating cost request (to recover within its cost of service) is reasonable. Nor does this mean that the O&M level is inherently unreasonable if the inflation-adjusted level is greater than what was previously approved. But this is a significant indicator that UNS Gas has controlled its costs since the prior test year and on an inflation-adjusted basis is requesting less O&M cost recovery than the prior case. Correspondingly, if the Company’s O&M level requested in this case for recovery were significantly or materially reduced, then that would be a strong signal to UNS Gas that it should evaluate its service levels being provided to customers.

1 **VI. SUMMARY OF SCHEDULES.**

2

3 **i. A Schedules.**

4

5 **Q. Have you described Schedule A-1 earlier in your Direct Testimony?**

6 A. Yes. Again, Schedule A-1 is a summary of the increase in revenue requirement that UNS
7 Gas is seeking as a rate increase in this case.

8

9 **Q. Please describe the information contained in Schedule A-2.**

10 A. Schedule A-2 presents a summary of the results of operations for the test-year and two
11 prior calendar years, compared with the projected year. Lines 1-16 of Schedule A-2 set
12 forth the summary of operations for the years ending December 31, 2008 and December
13 31, 2009, and the test-year ending December 31, 2010. Schedule A-2 also presents
14 projected results of operations for the year ending December 31, 2011 under the headings
15 “present rates” and “proposed rates”.

16

17 **Q. Please describe the information contained in Schedule A-5.**

18 A. Schedule A-5 presents statements of changes in financial position for the years ending
19 December 31, 2008 and December 31, 2009, the test-year ending December 31, 2010 and
20 the projected year ending December 31, 2011.

21

22 **ii. B Schedules.**

23

24 **Q. Please describe the information contained in Schedule B-1.**

25 A. This schedule summarizes the elements of UNS Gas’ rate base on both a net recorded
26 original cost and RCND basis as of December 31, 2010, along with the pro forma

27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

adjustments to rate base. Rate base is comprised of net utility plant, certain regulatory assets, and working capital, with deductions from rate base for ADIT, customer advances for construction and customer deposits.

Q. Please explain briefly the basis for the determination of the RCND rate base.

A. Plant in service and customer advances for construction reported at reconstructed cost new ("RCN") are summarized from the results of a detailed plant cost trending study. The accumulated depreciation and ADIT reported on a RCN basis have been computed by multiplying the corresponding original cost balances by a ratio, the numerator of which is gross reconstructed new cost of depreciable plant, and the denominator of which is gross original cost of depreciable plant. All other rate base elements are reflected at original cost.

Q. Please describe the plant cost trending study.

A. The trending study was prepared to establish a measure of the cost to reconstruct utility plant in service at current 2010 cost levels. The December 31, 2010 recorded balance in each plant account was analyzed by vintage component and adjusted to current cost levels by applying trending factors to each vintage total. For example, the RCN value for 1984 vintage assets in Account No. 362, Distribution Plant – Station Equipment was computed as follows:

$$\begin{aligned} \text{Original Cost of 1984 vintage assets in Acct. 362} & \times \text{2010 Cost Index for Acct 362} \\ & = 1984 \text{ Cost Index for Acct. 362} \end{aligned}$$

For most accounts, the Handy-Whitman Index of Public Utility Construction Costs for the Plateau Region has been employed. For plant accounts 303, 391, 393, 394, and 398, the "Marshall Valuation Service Cost Index" was used. For plant accounts 392, 395, 396,

1 and 397, the Bureau of Labor Statistics producer price index was used. Where the Handy-
2 Whitman Index was used for the trend factors, they are based on the index numbers
3 released by Handy-Whitman for July 1, 2010. More current data has not yet been
4 released.

5
6 **Q. What is the Handy-Whitman Index?**

7 A. It is an index of public utility construction costs that has been published continuously
8 since 1924 by Whitman, Requardt and Associates of Baltimore, Maryland. The Handy-
9 Whitman Index is a well recognized, widely used and generally accepted method for
10 measuring differences in property values for insurance and other purpose, including the
11 valuation of public utility property for rate case purposes. It has been used by UniSource
12 Energy's utilities and other companies in proceedings before the Commission for many
13 years.

14
15 The Handy-Whitman Index is comprised of index numbers for various accounts
16 prescribed by the Uniform System of Accounts and for six geographical divisions of the
17 country, including the Plateau Division, in which Arizona and New Mexico are located.
18 These index numbers result from a comparison of the current prices of materials, labor,
19 and equipment to prices in a base year. Index numbers are determined for each year as of
20 January 1 and July 1.

21
22 The index numbers are used to determine cost trend factors, which are then applied to
23 known original costs of like plant and property to determine the fluctuation in cost
24 between the date of original installation and the date of valuation.

1 **Q. What is the Marshall Index?**

2 A. The Marshall Index, prepared by the firm of Marshall & Swift, is an index of construction
3 cost trend valuations. It was used in development of costs reported in the RCND Study for
4 those plant accounts not reported by Handy-Whitman.

5

6 **Q. What is shown on Schedules B-2, B-3 and B-4?**

7 A. Schedule B-2 shows the pro forma adjustments to the original cost rate base. The
8 information presented includes the actual per-books balances at the end of the test-year,
9 pro forma adjustments, and the adjusted balances. Schedule B-3 provides the same detail
10 by functional account classifications as shown in Schedule B-2, except that it is shown on
11 an RCND basis. Schedule B-4 shows the plant in service accounts on an RCN and
12 RCND basis.

13

14 **Q. Please explain Schedule B-5.**

15 A. This schedule summarizes the various elements of working capital that the Company is
16 requesting for inclusion in rate base in this rate case.

17

18 **Q. Why are the original costs and RCND costs of working capital the same in Schedule
19 B-5?**

20 A. They are the same because the original costs are at current prices or have been adjusted to
21 current prices, meaning they have not been significantly affected by inflationary factors.

22

23

24

25

26

27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

iii. C Schedules.

Q. Please describe the Company's "C" Schedules in its filing.

A. Schedules C-1 through C-3 present the development of the net operating income component of revenue requirements submitted for Commission consideration in this rate case filing.

Q. Please explain Schedule C-1.

A. Schedule C-1 shows the actual Income Statement for the twelve months ending December 31, 2010, the test-year in this case. It also summarizes the effect of the proposed pro forma adjustments to recorded operating revenues and expenses, and the resulting adjusted net operating income.

Q. What is the purpose of Schedule C-2?

A. Schedule C-2 presents the detailed pro forma adjustments that reflect the full annual impact of operating changes, annualizations, normalizations, and other adjustments made to revenues and expenses.

Q. What is the purpose of Schedule C-3?

A. Schedule C-3 contains the development of the Gross Revenue Conversion Factor. That factor is used to convert the computed test-year return deficiency to an equivalent annual revenue increase amount. It effectively recognizes that there will be additional bad debt expense and income taxes associated with any adjustment to annual revenue levels.

Q. Does this conclude your Direct Testimony?

A. Yes, it does.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
GARY PIERCE- CHAIRMAN
PAUL NEWMAN
BRENDA BURNS
BOB STUMP
SANDRA D. KENNEDY

IN THE MATTER OF THE APPLICATION OF) DOCKET NO -G-04204A-11-_____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

Direct Testimony of

Dawn Sabers

on Behalf of

UNS Gas, Inc.

April 8, 2011

TABLE OF CONTENTS

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

I. Introduction.....1

II. Operating Income Adjustments2

 A. Payroll Expense3

 B. Employer Payroll Tax Expense3

 C. Pension and Benefits.....4

 D. Short-Term Incentive Compensation (all unclassified employees).....4

III. Summary of “E” Schedules E-1 through E-4, E-6, E-7 and E-9 – Financial
Statements and Statistical Schedules5

1 **I. INTRODUCTION.**

2

3 **Q. Please state your name and address.**

4 A. My name is Dawn Sabers and my business address is 4350 East Irvington Road, Tucson,
5 Arizona, 85714.

6

7 **Q. By whom are you employed and what is your position?**

8 A. I am Assistant Controller and General Manager of Corporate Accounting for Tucson
9 Electric Power Company ("TEP").

10

11 **Q. What are your duties and responsibilities as Assistant Controller and General
12 Manager of Corporate Accounting?**

13 A. My present areas of responsibility include internal and external financial reporting, and
14 payroll for all of UniSource Energy Corporation's ("UniSource Energy") wholly-owned
15 entities, including its indirectly-owned subsidiary, UNS Gas, Inc. ("UNS Gas" or
16 "Company").

17

18 **Q. Would you please describe your education, background and experience?**

19 A. I have over 25 years of utility auditing and accounting experience. I received a Bachelor
20 of Science Degree with a double major in Accounting and Management Information
21 Systems from the University of Arizona in 1985. I am a Certified Public Accountant
22 licensed to practice in the State of Arizona. I am a member of the American Institute of
23 Certified Public Accountants and the Arizona State Society of Certified Public
24 Accountants. Before assuming my current position, I was employed as the Director of
25 Securities and Exchange Commission Reporting and Accounting Research for TEP.

26

27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

Before joining TEP in 1994, I was employed by Deloitte Haskins & Sells, and its successor by merger, Deloitte & Touche, in the audit department for approximately eight and one-half years.

Q. What is the purpose of your Direct Testimony in this proceeding?

A. My Direct Testimony supports UNS Gas' pro forma adjusted operating expense requested in this proceeding and historical accounting data reflected in the "E" Schedules. Specifically, I am the sponsoring witness for the following pro forma accounting adjustments reflected on Schedule C-2:

- Payroll Expense;
- Employer Payroll Tax Expense;
- Pension and Benefits; and
- Short-Term Incentive Compensation (all unclassified employees).

Additionally, I am the sponsoring witness for the historical accounting data reflected in UNS Gas' rate case Application in the Schedules: E-1 through E-4; E-6, E-7, and E-9 (Financial Statements and Statistical Schedules).

II. OPERATING INCOME ADJUSTMENTS.

Q. Were the pro forma adjustments that you are sponsoring in your Direct Testimony prepared by you or under your supervision?

A. Yes, they were.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

A. Payroll Expense Adjustment.

Q. Please explain the Payroll Expense Adjustment.

A. The Payroll Expense Adjustment is intended to reflect a normal level of salaries and wages in operating expenses by reflecting the average wages for the last 2 years. The Payroll Expense Adjustment causes the test year to reflect an average of Operations and Maintenance wages for 2009 and 2010. By averaging the two years, we are “normalizing” the expense as the number of employees and overtime normally fluctuate throughout a year. Additionally, the Payroll Expense Adjustment reflects the known and measurable wage increases as of January 1, 2011 for classified employees and as of March 21, 2011 for unclassified employees; and the expected wage increases in 2012 of similar amounts.

B. Employer Payroll Tax Expense Adjustment.

Q. Please explain the Employer Payroll Tax Expense Adjustment.

A. The Payroll Tax Expense Adjustment reflects the employer’s taxes (Social Security and Medicare) that correspondingly increase as a result of the increased expense from the Payroll Expense Adjustment. Mechanically, UNS Gas’ effective employer’s tax rate for 2010 was applied to the increased payroll expense reflected in the Payroll Expense Adjustment.

1 **Q. Does the Employer Payroll Tax Expense Adjustment reflect a decrease for Social**
2 **Security tax rate decrease effective January 2011, as a result of the “Tax Relief,**
3 **Unemployment Insurance Reauthorization, and Job Creation Act of 2010” signed**
4 **into law December 17, 2010?**

5 A. No. The Social Security tax rate decrease became effective January 2011, but only
6 applies to employees for one year. Rates from this case will not go into effect until
7 sometime in 2012, after this one-year decrease expires. Moreover, the tax rate for
8 employers did not change in January 2011. Thus, the use of the effective tax rate for
9 2010 represents the most recent, known and measurable effective tax rate that will be in
10 effect when the Commission determines new rates for UNS Gas.

11
12 **C. Pension and Benefits Adjustment.**

13
14 **Q. Please explain the Pension and Benefits Adjustment.**

15 A. The Pension and Benefits Adjustment is intended to reflect, in operating expenses, the
16 known and measurable level of pension and benefits expense on a representative annual
17 activity level. The employee benefits covered by this adjustment include pension, the
18 UNS Gas’ share of contributions to the employees’ 401(k) plan; current medical costs;
19 and also long-term and short-term disability costs. Mechanically, we calculated this
20 adjustment by applying the 2011 Pension and Benefit rate, which reflects current medical
21 and pension costs, to the Payroll Adjustment.

22
23 **D. Short-Term Incentive Compensation (all unclassified employees).**

24
25 **Q. What is Short-Term Incentive Compensation?**

26 A. Short-Term Incentive compensation is an integral part of UNS Gas’ compensation and
27 benefits program. Incentive compensation could be referred to as a “lump-sum salary

1 payment” because it is simply a core piece of compensation based on the benchmarked
2 cost needed to attract and retain qualified personnel. The Short-Term Incentive
3 Compensation is effectively withheld salary.

4
5 **Q. Please explain the Short-Term Incentive Compensation Adjustment.**

6 A. To “normalize” the Short-Term Incentive Compensation expense, an adjustment is made
7 to reflect the average of the Short-Term Incentive Compensation expense for the years
8 2008, 2009 and 2010 as the annual expense in the test year.

9
10 **III. SUMMARY OF “E” SCHEDULES – FINANCIAL STATEMENTS AND**
11 **STATISTICAL SCHEDULES.**

12
13 **Q. Please explain UNS Gas’ “E” Schedules in its filing.**

14 A. These schedules, as is the same for all other sections of this rate case filing, were
15 prepared in accordance with the filing requirements contained in the Arizona
16 Administrative Code (“AAC”) R14-2-103. Schedules E-1 through Schedule E-4, as well
17 as Schedules E-6, E-7 and E-9 contain annual financial statements, and key operating
18 statistics and financial data, extracted from UNS Gas’ regulatory books.

19
20 **Q. On what basis are the regulatory books of account of UNS Gas maintained?**

21 A. UNS Gas’ regulatory books of account are maintained in accordance with the Uniform
22 System of Accounts of the Federal Energy Regulatory Commission (“FERC”), as
23 required by AAC R14-2-312.G.2.

24
25 **Q. Have there been any significant changes to UNS Gas’ accounting policies or**
26 **principles since the test year ended June 30, 2008 in UNS Gas’ last rate case?**

27 A. Yes. UNS Gas adopted the following:

- 1 • Derivatives: UNS Gas enters into derivatives such as forward gas purchases and
2 gas swaps, creating price stability and reducing exposure to natural gas price
3 volatility that may result in delayed recovery under the PGA. Beginning in
4 December 2008, unrealized gains and losses are recorded as either a regulatory
5 asset or regulatory liability, because the UNS Gas' Purchased Gas Adjustor
6 ("PGA") mechanism permits the recovery of the prudent cost of hedging
7 contracts.
- 8 • Subsequent Events: Effective June 2009, UNS Gas implemented the accounting
9 guidance related to accounting for and disclosure of events that occur after the
10 balance sheet date but before the financial statements are issued. The
11 implementation of this guidance expanded certain disclosure but did not have an
12 impact on UNS Gas' financial statements.

13
14 **Q. Have the financial statements been audited?**

15 A. Yes. PricewaterhouseCoopers LLP (Independent Certified Public Accountants) have
16 performed an audit annually since UNS Gas inception in 2003.

17
18 **Q. Please describe Schedule E-1.**

19 A. Schedule E-1 contains the comparative balance sheets of UNS Gas as of December 31,
20 2010, test year end, and the balances at December 31, 2009 and 2008.

21
22 **Q. Please describe Schedule E-2.**

23 A. This schedule sets forth comparative income statements for the test-year ended December
24 31, 2010 and the two prior calendar years. The income statement for the test-year
25 supports the actual test period income statement shown on Schedules C-1 and C-2.

26
27

1 **Q. Please describe Schedule E-3.**

2 A. This schedule presents the comparative statements of cash flows for the test-year ended
3 December 31, 2010 and the two prior calendar years.

4
5 **Q. Please describe Schedule E-4.**

6 A. This schedule reports the changes in the various elements of stockholder's equity (deficit)
7 during each year in the period January 1, 2008 through December 31, 2010.

8
9 **Q. Please describe Schedule E-6.**

10 A. Schedule E-6 contains Operating Income Statements for the test-year ended December
11 31, 2010 and the two prior calendar years. Retail revenues are reported by rate class.
12 Operating Expenses are reported by major category.

13
14 **Q. Please describe Schedule E-7.**

15 A. This schedule reports key gas operating statistics, in a comparative format, for the test-
16 year ended December 31, 2010 and the two prior calendar years.

17
18 **Q. Please describe Schedule E-9.**

19 A. This schedule is intended to disclose important facts required for a proper understanding
20 of the financial statements. A summary of the UNS Gas' significant accounting policies
21 is set forth in Note 2 of the Notes to Financial Statements in UNS Gas' audited financial
22 statements for the year ended December 2010, included at Schedule E-9.

23
24 **Q. Does this conclude your direct testimony?**

25 A. Yes it does.

26

27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS
GARY PIERCE - CHAIRMAN
BOB STUMP
SANDRA K. KENNEDY
PAUL NEWMAN
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

Direct Testimony of

Gail K. Boswell

on Behalf of

UNS Gas, Inc.

April 8, 2011

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Pro Forma Adjustments	2
III.	Rate Base Adjustment.....	4
	A. Accumulated Deferred Income Tax.....	4
IV.	Operating Income Adjustments	7
V.	Schedules E-5 and E-8	8

1 **I. INTRODUCTION.**

2
3 **Q. Please state your name and address.**

4 A. My name is Gail K. Boswell and my business address is 4350 East Irvington Road,
5 Tucson, Arizona, 85714.
6

7 **Q. By whom are you employed and what is your position?**

8 A. I am Assistant Treasurer and Manager of Tax Services for UniSource Energy Corporation
9 (“UniSource Energy”). I am also Assistant Treasurer of UNS Gas, Inc. (“UNS Gas” or
10 the “Company”), an indirect subsidiary of UniSource Energy.
11

12 **Q. What are your duties and responsibilities as Assistant Treasurer and Manager of**
13 **Tax Services?**

14 A. My present areas of responsibility include internal and external financial reporting, tax
15 planning, and tax compliance reporting.
16

17 **Q. Would you please describe your education, background and experience?**

18 A. I have 28 years of experience in utility accounting and taxation. I received a Bachelor of
19 Arts Degree in Accounting from Michigan State University in 1976. I received a Masters
20 of Accounting with a Concentration in Taxation from San Diego State University in
21 1992. I am a Certified Public Accountant licensed to practice in the states of Arizona and
22 California. I am a member of the American Institute of Certified Public Accountants. I
23 joined Tucson Electric Power Company (“TEP”)¹ in 1997. Before that, I was employed
24 by Sierra Pacific Power Company and San Diego Gas & Electric in their accounting and
25 tax departments from 1981 to 1997. Since 1997, I have been employed by TEP, first as
26 Tax Research Coordinator before I was promoted to Manager of Tax & Plant
27

¹ TEP is a subsidiary of UniSource Energy Corporation and an affiliate of UNS Gas, Inc.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

Accounting. I left TEP in 2006 and returned in 2008 as the Manager of Tax Services. I was named Assistant Treasurer of UNS Gas when it was formed in 2003, and I resumed that position when I returned to TEP in 2008.

Q. What is the purpose of your Direct Testimony in this proceeding?

A. My direct testimony supports UNS Gas' rate request in this proceeding. I am the sponsoring witness for the utility plant and tax data reflected in UNS Gas' rate case Application included on Schedules E-5 and E-8. I also sponsor the depreciation, property tax and the income tax pro forma adjustments in Schedules B and C.

II. PRO FORMA ADJUSTMENTS.

Q. Please explain the consideration of pro forma adjustments in the rate case process.

A. Public utility rates are based on the reasonable and prudently-incurred costs of providing safe, reliable service. The revenue requirement underlying rates is developed on the basis of a test year that reflects a level of operating revenues and expenses and net plant investment that is representative of normal conditions that may be expected to exist during the time that resulting rates will be in effect. The revenue requirement calculation also contains a component that is intended to afford the utility a reasonable opportunity to achieve a fair rate of return, as authorized by the respective regulatory authority.

Pro forma adjustments are made to recorded test-year amounts that are not required for the provision of service or that are not representative of the levels expected to occur during the period in which the new rates will be in effect. Such adjustments may be made in the form of eliminations, annualizations, or normalizations.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

Elimination adjustments are made to remove out-of-period or non-recurring transactions, or items that are not costs or revenues related to the provision of utility service; thus, not eligible for reflection in revenue requirements.

Annualization adjustments are made to reflect the full, 12-month revenue or expense level of certain components of operating income. Annualization adjustments are typically computed using end-of-test-year quantities and the most current known and measurable prices and rates. Examples in this case include restating test year operating revenues to reflect customer levels at the end of the test-year, adjusting payroll expense to reflect current salary rates and changes in employee levels during the test-year, and adjusting recorded depreciation expense to reflect the full effect of plant additions and retirements during the test year.

Normalization adjustments reflect that the recorded test-year operating revenues and expenses may not be representative of a normal level for ratemaking purposes. Certain events may have affected recorded transactions in an atypical manner. Moreover, some transactions eligible for reflection in revenue requirements are incurred at intervals less frequent than annually, provide benefits extending beyond a single year, or reoccur in significantly different amounts each year. As a result, the amounts recorded in the test year may not be viewed as "normal," thus requiring a restatement for ratemaking purposes. Normalization adjustments are made in such instances when a test-year level of revenues or expenses is not representative of what would be expected on an on-going basis. Examples in this case include the adjustment for bad debt expense and the overtime factor implicit in the payroll adjustment.

1 Q. Were the pro forma adjustments that you are sponsoring in your testimony
2 prepared by you or under your supervision?

3 A. Yes, they were.
4

5 Q. Have the pro forma adjustments for which you are responsible in this rate filing
6 been computed in accordance with sound ratemaking principles and all applicable
7 rules and policies of the Arizona Corporation Commission (“Commission”)?

8 A. Yes. To the best of my knowledge, all of the adjustments that I am sponsoring have been
9 so calculated.
10

11 **III. RATE BASE ADJUSTMENT.**

12
13 **A. Accumulated Deferred Income Tax.**
14

15 Q. Please explain the Accumulated Deferred Income Tax adjustment.

16 A. The adjustment reduces rate base for the computed balance of Accumulated Deferred
17 Income Taxes (“ADIT”), a source of non-investor capital, based on adjusted test-year rate
18 base and operating results, and the Company’s existing income tax ratemaking authority.
19

20 Q. What are deferred income taxes?

21 A. Deferred income taxes represent the tax effect of differences that arise between the time
22 period when revenues and expenses are recognized for financial reporting purposes and
23 when they are considered for income tax return purposes. For public utilities, the largest
24 such difference is that which exists as a result of the use of accelerated methods and
25 shorter lives in computing tax depreciation as compared with the manner in which book
26 depreciation is computed. The process of apportioning income taxes among accounting
27

1 periods is referred to as “interperiod tax allocation.” For this purpose, it is useful to
2 distinguish between “timing differences” and “permanent differences.”

3
4 Timing differences represent differences between book income before income taxes and
5 taxable income which originate in one or more periods, and reverse or turn around, in one
6 or more subsequent periods. Because of their capital intensity, the difference between
7 book and tax depreciation is typically the largest timing difference affecting public
8 utilities. Expenses that are deducted by utilities currently for tax purposes, but deferred
9 on the books as regulatory assets for future recognition in rates is another example of a
10 timing difference.

11
12 Permanent differences exist between book income and taxable income, and do not
13 reverse in subsequent periods. Examples of permanent differences include non-taxable
14 interest income from municipal bonds and non-deductible lobbying expenses.

15
16 Deferred income taxes are computed for timing differences, but not for permanent
17 differences. The typical accounting for deferred taxes involves recognition of a deferred
18 income tax provision (expense) on the income statement for the tax effect of the timing
19 differences, with a corresponding entry made to a balance sheet accumulated deferred
20 income tax reserve account. As the timing differences reverse over time, the deferred tax
21 component of income tax expense becomes negative and balance of the reserve account
22 is extinguished.

23
24 **Q. How do deferred income taxes affect public utility ratemaking?**

25 A. The reflection of deferred income taxes in ratemaking is labeled “normalization.” Some
26 regulatory bodies permit utilities to recognize deferred income taxes associated with all
27 book-tax timing differences in ratemaking (“full normalization”), while others only

1 permit the recognition of certain timing differences required by the Internal Revenue
2 Code to be recognized in utility ratemaking (“partial normalization”). To the extent that
3 normalization is permitted in ratemaking, the resulting deferred income taxes are
4 reflected as a component of income tax expense, with the corresponding balance sheet
5 reserve for accumulated deferred taxes deducted from rate base as non-investor capital,
6 reflecting the availability of such amounts for plant investment or operating purposes
7 between the time they are collected from customers and ultimately remitted to taxing
8 authorities.

9
10 **Q What income tax ratemaking authority has been granted to UNS Gas?**

11 **A.** Citizens Communications Company (“Citizens”) operated various properties throughout
12 the state of Arizona, each having its separate designated service territory, rate schedules
13 and service rules. For gas operations, Citizens operated under separate divisions in
14 northern Arizona and southern Arizona. The Santa Cruz Gas Division, which was based
15 in Santa Cruz County, Arizona, was authorized full normalization in Decision No. 53103
16 (July 8, 1982). The pro forma income tax expense calculations prepared in connection
17 with the 1996 Citizens Northern Arizona Gas Division rate case, Decision No. 59875
18 (October 29, 1996), and also those prepared for the Citizens gas rate cases in progress at
19 the time of the asset purchase approved in Decision No. 66028 (July 3, 2003), clearly
20 indicate the use of a full normalization of all book–tax timing differences. For
21 ratemaking purposes, both of the gas plant properties acquired from Citizens have been
22 permitted to provide deferred income taxes in rate making for all timing differences. In
23 Decision No. 66028, the Commission also approved all of the gas divisions being
24 combined into one entity for ratemaking purposes. No changes were made to this
25 income tax authority in UNS Gas’s last two rate orders, Decision No. 70011 (November
26 27, 2007) and Decision No. 71623 (April 14, 2010). The ADIT reflected in this filing
27 has prepared on a basis consistent with prior filings.

1 **Q. How was the tax cost of the gas plant assets determined in connection with**
2 **computing the ADIT balance deducted from rate base as of the end of the test-year?**

3 A. As I mentioned, in accordance with the Settlement Agreement approved by Decision No.
4 66028, the two Citizens gas divisions were merged into a single entity, UNS Gas. Upon
5 their acquisition by UniSource Energy, a new tax basis reflecting the actual amounts paid
6 for the acquired assets was established. For rate making purposes, such tax basis is
7 adjusted to reflect the fixed acquisition discount established by the Commission in
8 Decision No. 66028. Upon acquisition of the assets by UNS Gas from Citizens, all book-
9 tax timing differences arising since that time have been fully normalized by UNS Gas,
10 consistent with the prior rate treatment afforded to the assets when owned by Citizens.

11

12 **IV. OPERATING INCOME ADJUSTMENTS.**

13

14 **Q. Please explain the Depreciation Expense adjustment.**

15 A. The Depreciation Expense adjustment is a pro forma adjustment to operating expense to
16 reflect annual depreciation based on depreciable plant in service as of the end of the test
17 year, and book depreciation rates as presented in the Direct Testimony of witness Dr.
18 Ronald E. White. In addition, the calculation of the adjustment properly considers the
19 effects of depreciation associated with vehicles that are charged to clearing accounts or
20 expense categories other than depreciation.

21

22 **Q. Please explain the Property Tax adjustment.**

23 A. The Property Tax adjustment is a pro forma adjustment to test-year operating expenses to
24 reflect the final, adjusted plant in service at the end of the test-year, using the 2012
25 statutory assessment ratio of 20.0%, and the most currently known average property tax
26 rates. To the extent that more current average tax rate information becomes available

27

1 during the conduct of this rate case, the Company will update that part of the tax
2 adjustment.

3
4 **Q. Please explain the Income Tax Expense adjustment.**

5 A. The Income Tax Expense adjustment is a pro forma adjustment to test-year operating
6 expenses to reflect income taxes based on final adjusted operating revenues, operating
7 expense, and rate base. It is computed in two parts. The first part is pro forma current
8 income tax expense, the tax liability computed as though an actual income tax return was
9 being prepared on final adjusted test-year taxable operating income. For this purpose, it
10 was necessary to identify all operating book-tax differences (“Schedule M items”), both
11 timing and permanent, and then recompute based on adjusted test-year operating
12 revenues and expenses, if necessary. The tax deduction for interest was computed using a
13 synchronization methodology reflecting final adjusted rate base and the weighted cost of
14 debt in the capital structure. This methodology is consistent with the methodology
15 approved by the Commission in UNS Gas’ 2010 rate case order (Decision No. 71623).

16
17 The second part of the income tax calculation is deferred income tax expense. Deferred
18 income taxes are computed on the Schedule M items representing timing differences for
19 which the Company has obtained normalization ratemaking authority from the
20 Commission as previously described in my direct testimony.

21
22 **V. SCHEDULES E-5 AND E-8.**

23
24 **Q. Please explain the Company’s “E” Schedules in its filing.**

25 A. These schedules, as is the same for all other sections of this rate case filing, were
26 prepared in accordance with the filing requirements contained in the Arizona
27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

Administrative Code (“AAC”) R14-2-103. Schedules E-5 and E-8 contain financial data extracted from the Company’s regulatory books of account.

Q. On what basis are the regulatory books of account of UNS Gas maintained?

A. The Company’s regulatory books of account are maintained in accordance with the Uniform System of Accounts of the Federal Energy Regulatory Commission (“FERC”), as required by AAC R14-2-312.G.2.

Q. Have there been any significant changes to the Company’s utility plant accounting policies or principles since the test year in UNS Gas’ last rate case?

A. No.

Q. Has the utility plant information been audited?

A. Yes. Financial statements for calendar years 2003 (from inception date) through 2010 have been audited by the firm of PricewaterhouseCoopers LLP (Independent Certified Public Accountants).

Q. Please describe Schedule E-5.

A. Page 1 of Schedule E-5 presents a summary of the balances in the various gas utility plant account categories and accumulated depreciation at December 31, 2010 and December 31, 2009, and the net changes therein during the year ended December 31, 2010, with plant in service presented on a functional basis. Pages 2, 3 and 4 of Schedule E-5 present the same information on a more detailed basis, by individual gas plant account.

1 **Q. Please describe Schedule E-8.**

2 A. This schedule shows the taxes charged to operating expenses by tax type for the test-year
3 ending December 31, 2010 and the two prior calendar years ended December 31, 2009
4 and December 31, 2008.

5

6 **Q. Does this conclude your Direct Testimony?**

7 A. Yes, it does.

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

- GARY PIERCE - CHAIRMAN
- BOB STUMP
- SANDRA K. KENNEDY
- PAUL NEWMAN
- BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

Direct Testimony of

Kentton C. Grant

on Behalf of

UNS Gas, Inc.

April 8, 2011

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Financial Condition of UNS Gas	4
III.	Capital Structure	8
IV.	Cost of Debt Capital.....	9
V.	Weighted Average Cost of Capital	10
VI.	Rate of Return on Fair Value Rate Base	10
VII.	Cost of Credit Support for Natural Gas Procurement.....	15
VIII.	Summary of Schedules	18
	A. Schedules A-3 and A-4	18
	B. Schedules D-1 through D-4	18
	C. Schedules F-1 through F-4.....	19
	<u>Exhibits</u>	
	Exhibit KCG-1 Report by Moody's Investors Service dated July 22, 2010	
	Exhibit KCG-2 Required Yield-to-Maturity on Long-Term Utility Bonds	
	Exhibit KCG-3 Required Yield on 30-Year TIPS Securities	
	Exhibit KCG-4 Calculation of Fair Value Rate of Return	
	Exhibit KCG-5 Credit Support Provided for Natural Gas Procurement	

1 **I. INTRODUCTION.**

2
3 **Q. Please state your name and business address.**

4 A. My name is Kentton C. Grant. My business address is One South Church Avenue,
5 Tucson, Arizona, 85701.
6

7 **Q. What is your employment position?**

8 A. I am Vice President of Finance and Rates for UniSource Energy Corporation
9 (“UniSource Energy”). I also serve as a Vice President for Tucson Electric Power
10 Company (“TEP”), UNS Electric, Inc. (“UNS Electric”) and UNS Gas, Inc. (“UNS Gas”
11 or the “Company”). In my current role I am responsible for providing financial and
12 regulatory support services to UniSource Energy and its regulated utility subsidiaries,
13 which include UNS Gas, UNS Electric and TEP.
14

15 **Q. Please summarize your professional experience and education.**

16 A. I received a Master of Business Administration degree with a concentration in finance
17 from the University of Texas at Austin, as well as a Bachelor of Science degree in Civil
18 Engineering from Purdue University. I am a member of the Chartered Financial Analyst
19 (“CFA”) Institute, and in 1995, I was awarded the professional designation of CFA. I am
20 also a member of the Society of Utility and Regulatory Financial Analysts, and in 1992, I
21 was awarded the designation of Certified Rate of Return Analyst (“CRRA”).
22

23 From 1984 to 1995, I was employed by the Public Utility Commission of Texas. During
24 this period I served in various staff positions, including Director of the Financial Review
25 Division. In that role I directed a staff responsible for performing financial analyses,
26 accounting reviews and management audits of electric and telecommunications utilities.
27 As a staff member, I provided expert testimony on a variety of financial topics including

1 the cost of capital, financial integrity, rate moderation and the valuation of utility
2 properties.

3
4 I joined TEP in 1995 as a senior financial analyst. In 1997, I was promoted to Director of
5 Capital Resources and elected Assistant Treasurer. I was subsequently promoted to
6 Manager of Financial Planning and in 2003, became a General Manager in TEP's Shared
7 Services Unit. In January 2007, I was elected Vice President of Finance and Rates for
8 both TEP and UniSource Energy, and in 2010 I was named Treasurer for both TEP and
9 UniSource Energy Services ("UES"). In these roles I have gained extensive experience
10 in financial forecasting, financial analysis, the structuring of financing transactions and
11 other related activities.

12
13 **Q. What is the purpose of your Direct Testimony?**

14 **A.** In my Direct Testimony I support UNS Gas' request for a rate increase by: (i) providing
15 an overview of the Company's financial condition; (ii) recommending an appropriate cost
16 of debt and capital structure for UNS Gas; (iii) determining the Company's weighted
17 average cost of capital ("WACC") using the cost of equity capital recommended by UNS
18 Gas witness Dr. Samuel C. Hadaway; and (iv) recommending an appropriate rate of
19 return ("ROR") on the Company's fair value rate base ("FVRB"), which I also refer to as
20 the fair value rate of return ("FVROR"). Additionally I describe the wholesale credit
21 support required to carry out the Company's natural gas procurement program, and
22 quantify that cost for purposes of rate recovery. Finally, I sponsor several schedules
23 including Schedule A-3 (Summary Capital Structure), Schedule A-4 (Construction
24 Expenditures and Gross Plant in Service), the "D" Schedules (Cost of Capital
25 Information) and the "F" Schedules (Projections and Forecasts) that were filed in support
26 of UNS Gas' rate request.

27

1 **Q. Please summarize your recommendations concerning the cost of capital and**
2 **FVROR for UNS Gas.**

3 A. With regard to the Company's cost of capital, I calculate the weighted average cost to be
4 8.65%. This WACC is based on a 6.74% cost of long-term debt, a capital structure
5 consisting of 49.18% long-term debt and 50.82% common equity, and a 10.50% cost of
6 common equity capital as determined by UNS Gas witness Dr. Samuel C. Hadaway.

7

8 With regard to the FVROR, I recommend a value of 6.81% based on the methodology
9 that was adopted by the Arizona Corporation Commission ("Commission") in Decision
10 No. 70665 (December 24, 2008) involving Southwest Gas Corporation. Although the
11 Commission has used alternative methodologies in other utility rate proceedings¹, this
12 FVROR, when applied to the Company's FVRB of approximately \$254 million, should
13 enable UNS Gas to attract capital on reasonable terms and provide the Company with a
14 reasonable opportunity to earn its cost of capital.

15

16 **II. FINANCIAL CONDITION OF UNS GAS.**

17

18 **Q. Please describe UNS Gas' current financial condition.**

19 A. UNS Gas has a healthy mix of debt and equity capital, with 51% of its capital structure
20 comprised of common equity. Due to reduced growth in the Company's service area,
21 UNS Gas also has a manageable capital budget that can be funded largely with internal
22 cash flow. However, sales growth has not kept pace with the Company's cost of service.
23 As shown in the table below, UNS Gas has not been able to earn its authorized return on
24 equity ("ROE") since the Company was formed in August 2003 when it acquired the
25 Arizona gas system previously owned by Citizens Communications Company. As a
26

26

27

¹ See Commission Decision Nos. 70441 (July 28, 2008, Chaparral City Water Company) and 71308 (October 21, 2009, Chaparral City Water Company).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

result, the Company has had to file three different rate cases with the Commission over the past five years.

	Authorized ROE ¹	Earned ROE ²
2004	11.0%	10.2%
2005	11.0%	7.3%
2006	11.0%	5.4%
2007	10.0%	4.6%
2008	10.0%	9.2%
2009	10.0%	7.3%
2010	9.5%	8.4%

1. Authorized ROE from last Commission rate order.
2. Earned ROE = Net Income / Average Common Equity Balance.

- Q. Are there any consequences associated with persistent under-earning?**
- A. Yes. The most obvious consequence is the reduced incentive to invest additional equity capital in the business. UNS Gas and its ultimate parent company, UniSource Energy, must compete with other utilities for investor capital. When the returns available to utility investors are higher elsewhere, this puts UNS Gas at a distinct competitive disadvantage. Since the alternative to equity capital is additional debt capital, which puts pressure on a company's credit rating and cost of debt, it is important to allow utilities an opportunity to earn a ROE that is commensurate with the returns required by investors in that industry.

1 **Q. Are the debt obligations of UNS Gas rated by any of the major credit rating**
2 **agencies?**

3 A. Yes. The senior unsecured debt obligations of UNS Gas are rated Baa3 by Moody's
4 Investors Service ("Moody's"). A copy of the latest ratings report from Moody's is
5 attached to my direct testimony as Exhibit KCG-1.
6

7 **Q. What is the significance of a Baa3 credit rating?**

8 A. Baa3 is the lowest investment-grade credit rating assigned by Moody's; it is just one
9 notch above the speculative-grade rating of Ba1. Since the cost and availability of credit
10 are much improved for companies with investment-grade ratings relative to companies
11 having speculative-grade ratings, it is important for UNS Gas to maintain and hopefully
12 improve its credit rating over time.
13

14 **Q. Why is the maintenance of an investment-grade credit rating important to the**
15 **Company and its customers?**

16 A. An investment-grade credit rating is important for two reasons. First, it helps to ensure
17 that capital can be raised on reasonable terms even during periods of stress in the
18 financial markets. During periods of financial stress, when investor risk aversion is at its
19 highest, many companies with speculative-grade credit ratings will either be shut out of
20 the credit markets or will be forced to pay extremely high rates of interest on new
21 borrowings. Even in good times, investment-grade borrowers still enjoy a significant
22 discount on their borrowing costs relative to speculative-grade borrowers. This
23 difference in borrowing costs can clearly be seen in Exhibit KCG-2, which compares the
24 average yield-to-maturity on 20-year utility bonds having investment-grade ratings of
25 "Baa" from Moody's or "BBB" from Standard & Poor's with the required yields on
26 speculative-grade bonds having ratings of "Ba" from Moody's or "BB" from Standard &
27 Poor's. In late 2008 the average required yield on a "BB" rated utility bond increased to

1 nearly 12% while the required yields on "BBB" rated utility bonds remained much lower
2 at 7% to 8% on average. Even in the current interest rate environment, the cost
3 differential between investment-grade and speculative-grade bonds can have a significant
4 impact on the cost of capital. For utilities, this cost differential is ultimately passed onto
5 customers through the rate setting process after new long-term debt is issued.

6
7 Secondly, an investment-grade credit rating is also important in obtaining trade credit
8 from gas suppliers and other vendors that UNS Gas does business with. As described in
9 Section VII of my Direct Testimony, the maintenance of adequate trade credit is essential
10 to the Company's natural gas procurement program and the purchasing of other goods
11 and services needed to provide retail gas service. Without such trade credit, the
12 Company would either have to curtail purchases of natural gas in the forward markets or
13 would have to provide additional letters of credit and cash collateral to suppliers at
14 substantial cost to UNS Gas and its customers. Since forward gas purchases help to
15 stabilize the cost of gas supplied to and paid for by customers of UNS Gas, it is important
16 for the Company to maintain and hopefully improve its credit rating over time.

17
18 **Q. Will the Company enter the capital markets in the near future?**

19 **A.** Yes. The 2003 Series A notes that were issued by UNS Gas in conjunction with its
20 purchase of gas properties from Citizens Communications are maturing in August 2011.
21 These notes, which total \$50 million in principal amount and carry a 6.23% interest rate,
22 will need to be refinanced by UNS Gas well before the August maturity date.
23 Consequently, maintaining an investment-grade rating will be important to the successful
24 pricing and placement of these new notes with investors.

25
26
27

1 **III. CAPITAL STRUCTURE.**

2

3 **Q. Please describe the capital structure for UNS Gas as of the end of the test-year.**

4 A. The capital structure for UNS Gas as of December 31, 2010 consisted of \$100 million
5 principal amount of long-term debt and approximately \$103 million of common equity.
6 After adjusting for unamortized debt issuance expenses, the long-term debt balance as of
7 December 31, 2010 was \$99.3 million. As reflected in the following table, the
8 Company's test-year capital structure consisted of 49.18% long-term debt and 50.82%
9 common equity:

10

	(\$ Thousands)	<u>12/31/10</u>	<u>% of Total</u>
	Long-Term Debt	\$99,310	49.18%
	Common Equity	102,620	50.82%
	Total Capital	<u>\$201,930</u>	<u>100.00%</u>

14

15 **Q. Do you recommend using the actual test-year capital structure for rate setting**
16 **purposes?**

17 A. Yes, I do. A 51% ratio of common equity to total capital is in line with industry norms and
18 very nearly approximates the capital structure adopted by the Commission in the
19 Company's last rate proceeding (Docket No. G-04204A-08-0571). Additionally, this level
20 of equity will also support UNS Gas' efforts to maintain its investment-grade credit rating.

21

22 **Q. What capital structure did the Commission adopt in the Company's last rate case?**

23 A. The Company's last rate order reflected the actual test-year capital structure as of June
24 30, 2008, which consisted of 50.01% long-term debt and 49.99% common equity.

25

26

27

1 **IV. COST OF DEBT CAPITAL.**

2
3 **Q. What was UNS Gas' embedded cost of debt for the test-year?**

4 A. As shown on page 1 of Schedule D-2 in the Company's Application, the weighted
5 average cost of debt for UNS Gas for the full test-year was 6.52%. However, due to the
6 refinancing of the Company's credit facility in November 2010, by the end of the test-
7 year the annualized cost of debt for UNS Gas was modestly higher at 6.74%. The
8 Company's previous credit facility, which was set to expire in August 2011, was
9 arranged at a time when bank credit was much less expensive than it is today.

10

11 **Q. What cost of debt do you recommend in this case?**

12 A. I recommend use of the 6.74% cost at the end of the test-year. This cost reflects the
13 interest rate of 6.23% on the two long-term notes issued by UNS Gas in 2003, the
14 amortization of related debt issuance costs, and 50% of the issuance cost amortization
15 and commitment fees on the new revolving credit facility shared with UNS Electric.
16 Although UNS Gas had no borrowings outstanding on the revolving credit facility at the
17 end of the test-year, maintenance of this facility is critical for purposes of funding
18 seasonal working capital needs, financing temporary balances of under-recovered natural
19 gas costs under the Company's Purchased Gas Adjustor ("PGA") mechanism, providing
20 required credit support to wholesale natural gas suppliers, and funding a portion of capital
21 expenditures from time to time. As such, it is appropriate to reflect the annual fixed cost
22 of this facility in the cost of debt for UNS Gas. This is the same approach that the
23 Commission approved in the previous two UNS Gas rate cases.

24

25

26

27

1 **Q. Is the cost of debt for UNS Gas expected to change before the Commission renders a**
2 **decision on this rate application?**

3 A. Yes. As mentioned earlier, the Company will be refinancing \$50 million of long-term
4 notes maturing in August of 2011. When the final terms of that financing transaction are
5 known, the cost of debt for UNS Gas can be adjusted accordingly.

6
7 **V. WEIGHTED AVERAGE COST OF CAPITAL.**

8
9 **Q. Please summarize your findings regarding the weighted average cost of capital for**
10 **UNS Gas.**

11 A. Based on the recommended capital structure, the proposed cost of debt, and UNS Gas'
12 cost of equity capital as determined by UNS Gas witness Dr. Samuel C. Hadaway, I
13 recommend the Commission adopt a WACC of 8.65%, calculated as follows:

14
15

	<u>% of Capital Structure</u>	<u>Component Cost</u>	<u>Weighted Average Cost</u>
Long-Term Debt	49.18%	6.74%	3.31%
Common Equity	50.82%	10.50%	5.34%
Total	100.00%		8.65%

16
17

18 **VI. RATE OF RETURN ON FAIR VALUE RATE BASE.**

19
20 **Q. What methodology did you use to determine the FVROR on FVRB?**

21 A. I applied the same methodology that was adopted by the Commission in the December
22 2008 rate order for Southwest Gas Corporation, Decision No. 70665. This same
23 methodology was also recommended by the Commission Staff in the last UNS Gas rate
24 case.

25
26
27

1 **Q. Please describe this methodology.**

2 A. This methodology relies on a weighted average approach that takes into account the
3 difference between the Company's original cost rate base ("OCRB") and its proposed
4 FVRB.² This difference, which has been referred to as the "fair value increment" in
5 recent Commission rate proceedings, is used to derive an adjusted capital structure for the
6 Company. A weighted average return requirement is then calculated using this adjusted
7 capital structure, the Company's cost of debt, the Company's cost of equity, and the real
8 risk-free rate of return required by investors on a risk-free investment. This weighted
9 average return requirement, the calculation of which is presented in Exhibit KCG-4,
10 represents the FVROR proposed by UNS Gas.

11

12 **Q. How did you calculate the adjusted capital structure shown on Exhibit KCG-4?**

13 A. First I multiplied the Company's OCRB by each of the capital structure weightings
14 recommended in Section III of my Direct Testimony, 49.18% long-term debt and 50.82%
15 common equity, to obtain the respective dollar amounts of debt and equity financed
16 OCRB. I then calculated the difference between the Company's OCRB and FVRB,
17 otherwise known as the fair value increment, which is \$70 million. This fair value
18 increment was then added to the debt financed OCRB and the equity financed OCRB, the
19 grand total of which equals the Company's proposed FVRB of \$254 million. Finally, I
20 divided each of these adjusted capital structure components by the FVRB to determine
21 the percentage of FVRB allocable to debt financed OCRB (35.58%), equity financed
22 OCRB (36.77%), and the fair value increment (27.65%). These percentage values, which
23 sum to 100%, represent the adjusted capital structure used to calculate the recommended
24 FVROR.

25

26

27

² Calculation of the FVRB of \$254 million is discussed in the Direct Testimony of UNS Gas witness Dallas J. Dukes.

1 **Q. Why did you adjust the Company's capital structure in this manner?**

2 A. This method of capital structure adjustment is identical to that approved by the
3 Commission in Decision No. 70665 for Southwest Gas Corporation, as well as the
4 method proposed by the Commission Staff in UNS Gas' last rate proceeding. The
5 rationale for making such an adjustment is that the fair value increment of rate base can
6 be viewed as having a different return requirement relative to the debt financed OCRB
7 and the equity financed OCRB.

8

9 **Q. What return requirement did you assign to the fair value increment of rate base?**

10 A. As discussed in Decision No. 70665 for Southwest Gas Corporation, Staff's FVROR
11 methodology recommended a range of values to be applied to the fair value increment.
12 The Commission adopted Staff's alternate recommendation to award one-half the risk-
13 free rate (the mid-point of that range) in the Southwest Gas rate decision, which is a
14 return equal to 50% of the real risk-free rate of return. I am recommending that the full
15 risk-free rate be applied to the fair value increment for UNS Gas. Doing so will provide
16 UNS Gas with a better opportunity to actually earn its cost of capital going forward, to
17 maintain and potentially improve its credit standing, and to hopefully lengthen the time
18 period between this rate case and the Company's next rate application. As I discussed
19 earlier, UNS Gas has not been able to earn its authorized ROE since it was established in
20 2003, causing the Company to file three separate rate cases over the past five years in an
21 attempt to fully recover its cost of service. My estimate for the real risk-free rate, which I
22 applied to the fair value increment of rate base, is 2.0%.

23

24 **Q. How did you determine the real risk-free rate of return?**

25 A. I estimated the real risk-free rate of return, which reflects the required ROR on a risk-free
26 investment after adjusting for expected inflation, by observing required returns on long-
27 term U.S. Treasury Inflation-Protected Securities ("TIPS"). Since the principal balance

1 of a TIPS investment is adjusted to reflect changes in the Consumer Price Index (“CPI”),
2 and since interest payments are made on this adjusted principal balance every six months,
3 investors in TIPS are largely shielded from the effects of inflation. Further, because most
4 investors assign a very low probability of default to obligations issued by the United
5 States government, the observed market yield on a long-term TIPS security can be used
6 as a proxy for the real risk-free rate of return required by investors. Observed market
7 yields on long-term TIPS securities (20 and 30 year maturities) have remained fairly
8 stable over the past five years, generally ranging from 1.5% to 2.5%. Conversely, the
9 required yields on short-term and intermediate-term TIPS securities have fluctuated much
10 more widely, and are therefore of questionable value when estimating the real risk-free
11 ROR. Based on an average of observed yields on 30-year TIPS securities for the months
12 of January and February 2011, I used 2.0% as an estimate of the real risk-free rate in the
13 FVROR calculation described above. The required yields on 30-year TIPS securities for
14 all of 2010 and the first two months of 2011 may be seen in Exhibit KCG-3.

15
16 **Q. What FVROR are you recommending for UNS Gas?**

17 A. I recommend a FVROR of 6.81%. As may be seen in Exhibit KCG-4, a weighted
18 average return requirement was calculated using the adjusted capital structure described
19 above and the individual return requirements associated with the debt financed OCRB,
20 the equity financed OCRB and the fair value increment of rate base. The resulting
21 weighted average return requirement is 6.81%.

22
23 **Q. Was this same methodology used to calculate the FVROR for UNS Gas in its last
24 rate case?**

25 A. No. In that case the FVROR was calculated by subtracting an estimate of inflation from
26 the WACC determined by the Commission. The Commission’s Decision in that case
27 stated that “In this proceeding, we find that an unadjusted inflation factor should be

1 subtracted from the entire WACC, to afford appropriate recognition to the fact that
2 inflation exists in both the debt and equity components of the Company's capital
3 structure." (Decision No. 71623 at page 50.)
4

5 **Q. Why are you proposing a FVROR methodology that is different from what the**
6 **Commission adopted in the last UNS Gas rate case?**

7 A. Subtracting the full rate of inflation from the WACC in order to arrive at the FVROR is
8 theoretically flawed because it applies the inflation factor to the portion of the fair value
9 rate base that is stated on an original cost basis. The balance of utility plant included in
10 the Company's OCRB represents the depreciated original cost of the plant at the time it
11 was placed into service; it is therefore entirely unaffected by subsequent cost inflation.
12 The Company's FVRB as proposed in this rate case, and as determined by the
13 Commission in the two previous UNS Gas rate orders, is based on a traditional 50/50
14 weighting of OCRB and reconstruction cost new less depreciation ("RCND") rate base.
15 Therefore, the only portion of FVRB that is affected by inflation is the 50% of FVRB
16 derived from the RCND rate base. In short, applying a FVROR, determined by
17 subtracting the full rate of inflation from the WACC, to a FVRB that is one-half OCRB,
18 over-compensates utility customers for inflation. If the Commission desires to determine
19 the FVROR by adjusting the WACC for inflation, it should instead do so by applying one
20 of the methods previously adopted for Chaparral City Water Company ("Chaparral") in
21 Decision Nos. 70441 and 71308.
22

23 **Q. Please describe the FVROR methodologies adopted by the Commission in Decision**
24 **Nos. 70441 and 71308.**

25 A. In both decisions the Commission adjusted the WACC for inflation to arrive at the
26 FVROR; but the Commission did *not* subtract the full rate of inflation. In Decision No.
27 70441, this was done by reducing the only cost of equity capital by the estimated full rate

1 of inflation, leaving the cost of debt capital unchanged. In Decision No. 71308, an
2 adjustment was made by reducing the overall WACC by one-half of the estimated rate of
3 inflation. For a company such as UNS Gas that has nearly equal amounts of debt and
4 equity in its capital structure, the resulting FVROR would be nearly the same under either
5 approach.

6
7 **Q. Would these methodologies result in a higher FVROR than the 6.81% FVROR that**
8 **you are recommending for UNS Gas in this rate application?**

9 A. Yes, assuming a rate of inflation that is similar to rate of 2.25% that was used by the
10 Commission in the last UNS Gas rate case. Applying the same rate of inflation of
11 2.25%, and the WACC recommended in Section V of my Direct Testimony, the resulting
12 FVROR would be 7.50% under the methodology adopted in Decision No. 70441 and
13 7.53% under the methodology adopted in Decision No. 71308. In light of these results, I
14 believe the Company's proposed FVROR of 6.81% is a very reasonable and conservative
15 request.

16
17 **VII. COST OF CREDIT SUPPORT FOR NATURAL GAS PROCUREMENT.**

18
19 **Q. Does UNS Gas incur credit-related costs to support the procurement of natural gas**
20 **for retail customers?**

21 A. Yes. In addition to financing temporary under-collections of gas costs under the
22 Company's PGA mechanism, UNS Gas must also provide credit support to wholesale
23 suppliers from whom these natural gas purchases are made. This credit support may either
24 take the form of a letter of credit issued by a creditworthy bank, a deposit of cash collateral
25 in an escrow account, or under some circumstances a pre-payment of amounts owed to the
26 supplier. Credit support is often required to provide assurance to a wholesale counter-

27

1 party that UNS Gas will perform its obligation to purchase natural gas as specified by
2 contract.

3
4 **Q. Under what situations may wholesale credit support be required?**

5 A. It is customary for participants in the wholesale natural gas markets to set a credit limit for
6 each counter-party it does business with. Larger credit lines are typically extended to large
7 and highly-rated market participants, while credit lines are typically much smaller for
8 small companies having weaker credit ratings. When the credit exposure to a counter-
9 party exceeds the specified credit limit, a request for credit support is made. From the
10 standpoint of a seller of natural gas, credit exposure to a contracted buyer is typically
11 defined as the sum of (i) the receivable balance due from the buyer and (ii) the mark-to-
12 market value (positive or negative) of future sales specified under the contract. In the case
13 of UNS Gas, requests for credit support are received from sellers of natural gas whenever
14 their credit exposure to the Company exceeds the credit limit they have assigned to UNS
15 Gas. Although credit limits may be negotiated when a new business relationship is being
16 established or when a change in credit ratings occurs, the decision to extend credit is solely
17 at the discretion of the seller.

18
19 **Q. What level of credit support has UNS Gas been required to provide?**

20 A. Exhibit KGC-5 shows the historical level of credit support provided by UNS Gas since
21 January 2008. As may be seen, the Company was required to provide as much as \$26
22 million in credit support during the winter of 2008-2009 due primarily to falling natural
23 gas prices in the forward market as well as a seasonal increase in accounts payable to
24 natural gas providers. Credit support during that winter took the form of cash collateral
25 deposited with suppliers, letters of credit issued for the benefit of suppliers, and pre-
26 payments of amounts owed to the Company's largest supplier at that time. Since 2009 the
27 amount of credit support required from UNS Gas has been much less, averaging \$2.75

1 million during the test year ended December 31, 2010. This lower level of credit support
2 is due in part to more stable forward natural gas prices and greater diversification of
3 natural gas suppliers by UNS Gas.
4

5 **Q. What is the cost to UNS Gas when it provides credit support to a wholesale natural**
6 **gas supplier?**

7 A. Under UNS Gas' revolving credit facility, the Company is charged 2.50% on the face
8 value of any letter of credit backed by this facility. Additionally, a fronting fee of 0.20%
9 to 0.25% is payable to the named bank that issues the letter of credit on behalf of UNS
10 Gas. For cash collateral deposits or pre-payments to suppliers, the cost to the Company
11 is equal to LIBOR plus 2.50% for any borrowings made under the Company's revolving
12 credit facility. While interest income earned on the escrow account may offset a portion
13 of the LIBOR rate paid by the UNS Gas to the bank group, the rate earned on escrow
14 investments is typically lower than LIBOR and clearly does not cover the 2.50% credit
15 margin paid by the Company. Consequently, a cost rate of 2.50% represents a reasonable
16 and conservative estimate of the cost of providing wholesale credit support. Applying
17 this cost rate to the average test-year balance of \$2.75 million results in an annualized
18 cost of \$64,375.
19

20 **Q. What is your recommendation concerning the recovery of wholesale credit costs by**
21 **UNS Gas?**

22 A. I recommend that the estimated test-year cost of \$64,375 be included as an adjustment to
23 the Company's test-year operating expenses for purposes of rate recovery. This same
24 approach to recovery of wholesale credit support costs was recommended by the
25 Commission Staff and adopted by the Commission in UNS Electric's last general rate
26 case (Decision No. 71914).
27

1 **VIII. SUMMARY OF SCHEDULES.**

2
3 **A. Schedules A-3 and A-4.**

4
5 **Q. Please describe the information contained in Schedules A-3 and A-4.**

6 A. Schedule A-3 presents a summary of the capital structure, capital ratios and weighted cost
7 of capital for the years ending December 31, 2008 and December 31, 2009, and the test-
8 year ending December 31, 2010. Schedule A-3 also presents similar information on a
9 forecasted basis for the twelve months ending December 31, 2011.

10
11 Schedule A-4 provides historical and projected information relating to construction
12 expenditures, net plant in service and gross utility plant in service. The projected
13 information for the period 2011-2013 is consistent with Company's internal budget and
14 financial forecast. The values for net plant in service and gross utility plant are presented
15 on a regulatory accounting basis, which differs slightly from the presentation used in the
16 Company's audited financial statements and its financial forecast.

17
18 **B. Schedules D-1 through D-4.**

19
20 **Q. Please describe Schedule D in the Company's Application.**

21 A. Schedule D consists of four parts, Schedules D-1 through D-4.

22
23 Schedule D-1 contains the Company's actual and proposed capital structure and weighted
24 average cost of capital for the test-year ended December 31, 2010. This schedule also
25 contains projected information pertaining to the Company's capital structure and
26 weighted average cost of capital as of December 31, 2011.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

Schedule D-2 contains detailed information on UNS Gas' cost of long-term debt.

Schedule D-2, page 1, provides a calculation of the weighted average cost of long-term debt for the test-year ended December 31, 2010. Schedule D-2, page 2, contains a projection of the Company's cost of debt as of December 31, 2011.

Schedule D-3 indicates that UNS Gas had no preferred stock outstanding during the test-year, and that there are no plans to issue preferred stock.

Schedule D-4 contains the Company's estimated cost of equity capital as determined by UNS Gas witness Dr. Samuel C. Hadaway.

C. Schedules F-1 through F-4.

Q. Please describe Schedule F in the Company's Application.

A. Schedule F consists of four parts, Schedules F-1 through F-4.

Schedule F-1 contains a summary income statement and a return on common equity calculation for the test-year ended December 31, 2010. This same information is presented on a projected basis for the year ending December 31, 2011. Pursuant to Commission filing requirements, the projected year information is presented using two different rate assumptions: (i) a continuation of present rates; and (ii) an assumed implementation of proposed rates as of January 1, 2011.

Schedule F-2 contains a summary cash flow statement for the test-year ended December 31, 2010. This same information is presented on a projected basis for the year ending

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

December 31, 2011. The projected year information is presented using two different rate assumptions: (i) a continuation of present rates; and (ii) an assumed implementation of proposed rates as of January 1, 2011.

Schedule F-3 contains information on the Company's construction expenditures during the test-year ended December 31, 2010. This same information is presented on a projected basis for calendar years 2011, 2012 and 2013.

Schedule F-4 contains a description of key forecast assumptions used in preparing the projected information appearing in Schedules F-1 through F-3.

Q. Please comment on the projected information appearing in Schedules F-1 and F-2.

A. The financial projections that assume a continuation of current rates through December 31, 2011 are consistent with the Company's internal financial forecast. It should be noted that this forecast is based on numerous assumptions regarding sales growth, natural gas prices, operating and capital expenditure levels, and other factors that are subject to change over time. Additional financial projections are provided in Schedules F-1 and F-2 that assume implementation of the Company's requested rates beginning January 1, 2011. These additional projections are included for the purpose of complying with the Commission's rate filing requirements. Since it is unlikely the Company will be allowed to increase its rates before the end of 2011, projections assuming that the requested rates were implemented in January 2011 have limited analytical value.

Q. Does this conclude your Direct Testimony?

A. Yes, it does.

EXHIBIT

KCG-1

MOODY'S

INVESTORS SERVICE

Credit Opinion: UNS Gas, Inc.

Global Credit Research - 22 Jul 2010

Tucson, Arizona, United States

Ratings

Category	Moody's Rating
Outlook	Stable
Bkd Senior Unsecured	Baa3
Ult Parent: UniSource Energy Corporation	
Outlook	Stable
Sr Sec Bank Credit Facility	Ba1

Contacts

Analyst	Phone
Laura Schumacher/New York	212.553.3853
William L. Hess/New York	212.553.3837

Opinion

Rating Drivers

Regulated operations in historically challenging environment

Adequate gas cost recovery

Strong credit metrics

Cross-support within UES family

Constrained liquidity

Corporate Profile

UNS Gas, Inc. (UNSE: Baa3 senior unsecured (guaranteed), stable) is a gas utility serving approximately 146,000 retail customers in Arizona. UNSG and UNS Electric, Inc. (UNSE: Baa3 senior unsecured (guaranteed), stable), a regulated electric utility in Arizona, are both subsidiaries of UniSource Energy Services (UES) which is the guarantor. UES is a wholly owned subsidiary of UniSource Energy Corporation (UNS: Ba1 senior secured bank credit facility (security limited to stock of certain subsidiaries), stable), whose largest subsidiary is Tucson Electric Power (TEP: Baa3 Issuer Rating, stable), a regulated electric utility in Arizona.

SUMMARY RATING RATIONALE

UNSG's Baa3 senior unsecured rating reflects the historically challenging regulatory environment in Arizona, the relatively small size of the utility, and the interdependence that currently exists between UNSG and its affiliate UNSE as a result of their shared credit facility and parental guarantee from UES. The rating also reflects credit metrics which are expected to remain near the middle of the ranges indicated in Moody's August 2009 Rating Methodology for Regulated Electric and Gas Utilities (the Methodology) for Baa rated utilities.

DETAILED RATING CONSIDERATIONS

Challenging regulatory environment

UNSG is regulated by the Arizona Corporation Commission (ACC) an elected body that Moody's has historically viewed as being somewhat below average among U.S. state regulatory environments in terms of susceptibility to political influence, predictability and timeliness of rate decisions, ability to timely recover costs, and of overall supportiveness to credit quality.

In November 2008, UNSG filed a rate case requesting a \$9.5million (6%) rate increase predicated upon a June 2008 test year, an 11% ROE and an approximate 50% equity ratio. In April 2010, the ACC approved a \$3 million (2%) rate increase reflecting a 9.5% ROE and an approximate 50% equity ratio. The 17-month time frame of the rate case is roughly in-line with past ACC rate cases though it remains significantly longer than the roughly 12-month national average. This time frame also results in a test year ending almost two years before the rate case decision. The authorized ROE is approximately 50 bps lower than UNSG's previously allowed, and the staff recommend ROE of 10% and also somewhat lower than recent national averages for electric and gas utilities. However, UNSG's equity ratio is essentially unchanged and is modestly above the average allowed equity ratio in other recent rate cases throughout the country. Moody's expects further need for rate cases over the medium-term due to regulatory lag and on-going capital expenditures. The utility is not expected to earn its 9.5% allowed ROE unless it receives adequate and timely rate relief.

As part of its most recent request, UNSG asked for a phased-in increase to its fixed monthly customer charge from \$8.50 to \$14 over a three

year-period, this was intended to provide more predictable cash flow than an increase to volumetric rates. As part of its April 2010 order, the ACC increased the customer charge to \$10 per month, but did not approve UNSG's request for future increases. Much of the \$3 million approved rate increase will occur through the monthly customer charge. Although in UNSG's November 2007 decision, the ACC denied the company's request to establish a revenue decoupling mechanism, in February 2010, the ACC issued a Notice of Inquiry to explore the idea of decoupling in conjunction with energy efficiency programs, and has been conducting workshops to explore the topic. Moody's views decoupling mechanisms as credit supportive as they tend to reduce cash flow volatility associated with load fluctuations.

Effective recovery of purchased gas costs

UNSG has a gas cost recovery mechanism that appears to be functioning adequately. The Purchased Gas Adjustor mechanism may be changed monthly based on a comparison of rolling twelve-month average actual gas cost and gas costs in base rates, though there are limits to the levels of adjustments over a twelve month period. UNSG may also request a surcharge to recover deferred balances. As of March 31, 2010, UNSG had a \$5 million over recovered purchased gas costs balance included as a current liability.

Within the framework of Moody's August 2009 Rating Methodology for Regulated Electric and Gas Utilities (the Methodology), for Factor 1: Regulatory Framework, UNSG maps to a rating factor in the Ba range. The Ba rating reflects a regulatory environment with significant uncertainty and regulatory lag. For Factor 2: Ability to Recover Costs and Earn Returns, considering UNSG's ability to recover its costs for purchased gas on a relatively timely basis UNSG maps to a rating factor in the Baa range.

Credit metrics appropriate for rating

UNSG's credit metrics (calculated in accordance with Moody's standard analytical adjustments) generally map to the middle of the Baa rating ranges indicated in the Methodology. In general, Moody's expects UNSG's metrics to be moderately strong for its rating due to its weaker than average regulatory environment. In 2008 and 2009, metrics improved due to rate relief and cost management with some offset due to declining gas sales. Given the small rate increase approved in 2010, metrics are expected to remain near existing levels over the near-term.

Recovering economic environment in service territory

UNSG's service territory, which is predominately located within the northern half of Arizona, has been impacted by the economic downturn in the state including a 3.5% decline in sales from 2008 to 2009. Going forward, retail sales are expected to grow modestly, though sales growth is expected to be closely tied to economic recovery. Future rate adjustments may remain difficult to implement if the economy continues to experience slow growth. Within the framework of the Methodology, for Factor 3: Diversification - Market Position, UNSG's single-state service territory with a weak economic environment results in a score in the Ba range.

Cross support of debt within UES

The rating recognizes the position of UNSG and UNSE as indirect subsidiaries of UNS through UES. UES is an intermediate holding company with no operations or debt. Debt at UNSE and UNSG is guaranteed by UES, which creates cross-support. UES has not historically received any dividend payments from its utility subsidiaries. UNS has periodically contributed equity to UNSG in support of its capital program and to strengthen its balance sheet. In 2009, UNSG contributed about 54% of UES' operating income; UNSG's income contribution has trended down over time.

Liquidity Profile

UNSG's cash flow profile has generally been stable with operating cash flow approximately covering capital expenditures. In 2009, cash from operations of \$37 million covered all of its \$13.4 million capital expenditures with capital expenditures declining moderately due to flat customer growth. Over the near-term, capital expenditures of \$14-16 million annually are expected to continue to be funded roughly by cash flow from operations.

UNSG has two \$50 million issues of senior unsecured notes outstanding, one maturing in August 2011 and one maturing in 2015. UNSG's short term liquidity needs are supported by a joint UNSG/UNSE \$60 million credit facility which matures August 2011. Either borrower may borrow up to a maximum of \$45 million, so long as the combined amount does not exceed \$60 million. As of March 31, 2010, there were no amounts drawn on the facility but UNSE had \$16 million of letters of credit outstanding which reduced availability under the facility.

The UNSG/UNSE credit facility contains two financial covenants applicable to each borrower: for UNSE a maximum debt to capital ratio of 65% and a minimum interest coverage ratio of 2.25 times, for UNSG a maximum debt to capital ratio of 67%, and a minimum interest coverage of 2.25 times. As of March 31, 2010, the ratios were 52% and 4.92x at UNSE and 47.7% and 4.32x at UNSG. The credit facility requires a material adverse change (MAC) representation at each new borrowing. In Moody's opinion, the requirement of a MAC representation significantly increases the risk that the credit facility may not be available when liquidity needs are greatest.

Moody's assumes that UNSG will manage the amount of its near term obligations within the limits of its available sources of cash, including its committed bank credit facilities. Moody's generally believes appropriately sized utility credit facilities with expiration dates well in excess of 12 months are a key component in assuring adequate liquidity.

As a result of relatively near-term August 2011 maturity of both UNSG's \$50 million of senior unsecured notes and its shared credit facility, and considering that new borrowings under the credit facility require a MAC representation, for Factor 4: Liquidity - UNSG receives a below average score in the Ba range.

Rating Outlook

The stable outlook for UNSG reflects our expectation of continued stable cash flows resulting from its rate case decision, an assumption that any increases in the cost of gas will continue to be recovered on a relatively timely basis, and our understanding that future capital expenditures will be financed in a manner intended to maintain UNSG's current level of financial strength and flexibility.

What Could Change the Rating - Up

UNSG's rating is currently constrained by the challenging regulatory environment in Arizona, its relatively small size, and its interdependence with UNSE. An upgrade could occur if the regulatory environment improved such that the lag on investment recovery reduced significantly. An

improvement in cash flow, or reduction in leverage, that resulted in credit metrics at both UNSG and USNE remaining at the upper end of the Baa ranges indicated in the Methodology could also put upward pressure on ratings. If for example, their ratios of cash from operation before change in working in capital were to remain around 22%.

What Could Change the Rating - Down

A downward revision could occur if there is deterioration in the credit quality or ratings of UES or UNSE, if UNSG is unable to adequately recover its purchased gas or other costs of service, or if UNSG's credit metrics decline to the lower end of the Baa ranges indicated in the Methodology, for example, cash from operations before changes in working in capital to debt below 16%.

Rating Factors

UNS Gas, Inc.

Regulated Electric and Gas Utilities	Aaa	Aa	A	Baa	Ba	B
Factor 1: Regulatory Framework (25%)					X	
Factor 2: Ability to Recover Costs and Earn Returns (25%)				X		
Factor 3: Diversification (10%)						
a) Market Position (10%)					X	
b) Generation and Fuel Diversity (0%)						
Factor 4: Financial Strength, Liquidity & Financial Metrics (40%)						
a) Liquidity (10%)					X	
b) CFO pre-WC + Interest / Interest (7.5%) (3yr Avg)				X		
c) CFO pre-WC / Debt (7.5%) (3yr Avg)				X		
d) CFO pre-WC - Dividends / Debt (7.5%) (3yr Avg)			X			
e) Debt / Capitalization or Debt / RAV (7.5%) (3yr Avg)				X		
Rating:						
a) Methodology Implied Senior Unsecured Rating				Baa3		
b) Actual Senior Unsecured Rating				Baa3		



© 2010 Moody's Investors Service, Inc. and/or its licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ARE MOODY'S INVESTORS SERVICE, INC.'S ("MIS") CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MIS DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. CREDIT RATINGS DO NOT CONSTITUTE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS ARE NOT RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. CREDIT RATINGS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MIS ISSUES ITS CREDIT RATINGS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from reliable sources; however, MOODY'S does not and cannot in every instance independently verify, audit or validate information received in the rating process. Under no circumstances shall MOODY'S have any liability to any person or entity for (a) any loss or damage in whole or in part caused by, resulting from, or relating to, any error (negligent or otherwise) or other circumstance or contingency within or outside the control of MOODY'S or any of its directors, officers, employees or agents in connection with the procurement, collection, compilation, analysis, interpretation, communication,

publication or delivery of any such information, or (b) any direct, indirect, special, consequential, compensatory or incidental damages whatsoever (including without limitation, lost profits), even if MOODY'S is advised in advance of the possibility of such damages, resulting from the use of or inability to use, any such information. The ratings, financial reporting analysis, projections, and other observations, if any, constituting part of the information contained herein are, and must be construed solely as, statements of opinion and not statements of fact or recommendations to purchase, sell or hold any securities. Each user of the information contained herein must make its own study and evaluation of each security it may consider purchasing, holding or selling. NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

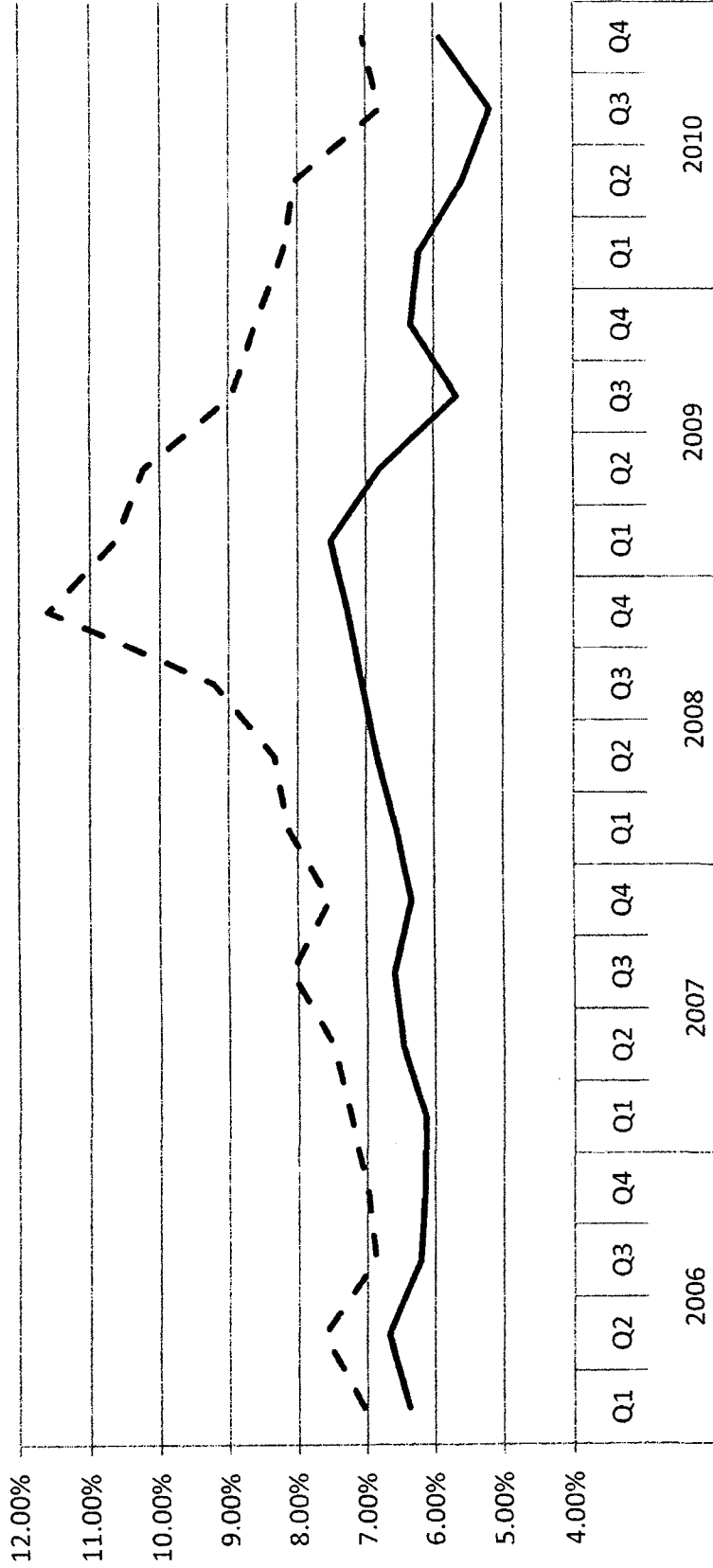
MIS, a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MIS have, prior to assignment of any rating, agreed to pay to MIS for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Shareholder Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Any publication into Australia of this document is by MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657, which holds Australian Financial Services License no. 336969. This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001.

EXHIBIT

KCG-2

UNS Gas, Inc.
 Required Yield-to-Maturity on Long-Term Utility Bonds



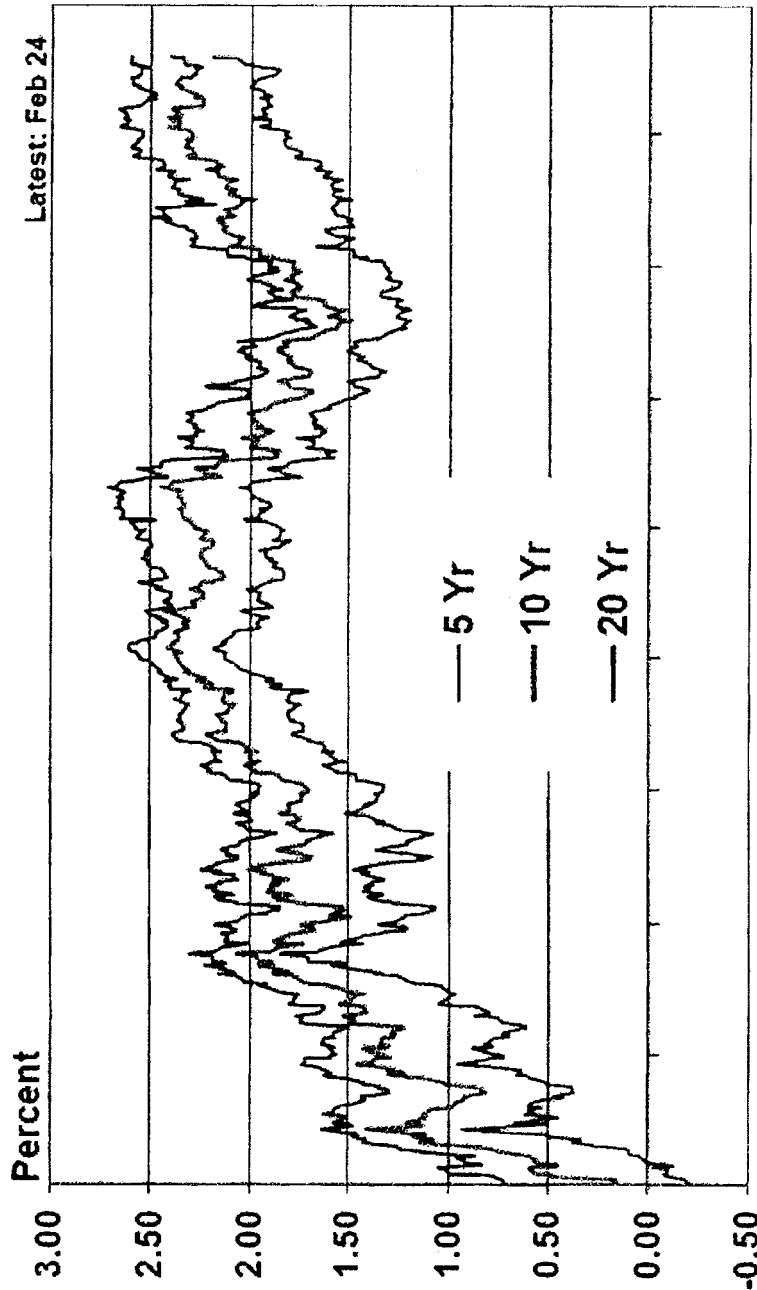
Source: Bloomberg Financial.

EXHIBIT

KCG-3

UNSGas Inc.

Implied Inflation* from U.S. Treasuries 2009 -2011



* Nominal Constant Maturity Treasury minus TIPS Constant Maturity Treasury

Source: PIRA Energy Group – New York, NY

EXHIBIT

KCG-4

UNS Gas, Inc.
Calculation of Fair Value Rate of Return

(\$000s)

Original Cost Rate Base (OCRB)	\$183,540
x % Equity in Capital Structure	<u>50.82%</u>
Equity Financed OCRB	\$93,274

Original Cost Rate Base (OCRB)	\$183,540
x % Debt in Capital Structure	<u>49.18%</u>
Debt Financed OCRB	\$90,266

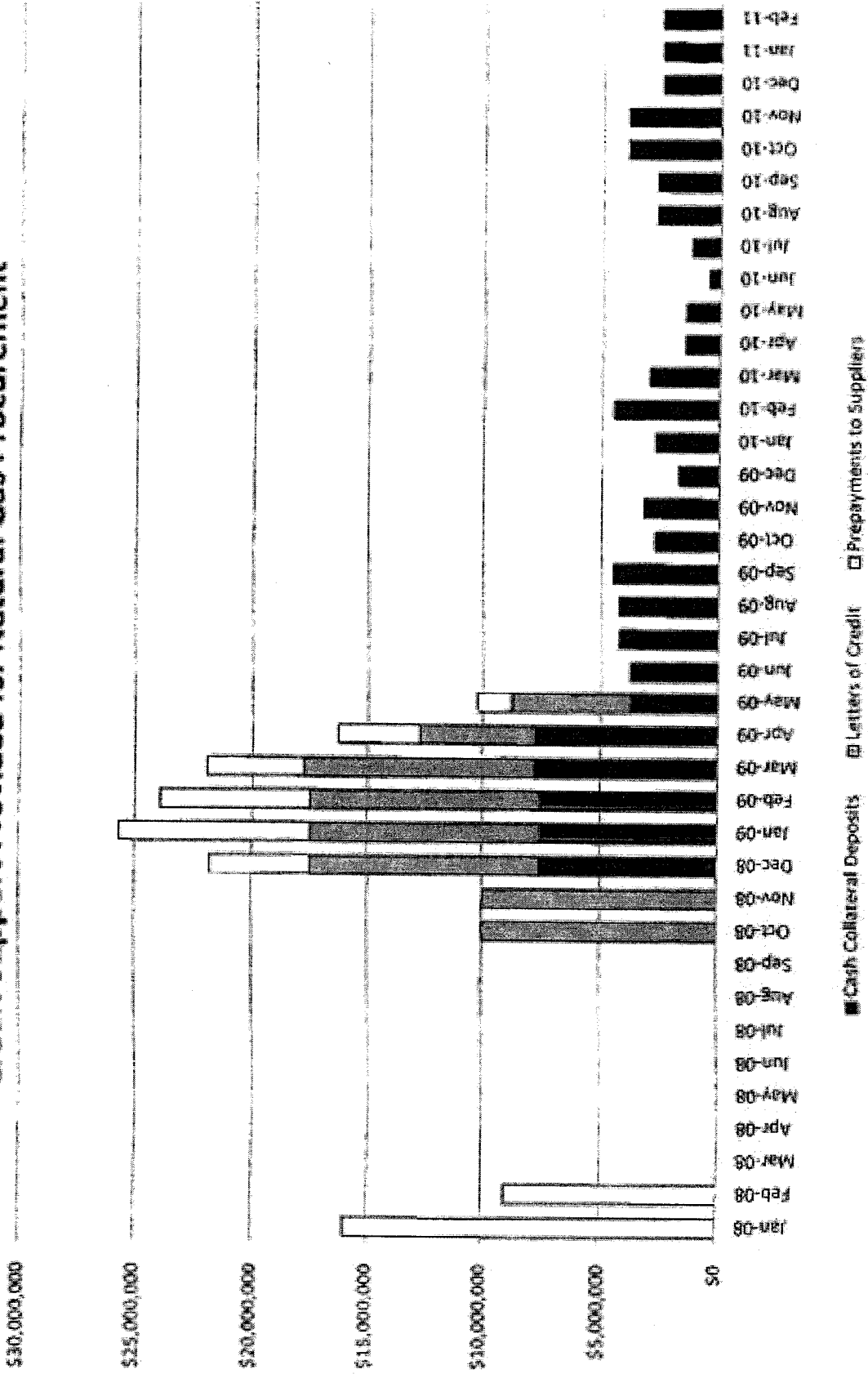
Fair Value Rate Base (FVRB)	\$253,677
Less: OCRB	<u>(\$183,540)</u>
Fair Value Increment	\$70,137

	Amount	Percent	Return Rate	Wtd. Return Requirement
Equity Financed OCRB	\$93,274	36.77%	10.50%	3.86%
Debt Financed OCRB	\$90,266	35.58%	6.74%	2.40%
Fair Value Increment	<u>\$70,137</u>	<u>27.65%</u>	2.00%	<u>0.55%</u>
Total	\$253,677	100.00%		6.81%

EXHIBIT

KCG-5

UNS Gas, Inc. Credit Support Provided for Natural Gas Procurement



BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE – CHAIRMAN
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-_____
UNS GAS, INC. FOR THE ESTABLISHMENT OF)
JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A REA-)
SONABLE RATE OF RETURN ON THE FAIR)
VALUE OF THE PROPERTIES OF UNS GAS,)
INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

Direct Testimony of

Dr. Ronald E. White

on Behalf of

UNS Gas, Inc.

April 8, 2011

Table of Contents

I.	Qualifications.....	1
II.	Purpose of Testimony	2
III.	Development of Depreciation Rates.....	3
IV.	2011 Technical Update.....	6

EXHIBITS

REW-1: PROFESSIONAL QUALIFICATIONS
REW-2: 2011 TECHNICAL UPDATE

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Ronald E. White. My business address is 17595 S. Tamiami Trail, Suite
3 212, Fort Myers, Florida 33908.

4
5 **Q. WHAT IS YOUR OCCUPATION?**

6 A. I am Chairman and a Senior Consultant of Foster Associates, Inc.

7 **I. QUALIFICATION**

8
9 **Q. WOULD YOU BRIEFLY DESCRIBE YOUR EDUCATIONAL TRAINING
10 AND PROFESSIONAL BACKGROUND?**

11 A. I received a B.S. degree in Engineering Operations and an M.S. degree and Ph.D.
12 (1977) in Engineering Valuation from Iowa State University. I have taught graduate
13 and undergraduate courses in industrial engineering, engineering economics, and en-
14 gineering valuation at Iowa State University and previously served on the faculty for
15 Depreciation Programs for public utility commissions, companies, and consultants,
16 sponsored by Depreciation Programs, Inc., in cooperation with Western Michigan
17 University. I also conduct courses in depreciation and public utility economics for
18 clients of the firm.

19

20 I have prepared and presented a number of papers to professional organizations,
21 committees, and conferences and have published several articles on matters relating to
22 depreciation, valuation and economics. I am a past member of the Board of Directors
23 of the Iowa State Regulatory Conference and an affiliate member of the joint Ameri-
24 can Gas Association (A.G.A.) – Edison Electric Institute (EEI) Depreciation Account-
25 ing Committee, where I previously served as chairman of a standing committee on
26 capital recovery and its effect on corporate economics. I am also a member of the
27 American Economic Association, the Financial Management Association, the Mid-
28 west Finance Association, the Electric Cooperatives Accounting Association
29 (ECAA), and a founding member of the Society of Depreciation Professionals.

1 **Q. WHAT IS YOUR PROFESSIONAL EXPERIENCE?**

2 A. I joined the firm of Foster Associates in 1979, as a specialist in depreciation, the eco-
3 nomics of capital investment decisions, and cost of capital studies for ratemaking ap-
4 plications. Prior to joining Foster Associates, I was employed by Northern States
5 Power Company (1968–1979) in various assignments related to finance and treasury
6 activities. As Manager of the Corporate Economics Department, I was responsible for
7 book depreciation studies, studies involving staff assistance from the Corporate Eco-
8 nomics Department in evaluating the economics of capital investment decisions, and
9 the development and execution of innovative forms of project financing. As Assistant
10 Treasurer at Northern States, I was responsible for bank relations, cash requirements
11 planning, and short-term borrowings and investments.
12

13 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE A REGULATORY BODY?**

14 A. Yes. I have testified in numerous proceedings before administrative and judicial bo-
15 dies in over thirty jurisdictions, including several appearances before the Arizona
16 Corporation Commission. I have also testified before the Federal Energy Regulatory
17 Commission, the Federal Power Commission, the Alberta Energy Board, the Ontario
18 Energy Board, and the Securities and Exchange Commission. I have sponsored posi-
19 tion statements before the Federal Communication Commission and numerous local
20 franchising authorities in matters relating to the regulation of telephone and cable tel-
21 evision. A more detailed description of my professional qualifications is provided in
22 Attachment REW-1.

23 **II. PURPOSE OF TESTIMONY**

24
25 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

26 A. Foster Associates was engaged by UNS Gas, Inc. (UNS Gas), an operating subsidiary
27 of UniSource Energy Services, to conduct a 2011 technical update of depreciation
28 rates for the Company. The purpose of my testimony is to sponsor and describe the
29 study conducted by Foster Associates. Depreciation rates currently used by UNS Gas

1 were approved by the Arizona Corporation Commission (ACC) in Docket No. G-
2 04204A-06-0463 (Decision No. 70011, dated November 27, 2007).

3 III. DEVELOPMENT OF DEPRECIATION RATES

4 5 Q. WHY ARE DEPRECIATION STUDIES NEEDED FOR ACCOUNTING AND 6 RATEMAKING PURPOSES?

7 A. The goal of depreciation accounting is to charge to operations a reasonable estimate
8 of the cost of the service potential of an asset (or group of assets) consumed during an
9 accounting interval. A number of depreciation systems have been developed to
10 achieve this objective, most of which employ time as the apportionment base.

11
12 Implementation of a time-based (or age-life) system of depreciation accounting re-
13 quires the estimation of several parameters or statistics related to a plant account.
14 The average service life of a vintage, for example, is a statistic that will not be known
15 with certainty until all units from the original placement have been retired from ser-
16 vice. A vintage average service life, therefore, must be estimated initially and period-
17 ically revised as indications of the eventual average service life become more certain.
18 Future net salvage rates and projection curves, which describe the expected distribu-
19 tion of retirements over time, are also estimated parameters of a depreciation system
20 that are subject to future revisions. Depreciation studies should be conducted period-
21 ically to assess the continuing reasonableness of parameters and accrual rates derived
22 from prior estimates.

23
24 The need for periodic depreciation studies is also a derivative of the ratemaking
25 process that establishes prices for utility services based on costs. Absent regulation,
26 deficient or excessive depreciation rates will produce no adverse consequence other
27 than a systematic over or understatement of the accounting measurement of earnings.
28 While a continuance of such practices may not comport with the goals of depreciation
29 accounting, the achievement of capital recovery is not dependent upon either the

1 amount or the timing of depreciation expense for an unregulated firm. In the case of a
2 regulated utility, however, recovery of investor-supplied capital is dependent upon al-
3 lowed revenues, which are in turn dependent upon approved levels of depreciation
4 expense. Periodic reviews of depreciation rates are, therefore, essential to the
5 achievement of timely capital recovery for a regulated utility.
6

7 **Q. WHAT ARE THE PRINCIPAL ACTIVITIES UNDERTAKEN IN CONDUCT-**
8 **ING A FULL DEPRECIATION STUDY?**

9 A. The first step in conducting a depreciation study is the collection of plant accounting
10 data needed to conduct a statistical analysis of past retirement experience. Data are al-
11 so collected to permit an analysis of the relationship between retirements and realized
12 gross salvage and removal expense. The data collection phase should include a verifi-
13 cation of the accuracy of the plant accounting records and a reconciliation of the as-
14 sembled data to the official plant records of the company.
15

16 The next step in a depreciation study is the estimation of service life statistics from
17 an analysis of past retirement experience. The term *life analysis* is used to describe
18 the activities undertaken in this step to obtain a mathematical description of the
19 forces of retirement acting upon a plant category. The mathematical expressions used
20 to describe these forces are known as survival functions or survivor curves.
21

22 Life indications obtained from an analysis of past retirement experience are blended
23 with expectations about the future to obtain an appropriate projection life curve. This
24 step, called *life estimation*, is concerned with predicting the expected remaining life
25 of property units still exposed to the forces of retirement. The amount of weight giv-
26 en to the analysis of historical data will depend upon the extent to which past retire-
27 ment experience is considered descriptive of the future.
28
29

1 An estimate of the net salvage rate applicable to future retirements is usually ob-
2 tained from an analysis of the gross salvage and removal expense realized in the past.
3 An analysis of past experience (including an examination of trends over time) pro-
4 vides a baseline for estimating future salvage and cost of removal. Consideration,
5 however, should be given to events that may cause deviations from the net salvage
6 realized in the past. Among the factors that should be considered are the age of plant
7 retirements, the portion of retirements that will be reused, changes in the method of
8 removing plant, the type of plant to be retired in the future, inflation expectations, the
9 shape of the projection life curve, and economic conditions that may warrant greater
10 or lesser weight to be given to the net salvage observed in the past.

11
12 A comprehensive depreciation study will also include an analysis of the adequacy of
13 the recorded depreciation reserve. The purpose of such an analysis is to compare the
14 current balance in the recorded reserve with the balance required to achieve the goals
15 and objectives of depreciation accounting if the amount and timing of future retire-
16 ments and net salvage are realized exactly as predicted. The difference between the
17 required (or theoretical) reserve and the recorded reserve provides a measurement of
18 the expected excess or shortfall that will remain in the depreciation reserve if correc-
19 tive action is not taken to extinguish the reserve imbalance.

20
21 Although reserve records are typically maintained by various account classifications,
22 the total reserve for a company is the most important reflection of the company's de-
23 preciation practices. Differences between the theoretical reserve and the recorded re-
24 serve will arise as a normal occurrence when service lives, dispersion patterns and
25 salvage estimates are adjusted in the course of depreciation reviews. Differences will
26 also arise due to plant accounting activity such as transfers and adjustments, which
27 require an identification of reserves at a different level from that maintained in the
28 accounting system. It is appropriate, therefore, and consistent with group deprecia-
29 tion theory, to periodically redistribute recorded reserves among primary accounts

1 based on the most recent estimates of retirement dispersion and salvage. A redistribu-
 2 tion of the recorded reserve will provide an initial reserve balance for each primary
 3 account consistent with the estimates of retirement dispersion selected to describe
 4 mortality characteristics of the accounts and establish a baseline against which future
 5 comparisons can be made.

6
 7 Finally, parameters estimated from service life and net salvage studies are integrated
 8 into an appropriate formulation of an accrual rate based upon a selected depreciation
 9 system. Three elements are needed to describe a depreciation system. These elements
 10 (*i.e.*, method, procedure and technique) can be visualized as three dimensions of a
 11 cube in which each face describes a variety of sub-elements that can be combined to
 12 form a system. A depreciation system is therefore formed by selecting a sub-element
 13 from each face such that the system contains one method, one procedure and one
 14 technique. The sub-elements most widely used in constructing a depreciation system
 15 are shown in Table 1.

Methods	Procedures	Techniques
Retirement	Total Company	Whole-Life
Compound-Interest	Broad Group	Remaining-Life
Sinking-Fund	Vintage Group	Probable-Life
Straight-Line	Equal-Life Group	
Declining Balance	Unit Summation	
Sum-of-Years'-Digits	Item	
Expensing		
Unit-of-Production		
Net Revenue		

Table 1. Elements of a Depreciation System

16 IV. 2011 TECHNICAL UPDATE

17
 18 **Q. WOULD YOU PLEASE DESCRIBE THE SCOPE OF A TECHNICAL UP-**
 19 **DATE?**

20 **A.** Unlike a full depreciation study in which projection curves, projection lives and future
 21 net salvage rates are estimated from a statistical analysis of recorded retirements and
 22 net salvage realized in the past, a technical update generally retains the parameters

1 currently used or proposed by the utility and adjusts depreciation rates for known and
2 measurable changes in the age distributions of surviving plant, depreciation reserves,
3 and average net salvage rates due to the passage of time. A technical update, there-
4 fore, is intended to align depreciation rates with the accounting year the rates will be-
5 come effective. The steps involved in preparing a technical update generally include
6 a) data collection; b) calculation of service life statistics; c) computation of average
7 net salvage rates; d) rebalancing of depreciation reserves; and e) development of ac-
8 crual rates.
9

10 **Q. DID UNS GAS PROVIDE FOSTER ASSOCIATES PLANT ACCOUNTING**
11 **DATA FOR CONDUCTING THE 2011 TECHNICAL UPDATE?**

12 A. Yes. Plant accounting and depreciation reserve transactions recorded over the period
13 2006–2010 and age distributions of surviving plant at December 31, 2010 were pro-
14 vided to Foster Associates in an electronic format and appended to the database used
15 in conducting the 2006 Review. The accuracy and completeness of the assembled da-
16 tabase was verified by comparisons to FERC Form 1 for activity years 2006–2010.
17 Prior activity years were reconciled in the 2006 Review. Derived age distributions
18 were reconciled to the continuing property records at December 31, 2010.
19

20 **Q. DID FOSTER ASSOCIATES CALCULATE SERVICE LIFE STATISTICS IN**
21 **THE 2011 TECHNICAL UPDATE?**

22 A. Yes. The scope of the update and calculations performed by Foster Associates are de-
23 scribed in the Study Procedures section of Attachment REW–2.
24

25 **Q. DID FOSTER ASSOCIATES DERIVE AVERAGE NET SALVAGE RATES IN**
26 **THE 2011 UPDATE?**

27 A. Yes. The average net salvage rate for an account or plant function is derived from a
28 direct dollar weighting of a) historical retirements with historical (or realized) net sal-
29 vage rates and b) future retirements (*i.e.*, surviving plant) with the estimated future net

1 salvage rate. Average net salvage rates will change, therefore, as additional years of
2 retirement and net salvage activity become available and as subsequent plant addi-
3 tions alter the weighting of future net salvage estimates.
4

5 **Q. DID FOSTER ASSOCIATES REBALANCE DEPRECIATION RESERVES IN**
6 **THE 2011 UPDATE?**

7 A. Yes. A rebalancing of recorded reserves is consistent with the objectives of a technic-
8 al update and is considered appropriate for UNS Gas. The rebalancing of reserves un-
9 dertaken in the 2011 update will help to stabilize depreciation rates and preserve
10 consistency between measured reserve imbalances and the parameters used in the
11 formulation of updated remaining-life accrual rates.
12

13 A redistribution of the recorded reserve was achieved by multiplying the calculated
14 reserve for each primary account within a function (or plant location) by the ratio of
15 the function (or location) total recorded reserve to the function (or location) total cal-
16 culated reserve. The sum of the redistributed reserves within a function (or location)
17 is, therefore, equal to the function (or location) total recorded depreciation reserve
18 before the redistribution.
19
20

1 **Q. HOW DO THE DEPRECIATION RATES AND ACCRUALS DERIVED IN**
 2 **THE UPDATES COMPARE WITH CURRENTLY APPROVED RATES AND**
 3 **ACCRUALS?**

4 A. Table 2 provides a summary of the changes in annual rates and accruals resulting
 5 from the 2011 Technical Update. Rates proposed for each primary account (with the
 6 exception of amortization accounts) have been developed including an allowance for
 7 net salvage.

8
 9 Adjustments developed in the technical update produce a composite depreciation rate
 10 of 2.44 percent. Depreciation expense is currently accrued at an equivalent rate of
 11 2.72 percent. The change in the composite depreciation rate is a reduction of 0.28

Function	Accrual Rate			2011 Annualized Accrual		
	Current	Proposed	Difference	Current	Proposed	Difference
A	B	C	D=C-B	E	F	G=F-E
Transmission	1.54%	1.54%	0.00%	\$401,006	\$401,204	\$198
Distribution	2.33%	2.37%	0.04%	7,461,333	7,586,167	124,834
General Plant	9.28%	4.38%	-4.91%	2,190,300	1,032,407	(1,157,893)
Total Utility	2.72%	2.44%	-0.28%	\$10,052,639	\$9,019,778	(\$1,032,861)

Table 2. Current and Proposed Rates and Accruals

12 percentage points.

13
 14 A continued application of rates derived from currently approved parameters would
 15 produce annual depreciation expense of \$10,052,639 compared with an annual ex-
 16 pense of \$9,019,778 using the rates developed in the update. The expense reduction
 17 of \$1,032,861 is generally attributable to a change in the mix of plant investments
 18 among primary accounts and changes in the age distributions of surviving plant.

19
 20 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

21 A. Yes, it does.

EXHIBIT

REW-1

Foster Associates Inc.
17595 S. Tamiami Trail
Suite 212
Fort Myers, FL 33908

Phone (239) 267-1600
Fax (239) 267-5030
E-mail r.white@fosterfm.com

Ronald E. White, Ph.D.

Education

1961 - 1964 Valparaiso University
Major: Electrical Engineering

1965 Iowa State University
B.S., Engineering Operations

1968 Iowa State University
M.S., Engineering Valuation
Thesis: The Multivariate Normal Distribution and the Simulated Plant Record
Method of Life Analysis

1977 Iowa State University
Ph.D., Engineering Valuation
Minor: Economics
Dissertation: A Comparative Analysis of Various Estimates of the Hazard Rate Associated
With the Service Life of Industrial Property

Employment

2007 - Present Foster Associates, Inc.
Chairman

1996 - 2007 Foster Associates, Inc.
Executive Vice President

1988 - 1996 Foster Associates, Inc.
Senior Vice President

1979 - 1988 Foster Associates, Inc.
Vice President

1978 - 1979 Northern States Power Company
Assistant Treasurer

1974 - 1978 Northern States Power Company
Manager, Corporate Economics

1972 - 1974 Northern States Power Company
Corporate Economist

1970 - 1972 Iowa State University
Graduate Student and Instructor

1968 - 1970 Northern States Power Company
Valuation Engineer

1965 - 1968 Iowa State University
Graduate Student and Teaching Assistant

Publications

A New Set of Generalized Survivor Tables, Journal of the Society of Depreciation Professionals, October, 1992.

The Theory and Practice of Depreciation Accounting Under Public Utility Regulation, Journal of the Society of Depreciation Professionals, December, 1989.

Standards for Depreciation Accounting Under Regulated Competition, paper presented at The Institute for Study of Regulation, Rate Symposium, February, 1985.

The Economics of Price-Level Depreciation, paper presented at the Iowa State University Regulatory Conference, May, 1981.

Depreciation and the Discount Rate for Capital Investment Decisions, paper presented at the National Communications Forum - National Electronics Conference, October 1979.

A Computerized Method for Generating a Life Table From the 'h-System' of Survival Functions, paper presented at the American Gas Association - Edison Electric Institute Depreciation Accounting Committee Meeting, December, 1975.

The Problem With AFDC is ..., paper presented at the Iowa State University Conference on Public Utility Valuation and the Rate Making Process, May, 1973.

The Simulated Plant-Record Method of Life Analysis, paper presented at the Missouri Public Service Commission Regulatory Information Systems Conference, May, 1971.

Simulated Plant-Record Survivor Analysis Program (User's Manual), special report published by Engineering Research Institute, Iowa State University, February, 1971.

A Test Procedure for the Simulated Plant-Record Method of Life Analysis, Journal of the American Statistical Association, September, 1970.

Modeling the Behavior of Property Records, paper presented at the Iowa State University Conference on Public Utility Valuation and the Rate Making Process, May, 1970.

A Technique for Simulating the Retirement Experience of Limited-Life Industrial Property, paper presented at the National Conference of Electric and Gas Utility Accountants, May, 1969.

How Dependable are Simulated Plant-Record Estimates?, paper presented at the Iowa State University Conference on Public Utility Valuation and the Rate Making Process, April, 1968.

**Testifying
Witness**

Alabama Public Service Commission, Docket No. 18488, General Telephone Company of the Southeast; testimony concerning engineering economy study techniques.

Alabama Public Service Commission, Docket No. 20208, General Telephone Company of the South; testimony concerning the equal-life group procedure and remaining-life technique.

Alberta Energy and Utilities Board, Application No. 1250392, Aquila Networks Canada; rebuttal testimony supporting proposed depreciation rates.

Alberta Energy and Utilities Board, Case No. RE95081, Edmonton Power Inc.; rebuttal evidence concerning appropriate depreciation rates.

Alberta Energy and Utilities Board, 1999/2000 General Tariff Application, Edmonton Power Inc.; direct and rebuttal evidence concerning appropriate depreciation rates.

Arizona Corporation Commission, Docket No. T-01051B-97-0689, U S West Communications, Inc.; testimony concerning appropriate depreciation rates.

Arizona Corporation Commission, Docket No. G-1032A-02-0598, Citizens Communications Company; testimony supporting proposed depreciation rates.

Arizona Corporation Commission, Docket No. E-01345A-08-0172, Arizona Public Service Company; testimony supporting proposed depreciation rates.

Arizona Corporation Commission, Docket No. E-0135A-03-0437, Arizona Public

Service Company; rebuttal testimony supporting net salvage rates.

Arizona Corporation Commission, Docket No. E-01345A-05-0816, Arizona Public Service Company; testimony supporting proposed depreciation rates.

Arizona Corporation Commission, Docket No. G-04204A-06-0463, UNS Gas, Inc.; testimony supporting proposed depreciation rates.

Arizona Corporation Commission, Docket No. E-04204A-06-0783, UNS Electric, Inc.; testimony supporting proposed depreciation rates.

Arizona Corporation Commission, Docket No. E-04204A-09-0206, UNS Electric, Inc, testimony supporting proposed depreciation rates.

Arizona State Board of Equalization, Docket No. 6302-07-2, Arizona Public Service Company; testimony concerning valuation and assessment of contributions in aid of construction.

California Public Utilities Commission, Case Nos. A.92-06-040, 92-06-042, GTE California Incorporated; rebuttal testimony supporting depreciation study techniques.

California Public Utilities Commission. Docket No. GRC A.05-12-002, Pacific Gas and Electric Company; testimony regarding estimation of net salvage rates.

California Public Utilities Commission. Docket No. GRC A.06-12-009/A.06-12-010, San Diego Gas & Electric Company and Southern California Gas Company; testimony regarding estimation of net salvage rates.

Public Utilities Commission of the State of Colorado, Application No. 36883-Reopened. U S WEST Communications; testimony concerning equal-life group procedure.

State of Connecticut Department of Public Utility Control, Docket No. 10-12-02, Yankee Gas Services Company; testimony supporting recommended depreciation rates.

State of Connecticut Department of Public Utility Control, Docket No. 05-03-17, The Southern Connecticut Gas Company; testimony supporting recommended depreciation rates.

State of Connecticut Department of Public Utility Control, Docket No. 06-12PH01, Yankee Gas Services Company; testimony supporting recommended depreciation rates.

State of Connecticut Department of Public Utility Control, Docket No. 09-12-05, The Connecticut Light and Power Company; testimony supporting recommended depreciation rates.

Delaware Public Service Commission, Docket No. 81-8, Diamond State Telephone Company; testimony concerning the amortization of inside wiring.

Delaware Public Service Commission, Docket No. 82-32, Diamond State Telephone Company; testimony concerning the equal-life group procedure and remaining-life technique.

Public Service Commission of the District of Columbia, Formal Case No. 842, District of Columbia Natural Gas; testimony concerning depreciation rates.

Public Service Commission of the District of Columbia, Formal Case No. 1016, Washington Gas Light Company - District of Columbia; testimony supporting proposed depreciation rates.

Public Service Commission of the District of Columbia, Formal Case No. 1054, Washington Gas Light Company - District of Columbia; testimony supporting

proposed depreciation rates.

Federal Communications Commission, Prescription of Revised Depreciation Rates for AT&T Communications; statement concerning depreciation, regulation and competition.

Federal Communications Commission, Petition for Modification of FCC Depreciation Prescription Practices for AT&T; statement concerning alignment of depreciation expense used for financial reporting and regulatory purposes.

Federal Communications Commission, Docket No. 99-117, Bell Atlantic; affidavit concerning revenue requirement and capital recovery implications of omitted plant retirements.

Federal Energy Regulatory Commission, Docket No. ER10-2110-000, ITC Midwest; testimony supporting proposed depreciation rates.

Federal Energy Regulatory Commission, Docket No. ER10-185-000, Michigan Electric Transmission Company; testimony supporting proposed depreciation rates.

Federal Energy Regulatory Commission, Docket No. ER09-1530-000, ITC *Transmission*; testimony supporting proposed depreciation rates.

Federal Energy Regulatory Commission, Docket No. ER95-267-000, New England Power Company; testimony supporting proposed depreciation rates.

Federal Energy Regulatory Commission, Docket No. RP89-248, Mississippi River Transmission Corporation; rebuttal testimony concerning appropriateness of net salvage component in depreciation rates.

Federal Energy Regulatory Commission, Docket No. ER91-565, New England Power Company; testimony supporting proposed depreciation rates.

Federal Energy Regulatory Commission, Docket No. ER78-291, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Federal Energy Regulatory Commission, Docket Nos. RP80-97 and RP81-54, Tennessee Gas Pipeline Company; testimony concerning offshore plant depreciation rates.

Federal Power Commission, Docket No. E-8252, Northern States Power Company; testimony concerning general financial requirements and measurements of financial performance.

Federal Power Commission, Docket No. E-9148, Northern States Power Company; testimony concerning general financial requirements and measurements of financial performance.

Federal Power Commission, Docket No. ER76-818, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Federal Power Commission, Docket No. RP74-80, *Northern* Natural Gas Company; testimony concerning depreciation expense.

Public Utilities Commission of the State of Hawaii, Docket No. 00-0309, The Gas Company; testimony supporting proposed depreciation rates.

Public Utilities Commission of the State of Hawaii, Docket No. 94-0298, GTE Hawaiian Telephone Company Incorporated; testimony concerning the need for shortened service lives and disclosure of asset impairment losses.

Idaho Public Utilities Commission, Case No. U-1002-59, General Telephone Company of the Northwest, Inc.; testimony concerning the remaining-life technique and the equal-life group procedure.

Illinois Commerce Commission, Case No. 04-0476, Illinois Power Company; testimony supporting proposed depreciation rates.

Illinois Commerce Commission, Docket No. 94-0481, Citizens Utilities Company of Illinois; rebuttal testimony concerning applications of the Simulated Plant-Record method of life analysis.

Iowa State Commerce Commission, Docket No. RPU 82-47, North Central Public Service Company; testimony on depreciation rates.

Iowa State Commerce Commission, Docket No. RPU 84-34, General Telephone Company of the Midwest; testimony concerning the remaining-life technique and the equal-life group procedure.

Iowa State Utilities Board, Docket No. DPU-86-2, Northwestern Bell Telephone Company; testimony concerning capital recovery in competition.

Iowa State Utilities Board, Docket No. RPU-84-7, Northwestern Bell Telephone Company; testimony concerning the deduction of a reserve deficiency from the rate base.

Iowa State Utilities Board, Docket No. DPU-88-6, U S WEST Communications; testimony concerning depreciation subject to refund.

Iowa State Utilities Board, Docket No. RPU-90-9, Central Telephone Company of Iowa; testimony concerning depreciation rates.

Iowa State Utilities Board, Docket No. RPU-93-9, U S WEST Communications; testimony concerning principles of depreciation accounting and abandonment of FASB 71.

Iowa State Utilities Board, Docket No. DPU-96-1, U S WEST Communications; testimony concerning principles of depreciation accounting and abandonment of FASB 71.

Iowa State Utilities Board, Docket No. RPU-05-2, Aquila Networks; testimony supporting recommended depreciation rates.

Kansas Corporation Commission, Docket No. 10-KCPE-415-RTS; Kansas City Power and Light; cross-answering testimony addressing how third-party reimbursements should be recorded and treated in estimating net salvage rates.

Kansas Corporation Commission, Docket No. 04-AQLE-1065-RTS, Aquila Networks - WPE (Kansas); testimony supporting proposed depreciation rates.

Kansas Corporation Commission, Docket No. 03-KGSG-602-RTS, Kansas Gas Service, a Division of ONEOK, Inc.; rebuttal testimony supporting net salvage rates.

Kansas Corporation Commission, Docket No. 06-KGSG-1209-RTS, Kansas Gas Service, a Division of ONEOK, Inc.; testimony supporting proposed depreciation rates.

Kentucky Public Service Commission, Case No. 97-224, Jackson Purchase Electric Cooperative Corporation; rebuttal testimony supporting proposed depreciation rates.

Maryland Public Service Commission, Case No. 8485, Baltimore Gas and Electric Company; testimony supporting proposed depreciation rates.

Maryland Public Service Commission, Case No. 9096, Baltimore Gas and Electric Company; testimony supporting proposed depreciation rates.

Maryland Public Service Commission, Case No. 7689, Washington Gas Light Company; testimony concerning life analysis and net salvage.

Maryland Public Service Commission, Case No. 8960, Washington Gas Light Company; testimony supporting proposed depreciation rates.

Maryland Public Service Commission, Case No. 9103, Washington Gas Light Company; rebuttal testimony supporting proposed depreciation rates.

Commonwealth of Massachusetts Department of Public Utilities, D.P.U. 10-70, Western Massachusetts Electric Company; testimony supporting proposed depreciation rates.

Commonwealth of Massachusetts Department of Telecommunications and Energy, D.T.E. 06-55, Western Massachusetts Electric Company; testimony supporting proposed depreciation rates.

Massachusetts Department of Public Utilities, Case No. DPU 91-52, Massachusetts Electric Company; testimony supporting proposed depreciation rates which include a net salvage component.

Michigan Public Service Commission, Case No. U-16117, The Detroit Edison Company; testimony supporting proposed depreciation rates.

Michigan Public Service Commission, Case No. U-15699, Michigan Consolidated Gas Company; testimony supporting proposed depreciation rates.

Michigan Public Service Commission, Case No. U-13899, Michigan Consolidated Gas Company; testimony concerning service life estimates.

Michigan Public Service Commission, Case No. U-13393, Aquila Networks – MGU; testimony supporting proposed depreciation rates.

Michigan Public Service Commission, Case No. U-12395, Michigan Gas Utilities; testimony supporting proposed depreciation rates including amortization accounting and redistribution of recorded reserves.

Michigan Public Service Commission, Case No. U-6587, General Telephone Company of Michigan; testimony concerning use of a theoretical depreciation reserve with the remaining-life technique.

Michigan Public Service Commission, Case No. U-7134, General Telephone Company of Michigan; testimony concerning the equal-life group depreciation procedure.

Minnesota Public Service Commission, Docket No. E-611, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Minnesota Public Service Commission, Docket No. E-1086, Northern States Power Company; testimony concerning depreciation rates.

Minnesota Public Service Commission, Docket No. G-1015, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Public Service Commission of the State of Missouri, Case No. ER-2009-0090, KCP&L Greater Missouri Operations, rebuttal testimony concerning depreciation rates.

Public Service Commission of the State of Missouri, Case No. ER-2001-672, Missouri Public Service, a division of Utilicorp United Inc.; surrebuttal testimony regarding computation of income tax expense.

Public Service Commission of the State of Missouri, Case No. TO-82-3, Southwestern Bell Telephone Company; rebuttal testimony concerning the remaining-life technique and the equal-life group procedure.

Public Service Commission of the State of Missouri, Case No. GO-97-79, Laclede Gas Company; rebuttal testimony concerning adequacy of database for

conducting depreciation studies.

Public Service Commission of the State of Missouri, Case No. GR-99-315, Laclede Gas Company; rebuttal testimony concerning treatment of net salvage in development of depreciation rates.

Public Service Commission of the State of Missouri, Case No. HR-2004-0024, Aquila Inc. d/b/a/ Aquila Networks-L & P; testimony supporting depreciation rates.

Public Service Commission of the State of Missouri, Case No. ER-2004-0034, Aquila Inc. d/b/a/ Aquila Networks-L & P and Aquila Networks-MPS; testimony supporting depreciation rates.

Public Service Commission of the State of Missouri, Case No. GR-2004-0072, Aquila Inc. d/b/a/ Aquila Networks-L & P and Aquila Networks-MPS; testimony supporting depreciation rates.

Public Service Commission of the State of Montana, Docket No. 88.2.5, Mountain State Telephone and Telegraph Company; rebuttal testimony concerning the equal-life group procedure and amortization of reserve imbalances.

Montana Public Service Commission, Docket No. D95.9.128, The Montana Power Company; testimony supporting proposed depreciation rates.

Nebraska Public Service Commission, Docket No. NG-0041, Aquila Networks (PNG Nebraska); testimony supporting proposed depreciation rates.

Public Service Commission of Nevada, Docket No. 92-7002, Central Telephone Company-Nevada; testimony supporting proposed depreciation rates.

Public Service Commission of Nevada, Docket No. 91-5054, Central Telephone Company-Nevada; testimony supporting proposed depreciation rates.

New Hampshire Public Utilities Commission, Docket No. DR95-169, Granite State Electric Company; testimony supporting proposed net salvage rates.

New Jersey Board of Public Utilities, Docket No. GR07110889, New Jersey Natural Gas Company; testimony supporting proposed depreciation rates.

New Jersey Board of Public Utilities, Docket No. GR 87060552, New Jersey Natural Gas Company; testimony concerning depreciation rates.

New Jersey Board of Regulatory Commissioners, Docket No. GR93040114J, New Jersey Natural Gas Company; testimony concerning depreciation rates.

New York Public Service Commission, Case No. 10-E-0050. Niagara Mohawk Power Corporation d/b/a National Grid; testimony supporting recommended depreciation rates.

North Carolina Utilities Commission, Docket No. E-7, SUB 487, Duke Power Company; rebuttal testimony concerning proposed depreciation rates.

North Carolina Utilities Commission, Docket No. P-19, SUB 207, General Telephone Company of the South; rebuttal testimony concerning the equal-life group depreciation procedure.

North Dakota Public Service Commission, Case No. 8860, Northern States Power Company; testimony concerning general financial requirements.

North Dakota Public Service Commission, Case No. 9634, Northern States Power Company; testimony concerning rate of return and general financial requirements.

North Dakota Public Service Commission, Case No. 9666, Northern States Power Company; testimony concerning rate of return and general financial requirements.

North Dakota Public Service Commission, Case No. 9741, Northern States Power

Company; testimony concerning rate of return and general financial requirements.

Oklahoma Corporation Commission, Cause No. PUD 200900110, Oklahoma Natural Gas Company; testimony supporting revised depreciation rates.

Ontario Energy Board, E.B.R.O. 385, Tecumseh Gas Storage Limited; testimony concerning depreciation rates.

Ontario Energy Board, E.B.R.O. 388, Union Gas Limited; testimony concerning depreciation rates.

Ontario Energy Board, E.B.R.O. 456, Union Gas Limited; testimony concerning depreciation rates.

Ontario Energy Board, E.B.R.O. 476-03, Union Gas Limited; testimony concerning depreciation rates.

Public Utilities Commission of Ohio, Case No. 81-383-TP-AIR, General Telephone Company of Ohio; testimony in support of the remaining-life technique.

Public Utilities Commission of Ohio, Case No. 82-886-TP-AIR, General Telephone Company of Ohio; testimony concerning the remaining-life technique and the equal-life group procedure.

Public Utilities Commission of Ohio, Case No. 84-1026-TP-AIR, General Telephone Company of Ohio; testimony in support of the equal-life group procedure and the remaining-life technique.

Public Utilities Commission of Ohio, Case No. 81-1433, The Ohio Bell Telephone Company; testimony concerning the remaining-life technique and the equal-life group procedure.

Public Utilities Commission of Ohio, Case No. 83-300-TP-AIR, The Ohio Bell Telephone Company; testimony concerning straight-line age-life depreciation.

Public Utilities Commission of Ohio, Case No. 84-1435-TP-AIR, The Ohio Bell Telephone Company; testimony in support of test period depreciation expense.

Public Utilities Commission of Oregon, Docket No. UM 204, GTE of the Northwest; testimony concerning the theory and practice of depreciation accounting under public utility regulation.

Public Utilities Commission of Oregon, Docket No. UM 840, GTE Northwest Incorporated; rebuttal testimony concerning principles of capital recovery.

Pennsylvania Public Utility Commission, Docket No. R-80061235, The Bell Telephone Company of Pennsylvania; testimony concerning the proper depreciation reserve to be used with an original cost rate base.

Pennsylvania Public Utility Commission, Docket No. R-811512, General Telephone Company of Pennsylvania; testimony concerning the proper depreciation reserve to be used with an original cost rate base.

Pennsylvania Public Utility Commission, Docket No. R-811819, The Bell Telephone Company of Pennsylvania; testimony concerning the proper depreciation reserve to be used with an original cost rate base.

Pennsylvania Public Utility Commission, Docket No. R-822109, General Telephone Company of Pennsylvania; testimony in support of the remaining-life technique.

Pennsylvania Public Utility Commission, Docket No. R-850229, General Telephone Company of Pennsylvania; testimony in support of the remaining-life technique and the proper depreciation reserve to be used with an original cost rate base.

Pennsylvania Public Utility Commission, Docket No. C-860923, The Bell

Telephone Company of Pennsylvania; testimony concerning capital recovery under competition.

Rhode Island Public Utilities Commission, Docket No. 2290, The Narragansett Electric Company; testimony supporting proposed net salvage rates and depreciation rates.

South Carolina Public Service Commission, Docket No. 91-216-E, Duke Power Company; testimony supporting proposed depreciation rates.

Public Utilities Commission of the State of South Dakota, Case No. F-3062, Northern States Power Company; testimony concerning general financial requirements and measurements of financial performance.

Public Utilities Commission of the State of South Dakota, Case No. F-3188, Northern States Power Company; testimony concerning rate of return and general financial requirements.

Securities and Exchange Commission, File No. 3-5749, Northern States Power Company; testimony concerning the financial and ratemaking implications of an affiliation with Lake Superior District Power Company.

Tennessee Public Service Commission, Docket No. 89-11041, United Inter-Mountain Telephone Company; testimony concerning depreciation principles and capital recovery under competition.

The Railroad Commission of Texas, GUD Docket No. 9988, Texas Gas Service, testimony supporting recommended depreciation rates.

State of Vermont Public Service Board, Docket No. 6596, Citizens Communications Company – Vermont Electric Division; testimony supporting recommended depreciation rates.

State of Vermont Public Service Board, Docket No. 6946 and 6988, Central Vermont Public Service Corporation; testimony supporting net salvage rates.

Commonwealth of Virginia State Corporation Commission, Case No. PUE-2002-00364, Washington Gas Light Company; testimony supporting proposed depreciation rates.

Public Service Commission of Wisconsin, Docket No. 2180-DT-3, General Telephone Company of Wisconsin; testimony concerning the equal-life group depreciation procedure.

**Other
Consulting
Activities**

Moran Towing Corporation. In Re: Barge TEXAS-97 CIV. 2272 (ADS) and Tug HEIDE MORAN – 97 CIV. 1947 (ADS), United States District Court, Southern District of New York.

John Reigle, et al. v. Baltimore Gas & Electric Co., et al., Case No. C-2001-73230-CN, Circuit Court for Anne Arundel County, Maryland.

SR International Business Insurance Co. vs. WTC Properties et. al., 01,CV-9291 (JSM) and other related cases.

BellSouth Telecommunications, Inc. v. Citizens Utilities Company d/b/a/ Louisiana Gas Service Company, CA No. 95-2207, United States District Court, Eastern District of Louisiana.

Affidavit on behalf of Continental Cablevision, Inc. and its operating cable television systems regarding basic broadcast tier and equipment and installation cost-of-service rate justification.

Office of Chief Counsel, Internal Revenue Service. In Re: Kansas City Southern Railway Co., et. al. Docket Nos. 971-72, 974-72, and 4788-73.

Office of Chief Counsel, Internal Revenue Service. In Re: Northern Pacific Railway Co., Docket No. 4489-69.

United States Department of Justice. In Re: Burlington Northern Inc. v. United States, Ct. Cl. No. 30-72.

Minnesota District Court. In Re: Northern States Power Company v. Ronald G. Blank, et. al. File No. 394126; testimony concerning depreciation and engineering economics.

Faculty

Depreciation Programs for public utility commissions, companies, and consultants, sponsored by Depreciation Programs, Inc., in cooperation with Western Michigan University. (1980 - 1999)

United States Telephone Association (USTA), Depreciation Training Seminar, November 1999.

Depreciation Advocacy Workshop, a three-day team-training workshop on preparation, presentation, and defense of contested depreciation issues, sponsored by Gilbert Associates, Inc., October, 1979.

Corporate Economics Course, Employee Education Program, Northern States Power Company. (1968 - 1979)

Perspectives of Top Financial Executives, Course No. 5-300, University of Minnesota, September, 1978.

Depreciation Programs for public utility commissions, companies, and consultants, jointly sponsored by Western Michigan University and Michigan Technological University, 1973.

Professional Associations

Advisory Committee to the Institute for Study of Regulation, sponsored by the American University and The University of Missouri-Columbia.

American Economic Association.

American Gas Association - Edison Electric Institute Depreciation Accounting Committee.

Board of Directors, Iowa State Regulatory Conference.

Edison Electric Institute, Energy Analysis Division, Economic Advisory Committee, 1976-1980.

Financial Management Association.

The Institute of Electrical and Electronics Engineers, Inc., Power Engineering Society, Engineering and Planning Economics Working Group.

Midwest Finance Association.

Society of Depreciation Professionals (Founding Member and Chairman, Policy Committee).

Moderator

Depreciation Open Forum, Iowa State University Regulatory Conference, May 1991.

The Quantification of Risk and Uncertainty in Engineering Economic Studies, Iowa State University Regulatory Conference, May 1989.

Plant Replacement Decisions with Added Revenue from New Service Offerings, Iowa State University Regulatory Conference, May 1988.

Economic Depreciation, Iowa State University Regulatory Conference, May 1987.

Opposing Views on the Use of Customer Discount Rates in Revenue Requirement Comparisons, Iowa State University Regulatory Conference, May 1986.

Cost of Capital Consequences of Depreciation Policy, Iowa State University Regulatory Conference, May 1985.

Concepts of Economic Depreciation, Iowa State University Regulatory Conference, May 1984.

Ratemaking Treatment of Large Capacity Additions, Iowa State University Regulatory Conference, May 1983.

The Economics of Excess Capacity, Iowa State University Regulatory Conference, May 1982.

New Developments in Engineering Economics, Iowa State University Regulatory Conference, May 1980.

Training in Engineering Economy, Iowa State University Regulatory Conference, May 1979.

The Real Time Problem of Capital Recovery, Missouri Public Service Commission, Regulatory Information Systems Conference, September 1974.

Speaker

Group Depreciation Practices of Regulated Utilities (IAS 16 Property, Plant and Equipment), Hydro One Networks, Inc., November 2008.

Economics, Finance and Engineering Valuation. Florida Gulf Coast University, April 2007.

Depreciation Studies for Regulated Utilities, Hydro One Networks, Inc., April 2006.

Depreciation Studies for Cooperatives and Small Utilities. TELERGEE CFO and Controllers Conference, November, 2004.

Finding the "D" in RCNLD (Valuation Applications of Depreciation), Society of Depreciation Professionals Annual Meeting, September 2001.

Capital Asset and Depreciation Accounting, City of Edmonton Value Engineering Workshop, April 2001.

A Valuation View of Economic Depreciation, Society of Depreciation Professionals Annual Meeting, October 1999.

Capital Recovery in a Changing Regulatory Environment, Pennsylvania Electric Association Financial-Accounting Conference, May 1999.

Depreciation Theory and Practice, Southern Natural Gas Company Accounting and Regulatory Seminar, March 1999.

Depreciation Theory Applied to Special Franchise Property, New York Office of Real Property Services, March 1999.

Capital Recovery in a Changing Regulatory Environment, PowerPlan Consultants Annual Client Forum, November 1998.

Economic Depreciation, AGA Accounting Services Committee and EEI Property Accounting and Valuation Committee, May 1998.

Discontinuation of Application of FASB Statement No. 71, Southern Natural Gas Company Accounting Seminar, April 1998.

Forecasting in Depreciation, Society of Depreciation Professionals Annual Meeting, September 1997.

Economic Depreciation In Response to Competitive Market Pricing, 1997 TELUS Depreciation Conference, June 1997.

Valuation of Special Franchise Property, City of New York, Department of Finance Valuation Seminar, March 1997.

Depreciation Implications of FAS Exposure Draft 158-B, 1996 TLG Decommissioning Conference, October 1996.

Why Economic Depreciation?, American Gas Association Depreciation Accounting Committee Meeting, August 1995.

The Theory of Economic Depreciation, Society of Depreciation Professionals Annual Meeting, November 1994.

Vintage Depreciation Issues, G & T Accounting and Finance Association Conference, June 1994.

Pricing and Depreciation Strategies for Segmented Markets (Regulated and Competitive), Iowa State Regulatory Conference, May 1990.

Principles and Practices of Depreciation Accounting, Canadian Electrical Association and Nova Scotia Power Electric Utility Regulatory Seminar, December 1989.

Principles and Practices of Depreciation Accounting, Duke Power Accounting Seminar, September 1989.

The Theory and Practice of Depreciation Accounting Under Public Utility Regulation, GTE Capital Recovery Managers Conference, February 1989.

Valuation Methods for Regulated Utilities, GTE Capital Recovery Managers Conference, January 1988.

Depreciation Principles and Practices for REA Borrowers, NRECA 1985 National Accounting and Finance Conference, September 1985.

Depreciation Principles and Practices for REA Borrowers, Kentucky Association of Electric Cooperatives, Inc., Summer Accountants Association Meeting, June 1985.

Considerations in Conducting a Depreciation Study, NRECA 1984 National Accounting and Finance Conference, October 1984.

Software for Conducting Depreciation Studies on a Personal Computer, United States Independent Telephone Association, September 1984.

Depreciation—An Assessment of Current Practices, NRECA 1983 National Accounting and Finance Conference, September 1983

Depreciation—An Assessment of Current Practices, REA National Field Conference, September 1983.

An Overview of Depreciation Systems, Iowa State Commerce Commission, October 1982.

Depreciation Practices for Gas Utilities, Regulatory Committee of the Canadian Gas Association, September 1981.

Practice, Theory, and Needed Research on Capital Investment Decisions in the Energy Supply Industry, workshop, sponsored by Michigan State University and the Electric Power Research Institute, November 1977.

Depreciation Concepts Under Regulation, Public Utilities Conference, sponsored by The University of Texas at Dallas, July 1976.

Electric Utility Economics, Mid-Continent Area Power Pool, May 1974.

Honors and Awards

The Society of Sigma Xi.

Professional Achievement Citation in Engineering, Iowa State University, 1993.

EXHIBIT

REW-2

2011 Technical Update

UNS Gas, Inc.

Prepared by
Foster Associates, Inc.



CONTENTS

EXECUTIVE SUMMARY	SECTION I
INTRODUCTION	1
SCOPE OF STUDY	1
PROPOSED DEPRECIATION RATES	2
STUDY PROCEDURE	SECTION II
INTRODUCTION	3
SCOPE	3
DATA COLLECTION	3
CALCULATION OF SERVICE LIFE STATISTICS	3
COMPUTATION OF AVERAGE NET SALVAGE RATES	4
REBALANCING OF DEPRECIATION RESERVES	5
DEVELOPMENT OF ACCRUAL RATES	6
STATEMENTS	SECTION III
INTRODUCTION	7
STATEMENT A – REMAINING-LIFE ACCRUAL RATES	8
STATEMENT B – REMAINING-LIFE ACCRUALS	9
STATEMENT C – DEPRECIATION RESERVE SUMMARY	11
STATEMENT D – AVERAGE NET SALVAGE	13
STATEMENT E – PRESENT AND PROPOSED PARAMETERS AND STATISTICS	15

April 2011

EXECUTIVE SUMMARY

INTRODUCTION

This report presents the findings and recommendations developed by Foster Associates in a 2011 Technical Update of depreciation rates for UNS Gas, Inc. (UNS Gas), an operating subsidiary of UniSource Energy Services, Inc. Parameters (*i.e.*, projection curves, projection lives and future net salvage rates) used in the update were developed in the Company's 2006 Depreciation Rate Review based on December 31, 2005 plant and reserve balances. Rates developed in the 2006 Review were approved by the Arizona Corporation Commission (ACC) in Docket No. G-04204A-06-0463 (Decision No. 70011, dated November 27, 2007). Age distributions of surviving plant on December 31, 2010 were used in the 2011 update to derive composite service life statistics and theoretical depreciation reserves.

The purpose of a technical update is to adjust depreciation rates for changes in the variables associated with a remaining life accrual rate. The variables for an account include the age distribution of surviving plant, the recorded depreciation reserve and the average net salvage rate used in the calculation of a theoretical reserve. A technical update retains the parameters developed and/or approved in the most recent full depreciation study and adjusts depreciation rates for subsequent changes in plant, reserves and realized net salvage activity.

The principal findings from this review are summarized in the attached statements. Statement A provides a comparative summary of current and proposed annual depreciation rates for each rate category. Investment and net salvage components are displayed as directed by the ACC in Decision No. 70011. Statement B provides a comparison of current and proposed annualized depreciation accruals. Statement C provides a comparison of recorded, computed and redistributed depreciation reserves for each rate category. Statement D provides a summary of the components used to obtain a weighted-average net salvage rate for each plant account. Statement E provides a comparative summary of current and proposed parameters and statistics including projection life, projection curve, average service life, average remaining life, and average and future net salvage rates.

SCOPE OF STUDY

The principal activities undertaken in the course of conducting the 2011 Technical Update included:

- Collection of plant and net salvage data;
- Reconciliation of data to the official records of the Company;
- Computation of average net salvage rates; and
- Development of adjusted accrual rates for each rate category.

PROPOSED DEPRECIATION RATES

Table 1 provides a summary of the changes in annual rates and accruals resulting from the 2011 Technical Update. Rates proposed for each primary account (with the exception of amortization accounts) have been developed including an allowance for net salvage.

Function	Accrual Rate			2011 Annualized Accrual		
	Current	Proposed	Difference	Current	Proposed	Difference
A	B	C	D=C-B	E	F	G=F-E
Transmission	1.54%	1.54%	0.00%	\$401,006	\$401,204	\$198
Distribution	2.23%	2.37%	0.14%	7,461,333	7,586,167	124,834
General Plant	9.28%	4.38%	-4.90%	2,190,300	1,032,407	(1,157,893)
Total Utility	2.72%	2.44%	-0.28%	\$10,052,639	\$9,019,778	(\$1,032,861)

Table 1. Current and Proposed Rates and Accruals

Adjustments developed in the technical update produce a composite depreciation rate of 2.44 percent. Depreciation expense is currently accrued at an equivalent rate of 2.72 percent. The change in the composite depreciation rate is a reduction of 0.28 percentage points.

A continued application of rates derived from currently approved parameters would produce annual depreciation expense of \$10,052,639 compared with an annual expense of \$9,019,778 using the rates developed in the update. The expense reduction of \$1,032,861 is generally attributable to a change in the mix of plant investments among primary accounts and changes in the age distributions of surviving plant.

STUDY PROCEDURE

INTRODUCTION

Unlike a full depreciation study in which projection curves, projection lives and future net salvage rates are estimated from a statistical analysis of recorded retirements and net salvage realized in the past, a technical update generally retains the parameters currently used by the utility and adjusts depreciation rates for known and measurable changes in the age distributions of surviving plant, depreciation reserves, and average net salvage rates due to the passage of time. A technical update is intended to align depreciation rates with the accounting year the rates will become effective.

SCOPE

The steps involved in preparing a technical update can be grouped into five principal activities:

- Data collection;
- Calculation of service life statistics;
- Computation of average net salvage rates;
- Rebalancing of depreciation reserves; and
- Development of accrual rates.

The scope of the 2011 update for UNS Gas included a consideration of each of these tasks as described below.

DATA COLLECTION

Plant accounting and depreciation reserve transactions recorded over the period 2006–2010 and age distributions of surviving plant at December 31, 2010 were provided to Foster Associates in an electronic format and appended to the database used in conducting the 2006 Review. The accuracy and completeness of the assembled database was verified by comparisons to FERC Form 1 for activity years 2006–2011. Prior activity years were reconciled in the 2006 Review. Derived age distributions were reconciled to the continuing property records at December 31, 2010.

CALCULATION OF SERVICE LIFE STATISTICS

The composite remaining life and average service life of a plant category used in the calculation of depreciation rates are derived from a tabular arrangement of the age distribution of surviving plant and related statistics. The format of such a table is called a *generation arrangement*.

The age distribution of surviving plant is a column of values showing the dollar amount of investment remaining in service at the beginning of a study year from each of the vintages installed in prior years. The sum of an age distribution is

the total plant in service for a plant category. The source of data used to construct an age distribution is a company's Continuing Property Record (CPR) system.

Statistics for each vintage (*i.e.*, average service life and remaining life) contained in a generation arrangement are derived from a mathematical function called a *survivorship function* or *survivor curve*. The survivor curve most descriptive of the forces of retirement acting upon a plant category is identified from a statistical analysis of past retirement experience, coupled with a consideration of how these forces are likely to change in the future. The collection of past retirements used in the statistical analysis can be viewed as a random sample from an unknown parent population. The objective of a life analysis is to estimate the parameters (*i.e.*, mean service life and dispersion characteristics) of the parent population. The mean service life of the population which best describes the timing of past and future retirements is called a *projection life* and the survivor curve selected to describe the forces of retirement acting upon the population is called a *projection curve*. A technical update generally retains the service life parameters estimated in a full depreciation study. Statistics for each vintage, however, are updated to reflect known and measurable changes in the age distributions of surviving plant.

COMPUTATION OF AVERAGE NET SALVAGE RATES

Estimates of net salvage rates applicable to future retirements are derived in a full depreciation study from an analysis of gross salvage and removal expense realized in the past and a consideration of future expectations that may dictate a departure from historical indications. Future net salvage rates adopted from such an analysis are retained as fixed parameters in a technical update.

The average net salvage rate for an account or plant function is derived from a direct dollar weighting of a) historical retirements with historical (or realized) net salvage rates and b) future retirements (*i.e.*, surviving plant) with the estimated future net salvage rate. Average net salvage rates will change, therefore, as additional years of retirement and net salvage activity become available and as subsequent plant additions alter the weighting of future net salvage estimates.

The computation of salvage rates is shown in Statement D.

REBALANCING OF DEPRECIATION RESERVES

Although reserve records are typically maintained by various account classifications, the total reserve for a company is the most important measure of the status of the company's depreciation practices and procedures. If a company has not previously conducted statistical life studies or considered retirement dispersion in setting depreciation rates, it is likely that some accounts will be over-depreciated and other accounts will be under-depreciated relative to a calculated

or theoretical reserve. Differences between theoretical and recorded reserves will also arise as a normal occurrence when service lives, dispersion patterns and net salvage estimates are changed in the course of depreciation reviews. It is appropriate, therefore, and consistent with group depreciation theory to periodically redistribute recorded reserves among the various primary accounts based upon the most recent estimates of retirement dispersion and net salvage rates.

A rebalancing of recorded reserves is consistent with the objectives of a technical update and is considered appropriate for UNS Gas. The rebalancing of reserves undertaken in the 2011 update will help to stabilize depreciation rates and preserve consistency between measured reserve imbalances and the parameters used in the formulation of updated remaining-life accrual rates.

A redistribution of the recorded reserve was achieved by multiplying the calculated reserve for each primary account within a function (or plant location) by the ratio of the function (or location) total recorded reserve to the function (or location) total calculated reserve. The sum of the redistributed reserves within a function (or location) is, therefore, equal to the function (or location) total recorded depreciation reserve before the redistribution.

Statement C provides a comparison of recorded, computed and rebalanced reserves for UNS Gas at December 31, 2010. The recorded reserve was \$114,322,310 or 30.9 percent of the depreciable plant investment. The corresponding computed reserve is \$94,236,952 or 25.5 percent of the depreciable plant investment. A proportionate amount of the measured reserve excess of \$20,085,357 will be amortized over the composite weighted-average remaining life of each rate category.

DEVELOPMENT OF ACCRUAL RATES

The goal or objective of depreciation accounting is cost allocation over the economic life of an asset in proportion to the consumption of service potential. Ideally, the cost of an asset—which represents the cost of obtaining a bundle of service units—should be allocated to future periods of operation in proportion to the amount of service potential expended during an accounting interval. The service potential of an asset is the present value of future net revenue (*i.e.*, revenue less expenses exclusive of depreciation and other non-cash expenses) or cash inflows attributable to the use of that asset alone.

Depreciation rates currently approved for UNS Gas were developed using a system composed of the straight-line method, vintage-group procedure, remaining-life technique. Depreciation rates proposed in the update were developed using the currently approved system.

The treatment of amortization accounts produces annualized accruals equivalent to applying a rate equal to the reciprocal of an amortization period to plant balances after retirements have been recorded. Applying a rate equal to the reciprocal of the amortization period to plant balances prior to posting retirements would overstate the annualized amortization expense. Accrual rates contained in Statement A have been applied to plant balances containing vintages that will be retired upon approval of the requested amortization periods. Accrual rates contained in Statement A should be applied to current plant balances. Accrual rates equal to the reciprocal of the amortization period should be applied to these categories after plant balances have been reduced by all vintages that have achieved an age equal to the amortization period.

STATEMENTS

INTRODUCTION

This section provides a comparative summary of depreciation rates, annualized depreciation accruals, recorded and computed depreciation reserves, and current and proposed service life and net salvage parameters for UNS Gas. The content of these statements is briefly described below.

- Statement A provides a comparative summary of current and proposed annual depreciation rates for calendar year 2011 using the straight-line method, vintage group procedure, remaining-life technique.
- Statement B provides a comparison of the current and proposed annualized depreciation accruals for calendar year 2011 derived from the rates developed in Statement A.
- Statement C provides a comparison of recorded, computed and rebalanced reserves for each rate category.
- Statement D provides a summary of the components used to obtain a weighted average net salvage rate for each rate category.
- Statement E provides a comparative summary of current parameters including projection life, projection curve and future net salvage rates. The statement also contains current and proposed statistics including average service life, average remaining life, and average net salvage rates.

Current depreciation accruals shown on Statement B are the product of the plant investment (Column B) and current depreciation rates shown on Statement A. Similarly, proposed depreciation accruals shown on Statement B are the product of the plant investment and the proposed depreciation rates shown on Statement A. Both current and proposed remaining life accrual rates are given by:

$$\text{Accrual Rate} = \frac{1.0 - \text{Reserve Ratio} - \text{Future Net Salvage Rate}}{\text{Remaining Life}}$$

The above formulation of a remaining-life accrual rate is equivalent to

$$\text{Accrual Rate} = \frac{1.0 - \text{Average Net Salvage}}{\text{Average Life}} + \frac{\text{Computed Reserve} - \text{Recorded Reserve}}{\text{Remaining Life}}$$

where Average Net Salvage, Computed Reserve and Recorded Reserve are expressed in percent.

UNS GAS, INC.

Statement A

Comparison of Current and Proposed Accrual Rates

Current: VG Procedure / RL Technique

Proposed: VG Procedure / RL Technique

Account Description A	Current (at 12/31/2010)			Proposed (at 12/31/2010)		
	Investment B	Net Salvage C	Total D=B+C	Investment E	Net Salvage F	Total G=E+F
TRANSMISSION PLANT						
365.20 Rights of Way	1.38%		1.38%	1.39%		1.39%
366.00 Structures and Improvements	1.55%		1.55%	1.52%		1.52%
367.00 Mains	1.40%	0.13%	1.53%	1.40%	0.13%	1.53%
369.00 Meas. and Reg. Station Equipment	1.46%	0.08%	1.54%	1.47%	0.08%	1.55%
371.00 Other Equipment	2.49%		2.49%	2.40%		2.40%
Total Transmission Plant	1.42%	0.12%	1.54%	1.42%	0.12%	1.54%
DISTRIBUTION PLANT						
374.20 Rights of Way	0.93%		0.93%	1.04%		1.04%
374.30 Easements	1.76%		1.76%	1.74%		1.74%
375.00 Structures and Improvements	1.93%		1.93%	1.92%		1.92%
376.00 Mains	1.73%	0.34%	2.07%	1.74%	0.35%	2.09%
378.00 Meas. and Reg. Station Equip. - General	2.31%	0.66%	2.97%	2.40%	0.70%	3.10%
379.00 Meas. and Reg. Station Equip. - City Gate	2.36%		2.36%	2.40%		2.40%
380.00 Services	1.90%	0.92%	2.82%	1.91%	0.94%	2.85%
381.00 Meters	2.15%		2.15%	2.36%		2.36%
383.00 House Regulators	2.56%		2.56%	2.58%		2.58%
384.00 House Regulator Installations	2.78%	0.02%	2.80%	2.76%		2.76%
385.00 Industrial Meas. and Reg. Station Equip.	1.99%	0.71%	2.70%	2.11%	0.80%	2.91%
387.00 Other Work Equipment	3.01%		3.01%	3.02%		3.02%
Total Distribution Plant	1.85%	0.48%	2.33%	1.88%	0.49%	2.37%
GENERAL PLANT						
Depreciable						
390.00 Structures and Improvements	4.89%		4.89%	3.63%	-0.23%	3.40%
392.C1 Transportation Equipment - C1	16.32%	-1.61%	14.71%	6.91%	-0.32%	6.59%
392.C2 Transportation Equipment - C2	19.82%	-1.95%	17.87%	1.66%	0.06%	1.72%
392.C3 Transportation Equipment - C3	25.15%	-2.47%	22.68%	11.22%	-0.44%	10.78%
392.C4 Transportation Equipment - C4						
392.C5 Transportation Equipment - C5						
392.C6 Transportation Equipment - C6	14.49%	-1.45%	13.04%	11.98%	-1.20%	10.78%
392.C7 Transportation Equipment - C7	13.15%	-1.32%	11.83%	-1.26%	0.13%	-1.13%
392.C9 Transportation Equipment - C9	13.15%	-1.32%	11.83%	4.47%	-0.44%	4.03%
396.00 Power Operated Equipment	11.66%	-1.17%	10.49%	4.49%	-0.45%	4.04%
Total Depreciable	11.84%	-0.99%	10.85%	3.66%	-0.19%	3.46%
Amortizable						
302.00 Franchises and Consents	4.00%		4.00%	← 25 Year Amortization →		3.88%
303.00 Miscellaneous Intangible Plant	6.67%		6.67%	← 15 Year Amortization →		6.67%
391.00 Office Furniture and Equipment	4.55%		4.55%	← 22 Year Amortization →		4.54%
391.20 Computer Equipment - Desktop PCs	20.00%		20.00%	← 5 Year Amortization →		17.89%
393.00 Stores Equipment	2.86%		2.86%	← 35 Year Amortization →		2.86%
394.00 Tools, Shop and Garage Equipment	4.00%		4.00%	← 25 Year Amortization →		3.99%
395.00 Laboratory Equipment	11.11%		11.11%	← 9 Year Amortization →		10.83%
397.00 Communication Equipment	6.67%		6.67%	← 15 Year Amortization →		6.66%
398.00 Miscellaneous Equipment	4.00%		4.00%	← 25 Year Amortization →		4.00%
Total Amortizable	6.30%		6.30%			6.12%
Total General Plant	9.93%	-0.65%	9.28%	4.50%	-0.13%	4.38%
TOTAL GAS UTILITY	2.33%	0.38%	2.71%	2.01%	0.43%	2.44%

Statement B

UNS GAS, INC.
 Comparison of Current and Proposed Accruals
 Current: VG Procedure / RL Technique
 Proposed: VG Procedure / RL Technique

Account Description A	12/31/10		Current 2011 Annualized Accrual		Proposed 2011 Annualized Accrual		Difference H-H-E
	Investment B	Total E-C-D	Investment C	Net Salvage D	Investment F	Net Salvage G	
TRANSMISSION PLANT							
365.20 Rights of Way	\$ 102,606	\$ 1,416	\$ 1,416	\$ -	\$ 1,426	\$ -	\$ 1,426
366.00 Structures and Improvements	16,853	261	261	-	256	-	256
367.00 Mains	22,203,729	310,852	310,852	28,865	310,852	28,865	339,717
369.00 Meas. and Reg. Station Equipment	3,574,097	52,182	55,041	2,859	52,539	2,859	55,398
371.00 Other Equipment	183,581	4,571	4,571	-	4,406	-	4,406
Total Transmission Plant	\$26,080,866	\$369,282	\$369,282	\$31,724	\$369,479	\$31,724	\$401,203
DISTRIBUTION PLANT							
374.20 Rights of Way	\$ 25,111	\$ 234	\$ 234	\$ -	\$ 261	\$ -	\$ 261
374.30 Easements	104,951	1,847	1,847	-	1,826	-	1,826
375.00 Structures and Improvements	10,947	211	211	-	210	-	210
376.00 Mains	185,710,875	3,212,798	3,212,798	631,417	3,231,369	649,988	3,881,357
378.00 Meas. and Reg. Station Equip. - General	4,242,237	97,996	125,995	27,999	101,814	29,696	131,510
379.00 Meas. and Reg. Station Equip. - City Gate	4,088,878	96,498	96,498	-	98,133	-	98,133
380.00 Services	94,268,371	1,791,099	1,791,099	867,269	1,800,526	866,123	2,686,649
381.00 Meters	22,779,062	489,750	489,750	-	537,586	-	537,586
383.00 House Regulators	3,088,367	79,062	79,062	-	79,680	-	79,680
384.00 House Regulator Installations	2,000,409	55,611	56,011	400	55,211	-	55,211
385.00 Industrial Meas. and Reg. Station Equip.	2,109,431	41,978	56,955	14,977	44,509	16,875	61,384
387.00 Other Work Equipment	1,733,813	52,188	52,188	-	52,361	-	52,361
Total Distribution Plant	\$ 320,162,452	\$ 5,919,272	\$ 5,919,272	\$ 1,542,062	\$ 6,003,486	\$ 1,582,682	\$ 7,586,168
GENERAL PLANT							
Depreciable							
390.00 Structures and Improvements	\$ 5,833,135	\$ 285,240	\$ 285,240	\$ -	\$ 211,743	\$ (13,416)	\$ 198,327
392.C1 Transportation Equipment - C1	2,490,735	406,488	366,387	(40,101)	172,110	(7,970)	164,140
392.C2 Transportation Equipment - C2	2,058,235	407,942	367,806	(40,136)	34,167	1,235	35,402
392.C3 Transportation Equipment - C3	693,492	174,413	157,284	(17,129)	77,810	(3,051)	74,759
392.C4 Transportation Equipment - C4							
392.C5 Transportation Equipment - C5							
392.C6 Transportation Equipment - C6	118,451	17,164	15,446	(1,718)	14,190	(1,421)	12,769
392.C7 Transportation Equipment - C7	2,372,509	311,985	280,668	(31,317)	(29,894)	3,084	(26,810)
392.C9 Transportation Equipment - C9	424,589	55,833	50,228	(5,605)	18,979	(1,866)	17,111
396.00 Power Operated Equipment	1,493,907	174,190	156,711	(17,479)	67,076	(6,723)	60,353
Total Depreciable	\$ 15,485,053	\$ 1,833,255	\$ 1,679,770	\$ (153,485)	\$ 566,181	\$ (30,130)	\$ 536,051
							\$ (1,143,719)

Statement B

UNS GAS, INC.
 Comparison of Current and Proposed Accruals
 Current: VG Procedure / RL Technique
 Proposed: VG Procedure / RL Technique

Account Description A	12/31/10 B		Current 2011 Annualized Accrual C		Proposed 2011 Annualized Accrual D		Investment E=C-D		Net Salvage F		Total G		Difference H=H-E
	Investment	Total	Investment	Total	Investment	Total	Investment	Total	Investment	Total	Investment	Total	
Amortizable													
302.00 Franchises and Consents	\$ 350,750	\$ 14,030	\$ 14,030	\$ 14,030	\$ 13,596	\$ 13,596	\$ -	\$ 13,596	\$ -	\$ -	\$ 13,596	\$ (434)	
303.00 Miscellaneous Intangible Plant	811,817	54,148	54,148	54,148	54,121	54,121	-	54,121	-	-	54,121	(27)	
391.00 Office Furniture and Equipment	1,676,164	76,265	76,265	76,265	76,018	76,018	-	76,018	-	-	76,018	(247)	
391.20 Computer Equipment - Desktop PCs	541,986	108,397	108,397	108,397	96,970	96,970	-	96,970	-	-	96,970	(11,427)	
393.00 Stores Equipment	226,541	6,479	6,479	6,479	6,473	6,473	-	6,473	-	-	6,473	(6)	
394.00 Tools, Shop and Garage Equipment	2,509,161	100,366	100,366	100,366	100,086	100,086	-	100,086	-	-	100,086	(280)	
395.00 Laboratory Equipment	574,743	63,854	63,854	63,854	62,240	62,240	-	62,240	-	-	62,240	(1,614)	
397.00 Communication Equipment	1,138,123	75,913	75,913	75,913	75,787	75,787	-	75,787	-	-	75,787	(126)	
398.00 Miscellaneous Equipment	276,903	11,076	11,076	11,076	11,065	11,065	-	11,065	-	-	11,065	(11)	
Total Amortizable	\$ 8,106,187	\$ 510,528	\$ 510,528	\$ 510,528	\$ 496,356	\$ 496,356	\$ -	\$ 496,356	\$ -	\$ -	\$ 496,356	\$ (14,172)	
Total General Plant	\$ 23,591,240	\$ 2,343,783	\$ 2,343,783	\$ 2,190,298	\$ 1,062,537	\$ 1,062,537	\$ (153,485)	\$ 1,062,537	\$ (30,130)	\$ (30,130)	\$ 1,032,407	\$ (1,157,891)	
TOTAL GAS UTILITY	\$ 369,634,558	\$ 8,632,337	\$ 8,632,337	\$ 10,052,638	\$ 7,435,502	\$ 7,435,502	\$ 1,420,301	\$ 10,052,638	\$ 1,584,276	\$ 1,584,276	\$ 9,019,778	\$ (1,032,860)	

Statement C

UNS GAS, INC.

Depreciation Reserve Summary
Vintage Group Procedure
December 31, 2010

Account Description	Plant Investment		Recorded Reserve		Computed Reserve		Redistributed Reserve	
	A	B	C	D=C/B	E	F=E/B	G	H=G/B
	Amount	Ratio	Amount	Ratio	Amount	Ratio	Amount	Ratio
TRANSMISSION PLANT								
365.20 Rights of Way	\$ 102,606		\$ 22,577	22.00%	\$ 16,223	15.81%	\$ 24,659	24.03%
366.00 Structures and Improvements	16,853		5,243	31.11%	2,382	14.13%	3,621	21.48%
367.00 Mains	22,203,729		5,521,568	24.87%	3,655,242	16.46%	5,556,185	25.02%
369.00 Meas. and Reg. Station Equipment	3,574,097		1,063,964	29.77%	680,508	19.04%	1,034,413	28.94%
371.00 Other Equipment	183,581		103,193	56.21%	64,253	35.00%	97,669	53.20%
Total Transmission Plant	\$ 26,080,866		\$ 6,716,546	25.75%	\$ 4,418,608	16.94%	\$ 6,716,546	25.75%
DISTRIBUTION PLANT								
374.20 Rights of Way	\$ 25,111		\$ 20,975	83.53%	\$ 17,694	70.46%	\$ 20,860	83.07%
374.30 Easements	104,951		19,579	18.65%	20,265	19.31%	23,891	22.76%
375.00 Structures and Improvements	10,947		8,337	76.16%	6,895	62.98%	8,129	74.25%
376.00 Mains	185,710,875		49,779,066	26.80%	43,891,329	23.63%	51,745,070	27.86%
378.00 Meas. and Reg. Station Equip. - General	4,242,237		996,327	23.49%	715,178	16.86%	843,150	19.88%
379.00 Meas. and Reg. Station Equip. - City Gate	4,088,878		747,080	18.27%	521,684	12.76%	615,033	15.04%
380.00 Services	94,268,371		33,237,595	35.26%	27,813,239	29.50%	32,790,030	34.78%
381.00 Meters	22,779,062		7,874,334	34.57%	5,627,701	24.71%	6,634,700	29.13%
383.00 House Regulators	3,088,367		1,236,532	40.04%	1,077,317	34.88%	1,270,088	41.12%
384.00 House Regulator Installations	2,000,409		373,811	18.69%	326,737	16.33%	385,202	19.26%
385.00 Industrial Meas. and Reg. Station Equip.	2,109,431		775,173	36.75%	624,497	29.60%	736,242	34.90%
387.00 Other Work Equipment	1,733,813		657,034	37.90%	554,270	31.97%	653,449	37.69%
Total Distribution Plant	\$ 320,162,452		\$ 95,725,843	29.90%	\$ 81,196,806	25.36%	\$ 95,725,843	29.90%

Statement C

UNS GAS, INC.

Depreciation Reserve Summary
Vintage Group Procedure
December 31, 2010

Account Description	Plant Investment		Recorded Reserve		Computed Reserve		Redistributed Reserve	
	A	B	C	D=C/B	E	F=E/B	G	H=G/B
GENERAL PLANT								
Depreciable								
390.00 Structures and Improvements	\$ 5,833,135	\$	904,454	15.51%	883,480	15.15%	1,437,250	24.64%
392.C1 Transportation Equipment - C1	2,490,735		1,597,860	64.15%	879,301	35.30%	1,430,452	57.43%
392.C2 Transportation Equipment - C2	2,058,235		2,038,741	99.05%	1,079,204	52.43%	1,755,655	85.30%
392.C3 Transportation Equipment - C3	693,492		86,303	12.44%	248,058	35.77%	403,643	58.19%
392.C4 Transportation Equipment - C4			(114,935)					
392.C5 Transportation Equipment - C5			(74,447)					
392.C6 Transportation Equipment - C6	118,451		6,436	5.43%	6,663	5.63%	10,839	9.15%
392.C7 Transportation Equipment - C7	2,372,509		2,427,977	102.34%	1,360,730	57.35%	2,213,642	93.30%
392.C9 Transportation Equipment - C9	424,589		23,683	5.58%	192,961	45.45%	313,911	73.93%
396.00 Power Operated Equipment	1,493,907		703,773	47.11%	548,002	36.68%	891,492	59.68%
Total Depreciable	\$ 15,485,053	\$	7,599,845	49.08%	\$ 5,198,400	33.57%	\$ 8,456,782	54.61%
Amortizable								
302.00 Franchises and Consents	\$ 350,750	\$	208,979	59.58%	206,130	58.77%	206,130	58.77%
303.00 Miscellaneous Intangible Plant	811,817		444,601	54.77%	416,616	51.32%	416,616	51.32%
391.00 Office Furniture and Equipment	1,676,164		516,390	30.81%	519,477	30.99%	519,477	30.99%
391.20 Computer Equipment - Desktop PCs	541,985		1,142,840	210.86%	311,906	57.55%	311,906	57.55%
393.00 Stores Equipment	226,541		54,221	23.93%	46,839	20.68%	46,839	20.68%
394.00 Tools, Shop and Garage Equipment	2,509,161		945,871	37.70%	955,209	38.07%	955,209	38.07%
395.00 Laboratory Equipment	574,743		287,667	46.57%	252,928	44.01%	252,928	44.01%
397.00 Communication Equipment	1,138,123		576,086	50.62%	590,753	51.91%	590,753	51.91%
398.00 Miscellaneous Equipment	276,903		123,422	44.57%	123,280	44.52%	123,280	44.52%
Total Amortizable	\$ 8,106,187	\$	4,280,076	52.80%	\$ 3,423,136	42.23%	\$ 3,423,136	42.23%
Total General Plant	\$ 23,591,240	\$	11,879,920	50.36%	\$ 8,621,538	36.55%	\$ 11,879,920	50.36%
TOTAL GAS UTILITY	\$ 369,834,558	\$	114,322,310	30.91%	\$ 94,236,952	25.48%	\$ 114,322,310	30.91%

Statement D

UNS GAS, INC.
Average Net Salvage

Account Description A	Plant Investment		Survivors		Salvage Rate		Net Salvage		Average Rate J/L/B
	Additions B	Retirements C	D-B/C	Realized E	Future F	Realized G-E/C	Future H-F/D	Total I-G/H	
TRANSMISSION PLANT									
365.20 Rights of Way	\$ 102,606	\$ -	\$ 102,606			\$ -	\$ -	\$ -	-
366.00 Structures and Improvements	16,853		16,853					(2,220,373)	-9.8%
367.00 Mains	22,668,057	484,328	22,203,729		-10.0%			(178,837)	-5.0%
369.00 Meas. and Reg. Station Equipment	3,600,481	26,384	3,574,097		-0.5%	(132)			
371.00 Other Equipment	183,581		183,581						
Total Transmission Plant	\$ 26,571,578	\$ 490,712	\$ 26,080,866		-9.2%	\$ (132)	\$ (2,399,078)	\$ (2,399,210)	-9.0%
DISTRIBUTION PLANT									
374.20 Rights of Way	\$ 25,111	\$ -	\$ 25,111			\$ -	\$ -	\$ -	-
374.30 Easements	104,951		104,951						
375.00 Structures and Improvements	10,947		10,947						
376.00 Mains	189,140,058	3,429,183	185,710,875		-13.6%	(466,369)	(37,142,175)	(37,608,544)	-19.9%
378.00 Meas. and Reg. Station Equip. - General	4,428,182	185,945	4,242,237		-14.9%	(27,706)	(1,272,671)	(1,300,377)	-29.4%
379.00 Meas. and Reg. Station Equip. - City Gate	4,367,936	279,058	4,088,878						
380.00 Services	96,376,763	2,108,392	94,268,371		-6.7%	(141,262)	(47,134,186)	(47,275,448)	-49.1%
381.00 Meters	24,526,985	1,747,923	22,779,062		-0.1%	(1,748)		(1,748)	
383.00 House Regulators	3,255,314	166,947	3,088,367						
384.00 House Regulator Installations	2,000,502	93	2,000,409		12.2%	11		11	
385.00 Industrial Meas. and Reg. Station Equip.	2,287,332	177,901	2,109,431		-16.7%	(29,709)	(843,772)	(873,482)	-38.2%
387.00 Other Work Equipment	1,774,575	40,762	1,733,813		-1.2%	(489)		(489)	
Total Distribution Plant	\$ 328,298,656	\$ 8,136,204	\$ 320,162,452		-8.2%	\$ (667,272)	\$ (86,392,804)	\$ (87,060,076)	-26.5%
GENERAL PLANT									
Depreciable									
390.00 Structures and Improvements	\$ 10,565,193	\$ 4,732,058	\$ 5,833,135		7.9%	\$ 373,833	\$ -	\$ 373,833	3.5%
392.C1 Transportation Equipment - C1	3,317,765	827,030	2,490,735		2.2%	18,195	249,074	267,268	8.1%
392.C2 Transportation Equipment - C2	4,658,576	2,600,341	2,058,235		8.3%	215,828	205,824	421,652	9.1%
392.C3 Transportation Equipment - C3	1,299,244	605,752	693,492		5.4%	32,711	69,349	102,060	7.9%
392.C4 Transportation Equipment - C4									
392.C5 Transportation Equipment - C5									
392.C6 Transportation Equipment - C6	118,451		118,451		10.0%		11,845	11,845	10.0%
392.C7 Transportation Equipment - C7	2,372,509		2,372,509		10.0%		237,251	237,251	10.0%
392.C9 Transportation Equipment - C9	424,589		424,589		10.0%		42,459	42,459	10.0%
396.00 Power Operated Equipment	1,812,229	318,322	1,493,907		10.1%	32,151	149,391	181,541	10.0%
Total Depreciable	\$ 24,568,556	\$ 9,083,503	\$ 15,485,053		6.2%	\$ 672,717	\$ 965,192	\$ 1,637,908	6.7%

Statement D

UNS GAS, INC.
Average Net Salvage

Account Description A	Plant Investment		Salvage Rate		Net Salvage		Average Rate J-IIB
	Additions B	Retirements C	Survivors D-B-C	Realized E	Future F	Realized G-E-C	
Amortizable							
302.00 Franchises and Consents	\$ 416,413	\$ 65,663	\$ 350,750	\$ -	\$ -	\$ -	\$ -
303.00 Miscellaneous Intangible Plant	1,052,860	241,043	811,817				
391.00 Office Furniture and Equipment	5,452,514	3,776,350	1,676,164				
391.20 Computer Equipment - Desktop PCs	6,086,750	5,544,765	541,985				
393.00 Stores Equipment	249,005	22,464	226,541				
394.00 Tools, Shop and Garage Equipment	3,064,871	555,710	2,509,161				
395.00 Laboratory Equipment	1,202,350	627,607	574,743				
397.00 Communication Equipment	1,855,518	717,395	1,138,123				
398.00 Miscellaneous Equipment	302,911	26,008	276,903				
Total Amortizable	\$ 19,683,192	\$ 11,577,005	\$ 8,106,187	\$ -	\$ -	\$ -	\$ -
Total General Plant	\$ 44,251,748	\$ 20,660,508	\$ 23,591,240	3.3%	4.1%	\$ 672,717	\$ 1,637,908
TOTAL GAS UTILITY	\$ 399,121,982	\$ 29,287,424	\$ 369,834,558	-23.7%	-23.7%	\$ 5,313	\$ (87,821,377)
							\$ (87,821,377)
							3.7%
							-22.0%

Statement E

UNS GAS, INC.
Current and Proposed Parameters
Vintage Group Procedure

Account Description A	Current Parameters						Proposed Parameters					
	B	C	D	E	F	G	H	I	J	K	L	M
	P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.	P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.
TRANSMISSION PLANT												
365.20 Rights of Way	65.00	R3	65.00	59.57			65.00	R3	65.02	54.74		
366.00 Structures and Improvements	60.00	R4	60.00	56.50			60.00	R4	60.00	51.52		
367.00 Mains	65.00	R3	65.01	60.21	-9.8	-10.0	65.00	R3	65.02	55.39	-9.8	-10.0
369.00 Meas. and Reg. Station Equipment	60.00	R4	60.00	54.10	-5.0	-5.0	60.00	R4	60.00	49.12	-5.0	-5.0
371.00 Other Equipment	30.00	S6	30.00	24.50			30.00	S6	30.00	19.50		
Total Transmission Plant									63.76	53.93	-9.0	-9.2
DISTRIBUTION PLANT												
374.20 Rights of Way	55.00	L5	55.03	20.74			55.00	L5	55.15	16.29		
374.30 Easements	55.00	L5	55.00	49.38			55.00	L5	55.00	44.38		
375.00 Structures and Improvements	35.00	R4	35.57	17.21			35.00	R4	36.20	13.40		
376.00 Mains	55.00	L5	54.89	46.64	-19.9	-20.0	55.00	L5	54.87	44.10	-19.9	-20.0
378.00 Meas. and Reg. Station Equip. - General	40.00	SC	40.81	34.34	-28.8	-30.0	40.00	SC	40.67	35.56	-29.4	-30.0
379.00 Meas. and Reg. Station Equip. - City Gate	40.00	SC	40.54	35.26			40.00	SC	40.60	35.42		
380.00 Services	50.00	R2.5	50.04	42.82	-48.8	-50.0	50.00	R2.5	50.04	40.44	-49.1	-50.0
381.00 Meters	40.00	R5	41.87	27.49			40.00	R5	39.91	30.05		
383.00 House Regulators	35.00	R5	35.03	25.92			35.00	R5	35.06	22.83		
384.00 House Regulator Installations	35.00	R5	35.00	32.23	-0.4		35.00	R5	35.02	29.30		
385.00 Industrial Meas. and Reg. Station Equip.	45.00	R1.5	45.16	33.54	-37.2	-40.0	45.00	R1.5	45.23	36.13	-38.2	-40.0
387.00 Other Work Equipment	30.00	S6	29.99	22.62			30.00	S6	30.28	20.60		
Total Distribution Plant									50.85	40.74	-26.5	-27.0

UNS GAS, INC.
Current and Proposed Parameters
Vintage Group Procedure

Account Description A	Current Parameters						Proposed Parameters					
	B	C	D	E	F	G	H	I	J	K	L	M
	P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.	P-Life/ AYFR	Curve Shape	VG ASL	Rem. Life	Avg. Sal.	Fut. Sal.
GENERAL PLANT												
Depreciable												
390.00 Structures and Improvements	25.00	SC	26.22	19.00	-0.1		25.00	SC	25.19	22.15	3.5	
392.C1 Transportation Equipment - C1	8.00	L1.5	8.30	5.62	9.2	10.0	8.00	L1.5	8.30	4.94	8.1	10.0
392.C2 Transportation Equipment - C2	6.00	L2	6.01	4.78	9.2	10.0	6.00	L2	6.63	2.74	9.1	10.0
392.C3 Transportation Equipment - C3	5.00	S5	5.02	3.71	9.2	10.0	5.00	S5	5.01	2.95	7.9	10.0
392.C4 Transportation Equipment - C4												
392.C5 Transportation Equipment - C5	8.00	S4	8.00	6.59	10.0	10.0	8.00	S4	8.00	7.50	10.0	10.0
392.C6 Transportation Equipment - C6	8.00	S4	8.00	7.48	10.0	10.0	8.00	S4	8.05	2.92	10.0	10.0
392.C7 Transportation Equipment - C7	8.00	S4	8.00	7.48	10.0	10.0	8.00	S4	8.06	3.99	10.0	10.0
392.C9 Transportation Equipment - C9	12.00	L2	12.71	7.71	10.1	10.0	12.00	L2	12.66	7.50	10.0	10.0
396.00 Power Operated Equipment									10.60	6.80	6.7	6.2
Total Depreciable												
Amortizable												
302.00 Franchises and Consents	25.00	SQ	25.00	13.68			25.00	SQ	25.00	10.31		
303.00 Miscellaneous Intangible Plant	15.00	SQ	15.00	10.53			15.00	SQ	15.00	7.30		
391.00 Office Furniture and Equipment	22.00	SQ	22.00	18.59			22.00	SQ	22.00	15.18		
391.20 Computer Equipment - Desktop PCs	5.00	SQ	5.00	1.00			5.00	SQ	5.00	2.12		
393.00 Stores Equipment	35.00	SQ	35.00	27.40			35.00	SQ	35.00	27.76		
394.00 Tools, Shop and Garage Equipment	25.00	SQ	25.00	16.12			25.00	SQ	25.00	15.48		
395.00 Laboratory Equipment	9.00	SQ	9.00	4.23			9.00	SQ	9.00	5.04		
397.00 Communication Equipment	15.00	SQ	15.00	9.20			15.00	SQ	15.00	7.21		
398.00 Miscellaneous Equipment	25.00	SQ	25.00	18.32			25.00	SQ	25.00	13.87		
Total Amortizable									15.88	9.17		
Total General Plant									11.97	7.42	3.7	4.1
TOTAL GAS UTILITY									42.63	33.79	-22.0	-23.7

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE - CHAIRMAN

BOB STUMP

SANDRA K. KENNEDY

PAUL NEWMAN

BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

Direct Testimony of

Samuel C. Hadaway

on Behalf of

UNS Gas, Inc.

April 8, 2011

TABLE OF CONTENTS

I.	Introduction and Summary of Testimony.....	1
II.	Fair Market Value of UNS Gas Assets.....	6
III.	Capital Market Factors that Affect the Cost of Equity.....	9
IV.	Estimating the Cost of Equity Capital.....	24
V.	Cost of Equity Capital for UNS Gas.....	37
VI.	Summary of Conclusions.....	44

Appendix A: Qualifications of Samuel C. Hadaway

Exhibits

Exhibit SCH-1	Comparable Company Characteristics
Exhibit SCH-2	Fair Market Value of UNS Gas Assets
Exhibit SCH-3	Capital Market Data and Forecasts
Exhibit SCH-4	Forecast of GDP Growth Rate
Exhibit SCH-5	Discounted Cash Flow Analysis
Exhibit SCH-6	Risk Premium Analysis

1 **I. INTRODUCTION AND SUMMARY OF TESTIMONY.**

2

3 **Q. Please state your name and business address.**

4 A. My name is Samuel C. Hadaway. I am a Principal in FINANCO, Inc., Financial
5 Analysis Consultants, 3520 Executive Center Drive, Austin, Texas 78731.

6

7 **Q. On whose behalf are you testifying?**

8 A. I am testifying on behalf of UNS Gas, Inc. ("UNS Gas" or "the Company").

9

10 **Q. Please state your educational background and describe your professional
11 training and experience.**

12 A. I have a Bachelor's degree in economics from Southern Methodist University, as
13 well as MBA and Ph.D. degrees with concentrations in finance and economics
14 from the University of Texas at Austin ("UT Austin"). I am an owner and full-
15 time employee of FINANCO, Inc. FINANCO provides financial research
16 concerning the cost of capital and financial condition for regulated companies as
17 well as financial modeling and other economic studies in litigation support. In
18 addition to my work at FINANCO, I have served as an adjunct professor in the
19 McCombs School of Business at UT Austin, and in what is now the McCoy
20 College of Business at Texas State University. In my prior academic work, I
21 taught economics and finance courses and I conducted research, and directed
22 graduate students in the areas of investments and capital market research. I was
23 previously Director of the Economic Research Division at the Public Utility
24 Commission of Texas ("Texas Commission") where I supervised the Texas
25 Commission's finance, economics, and accounting staff, and served as the Texas
26 Commission's chief financial witness in electric and telephone rate cases. I have

1 taught courses at various utility conferences on cost of capital, capital structure,
2 utility financial condition, and cost allocation and rate design issues. I have made
3 presentations before the New York Society of Security Analysts, the National
4 Rate of Return Analysts Forum, and various other professional and legislative
5 groups. I have served as a vice president and on the board of directors of the
6 Financial Management Association.

7
8 Over the past 30 years, I have testified before public utilities commissions in
9 numerous jurisdictions on cost of capital, capital structure, and utility financial
10 condition. A list of my publications and testimony before these regulatory bodies
11 and in state and federal courts is contained in my resume, which is included as
12 Appendix A.

13
14 **Q. What is the purpose of your testimony?**

15 A. The purpose of my testimony is to estimate the market required rate of return on
16 equity ("ROE") for UNS Gas. I will also address the fair market value of UNS
17 Gas assets.

18
19 **Q. Please state your ROE recommendation and summarize the results of your
20 cost of equity studies.**

21 A. My quantitative analysis and my review of current economic conditions indicate
22 that the cost of equity for UNS Gas is 10.5 percent. My discounted cash flow
23 ("DCF") analysis indicates an ROE range of 10.1 percent to 10.5 percent. My
24 risk premium analysis indicates a range of 10.4 percent to 10.6 percent. Based on
25 these quantitative results and my further review of other economic data discussed
26 in my testimony, I recommend a point ROE estimate of 10.5 percent.

27

1 **Q. How is your analysis structured?**

2 **A. My analysis includes both DCF and risk premium models.**

3

4 In my DCF analysis, I apply a comparable company approach. This approach is
5 consistent with traditional *Hope* and *Bluefield* requirements (which I discuss later
6 on in my testimony), and it is a conservative approach because UNS Gas is a
7 relatively small company with a low investment grade bond rating, which
8 investors would view as more risky than larger actively traded utilities having
9 better credit ratings.

10

11 I began my review with all natural gas local distribution companies ("LDCs") and
12 combination electric and gas utilities that are included in the *Value Line Investors*
13 *Survey* ("Value Line").¹ Value Line is a widely-followed, reputable source of
14 financial data generally used by regulatory economists to estimate the cost of
15 capital.

16

17 To improve comparability with UNS Gas, I restricted my comparable group to
18 companies with bond ratings of at least triple-B from Standard & Poor's ("S&P")
19 or Baa from Moody's and to companies that receive at least 65 percent of their
20 revenues from domestic regulated utility sales. I also required the companies to
21 have consistent data from Value Line and to have had no dividend cuts in the past
22 two years. I also excluded companies that are currently involved in merger
23 activities. The fundamental characteristics of the five natural gas LDCs and the

¹ The list of available combination gas and electric utilities is based on the individual companies' most recent S.E.C. Form 10-Ks for 2010.

1 17 combination gas and electric utilities that comprise my comparable group are
2 shown in Exhibit SCH-1.

3

4 In my risk premium analysis, I used *Moody's* average public utility bond yields as
5 well as recent and projected Baa utility bond interest rates. These rates provide a
6 conservative basis for the risk premium analysis relative to the Baa3 bond rating
7 for UNS Gas. Under current market conditions, I believe this combination of
8 approaches is the most reliable method for estimating the cost of equity capital.
9 The data sources and the details of my cost of equity studies are contained in my
10 Exhibits SCH-1 through SCH-6.

11

12 **Q. Have you considered the effect, if any, that the Company's proposed**
13 **decoupling mechanism may have on its cost of equity?**

14 A. Yes. I explicitly considered the effect of the Company's decoupling mechanism
15 in my ROE analysis, and I conclude that no adjustment to ROE should be made to
16 account for the Company's proposed decoupling mechanism. For the comparable
17 company group, I conducted a detailed survey of the cost recovery mechanisms
18 and clauses for each of the companies. All of the comparable group companies
19 have various cost recovery mechanisms and many have decoupling mechanisms
20 like the one proposed by UNS Gas in this case. Additionally, as noted previously,
21 on average the companies in my comparable group have higher bond ratings than
22 UNS Gas. This base line risk comparison shows that the fundamental risk profile
23 for UNS Gas is higher than that of the average company in my comparable group.
24 These factors indicate that no adjustment to ROE, relative to my estimates from
25 the comparable companies, should be made to account for UNS Gas' proposed
26 decoupling mechanism.

1 **Q. Please summarize your survey of the comparable companies' cost recovery**
2 **mechanisms?**

3 A. A summary of my survey results is provided in Exhibit SCH-1, page 2. That
4 survey shows that the comparable companies all have various cost recovery
5 mechanisms and clauses:

- 6 • All 22 of the companies have either purchased gas adjustors or fuel and
7 purchased power adjustment clauses.
- 8 • 16 companies have cost recovery mechanisms for energy efficiency
9 expenditures.
- 10 • 11 companies have mechanisms for environmental expenditures.
- 11 • Eight companies have mechanisms for recovering transmission costs.
- 12 • Four of the companies have mechanisms for recovery of costs related to
13 renewable energy sources.
- 14 • 11 companies have decoupling mechanisms.
- 15 • 18 have other mechanisms and clauses for recovering costs ranging from
16 bad debt losses to unfunded post-employment benefits.

17
18 These survey results show that cost recovery mechanisms and clauses are
19 prevalent in most regulatory jurisdictions.

20
21 Market analysts and their clients are well aware of these regulatory mechanisms
22 and, to the extent that such factors affect the market perceived risk of the
23 comparable companies, their ROE estimates from the DCF and other models
24 already reflect that risk reduction. Therefore, any material effect from cost
25 recovery mechanisms is built into the market data that is used to estimate ROE,
26 and my ROE estimate reflects the existence of these cost recovery mechanisms.

27

1 **Q. How is the remainder of your testimony organized?**

2 A. The remainder of my testimony is divided into five additional sections. In Section
3 II, I calculate the fair market value of UNS Gas assets to provide perspective for
4 the reasonableness of the fair value rate base recommended by Company witness
5 Dallas J. Dukes. In Section III, I review general capital market costs and
6 conditions and discuss recent developments in the gas utility industry. In Section
7 IV, I review various methods for estimating the cost of equity, including
8 comparable earnings methods, risk premium methods including the capital asset
9 pricing model ("CAPM"), and DCF methods. In Section V, I present the details
10 of my cost of equity studies and describe the specific results from my various
11 models. In Section VI, I provide a summary table of my results and summarize
12 my conclusions.

13

14 **II. FAIR MARKET VALUE OF UNS GAS ASSETS**

15

16 **Q. What is the purpose of this section of your testimony?**

17 A. In this section, I provide an analysis of the fair market value ("FMV") of the
18 assets and equity of the comparable companies I use to estimate ROE. This
19 analysis demonstrates that the Company's estimate of fair value rate base
20 ("FVRB") is reasonable.

21

22 **Q. How is your analysis structured?**

23 A. I provide two alternatives for evaluating the FMV issue. Those alternatives
24 demonstrate that the market-to-book "M-to-B" ratios for the comparable
25 companies' assets and equity are similar to the ratio of FVRB to original cost rate

1 base from the Company's FVRB calculations. Based on observed share prices for
2 the comparable companies I examined, the FMV for the comparable companies'
3 assets is approximately 1.2 times their original cost book values and the FMV of
4 the comparable companies' equity investment is approximately 1.4 times book
5 value. If the multiples of book value paid in recent gas utility acquisitions were
6 considered, the FMV range would be even higher than the 1.2 to 1.4 times book
7 value obtained from my analysis.

8
9 The purpose of a FMV analysis is to estimate what a "willing buyer" would pay
10 and what a "willing seller" would take in an arms length transaction,² Ideally,
11 such results should be adjusted for any special circumstances such as acquisition
12 premiums or minority interest discounts. In practice, however, applying such
13 estimates in the FVRB context involves several issues that are outside typical
14 FMV estimates. Of the three primary FMV estimation approaches (cost
15 approach, income approach, and comparable sales approach), the income
16 approach is somewhat circular in the FVRB context because the FVRB
17 determination will affect the income that the utility will ultimately receive. Also,
18 it generally is not possible to parse out a utility's rate base components into their
19 FMVs. Therefore, it is not possible to know exactly how each component might
20 be valued in the "willing buyer-willing seller" context. For this reason, the most
21 concrete and the most reasonable approach for estimating FVRB is the "cost
22 approach" that the Company has provided in its FRVB calculation in the
23 testimony of Company witness Dukes. The purpose of my comparable company

² IRS Rev. Ruling 59-60.

1 FMV estimates, therefore, is to provide perspective, which demonstrates the
2 reasonableness of the Company's FVRB estimate.

3

4 **Q. Please describe your comparable company FMV analysis.**

5 A. My analysis is contained in Exhibit SCH-2. In that exhibit, I provide two FMV
6 estimates. In the first estimate, I use the market prices for my comparable
7 companies relative to their most recently reported equity "book value per share."
8 This M-to-B approach shows that the recent market value of the comparable
9 companies' assets that are financed with equity is 1.41 times (median) to 1.44
10 times (average) the companies' most recently reported equity book value. This
11 means that in arms length transactions, equity investors are currently willing to
12 pay more than 1.4 times the original cost less depreciation (book value) of the
13 comparable companies' equity financed assets.

14

15 In the second portion of my analysis, I apply the market data directly to the
16 comparable companies' net plant assets. While net plant is only a proxy for the
17 companies' original cost rate base assets, it provides a more conservative estimate
18 than the equity M-to-B ratios noted above. The FMV for the comparable
19 companies' assets is 1.17 times (median) to 1.19 times (average) original cost
20 book value.

21

22 **Q. How does the FVRB proposed by UNS Gas compare with the FMV estimate**
23 **you obtained?**

24 A. Applying a multiple of 1.2 times to 1.4 times to the original cost rate base of \$184
25 million proposed by UNS Gas results in an estimated FMV of \$221 million to

1 \$258 million. Mr. Dukes' estimate of FVRB of \$254 million falls within that
2 range.

3

4 **Q. If multiples of book value from recent gas utility acquisitions were**
5 **considered, would your FMV range be higher?**

6 A. Yes. My analysis is conservative because I did not take into account the higher
7 multiples typically paid by buyers when acquiring a controlling interest in a
8 utility. Acquisition premiums relative to net book value can be quite substantial
9 for gas utilities like UNS Gas, a fact that further underscores the reasonableness
10 of the Company's FVRB estimate.

11

12 **III. CAPITAL MARKET FACTORS THAT AFFECT THE COST OF EQUITY**
13 **CAPITAL**

14

15 **Q. What is the purpose of this section of your testimony?**

16 A. The purpose of this section is to review recent capital market costs and conditions
17 as well as industry and UNS Gas-specific factors that should be reflected in the
18 cost of capital.

19

20 **Q. What capital market factors affect the cost of equity for UNS Gas?**

21 A. All of the following factors – including market turbulence and uncertainty,
22 elevated risk aversion, the volatile and risky nature of equity markets, and the
23 projected rise in interest rates from artificially low levels – are material to
24 determining UNS Gas' cost of equity in this case.

25

1 **Q. Please summarize the capital costs and inflation rates that have been seen in**
2 **the U.S. economy over the past decade.**

3 A. In Exhibit SCH-3, page 1, I provide a review of annual interest rates and rates of
4 inflation for the past ten years. During that time, inflation and fixed income
5 market costs have declined and, generally, have been lower than rates that
6 prevailed in the previous decade. Inflation, as measured by the Consumer Price
7 Index (CPI), was essentially zero percent in 2008; it increased to 2.8 percent in
8 2009, and was up 1.4 percent in 2010. Over the past decade, the CPI has
9 increased by an average of 2.4 percent per year. This average rate has been
10 considerably lower than the long-run average increases in the CPI, which have
11 been in the range of 3.5 percent to 4.0 percent per year.

12

13 **Q. How has recent market turbulence affected the cost of equity for utilities?**

14 A. Market turbulence has added to investor risk aversion and, all else equal, has
15 increased the cost of equity. During late 2008 and early 2009, capital markets in
16 the U.S. became more volatile than at any time since the 1930s. The financial
17 crisis caused extremely large daily swings in the stock market and unprecedented
18 corporate interest rate spreads. In the equities markets, the S&P 500 and the Dow
19 Jones Industrial Average declined by over 50 percent from their November 2007
20 highs to the low point in March 2009. In this environment, many large financial
21 institutions such as the Federal National Mortgage Association, Wachovia, Bear
22 Sterns, and Merrill Lynch were unable to survive as independent institutions.
23 Lehman Brothers was forced to file for bankruptcy. Other surviving institutions

1 such as Citigroup, Goldman Sachs, American International Group, Morgan
2 Stanley were provided multibillion dollar capital infusions.

3

4 The Federal government initially enacted emergency legislation (the \$700 billion
5 Troubled Asset Relief Program) in October 2008. As part of that effort, federal
6 deposit insurance was increased, billions of dollars were lent to financial
7 institutions, and hundreds of billions of dollars in illiquid securities were
8 purchased. In November 2008, the Federal Reserve System (Fed) pledged to
9 pump an additional \$800 billion into ailing credit markets - \$600 billion to
10 purchase federal government agency mortgage securities and, with support from
11 the U.S. Treasury, up to \$200 billion in financing to investors buying securities
12 tied to student loans, car loans, credit card debt and small business loans was
13 provided. In early 2009, President Obama also signed an additional \$789 billion
14 economic package.

15

16 **Q. How have all of these programs affected interest rates?**

17 A. All these programs have artificially depressed interest rates with the hope of
18 providing liquidity and further stimulus to the economy.

19

20 **Q. What has been the impact of these actions on the economy?**

21 A. While the U.S. Government's unprecedented monetary expansion has helped to
22 stabilize the economy and has resulted in record low interest rates, the pace of
23 economic recovery has been slow. By historical standards, the unemployment
24 rate remains extremely high. The Federal Reserve Open Market Committee has

1 repeatedly reaffirmed its QE2 bond-purchase program, stating that the program
2 will continue through June 2011:

3 To promote a stronger pace of economic recovery and to help
4 ensure that inflation, over time, is at levels consistent with its
5 mandate, the Committee decided today to continue expanding its
6 holdings of securities as announced in November. In particular,
7 the Committee is maintaining its existing policy of reinvesting
8 principal payments from its securities holdings and intends to
9 purchase \$600 billion of longer-term Treasury securities by the end
10 of the second quarter of 2011. (Federal Reserve System, Federal
11 Open Market Committee news release, January 26, 2011
12 (www.federalreserve.gov, monetary policy tab, FOMC Statement.)

13 While low levels of inflation along with the government's aggressive monetary
14 policies have produced the desired low level of interest rates, continuing
15 economic uncertainties have caused more risky equity markets to remain volatile.

16

17 **Q. Can you illustrate the volatility in long-term interest rates that has occurred**
18 **during the past two and one-half years?**

19 A. Yes. The month-by-month interest rate data since the beginning of 2008 are
20 provided in Exhibit SCH-3, page 2. Those data are summarized below in Table 1.

Table 1
Long-Term Interest Rate Trends

Month	Triple-B Utility Rate	30-Year Treasury Rate	Triple-B Utility Spread
Jan-08	6.35	4.33	2.02
Feb-08	6.60	4.52	2.08
Mar-08	6.68	4.39	2.29
Apr-08	6.81	4.44	2.37
May-08	6.79	4.60	2.19
Jun-08	6.93	4.69	2.24
Jul-08	6.97	4.57	2.40
Aug-08	6.98	4.50	2.48
Sep-08	7.15	4.27	2.88
Oct-08	8.58	4.17	4.41
Nov-08	8.98	4.00	4.98
Dec-08	8.11	2.87	5.24
Jan-09	7.90	3.13	4.77
Feb-09	7.74	3.59	4.15
Mar-09	8.00	3.64	4.36
Apr-09	8.03	3.76	4.27
May-09	7.76	4.23	3.53
Jun-09	7.31	4.52	2.79
Jul-09	6.87	4.41	2.46
Aug-09	6.36	4.37	1.99
Sep-09	6.12	4.19	1.93
Oct-09	6.14	4.19	1.95
Nov-09	6.18	4.31	1.87
Dec-09	6.26	4.49	1.77
Jan-10	6.16	4.60	1.56
Feb-10	6.25	4.62	1.63
Mar-10	6.22	4.64	1.58
Apr-10	6.19	4.69	1.50
May-10	5.97	4.29	1.68
Jun-10	6.18	4.13	2.05
Jul-10	5.98	3.99	1.99
Aug-10	5.55	3.80	1.75
Sep-10	5.53	3.77	1.76
Oct-10	5.62	3.87	1.75
Nov-10	5.85	4.19	1.66
Dec-10	6.04	4.42	1.62
Jan-11	6.06	4.52	1.54
Feb-11	6.10	4.66	1.44
3-Mo Avg	6.07	4.53	1.53
12-Mo Avg	5.94	4.25	1.69

Sources: Mergent Bond Record (Utility Rates); www.federalreserve.gov (Treasury Rates).

Three month average is for December 2010-February 2011.

Twelve month average is for March 2010-February 2011.

1 The data in Table 1 vividly illustrate the market turmoil that occurred. U.S.
2 Government intervention in 2008 and early 2009, as well as investors' "flight to
3 safety," pushed Treasury bond rates down to record low levels. However,
4 corporate interest rates increased so that the rate spreads between corporate and
5 U.S. Treasury bonds reached unprecedented levels. For a period of time, lower
6 quality borrowers were entirely excluded from traditional funding sources. While
7 these crisis conditions have abated, the ongoing effects of the market's turbulence
8 and the elevated risk aversion that continues in the equities markets must be
9 considered in estimating the cost of equity capital.

10

11 **Q. Do the smaller current spreads between yields on triple-B utility bonds and**
12 **U.S. Treasury bonds mean that the markets have fully recovered from the**
13 **economic turmoil that resulted from the financial crisis?**

14 A. No. While credit markets have stabilized relative to the conditions that existed in
15 late 2008, investors remain concerned about high unemployment, large federal
16 deficits, and the potential for further fallout from foreclosures and other effects of
17 the financial crisis. Additionally, the turmoil in the Middle East and the resulting
18 escalation of oil prices have further contributed to equity market uncertainties. I
19 will demonstrate that the equity markets generally, and particularly the market for
20 utility shares, have not recovered to their prior levels. Lower utility share prices
21 reflect the heightened risk aversion that remains and show that the cost of equity
22 remains elevated relative to the decline that has occurred in interest rates.

23

24 **Q. What do forecasts for the economy and interest rates show for the coming**
25 **year?**

26 A. Since September 2010 interest rates have trended upward and forecasts are for
27 higher interest rates during the coming year. S&P's most recent *Trends &*

1 *Projections* publication for February 2011 is provided in Exhibit SCH-3, page 3.
 2 The S&P data reflect significant economic contraction during 2009. The data
 3 show that real gross domestic product (GDP) declined by 2.6 percent during that
 4 year. However, GDP growth resumed in 2009, and for all of 2010, nominal GDP
 5 increased by almost 4.0 percent.

6
 7 S&P also forecasts that yields on long-term government bonds and interest rates
 8 on high grade corporate bonds will rise further from current levels. The summary
 9 interest rate data are presented in Table 2 below:

10 **Table 2**
 11 **Standard & Poor's Interest Rate Forecast**

	(a)	(b)	(c)
	Average	Average	Average
	Feb. 2011	2010	2011 Est.
Treasury Bills	0.1%	0.1%	0.3%
10-Yr. T-Bonds	3.6%	3.2%	3.8%
30-Yr. T-Bonds	4.7%	4.3%	4.9%
Aaa Corporate Bonds	5.2%	4.9%	5.5%

12
 13
 14
 15
 16
 17
 18
 19 Sources: Column (a) from: www.federalreserve.gov, (Current
 20 Rates). Columns (b) and (c) from: Standard & Poor's *Trends &*
 21 *Projections*, Feb 2011, page 8 (Projected Rates).

22 The data in Table 2 show that long-term Treasury interest rates during 2011 are
 23 projected to increase by an additional 20 basis points from current (February
 24 2011) levels. Rates on highest grade Aaa corporate bonds are also expected to
 25 increase by 30 basis points. Although in the recently turbulent market
 26 environment it has been difficult to project interest rates, investors recognize that
 27 as the economy improves and government intervention is reduced, market forces
 28 will generally lead to higher interest rates.

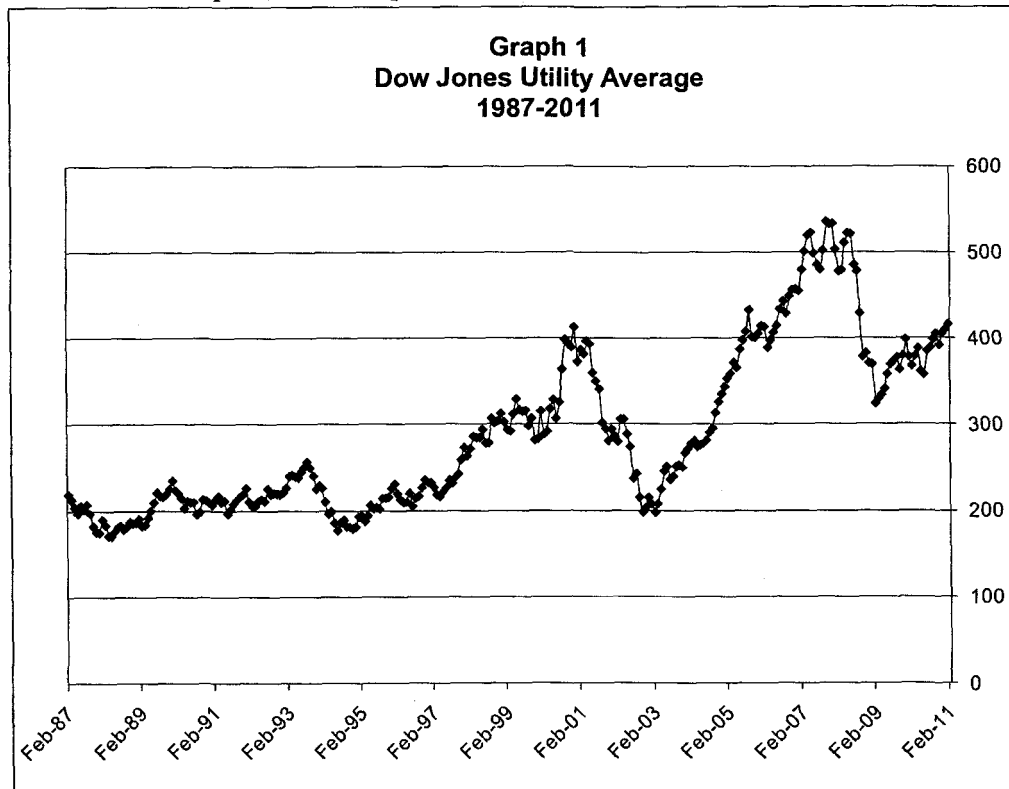
29
 30 All of these factors -- market turbulence and uncertainty, elevated risk aversion,
 31 the volatile and risky nature of equity markets, and projected rise in interest rates

1 from artificially low levels – are material to determining UNS Gas' cost of equity
2 in this case.

3

4 **Q. How have utility stocks performed during the past several years?**

5 A. Utility stock prices have fluctuated widely. After reaching a level of over 400 in
6 2000, the Dow Jones Utility Average (DJUA) dropped to about 200 by October
7 2002. From late 2002 until 2008, the DJUA trended upward. However, utility
8 stock prices dropped materially with the overall market decline of 2008 and early
9 2009. The current level for the DJUA remains 29 percent below the highest
10 levels attained in 2007. The wider fluctuations in more recent years are vividly
11 illustrated in Graph 1, which depicts DJUA prices over the past 25 years.



12

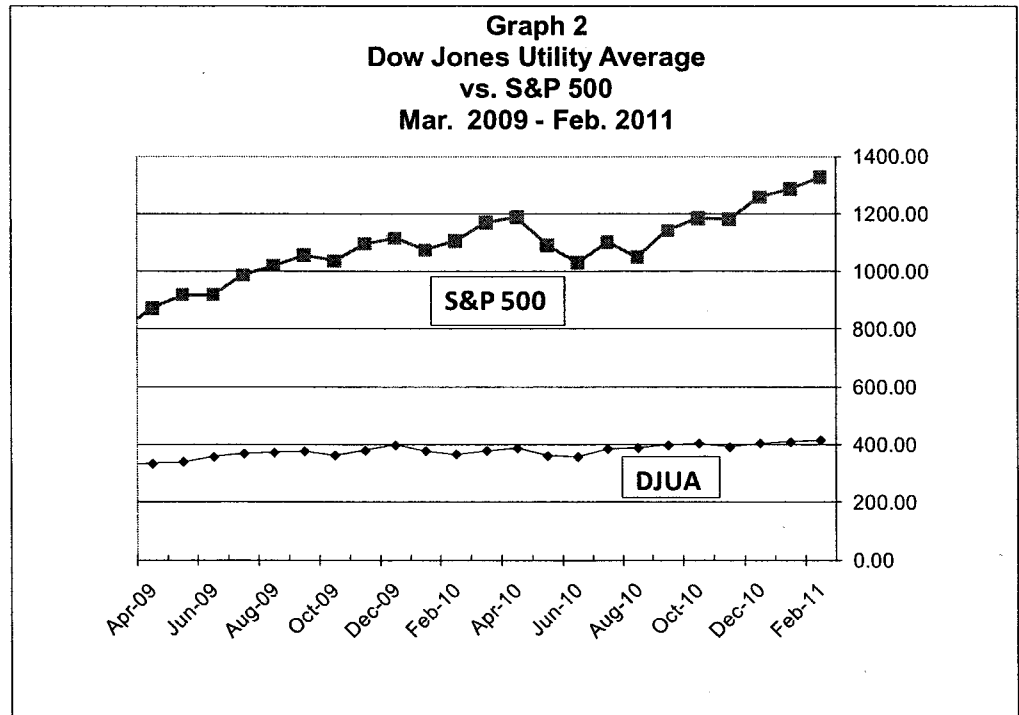
13 Over the last decade, utility stock prices have become much more volatile than
14 they previously were. In this environment, investors' return expectations and

1 requirements for providing capital to the utility industry are higher than they were
2 relative to the longer-term traditional view of the utility industry.

3

4 **Q. How have utility stocks performed relative to the overall market recovery**
5 **experienced during the past year?**

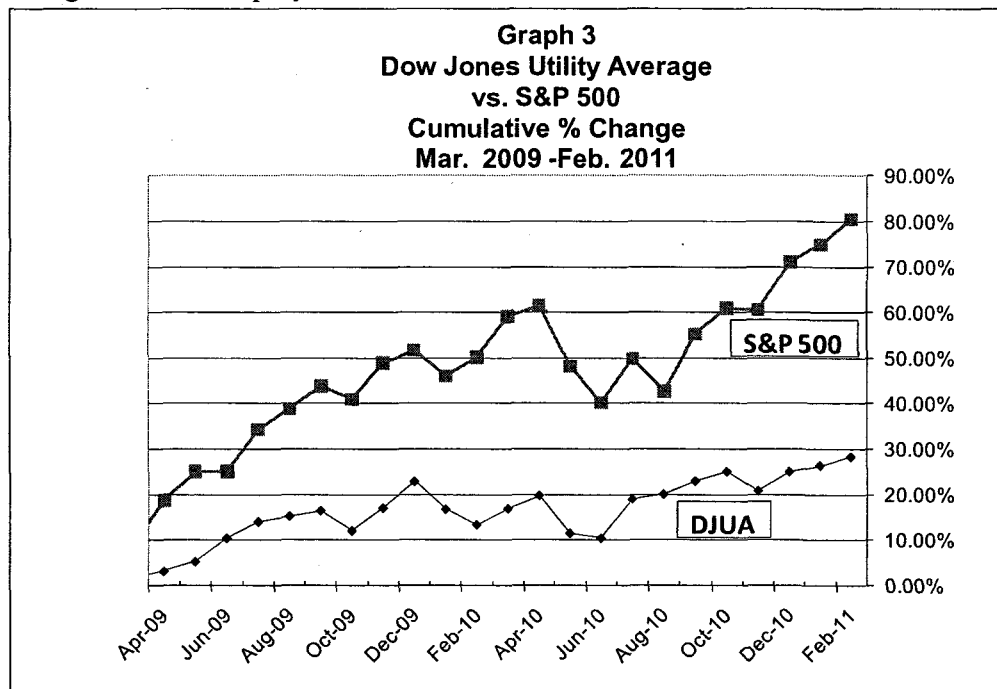
6 A. Utility stock prices have lagged significantly behind the overall market recovery.
7 Graph 2 shows the monthly levels for the DJUA versus the broader market S&P
8 500 index since the market lows that occurred in February and March of 2009.



9

10 While the S&P 500 has increased significantly during the past year, utility prices
11 have remained relatively flat. This result is a further indication that the cost of
12 equity for utility companies has not declined to the same extent that interest rates
13 have fallen or to the same extent that the cost of equity may have declined for the
14 broader equity market. The relatively lower prices for utility shares indicate that
15 the cost of capital for utilities is higher.

1 Graph 3 further illustrates this result by showing the cumulative percentage
2 change in the two equity indexes since the March 2009 lows.



3

4 While the S&P 500 has recovered about 80 percent (80.55%) from its March 2009
5 lows, utility stock prices have increased only about one-third that amount
6 (28.29%). This result again suggests the market difficulties that utilities face and
7 the higher cost of equity for utility companies.

8

9 **Q. What is the industry's current fundamental position?**

10 A. The natural gas utility industry has seen significant volatility both in terms of
11 fundamental operating characteristics and the effects of the economy. The
12 economic crisis significantly reduced sales volumes and increased the difficulty of
13 planning for future load requirements. S&P, in its most recent *Gas Utility*
14 *Industry Survey*, reflects the ongoing market volatility and expected lower end-
15 use demand:

16

1

Standard & Poor's Industry Surveys

2

Prior to the September 2009 low, natural gas prices had declined precipitously from a peak of \$13.37 on July 1, 2008. Prior to that peak, prices had risen quickly from a pre-spike low of \$5.20 per MMBtu. Prices have been extremely volatile since the September 2009 low, reaching \$3.695 per MMBtu on September 25, 2009, falling to \$2.23 on October 2, rising to \$5.06 on October 22, falling to \$2.35 on November 13, and then rising to the January 7, 2010, high.

10

11

Price movements in 2010 have been somewhat slower since the April 1 low, but were still volatile. Prices rebounded 41%, reaching \$5.21 on June 21, before a longer choppy 40% retreat to \$3.13 on October 22, followed quickly by a 30% rebound to \$4.07 on November 23. (Standard & Poor's *Industry Surveys*, Natural Gas Distribution, January 13, 2011, page 1.)

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

Lower space-heating requirements for residential and commercial customers should offset customer growth, according to the EIA [U.S. Energy Information Administration]. A 2.8% decline in residential demand, a 2.0% drop in commercial demand, and a 0.4% decrease in electric power demand, partly offset by a 1.1% increase in industrial demand, should drive the 0.7% drop in end-use demand that the EIA expects in 2011. The EIA expects more normal winter weather to hurt residential and commercial demand and continued improvements in economic activity to help industrial demand. (Id., page 3)

28

Value Line also expects the industry's performance to be relatively poor:

29

Value Line Investment Survey

30

31

32

33

34

35

36

37

38

39

40

41

Stocks in the Natural Gas Utility Industry generally posted a good performance over the past few months. However, this run was less impressive when compared to the stock market rally of late. Consequently, this group remains ranked in the bottom half of our Industry spectrum. Regardless, the companies herein have been operating amid tough market conditions in recent months. The weakness in the housing market continues to weigh on results. These utilities continue to work to offset these pressures via numerous business strategies. However, near-term prospects will likely continue to be uninspiring until the economic recovery is further along. (*Value Line Investment Survey*, Natural Gas Utility, March 11, 2011, page 546.)

42

Credit market gyrations and the volatility of utility shares demonstrate the

43

increased uncertainties that utility investors face. These uncertainties translate

44

into a relatively higher cost of capital for utilities than was traditionally the case.

1 **Q. Do gas utilities continue to face the operating and financial risks that existed**
2 **prior to the recent financial crisis?**

3 A. Yes. Prior to the recent financial crisis, the greatest consideration for utility
4 investors was the industry's continuing transition to more open market conditions
5 and competition. As a result of FERC initiatives to restructure the natural gas
6 pipeline industry, the nature of the gas supply function has changed significantly
7 over the past several years for local gas distribution companies ("LDCs") like
8 UNS Gas. The changes that have taken place have, among other things
9 eliminated the pipeline merchant function, completely unbundled the supply,
10 transportation and storage functions provided by the interstate pipelines and
11 fostered a pipeline rate design (i.e., straight fixed variable) that has decoupled
12 revenues associated with the recovery of fixed costs from throughput. The
13 resulting operating environment for LDCs has become more complex and more
14 competitive and the decision-making timeframe has been shortened – all
15 translating to increased risk for these companies.

16

17 **Q. Does UNS Gas face energy market and other operating risks that create**
18 **capital market concerns and affect its cost of capital?**

19 A. Yes. As explained in the testimony of UNS Gas witness Craig A. Jones, UNS
20 Gas currently collects the bulk of its fixed costs through volumetric charges.
21 Under its current rate design, UNS Gas is dependent on sales volumes for the
22 recovery of its distribution system operating and capital costs and, as such, may
23 be significantly affected by weather patterns, fluctuating economic conditions,
24 and the impact of customer conservation efforts, which are expected to increase as
25 a result of rules recently passed by the Arizona Corporation Commission. The
26 Commission's Gas Energy Efficiency Rules also put pressure on the Company's
27 ability to recover its revenue requirement given the dependence on volumetric

1 rates to recover fixed costs. UNS Gas is thus more risky than the many utilities
2 with decoupling and similar mechanisms. Mr. Jones proposes a decoupling
3 mechanism in this case, which should bring UNS Gas more into line with the
4 sample group that already have recovery mechanisms. Providers of capital are
5 also increasingly concerned that commodity prices and economic conditions will
6 result in continuing volume reductions, which may leave portions of expected
7 distribution company cost recovery in doubt.

8
9 In preparing my ROE analysis, I have assumed that UNS Gas' decoupling
10 mechanism will be approved. If it is not approved, UNS Gas' risk profile, relative
11 to the companies in my comparable group, will remain higher. In that case, the
12 ROE I recommend, based on my sample group analysis, would be an even more
13 conservative estimate of UNS Gas' cost of equity capital. Additionally, as
14 discussed in the testimony of UNS Gas witness Kentton C. Grant, the Company
15 has not been able to earn its authorized ROE in any year since it was established
16 in 2003. All these sources of uncertainty impact UNS Gas's access to required
17 capital and the cost of that capital. As with all regulated and unregulated business
18 entities, UNS Gas must demonstrate continuing financial health and sound
19 financial performance in order to access capital markets on reasonable terms.

20

21 **Q. How do these risks affect the cost of equity capital?**

22 A. As I discussed previously, equity investors respond to changing assessments of
23 risk and financial prospects by changing the price they are willing to pay for a
24 given security. When the risk perceptions increase or financial prospects decline,
25 investors refuse to pay the previously existing market price for a company's
26 securities, and then market supply and demand forces establish a new lower price.
27 The lower market price typically translates into a higher cost of capital through a

1 higher dividend yield requirement as well as the potential for increased capital
 2 gains if prospects improve. In addition to market losses for prior shareholders,
 3 the higher cost of capital is transmitted directly to the company by the need to
 4 earn a higher cost of capital on existing and new investment just to maintain the
 5 stock's new lower price level and the reality that the firm must issue more shares
 6 to raise any given amount of capital for future investment. The additional shares
 7 also impose additional future dividend requirements and may reduce future
 8 earnings per share growth prospects if the proceeds of the share issuance are
 9 unable to earn their expected rate of return.

10

11 **Q. How have regulatory commissions responded to these changing market and**
 12 **industry conditions?**

13 A. Over the past five years, average allowed equity returns have fluctuated in a
 14 relatively narrow range. Table 3 provides a quarter-by-quarter summary of the
 15 results:

16

Table 3

Authorized Gas Utility Equity Returns

	2006	2007	2008	2009	2010
17 1 st Quarter	10.63%	10.44%	10.38%	10.24%	10.24%
18 2 nd Quarter	10.50%	10.12%	10.17%	10.11%	9.99%
19 3 rd Quarter	10.45%	10.03%	10.49%	9.88%	9.93%
20 4 th Quarter	10.14%	10.27%	10.34%	10.27%	10.09%
21 4-Qtr. Average	10.43%	10.24%	10.37%	10.19%	10.08%
22 Average Utility					
23 Debt Cost	6.08%	6.11%	6.65%	6.28%	5.55%
24 Indicated Average					
25 Risk Premium	4.35%	4.13%	3.72%	3.91%	4.53%
26					
27					

Source: Regulatory Focus, Regulatory Research Associates, January 7, 2011.
 Utility debt costs are the Average Public Utility bond yields Mergent Bond Record.

28 Since 2006, equity risk premiums (the difference between allowed equity returns
 29 and average utility interest rates) have ranged from 3.72 percent to 4.53 percent.

1 Q. At year-end 2010, what was the average requested ROE in LDC rate cases
 2 outstanding before state regulators?

3 A. Table 4 lists the pending LDC rate cases that were pending before state regulators
 4 as of December 2010:

Table 4
Rate Cases Pending
(as of December 2010)

State	Company	Requested ROE %	Common Equity %	Requested ROR %	Rate Base (Mil. \$)
Arizona	Southwest Gas	11.00	52.3	9.73	1,074
California	Pacific G&E	11.35	52.0	8.79	2,459
California	Southern Calif. Gas	10.82	48.0	8.68	NA
Delaware	Delmarva P&L	11.00	48.3	8.07	239
Iowa	Black Hills Iowa Gas	11.25	51.6	9.69	109
Massachusetts	New England Gas Co.	10.65	50.2	9.08	51
Michigan	Consumers Energy	11.00	40.5	7.10	2,904
Minnesota	Minnessota Energy	11.25	50.2	8.67	195
Missouri	Ameren Missouri	10.50	51.3	8.27	245
New Hampshire	EnergyNorth Nat. Gas	11.20	50.0	9.10	169
Nevada	Sierra Pacific	10.80	44.1	5.51	185
Oregon	Avista Corp.	10.90	50.8	8.61	148
Pennsylvania	PECO Energy Co.	11.75	53.2	8.95	1,100
Texas	Texas Gas Service	11.00	59.2	9.05	102
Virginia	Columbia Gas	11.50	43.9	8.57	392
Washington	Puget Sound Energy	10.10	46.0	8.10	1,616
Wisconsin	Madison G&E	10.40	57.3	8.77	137
Wisconsin	Wisconsin Public Serv.	11.25	53.6	8.57	358
Wyoming	SourceGas	12.30	50.3	9.17	104
	Average	11.05	50.15	8.55	644

5 Source: Standard & Poor's Industry Survey, Natural Gas Utilities, January 11, 2011,
 page 8.

6 Relative to the typical filing that was outstanding at the end of 2010, UNS Gas is
 7 requesting a moderate ROE, and its capital structure parameters are directly in
 8 line with those of other LDCs.

1 **Q. What is the Company's current authorized ROE, and how does it compare**
2 **with the allowed ROEs for other gas utilities?**

3 A. The Company's current authorized ROE, as specified in its 2010 rate order, is
4 9.50%. As discussed in that rate order, the Commission arrived at this value after
5 taking into account the depressed economic conditions in UNS Gas' service
6 territory. To the best of my knowledge, only one other gas distribution utility in
7 the United States was granted a lower allowed ROE in 2010.

8

9 **IV. ESTIMATING THE COST OF EQUITY CAPITAL**

10

11 **Q. What is the purpose of this section of your testimony?**

12 A. The purpose of this section is to present a general definition of the cost of equity
13 and to compare the strengths and weaknesses of several of the most widely-used
14 methods for estimating the cost of equity. The various models provide a concrete
15 link to actual capital market data and assist with defining the various relationships
16 that underlie the ROE estimation process.

17

18 **Q. Please define the term "cost of equity capital" and provide an overview of the**
19 **cost estimation process.**

20 A. The cost of equity capital is the rate of return that equity investors require on their
21 capital. In concept, the cost of equity is no different than the cost of debt or the
22 cost of preferred stock. The cost of equity is the rate of return that common
23 stockholders require, just as interest on bonds and dividends on preferred stock
24 are the returns that investors in those securities require. Equity investors expect a
25 return on their capital commensurate with the risks they take and consistent with
26 returns that might be available from other similar investments. Unlike returns
27 from debt and preferred stocks, however, the required equity return is not directly

1 observable. Therefore, it must be estimated or inferred from capital market data
2 and stock market trading activity.

3
4 An example helps to illustrate the cost of equity concept. Assume that an investor
5 buys a share of common stock for \$20 per share. If the stock's annual dividend is
6 \$1.00, the expected dividend yield is 5.0 percent ($\$1.00 / \$20 = 5.0\%$). If the
7 stock price is also expected to increase to \$21.20 after one year, this \$1.20
8 expected gain adds an additional 6.0 percent to the expected total rate of return
9 ($\$1.20 / \$20 = 6.0\%$). Therefore, buying the stock at \$20 per share, the investor
10 expects a total return of 11.0 percent: 5.0 percent dividend yield, plus 6.0 percent
11 price appreciation. In this example, the total expected rate of return at 11.0
12 percent is the appropriate measure of the cost of equity capital, because it is this
13 rate of return that caused the investor to commit the \$20 of equity capital in the
14 first place. If the stock were riskier, or if expected returns from other similar
15 investments were higher, investors would have required a higher rate of return
16 from the stock, which would have resulted in a lower initial purchase price in
17 market trading.

18
19 Each day market rates of return and prices change to reflect new investor
20 expectations and requirements. For example, when interest rates on bonds and
21 savings accounts rise, utility stock prices usually fall. This is true, at least in part,
22 because higher interest rates on these alternative investments make utility stocks
23 relatively less attractive, which causes utility stock prices to decline in market
24 trading. This competitive market adjustment process is quick and continuous, so
25 that market prices generally reflect investor expectations and the relative
26 attractiveness of one investment versus another. In this context, to estimate the
27 cost of equity one must apply informed judgment about the relative risk of the

1 company in question and knowledge about the risks and expected rates of return
2 of other available investments.

3

4 **Q. How does the market account for risk differences among the various**
5 **investments?**

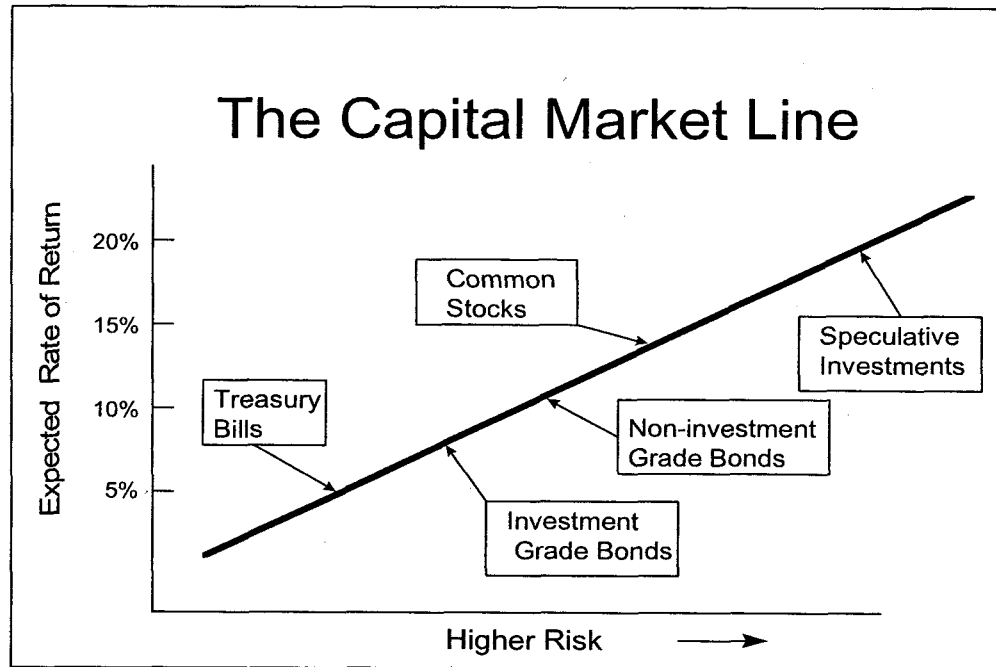
6 A. Risk-return tradeoffs among capital market investments have been the subject of
7 extensive financial research. Literally dozens of textbooks and hundreds of
8 academic articles have addressed the issue. Generally, such research confirms the
9 common sense conclusion that investors will take additional risks only if they
10 expect to receive a higher rate of return. Empirical tests consistently show that
11 low risk securities, such as U.S. Treasury bills, have the lowest returns; that
12 returns from longer-term Treasury bonds and corporate bonds are higher as risks
13 increase; and generally, returns from common stocks and other more risky
14 investments are even higher. These observations provide a sound theoretical
15 foundation for both the DCF and risk premium methods for estimating the cost of
16 equity capital. These models attempt to capture the well-founded risk-return
17 principle and explicitly measure investors' rate of return requirements.

18

19 **Q. Can you illustrate the capital market risk-return principle that you just**
20 **described?**

21 A. Yes. The following graph depicts the risk-return relationship that has become
22 widely known as the Capital Market Line (CML). The CML offers a graphical
23 representation of the capital market risk-return principle. The graph is not meant
24 to illustrate the actual expected rate of return for any particular investment, but
25 merely to illustrate in a general way the risk-return relationship.

Risk-Return Tradeoffs



1 As a continuum, the CML can be viewed as an available opportunity set for
2 investors. Those investors with low risk tolerance or investment objectives that
3 mandate a low risk profile should invest in assets depicted in the lower left-hand
4 portion of the graph. Investments in this area, such as Treasury bills and short-
5 maturity, high quality corporate commercial paper, offer a high degree of investor
6 certainty. In nominal terms (before considering the potential effects of inflation),
7 such assets are virtually risk-free.

8
9 Investment risks increase as one moves up and to the right along the CML. A
10 higher degree of uncertainty exists about the level of investment value at any
11 point in time and about the level of income payments that may be received.
12 Among these investments, long-term bonds and preferred stocks, which offer
13 priority claims to assets and income payments, are relatively low risk, but they are
14 not risk-free. The market value of long-term bonds, even those issued by the U.S.

1 Treasury, often fluctuates widely when government policies or other factors cause
2 interest rates to change.

3

4 Further up the CML continuum, common stocks are exposed to even more risk,
5 depending on the nature of the underlying business and the financial strength of
6 the issuing corporation. Common stock risks include market-wide factors, such
7 as general changes in capital costs, as well as industry and company specific
8 elements that may add further to the volatility of a given company's performance.
9 As I will illustrate in my risk premium analysis, common stocks typically are
10 more volatile (have higher risk) than high quality bond investments, and
11 therefore, they reside above and to the right of bonds on the CML graph. Other
12 more speculative investments, such as stock options and commodity futures
13 contracts, offer even higher risks (and higher potential returns). The CML's
14 depiction of the risk-return tradeoffs available in the capital markets provides a
15 useful perspective for estimating investors' required rates of return.

16

17 **Q. How is the fair rate of return in the regulatory process related to the**
18 **estimated cost of equity capital?**

19 **A.** The regulatory process is guided by fair rate of return principles established in the
20 U.S. Supreme Court cases, *Bluefield Water Works* and *Hope Natural Gas*:

21

22 A public utility is entitled to such rates as will permit it to earn a
23 return on the value of the property which it employs for the
24 convenience of the public equal to that generally being made at the
25 same time and in the same general part of the country on
26 investments in other business undertakings which are attended by
27 corresponding risks and uncertainties; but it has no constitutional
28 right to profits such as are realized or anticipated in highly
29 profitable enterprises or speculative ventures. *Bluefield Water*
30 *Works & Improvement Company v. Public Service Commission of*
31 *West Virginia*, 262 U.S. 679, 692-693 (1923).

32

* * * * *

1 From the investor or company point of view, it is important that
2 there be enough revenue not only for operating expenses, but also
3 for the capital costs of the business. These include service on the
4 debt and dividends on the stock. By that standard the return to the
5 equity owner should be commensurate with returns on investments
6 in other enterprises having corresponding risks. That return,
7 moreover, should be sufficient to assure confidence in the financial
8 integrity of the enterprise, so as to maintain its credit and to attract
9 capital. *Federal Power Commission v. Hope Natural Gas Co.*, 320
10 U.S. 591, 603 (1944).

11 Based on these principles, the fair rate of return should closely parallel investor
12 opportunity costs as discussed above. If a utility earns its market cost of equity,
13 neither its stockholders nor its customers are disadvantaged.

14

15 **Q. What specific methods and capital market data are used to evaluate the cost**
16 **of equity?**

17 A. Techniques for estimating the cost of equity normally fall into three groups:
18 comparable earnings methods, risk premium methods, and DCF methods.

19

20 **Q. Please describe the comparable earnings methods and potential criticism of**
21 **these methods.**

22 A. Comparable earnings methods have evolved over time. The original approach
23 was based on historical rates of return on book value. In this approach, ROE
24 estimates were developed from accounting returns for unregulated companies
25 thought to have risks similar to those of the regulated company in question.
26 These methods were generally rejected as more market-oriented methods became
27 available, because they assumed that earned returns for the unregulated group
28 were equal to the cost of capital and that equity book value was the same as
29 market value. In most situations these assumptions were not valid and, therefore,
30 accounting-based methods based on historical returns did not generally provide
31 reliable cost of equity estimates.

1 Market based comparable earnings methods are based on historical stock market
2 returns rather than book accounting returns. While these methods have some
3 merit, they too have been criticized because there can be no assurance that
4 historical market returns actually reflect current or future market requirements or
5 even what investors may have expected *ex ante*. Also, in practical application,
6 earned market returns tend to fluctuate widely from year to year. For these
7 reasons, current cost of equity estimates, based on DCF models and risk premium
8 analyses, are the most widely accepted methods for estimating the cost of equity
9 capital.

10

11 **Q. Please discuss the second set of estimation methods—the risk premium**
12 **methods.**

13 A. The second set of estimation techniques is grouped under the heading of risk
14 premium methods. These methods typically begin with current interest rates on
15 government or corporate bonds and add an increment to account for the additional
16 risk faced by equity investors. The capital asset pricing model ("CAPM") and
17 arbitrage pricing theory ("APT") model are more sophisticated risk premium
18 approaches. The CAPM and APT models estimate the cost of equity by
19 combining "risk-free" government bond interest rates with explicit risk measures.
20 The CAPM is widely used in academic and corporate cost of capital research, but,
21 due to its required assumptions and sensitivity to the assumptions employed, the
22 CAPM it is less widely accepted among regulators.

23

24 **Q. Please describe the third set of estimation methods—the DCF models.**

25 A. In most regulatory jurisdictions, variations of the DCF model are typically the
26 most generally accepted. Like the risk premium approach, the DCF model has a
27 sound basis in theory and many argue that it has the additional advantage of

1 simplicity. In essence, the DCF model estimate of ROE is the sum of expected
2 dividend yield plus expected long-term growth or price appreciation. While
3 dividend yields are fairly easy to estimate, estimating long-term growth is much
4 more difficult. As I will discuss in more detail below, the DCF model requires
5 very long-term growth estimates (technically to infinity). For this reason I
6 recommend a wide variety of data sources for estimating investors' long-term
7 growth expectations.

8

9 **Q. Of the three estimation methods, which do you believe provides the most**
10 **reliable results?**

11 A. From my experience, a combination of DCF and risk premium methods provides
12 the most reliable approach. While the caveat about estimating long-term growth
13 must be observed, the DCF model's other inputs are readily obtainable and the
14 model's results typically reflect capital market expectations. The risk premium
15 methods provide a sound parallel approach to the DCF model and further ensure
16 that current market conditions are accurately reflected in the cost of equity
17 estimate.

18

19 **Q. Please explain the DCF model.**

20 A. The DCF model is predicated on the concept that stock prices represent the
21 present value or discounted value of all future dividends that investors expect to
22 receive. In the most general form, the DCF model is expressed in the following
23 formula:

24

$$25 \quad P_0 = D_1/(1+k) + D_2/(1+k)^2 + \dots + D_\infty/(1+k)^\infty \quad (1)$$

26 where P_0 is today's stock price; D_1 , D_2 , etc. are all future dividends and k is the
27 discount rate, or the investor's required rate of return on equity. Equation (1) is a

1 routine present value calculation based on the assumption that the stock's price is
2 the present value of all dividends expected to be paid in the future.

3

4 Under the additional assumption that dividends are expected to grow at a constant
5 rate "g" and that k is strictly greater than g, equation (1) can be solved for k and
6 rearranged into the simple form:

7
$$k = D_1/P_0 + g \quad (2)$$

8 Equation (2) is the familiar constant growth DCF model for cost of equity
9 estimation, where D_1/P_0 is the expected dividend yield and g is the long-term
10 expected dividend growth rate.

11

12 **Q. Are there circumstances in which the constant growth DCF model may have**
13 **to be modified to provide more reliable results?**

14 A. Yes. Under circumstances when growth rates are expected to fluctuate or when
15 future growth rates are highly uncertain, the constant growth model may not give
16 reliable results. Although the DCF model itself is still valid [equation (1) is
17 mathematically correct], under such circumstances the simplified form of the
18 model must be modified to capture market expectations accurately.

19

20 Recent events and current market conditions in the electric utility industry, as
21 discussed in Section IV, appear to challenge the constant growth assumption of
22 the traditional DCF model. Since the mid-1980s, dividend growth expectations
23 for many electric utilities have fluctuated widely. In fact, almost half of the
24 electric utilities in the U.S. have reduced or eliminated their common dividends
25 over this time period. Some of these companies have reestablished their
26 dividends, producing exceptionally high growth rates. Under these
27 circumstances, long-term growth rate estimates have become highly uncertain,

1 and estimating a reliable "constant" growth rate for some companies is virtually
2 impossible. Under these conditions, singular reliance on the constant growth
3 DCF model may not be appropriate.

4
5 **Q. How can the DCF model be applied when the constant growth assumption is**
6 **violated?**

7 A. When growth expectations are uncertain, the more general version of the model
8 represented in equation (1) should be solved explicitly over a finite "transition"
9 period while uncertainty prevails. The constant growth version of the model can
10 then be applied after the transition period, under the assumption that more stable
11 conditions will prevail in the future. There are two alternatives for dealing with
12 the non-constant growth transition period: (i) the "terminal price" non-constant
13 growth approach and (ii) the "multi-stage" growth approach.

14
15 **Q. What is the difference between the two non-constant growth methods?**

16 A. Under the "terminal price" non-constant growth approach, equation (1) is written
17 in a slightly different form:

$$18 \quad P_0 = D_1/(1+k) + D_2/(1+k)^2 + \dots + P_T/(1+k)^T \quad (3)$$

19 where the variables are the same as in equation (1) except that P_T is the estimated
20 stock price at the end of the transition period T . Under the assumption that
21 normal growth resumes after the transition period, the price P_T is then expected to
22 be based on constant growth assumptions. With the terminal price approach, the
23 estimated cost of equity, k , is just the rate of return that investors would expect to
24 earn if they bought the stock at today's market price, held it and received
25 dividends through the transition period (until period T), and then sold it for price
26 P_T . In this approach, the analyst's task is to estimate the rate of return that

1 investors expect to receive given the current level of market prices they are
2 willing to pay.

3

4 Under the "multistage" non-constant growth approach, equation (1) is simply
5 expanded to incorporate two or more growth rate periods, with the assumption
6 that a permanent constant growth rate can be estimated for some point in the
7 future:

$$8 \quad P_0 = D_0(1+g_1)/(1+k) + \dots + D_2(1+g_2)^n/(1+k)^n + \\ 9 \quad \quad \quad + [D_T(1+g_T)^{(T+1)}/(k-g_T)]/(1+k)^T \quad (4)$$

10 where the variables are the same as in equation (1), but g_1 represents the growth
11 rate for the first period; D_2 is the dividend at the beginning of the second period
12 and g_2 is the growth rate for the second period; and D_T is the dividend at the
13 beginning of the third period and g_T for the period from year T (the end of the
14 transition period) to infinity. The first two growth rates are simply estimates for
15 fluctuating growth over "n" years (typically 5 or 10 years) and g_T is a constant
16 growth rate assumed to prevail forever after year T. The difficult task for analysts
17 in the multistage approach is determining the various growth rates for each
18 period.

19

20

21 **Q. Are the non-constant growth approaches as sound as the constant growth**
22 **method?**

23 **A.** Yes. Although less convenient for exposition purposes, the non-constant growth
24 models are based on the same valid capital market assumptions as the constant
25 growth version. The non-constant growth approach simply requires more explicit
26 data inputs and more work to solve for the discount rate, k . Fortunately, the
27 required data are available from investment and economic forecasting services,

1 and computer algorithms can easily produce the required solutions. I apply both
2 constant and non-constant growth DCF analyses in the following section.

3

4 **Q. Please explain the risk premium methodology.**

5 A. Risk premium methods are based on the assumption that equity securities are
6 riskier than debt and, therefore, that equity investors require a higher rate of
7 return. This basic premise is well supported by legal and economic distinctions
8 between debt and equity securities, and it is widely accepted as a fundamental
9 capital market principle. For example, debt holders' claims to the earnings and
10 assets of the borrower have priority over all claims of equity investors. The
11 contractual interest on mortgage debt must be paid in full before any dividends
12 can be paid to shareholders, and secured mortgage claims must be fully satisfied
13 before any assets can be distributed to shareholders in bankruptcy. Also, the
14 guaranteed, fixed-income nature of interest payments makes year-to-year returns
15 from bonds typically more stable than capital gains and dividend payments on
16 stocks. All these factors demonstrate the more risky position of stockholders and
17 support the equity risk premium concept.

18

19 **Q. Are risk premium estimates of the cost of equity consistent with other
20 current capital market costs?**

21 A. Yes. The risk premium approach is especially useful because it is founded on
22 current market interest rates, which are directly observable. This feature assures
23 that risk premium estimates of the cost of equity begin with a sound basis, which
24 is tied directly to current capital market costs.

25

26

1 **Q. Is there similar consensus about how risk premium data should be**
2 **employed?**

3 A. No. In regulatory practice, there is often considerable debate about how risk
4 premium data should be interpreted and used. Since the analyst's basic task is to
5 gauge investors' required returns on long-term investments, some argue that the
6 estimated equity spread should be based on the longest possible time period.
7 Others argue that market relationships between debt and equity from several
8 decades ago are irrelevant and that only recent debt-equity observations should be
9 given any weight in estimating investor requirements. There is no consensus on
10 this issue. Since analysts cannot observe or measure investors' expectations
11 directly, it is not possible to know exactly how such expectations are formed or,
12 therefore, to know exactly what time period is most appropriate in a risk premium
13 analysis.

14

15 The important point is to answer the following question: "What rate of return
16 should equity investors reasonably expect relative to returns that are currently
17 available from long-term bonds?" The risk premium studies I discuss in Section
18 V address this question. My risk premium recommendation is based on an
19 intermediate position that avoids some of the problems and concerns that have
20 been expressed about both very long and very short periods of analysis with the
21 risk premium model.

22

23 **Q. Please summarize your discussion of cost of equity estimation techniques.**

24 A. Because equity investors' required rates of return cannot be observed directly,
25 several methods have developed to assist in the estimation process. The DCF and
26 risk premium methods have become the most widely accepted in regulatory
27 practice. A combination of the DCF model and risk premium methods provides

1 the most reliable cost of equity estimate. While the DCF model does require
2 judgment about future growth rates, the dividend yield is straightforward and the
3 model's results generally reflect capital market expectations. For these reasons, I
4 rely on a combination of DCF and risk premium methods in the cost of equity
5 studies that follow.

6

7 **V. COST OF EQUITY CAPITAL FOR UNS GAS**

8

9 **Q. What is the purpose of this section of your testimony?**

10 A. The purpose of this section is to present my quantitative studies of the cost of
11 equity capital for UNS Gas and to discuss the details and results of my analysis.

12

13 **Q. How are your studies organized?**

14 A. In the first part of my analysis, I apply three versions of the DCF model to the 22-
15 company comparable group discussed previously. In the second part of my
16 analysis, I present my risk premium analysis and review projected economic
17 conditions and projected capital costs for the coming year.

18

19 **Q. Please describe your DCF analysis.**

20 A. My DCF analysis is based on three versions of the DCF model. In the first
21 version of the model, I use the constant growth format with long-term expected
22 growth based on analysts' estimates of five-year utility earnings growth. While I
23 continue to use longer-term growth rate estimates based on growth in GDP, I also
24 provide DCF results with analysts' growth rates because this is the approach that
25 has traditionally been used by many regulators.

26

1 In the second version of the DCF model, for the estimated growth rate, I use the
2 estimated long-term GDP growth rate. In the third version of the DCF model, I
3 use a two-stage growth approach, with stage one based on Value Line's three-to-
4 five-year dividend projections and stage two based on long-term projected growth
5 in GDP. The dividend yields in all three of the annual models are from Value
6 Line's projections of dividends for the coming year and stock prices are from the
7 three-month average for the months that correspond to the Value Line editions
8 from which the underlying financial data are taken.

9
10 **Q. Why do you use the long-term GDP growth rate to estimate long-term**
11 **growth expectations in the DCF model?**

12 A. Growth in nominal GDP (real GDP plus inflation) is the most general measure of
13 economic growth in the U.S. economy. For long time periods, such as those used
14 in the Morningstar/Ibbotson Associates rate of return data, GDP growth has
15 averaged between 5 percent and 8 percent per year. From this observation,
16 Professors Brigham and Houston offer the following observation concerning the
17 appropriate long-term growth rate in the DCF Model:

18
19 Expected growth rates vary somewhat among companies, but
20 dividends for mature firms are often expected to grow in the future
21 at about the same rate as nominal gross domestic product (real
22 GDP plus inflation). On this basis, one might expect the dividend
23 of an average, or "normal," company to grow at a rate of 5 to 8
24 percent a year. (Eugene F. Brigham and Joel F. Houston,
25 *Fundamentals of Financial Management*, 11th Ed. 2007, page
26 298.)

27 Other academic research on corporate growth rates offers similar conclusions
28 about GDP growth as well as concerns about the long-term adequacy of analysts'
29 forecasts:

30 Our estimated median growth rate is reasonable when compared to
31 the overall economy's growth rate. On average over the sample

1 period, the median growth rate over 10 years for income before
2 extraordinary items is about 10 percent for all firms. ... After
3 deducting the dividend yield (the median yield is 2.5 percent per
4 year), as well as inflation (which averages 4 percent per year over
5 the sample period), the growth in real income before extraordinary
6 items is roughly 3.5 percent per year. This is consistent with the
7 historical growth rate in real gross domestic product, which has
8 averaged about 3.4 percent per year over the period 1950-1998.
9 (Louis K. C. Chan, Jason Karceski, and Josef Lakonishok, "The
10 Level and Persistence of Growth Rates," The Journal of Finance,
11 April 2003, p. 649)

12 IBES long-term growth estimates are associated with realized
13 growth in the immediate short-term future. Over long horizons,
14 however, there is little forecastability in earnings, and analysts'
15 estimates tend to be overly optimistic. ... On the whole, the
16 absence of predictability in growth fits in with the economic
17 intuition that competitive pressures ultimately work to correct
18 excessively high or excessively low profitability growth. (Ibid,
19 page 683)

20 These findings support the notion that long-term growth expectations are more
21 closely predicted by broader measures of economic growth than by near-term
22 analysts' estimates. Especially for the very long-term growth rate requirements of
23 the DCF model, the growth in nominal GDP should be considered an important
24 input.

25

26 **Q. How did you estimate the expected long-run GDP growth rate?**

27 A. I developed my long-term GDP growth forecast from nominal GDP data
28 contained in the St. Louis Federal Reserve Bank data base. That data for the
29 period 1950 through 2010 are summarized in my Exhibit SCH-4. As shown at the
30 bottom of that Exhibit, the overall 60-year average for the period was 6.7 percent.
31 The data also show, however, that in the more recent years since 1980, lower
32 inflation has resulted in lower overall nominal GDP growth. For this reason I
33 gave more weight to the more recent years in my GDP forecast. This approach is
34 consistent with the concept that more recent data should have a greater effect on
35 expectations. Based on this approach, my overall forecast for long-term GDP

1 growth is 90 basis points lower than the long-term average, at a level of 5.8
2 percent.

3
4 **Q. The DCF model requires an estimate of investors' long-term growth rate**
5 **expectations. Why do you believe your forecast of GDP growth based on**
6 **long-term historical data is appropriate?**

7 A. There are at least three reasons. First, most econometric forecasts are derived
8 from the trending of historical data or the use of weighted averages. This is the
9 approach I have taken Exhibit SCH-4. The long-run historical average GDP
10 growth rate is 6.7 percent, but my estimate of long-term expected growth is only
11 5.8 percent. My forecast is lower because my forecasting method gives much
12 more weight to the more recent 10- and 20-year periods.

13
14 Second, some currently lower GDP growth forecasts likely understate very long
15 growth rate expectations that are required in the DCF model. Many of those
16 forecasts are currently low because they are based on the assumption of
17 permanently low inflation rates, in the range of 2 percent. As shown in Exhibit
18 SCH-4, the average long-term inflation rate has been over 3 percent in all but the
19 most recent 20 years.

20
21 Finally, the current economic turmoil makes it even more important to consider
22 longer-term economic data in the growth rate estimate. As discussed in the
23 previous section, current near-term forecasts for both real GDP and inflation are
24 severely depressed. To the extent that even the longer-term outlooks of
25 professional economists are also depressed, their forecasts may be understated.
26 Under these circumstances, a longer-term view is even more important. For all
27 these reasons, while I am also presenting other growth rate approaches based on

1 analysts' estimates in this testimony, I believe it is appropriate also to consider
2 long-term GDP growth in estimating the DCF growth rate.

3

4 **Q. Please summarize the results of your DCF analyses.**

5 A. The DCF results for my comparable company group are presented in Exhibit
6 SCH-5. As shown in the first column of page 1 of that exhibit, the traditional
7 constant growth model indicates an ROE range of 10.1 percent to 10.4 percent. In
8 the second column of page 1, I recalculate the constant growth results with the
9 growth rate based on long-term forecasted growth in GDP. With the GDP growth
10 rate, the constant growth model indicates an ROE range of 10.3 percent to 10.5
11 percent. Finally, in the third column of page 1, I present the results from the
12 multistage DCF model. The multistage model indicates an ROE of 10.1 percent.
13 The results from the DCF model, therefore, indicate a reasonable ROE range of
14 10.1 percent to 10.5 percent.

15

16 **Q. What are the results of your equity risk premium studies?**

17 A. The details and results of my equity risk premium studies are shown in Exhibit
18 SCH-6. These studies indicate an ROE range of 10.41 percent to 10.62 percent.
19 These results confirm my DCF results, which continue to demonstrate the equity
20 market risk aversion that is reflected in continuing volatility and relatively low
21 stock prices for utility shares.

22

23 **Q. How are your equity risk premium studies structured?**

24 A. My equity risk premium studies are divided into two parts. First, I compare gas
25 utility authorized ROEs for the period 1980-2010 to contemporaneous long-term
26 utility interest rates. The differences between the average authorized ROEs and
27 the average interest rate for the year is the indicated equity risk premium. I then

1 add the indicated equity risk premium to the forecasted and current Baa utility
2 bond interest rate to estimate ROE. Because there is a strong inverse relationship
3 between equity risk premiums and interest rates (when interest rates are high, risk
4 premiums are low and vice versa), further analysis is required to estimate the
5 current equity risk premium level.

6
7 The inverse relationship between equity risk premiums and interest rate levels is
8 well documented in numerous, well-respected academic studies. These studies
9 typically use regression analysis or other statistical methods to predict or measure
10 the equity risk premium relationship under varying interest rate conditions. On
11 page 3 of Exhibit SCH-6, I provide regression analyses of the allowed annual
12 equity risk premiums relative to interest rate levels. The negative and statistically
13 significant regression coefficients confirm the inverse relationship between equity
14 risk premiums and interest rates. This means that when interest rates rise by one
15 percentage point, the cost of equity increases, but by a smaller amount. Similarly,
16 when interest rates decline by one percentage point, the cost of equity declines by
17 less than one percentage point. I use this negative interest rate change coefficient
18 in conjunction with current interest rates to establish the appropriate current
19 equity risk premium.

20
21 **Q. Please explain why you have not provided ROE estimates based on the**
22 **CAPM.**

23 **A.** I have not included a CAPM estimate in his case because, under current market
24 conditions, the CAPM does not provide reliable estimates of the cost of equity.
25 This situation is caused by the U.S. Government's intervention in the credit
26 markets and the resulting artificially low U.S. Treasury bond interest rates that

1 have resulted, as well as the recent market turmoil's effects on the CAPM's other
2 required inputs.

3 The CAPM is based on three principal inputs:

- 4 1) the risk-free interest rate (R_f);
- 5 2) the expected market risk premium for stocks relative to the risk-free rate
6 $E(R_m) - R_f$; and
- 7 3) a measure of market-related, or nondiversifiable, risk (β or beta).

8

9 The CAPM estimate of ROE is then calculated as:

10
$$ROE = R_f + \beta[E(R_m) - R_f]$$

11

12 The market data discussed previously in Section II of this testimony show that,
13 under present market conditions, potentially all three of the CAPM's principal
14 inputs tend to understate ROE. The risk-free rate, R_f , is understated because, due
15 to governmental credit market policies and investors' increased risk aversion, the
16 U.S. Treasury rates used for R_f are artificially low. The second input, the
17 expected market risk premium $[E(R_m) - R_f]$, when based on historical data, may
18 also be understated because such data cannot reflect the heightened investor risk
19 aversion that has resulted from the financial crisis. Finally, utility beta
20 coefficients have declined because, as shown in Graphs 2 and 3 above, utility
21 stocks have far underperformed relative to the broader market index during the
22 recent stock market recovery. All these factors indicate that CAPM estimates of
23 ROE for utilities are currently understated. For this reason, in the present case, I
24 rely on the DCF and other risk premium models to estimate the cost of equity for
25 UNS Gas.

VI. SUMMARY OF CONCLUSIONS

1

2 **Q. Please summarize your analysis.**

3 A. My results are summarized in Table 5 below:

Table 5

<u>Summary of Cost of Equity Estimates</u>	
<u>DCF Analysis</u>	<u>Indicated Cost</u>
Constant Growth (Analysts' Growth)	10.1%-10.4%
Constant Growth (GDP Growth)	10.3%-10.5%
Multistage Growth Model	10.1%
DCF Range	<u>10.1%-10.5%</u>
<u>Equity Risk Premium Analysis</u>	<u>Indicated Cost</u>
Projected Utility Debt Yield + Equity Risk Premium	
Equity Risk Premium ROE (6.43% + 4.19%)	10.62%
Current Utility Debt Yield + Equity Risk Premium	
Equity Risk Premium ROE (6.07% + 4.34%)	10.41%
<u>UNS Gas Cost of Equity</u>	<u>10.5%</u>

4

5 **Q. How should these results be interpreted to determine the fair cost of equity**
6 **for UNS Gas?**

7 A. The recent market turmoil and the continuing effects on capital market conditions
8 make it difficult to strictly interpret quantitative model estimates for the cost of
9 equity. For this reason, it is important to consider the effect of current market
10 conditions, including the U.S. Government's continuing efforts to stimulate the
11 economy, in estimates of the cost of equity. While interest rates and rate spreads
12 have stabilized relative to the levels reached in late 2008, the relatively poor
13 performance of utility stocks, as compared to the broader market averages, shows
14 that the cost of equity for utilities has not declined in lockstep with the interest
15 rate drop. Under these conditions, use of a lower DCF range or equity risk

1 premium estimates based strictly on historical risk premium relationships likely
2 understate the cost of equity. Additionally, based on the higher risk profile for
3 UNS Gas relative to the comparable group, it is reasonable to conclude that my
4 analysis produces a conservative estimate of the cost of equity. From this
5 perspective, I estimate the fair and reasonable allowed ROE for UNS Gas to be
6 10.5 percent.

7

8 **Q. Does this conclude your direct testimony?**

9 A. Yes.

SAMUEL C. HADAWAY

**FINANCO, Inc.
Financial Analysis Consultants**

**3520 Executive Center Drive, Suite 124
Austin, Texas 78731
(512) 346-9317**

SUMMARY OF QUALIFICATIONS

- Principal, Financial Analysis Consultants (FINANCO, Inc.).
- Ph.D. in Finance and Economics.
- Extensive expert witness testimony in court and before regulatory agencies.
- Management of professional research staff in academic and regulatory organizations.
- Professional presentations before executive development groups, the National Rate of Return Analysts' Forum, and the New York Society of Security Analysts.
- Financial Management Association, previously Vice President for Practitioner Services.

EDUCATION

**The University of Texas at Austin
Ph.D., Finance and Econometrics
January 1975**

*Dissertation: An Evaluation of the
Original and Recent Variants of the
Capital Asset Pricing Model.*

**The University of Texas at Austin
MBA, Finance
June 1973**

*Thesis: The Pricing of Risk on the
New York Stock Exchange.*

**Southern Methodist University
BA, Economics
June 1969**

Honors program. Departmental
distinction.

OTHER EXPERIENCE

**University of Texas at Austin
Adjunct Associate Professor
1985-1988, 2004-Present**

Corporate Financial Management,
Investments, and Integrative Finance
Cases.

**Texas State University San Marcos
Associate Professor of Finance
1983-1984, 2003-2004**

Graduate and undergraduate courses
in Financial Management, Managerial
Economics, and Investment Analysis.

**Public Utility Commission of Texas
Chief Economist and Director of
Economic Research Division
August 1980-August 1983**

Lead financial witness. Supervised
Commission staff in research and
testimony on rate of return, financial
condition, and economic analysis.

**Assistant Professor of Finance
Texas Tech University
July 1978-July 1980
University of Alabama
January 1975-June 1978**

Member of graduate faculty. Conducted
Ph.D. seminars and directed doctoral
dissertations in capital market theory.
Served as consultant to industry,
church and governmental organizations.

**FINANCIAL AND ECONOMIC TESTIMONY IN REGULATORY
PROCEEDINGS (Client in parenthesis)**

Cost of Money Testimony:

- Utah Public Service Commission, Docket No. 10-035-124, January 24, 2011 (Rocky Mountain Power/PacifiCorp).
- Massachusetts Department of Public Utilities, D.P.U. 11.01 (Electric) and D.P.U. 11.02 (Gas), January 14, 2011, (Fitchburg Gas and Electric Light Company d/b/a/ Unitil)
- Wyoming Public Service Commission, Docket No. 20000-384-ER-10, November 22, 2010 (Rocky Mountain Power dba/PacifiCorp).
- Illinois Commerce Commission, Docket No. 10-0467, July 28, 2010 (Commonwealth Edison Company).
- Missouri Public Service Commission, Case No. ER-2010-0355, June 4, 2010 (Kansas City Power & Light Company).
- Missouri Public Service Commission, Case No. ER-2010-0356, June 4, 2010 (KCP&L Greater Missouri Operations Company).
- Idaho Public Utilities Commission, Case No. PAC-E-10-07, May 28, 2010 (Rocky Mountain Power/PacifiCorp).
- Washington Utilities and Transportation Commission, Docket UE-100749, May 4, 2010 (PacifiCorp).
- New Hampshire Public Utilities Commission, Docket No. DE 10-055, April 15, 2010 (Unitil Energy Systems)
- Oregon Public Utility Commission, Docket No. UE-217, March 1, 2010 (PacifiCorp).
- Texas Public Utility Commission, Docket No. 37744, December 30, 2009,(Entergy Texas, Inc.)
- Kansas Corporation Commission, Docket No. 10-KCPE-415-RTS, December 17, 2009 (Kansas City Power & Light Company).
- Texas Public Utility Commission, Docket No. 37690, December 9, 2009,(El Paso Electric Company).
- California Public Utilities Commission, Application No. 09-11-015, November 20, 2009 (PacifiCorp).
- Federal Energy Regulatory Commission, Docket No. ER10-230-000, November 6, 2009 (Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company).
- Wyoming Public Service Commission, Docket No. 20000-352-ER-09, October 2, 2009 (Rocky Mountain Power dba/PacifiCorp).
- Arkansas Public Service Commission, Docket No. 09-084-U, September 4, 2009, (Entergy-Arkansas)
- Texas Public Utility Commission, Docket No. 37364, August 28, 2009,(American Electric Power-SWEPCO)
- Utah Public Service Commission, Docket No. 09-035-23, June 23, 2009 (Rocky Mountain Power/PacifiCorp).
- New Mexico Public Regulation Commission, Case No. 09-00171-UT, May 2009, (El Paso Electric Company).
- Oregon Public Utility Commission, Docket No. UE-207, April 2, 2009 (PacifiCorp).
- Arkansas Public Service Commission, Docket No. 09-008-U, February 19, 2009 (American Electric Power-SWEPCO).
- Washington Utilities and Transportation Commission, Docket UE-090205, February 9, 2009 (PacifiCorp).
- Idaho Public Utilities Commission, Case No. PAC-E-08-07, September 19, 2008 (Rocky Mountain Power/PacifiCorp).
- Missouri Public Service Commission, Case No. ER-2009-089, September 5, 2008 (Kansas City Power & Light Company).
- Kansas Corporation Commission, Docket No. 09-KCPE-246-RTS, September 5, 2008 (Kansas City Power & Light Company).

- Missouri Public Service Commission, Case No. ER-2009-090, September 5, 2008 (Aquila, Inc. dba/KCP&L Greater Missouri Operations Company).
- Utah Public Service Commission, Docket No. 08-035-38, July 17, 2008 (Rocky Mountain Power/PacifiCorp).
- Wyoming Public Service Commission, Docket No. 20000-333-ER-08, July 2008 (Rocky Mountain Power dba/PacifiCorp).
- Texas Public Utility Commission, Docket No. 35717, June 27, 2008, (Oncor Electric Delivery Company LLC).
- Washington Utilities and Transportation Commission, Docket UG-080546, March 28, 2008 (NW Natural).
- Washington Utilities and Transportation Commission, Docket UE-080220, February 6, 2008 (PacifiCorp).
- Utah Public Service Commission, Docket No. 07-035-93, December 17, 2007 (PacifiCorp).
- Illinois Commerce Commission, Docket No. 07-0566, October 17, 2007 (Commonwealth Edison Company).
- Texas Public Utility Commission, Docket No. 34800, September 26, 2007, (Entergy Gulf States, Inc.)
- Texas Public Utility Commission, Docket No. 34040, August 28, 2007, (Oncor/TXU Electric Delivery Company)
- Massachusetts Department of Public Utilities, D.P.U. 07-71, August 17, 2007, (Fitchburg Gas and Electric Light Company d/b/a/ Unitil)
- Arizona Corporation Commission, Docket No. E-01933A-07-0402, July 2, 2007, (Tucson Electric Power Company).
- Wyoming Public Service Commission, Docket No. 20000-277-ER-07, June 29, 2007 (Rocky Mountain Power dba/PacifiCorp).
- Idaho Public Utilities Commission, Case No. PAC-E-05-1, June 8, 2007 (Rocky Mountain Power dba/PacifiCorp).
- Kansas Corporation Commission, Docket No. 07-KCPE-905-RTS, March 1, 2007 (Kansas City Power & Light Company).
- New Mexico Public Regulation Commission, Case No. 07-00077-UT, February 21, 2007, (Public Service Company of New Mexico).
- Missouri Public Service Commission, Case No. ER-2006-0291, February 1, 2007 (Kansas City Power & Light Company).
- Texas PUC Docket Nos. 33734, January 22, 2007 (Electric Transmission Texas, LLC).
- Texas PUC Docket Nos. 33309 and 33310, November 2006, (AEP Texas Central Company and AEP Texas North Company).
- Louisiana Public Service Commission, Docket No. U-23327, October 2006 and January 2005 (Southwestern Electric Power Company, American Electric Power Company)
- Missouri Public Service Commission, Case No. ER-2007-0004, July 3, 2006 (Aquila, Inc.).
- New Mexico Public Regulation Commission, Case No. 06-00258-UT, June 30, 2006 (El Paso Electric Company).
- New Mexico Public Regulation Commission, Case No. 06-00210-UT, May 30, 2006 (Public Service Company of New Mexico).
- Texas Public Utility Commission, Docket No. 32093, April 14, 2006 (CenterPoint Energy-Houston Electric, LLC).
- Utah Public Service Commission, Docket No. 06-035-21, March 7, 2006 (PacifiCorp).
- Oregon Public Utility Commission, Case No. UE-179, February 23, 2006 (PacifiCorp).
- Kansas Corporation Commission, Docket No. 06-KCPE-828-RTS, January 31, 2006 (Kansas City Power & Light Company).

- Missouri Public Service Commission, Case No. ER-2006-0314, January 27, 2006 (Kansas City Power & Light Company).
- California Public Utilities Commission, Docket No. 05-11-022, November 29, 2005 (PacifiCorp).
- Texas Public Utility Commission, Docket No. 31994, November 5, 2005 (Texas-New Mexico Power Company).
- New Hampshire Public Utilities Commission, Docket No. DE 05-178, November 4, 2005 (Unitil Energy Systems).
- Wyoming Public Service Commission, Docket No. 20000-ER-05-230, October 14, 2005 (PacifiCorp).
- Minnesota Public Utilities Commission, Docket. No. G-008/GR-05-1380, October 2005 (CenterPoint Energy Minnegasco).
- Texas Railroad Commission, Gas Utilities Division No. 9625, September 2005 (CenterPoint Energy Entex).
- Illinois Commerce Commission, Docket No. 05-0597, August 31, 2005 (Commonwealth Edison Company).
- Washington Utilities and Transportation Commission, Docket ,UE-050684/General Rate Case, May 2005 (PacifiCorp).
- Missouri Public Service Commission, Case No. ER-2005-0436, May 2005 (Aquila, Inc.).
- Idaho Public Utilities Commission, Case No. PAC-E-05-1, January 14, 2005 (PacifiCorp).
- Arkansas Public Service Commission, Docket No. 04-121-U, December 3, 2004 (CenterPoint Energy Arkla).
- Oregon Public Utility Commission, Case No. UE-170, November 12, 2004 (PacifiCorp).
- Texas Public Utility Commission, Docket No. 29206, November 8, 2004 (Texas-New Mexico Power Company).
- Texas Railroad Commission, Gas Utilities Division Nos. 9533 and 9534, October 13, 2004 (CenterPoint Energy Entex).
- Texas Public Utility Commission, Docket No. 29526, August 18 and September 2, 2004 (CenterPoint Energy Houston Electric).
- Utah Public Service Commission, Docket No. 04-2035-, August 4, 2004 (PacifiCorp).
- Oklahoma Corporation Commission, Cause No. PUD-200400187, July 2, 2004, (CenterPoint Energy Arkla).
- Minnesota Public Utilities Commission, Docket No. G-008/GR-04-901, July 2004, (CenterPoint Energy Minnegasco).
- Washington Utilities and Transportation Commission, Docket ,UE-032065/General Rate Case, December 2003 (PacifiCorp).
- Washington Utilities and Transportation Commission, Docket ,UG-031885, November 2003 (Northwest Natural Gas Company.).
- Wyoming Public Service Commission, Docket No. 20000-ER-03-198, May 2003 (PacifiCorp).
- Public Service Commission of Utah, Docket No. 03-2035-02, May 2003 (PacifiCorp).
- Public Utility Commission of Oregon, Case. UE-147, March 2003 (PacifiCorp).
- Wyoming Public Service Commission, Docket No. 20000-ER-00-162, May 2002 (PacifiCorp).
- Public Utility Commission of Oregon, UG-152, November 2002 (Northwest Natural).
- Massachusetts Department of Telecommunications and Energy, D.T.E. 02-24/24, May 2002 (Fitchburg Gas and Electric Light Company).
- New Hampshire Public Utilities Commission, Docket No. DE 01-247, January 2002 (Unitil Corporation).
- Washington Utilities and Transportation Commission, Docket UE-011569,70,UG-011571, November 2001 (Puget Sound Energy, Inc.).
- California Public Utilities Commission, Docket No. 01-03-026, September and December 2001 (PacifiCorp).

- New Mexico Public Regulation Commission, Docket No. 3643, July 2001 (Texas-New Mexico Power Company).
- Texas Natural Resources Conservation Commission, Docket No. 2001-1074/5-URC, May 2001 (AquaSource Utility, Inc.).
- Massachusetts Department of Telecommunications and Energy, Docket No. 99-118, May 2001 (Fitchburg Gas and Electric Light Company).
- Public Service Commission of Utah, Docket No. 01-035-01, January 2001 (PacifiCorp)
- Federal Energy Regulatory Commission, Docket No. ER-01-651, January 2001 (Southwestern Electric Power Company).
- Wyoming Public Service Commission, Docket No. 20000-ER-00-162, December 2000 (PacifiCorp).
- Public Utility Commission of Oregon, Case. UE-116, November 2000, (PacifiCorp)
- Public Utility Commission of Texas, Docket No. 22344, September 2000, (AEP Texas Companies, Entergy Gulf States, Inc., Reliant Energy HL&P, Texas-New Mexico Power Company, TXU Electric Company)
- Public Utility Commission of Oregon, Case UE-111, August 2000, (PacifiCorp)
- Texas Public Utility Commission, Docket Nos. 22352,3,4, March 2000 (Central Power and Light Co., Southwestern Electric Power Co., West Texas Utilities Co.).
- Texas Public Utility Commission, Docket No. 22355, March 2000 (Reliant Energy, Inc.).
- Texas Public Utility Commission, Docket No. 22349, March 2000 (Texas-New Mexico Power Co.).
- Texas Public Utility Commission, Docket No. 22350, March 2000 (TXU Electric).
- Washington Utilities and Transportation Commission, Docket UE-991831, November 1999 (PacifiCorp).
- Public Service Commission of Utah, Docket No. 99-035-10, September 1999 (PacifiCorp)
- Louisiana Public Service Commission Docket No. U-23029, August 1999 (Southwestern Electric Power Company)
- Wyoming Public Service Commission, Docket No. 2000-ER-99-145, July 1999, January 2000 (PacifiCorp, dba Pacific Power and Light Company).
- Texas PUC Docket No. 20150, March 1999 (Entergy Gulf States, Inc.)
- Federal Energy Regulatory Commission Docket No. ER-98-3177-00, May and December 1998 (Southwestern Electric Power Company).
- Public Service Commission of Utah, Docket No. 97-035-01, June 1998 (PacifiCorp, dba Utah Power and Light Company).
- Massachusetts Dept. of Telecommunications and Energy, Docket No. DTE 98-51, May 1998, (Fitchburg Gas and Electric Light Company, a subsidiary of Unitil Corp.)
- Texas PUC, Docket No. 18490, March 1998, (Texas Utilities Electric Company)
- Texas PUC Docket No. 17751, March 1998 and July 1997 (Texas-New Mexico Power Company).
- Federal Energy Regulatory Commission Docket No. RP-97, February 1998 and May 1997 (Koch Gateway Pipeline Company).
- Federal Energy Regulatory Commission Docket No. ER-97-4468-000, December 1997 (Puget Sound Power & Light).
- Oklahoma Corporation Commission, Cause No. PUD 960000214, August 1997 (Public Service Company of Oklahoma).
- Oregon Public Utility Commission Docket No. UE-94, April 1996, (PacifiCorp).
- Texas PUC Docket No. 15643, May and September 1996, (Central Power and Light and West Texas Utilities Company).
- Federal Energy Regulatory Commission Docket No. ER-96, April 1996 (Puget Sound Power & Light).
- Federal Energy Regulatory Commission Docket No. ER96, February 1996, (Central and South West Corporation).

- Washington Utilities & Transportation Commission Docket No. UE-951270, November 1995 (Puget Sound Power & Light).
- Texas PUC Docket No. 14965, November 1995, (Central Power and Light).
- Texas PUC Docket No. 13369, February 1995 (West Texas Utilities).
- Texas PUC Docket No. 12065, July and December 1994, (Houston Lighting & Power).
- Texas PUC, Docket No. 12820, July and November 1994, (Central Power and Light).
- Texas PUC Docket No. 12900, March 1994, and New Mexico PUC Case No. 2531, August 1993, (TNP Enterprises).
- Texas PUC, Docket No. 12815, March 1994, (Pedernales Electric Cooperative).
- Florida Public Service Commission, Docket No. 930987-EI, December 1993, (TECO Energy).
- Iowa Department of Commerce, Docket No. RPU-93-9, December 1993, (US West Communications).
- Texas PUC Dkt. No. 11735, May and September 1993, (Texas Utilities Electric Company)
- Oklahoma Corporation Commission, Cause No. PUD 001342, October 1992 (Public Service Company of Oklahoma).
- Texas PUC Dkt. No. 9983, November 1991, (Southwest Texas Telephone Company).
- Texas PUC Dkt. No. 9850, November 1990, Houston Lighting & Power Company).
- Texas PUC Dkt. Nos. 8480/8482, January 1989; City of Austin Dkt. No. 1, August 1988 and July 1987, (City of Austin Electric Department).
- Missouri Public Service Commission Case No. ER-90-101, July 1990 (UtiliCorp).
- Texas PUC Dkt. No. 9945, December 1990; Texas PUC Dkt. No. 9165, November 1989, (El Paso Electric Company).
- Texas PUC Dkt. No. 9427, July 1990, (Lower Colorado River Authority Association of Wholesale Customers).
- Oregon Public Utility Commission, March 1990, (Pacific Power & Light Company).
- Utah Public Service Commission, November 1989, (Utah Power & Light Company).
- Texas PUC Dkt. No. 5610, September 1988, (GTE Southwest).
- Iowa State Utilities Board, September 1988, (Northwestern Bell Telephone Company).
- Texas Water Commission, Dkt. Nos. RC-022 and RC-023, November 1986, (City of Houston Water Department).
- Pennsylvania PUC Dkt. Nos. R-842770 and R-842771, May 1985, (Bethlehem Steel).

Capital Structure Testimony:

- Federal Energy Regulatory Commission Docket No. RP-97, May 1997 (Koch Gateway Pipeline Company).
- Illinois Commerce Commission Dkt. No. 93-0252 Remand, July 1996, (Sprint).
- California PUC (Appl. No. 92-05-004) April 1993 and May 1993, (Pacific Telesis).
- Montana PSC, Dkt. No. 90.12.86, November 1991, (US West Communications).
- Massachusetts PUC Dkt. No. 86-33, June 1987, (New England Telephone Company).
- Maine PUC Dkt. No. 85-159, February 1987, (New England Telephone Company).
- New Hampshire PUC Dkt. No. 85-181, September 1986, (New England Telephone Company).
- Maine PUC Dkt. No. 83-213, March 1984, (New England Telephone Company).

Regulatory Policy and Other Regulatory Issues:

- Texas PUC Docket No. 31056, September 16, 2005, (AEP Texas Central Company).
- New Hampshire PUC Docket No. DE 03-086, May 2003, (Unitil Corporation).
- Texas PUC Docket No. 26194, May 2003 (El Paso Electric Company)
- Texas PUC Docket No. 22622, June 15, 2001 (TXU Electric)
- Texas PUC Docket No. 20125, November 1999 (Entergy Gulf States, Inc.)

- Texas PUC Docket No. 21112, July 1999 and New Mexico Public Regulation Commission Case No. 3103, July 1999 (Texas-New Mexico Power Company)
- Texas PUC Docket No. 20292, May 1999 (Central Power and Light Co.)
- Texas PUC Docket No. 20150, November 1998 (Entergy Gulf States, Inc.)
- New Mexico PUC Case No. 2769, May 1997, (Texas-New Mexico Power Company).
- Texas PUC Dkt. No. 15296, September 1996, (City of College Station, Texas).
- Texas PUC Dkt. No. 14965 Competitive Issues Phase, August 1996 (Central Power and Light Company).
- Texas PUC Dkt. No. 12456, May 1994, (Texas Utilities Electric Company).
- Texas PUC, Dkt. No. 12700/12701 and Federal Energy Regulatory Commission, Docket No. EC94-000, January 1994, (El Paso Electric Company).
- Florida Public Service Commission Generic Purchased Power Proceedings, October 1993 (TECO Energy).
- Texas PUC, Docket No. 11248, December 1992 (Barbara Faskins).
- Texas PUC Dkt. No. 10894, January and June 1992, (Gulf States Utilities Company).
- State Corporation Commission of Kansas, Dkt. No. 175,456-U, August 1991, (UtiliCorp United).
- Texas PUC Dkt. No. 9561, May 1990; Texas PUC Dkt. Nos. 6668/8646, July 1989 and February 1990, (Central Power and Light Company).
- Texas PUC Dkt. No. 9300, April 1990 and June 1990, (Texas Utilities Electric Co.).
- Texas PUC Dkt. No. 10200, August 1991, (Texas-New Mexico Power Company).
- Texas PUC Dkt. No. 7289, May 1987, (West Texas Utilities Company).
- Texas PUC Dkt. No. 7195, January 1987, (North Star Steel Texas).
- New Mexico PSC Case No. 1916, April 1986, (Public Service Company of New Mexico).
- Texas PUC Dkt. No. 6525, March 1986, (North Star Steel Texas).
- Texas PUC Dkt. No. 6375, November 1985, (Valley Industrial Council).
- Texas PUC Dkt. No. 6220, April 1985, (North Star Steel Texas).
- Texas PUC Dkt. No. 5940, March 1985, (West Texas Municipal Power Agency).
- Texas PUC Dkt. No. 5820, October 1984, (North Star Steel Texas).
- Texas PUC Dkt. No. 5779, September 1984, (Texas Industrial Energy Consumers).
- Texas PUC Dkt. No. 5560, April 1984, (North Star Steel Texas).
- Arizona PSC Dkt. No. U-1345-83-155, January 1984 and May 1984 (Arizona Public Service Company Shareholders Association).

Insurance Rate Testimony:

- Texas Department of Insurance, Docket No. 2673, January 2008, (Texas Land Title Association).
- Texas Department of Insurance, Docket No. 2601, December 2006, (Texas Land Title Association).
- Texas Department of Insurance, Docket No. 2394, November 1999, (Texas Title Insurance Agents).
- Senate Interim Committee on Title Insurance of the Texas Legislature, February 6, 1998
- Texas Department of Insurance, Docket No. 2279, October 1997, (Texas Title Insurance Agents).
- Texas Department of Insurance, January 1996, (Independent Metropolitan Title Insurance Agents of Texas).
- Texas Insurance Board, January 1992, (Texas Land Title Association).
- Texas Insurance Board, December 1990, (Texas Land Title Association).
- Texas Insurance Board, November 1989, (Texas Land Title Association).
- Texas Insurance Board, December 1987, (Texas Land Title Association).

Testimony On Behalf Of Texas PUC Staff:

- Texland Electric Cooperative, Dkt. No. 3896, February 1983
- El Paso Electric Company, Dkt. No. 4620, September 1982.
- Southwestern Bell Telephone Company, Dkt. No. 4545, August 1982.
- Central Power and Light Company, Dkt. No. 4400, May 1982.
- Texas-New Mexico Power Company, Dkt. 4240, March 1982.
- Texas Power and Light Company, Dkt. No. 3780, May 1981.
- General Telephone Company of the Southwest, Dkt. No. 3690, April 1981.
- Mid-South Electric Cooperative, Dkt. No. 3656, March 1981.
- West Texas Utilities Company, Dkt. No. 3473, December 1980.
- Houston Lighting & Power Company, Dkt. No. 3320, September 1980.

ECONOMIC ANALYSIS AND TESTIMONY

Antitrust Litigation:

- Marginal Cost Analysis of Concrete Production/Predatory Pricing (Stiles)
- Analysis of Lost Business Opportunity due to denial of Waste Disposal Site Permit (Browning-Ferris Industries, Inc.).
- Analysis of Electric Power Transmission Costs in Purchased Power Dispute, 1995, (City of College Station, Texas).

Contract Litigation:

- Analysis of Cogeneration Contract/Economic Viability Issues(Texas-New Mexico Power Company)
- Definition of Electric Sales/Franchise Fee Contract Dispute (Reliant Energy HL&P)
- Analysis of Purchased Power Agreement/Breach of Contract (Texas-New Mexico Power Company)
- Regulatory Commission Provisions in Franchise Fee Ordinance Dispute (Central Power & Light Company)
- Analysis of Economic Damages resulting from attempted Acquisition of Highway Construction Company (Dillingham Construction Corporation).
- Analysis of Economic Damages due to Contract Interference in Acquisition of Electric Utility Cooperative (PacifiCorp).
- Analysis of Economic Damages due to Patent Infringement of Boiler Cleaning Process (Dowell-Schlumberger/The Dow Chemical Company).
- Analysis of Lost Profits in Highway Construction Dispute, Jones Bros., Plaintiff, v. Flour Daniel, Balfour Beatty, Lambrecht, and Lone Star Infrastructure, LLC, Defendants, 53rd Judicial District Court of Travis County, Texas, Cause No. GN204386, 2005, (Flour, et al)
- Analysis of Lost Profits in Insurance Dispute, Nickelson v. International Shipbreaking Ltd., LLC, et al, 332nd District Court, Hidalgo County, Texas, Cause No. C-482-01-F, 2005, (Great American Insurance Company).
- Analysis of Lost Profits and Other Economic Damages due to Patent Infringement, Climb Tech, Guthrie, & Schwartz Design, Plaintiffs, v. Verble, Hagler, Reeves, Valcor Industries, Inc., Defendants, U.S. District Court, Western District, Austin, Texas, Civil Action No. 1:05-cv-864-LY, 2008, (Verble, Hagler, et al).

Lender Liability/Securities Litigation:

- ERISA Valuation of Retail Drug Store Chain (Sommers Drug Stores Company).

- Analysis of Lost Business Opportunities in Failed Businesses where Lenders Refused to Extend or Foreclosed Loans (FirstCity Bank Texas, McAllen State Bank, General Electric Credit Corporation).
- Usury and Punitive Damages Analysis based on Property Valuation in Failed Real Estate Venture, 1995, (Tomen America, Inc.).

Personal Injury/Wrongful Death/Lost Earnings Capacity Litigation:

- Analysis of Lost Earnings Capacity and Punitive Damages due to Industrial Accident (Worsham, Forsythe and Wooldridge).
- Analysis of Lost Earnings Capacity due to Improper Termination (Lloyd Gosselink, Ryan & Fowler).
- Present Value Analysis of Lost Earnings and Future Medical Costs due to Medical Malpractice (Sierra Medical Center).
- Present Value Analysis of Life Care Plan, U.S. District Court, Eastern District of Texas, Texarkana Division, Chisum v. Ford Motor Company, Civil Action No. 5:05-cv-0045, 2005, (Ford Motor Company).
- Analysis of Lost Earnings Capacity due to Industrial Accident, 122nd District Court, Galveston County, Texas, Trevino v. BP Products North America, Inc., Cause No. 05-cv-0341, 2006, (BP Products North America, Inc).

Product Warranty/Liability Litigation:

- Analysis of Lost Profits due to Equipment Failure in Cogeneration Facility (WF Energy/Travelers Insurance Company).
- Analysis of Economic Damages due to Grain Elevator Explosion (Degesch Chemical Company).
- Analysis of Economic Damages due to failure of Plastic Pipe Water Lines (Western Plastics, Inc.)
- Analysis of Rail Car Repair and Maintenance Costs in Product Warranty Dispute (Youngstown Steel Door Company).
- Analysis of Lost Profits due to Equipment Failure in Electric Power Plant, Houston Casualty Co., Comision Federal de Electricidad, and Seguros Comercial America S.A. de C.V. (Plaintiffs) v. Siemens Power Corporation, et al, District Court of Dallas County Texas, Cause No. DV-99-02749, 2005, (Siemens).
- Analysis of Lost Profits due to Manufacturing Parts Failure, Sanijet Corp. (Plaintiff) v. Lxor International, Inc., U.S. District Court, Northern Division of Texas, Dallas, Texas, Case No. 3:06-cv-1258-B ECF (Lxor International)

Property Tax Litigation:

- Evaluation of Electric Utility Distribution System (Jasper-Newton Electric Cooperative).
- Evaluations of Electric Utility Generating Plants (West Texas Utilities Company).

Valuations of Closely Held Businesses in Litigation Support and Federal Estate Tax Planning.

PROFESSIONAL PRESENTATIONS

"Fundamentals of Financial Management and Reporting for Non-Financial Managers," Austin Energy, July 2000.

"Fundamentals of Finance and Accounting," the IC² Institute, University of Texas at Austin, December 1996 and 1997.

- "Fundamentals of Financial Analysis and Project Evaluation," Central and South West Companies, April, May, and June 1997.
- "Fundamentals of Financial Management and Valuation," West Texas Utilities Company, November 1995.
- "Financial Modeling: Testing the Reasonableness of Regulatory Results," University of Texas Center for Legal and Regulatory Studies Conference, June 1991.
- "Estimating the Cost of Equity Capital," University of Texas at Austin Utilities Conference, June 1989, June 1990.
- "Regulation: The Bottom Line," Texas Society of Certified Public Accountants, Annual Utilities Conference, Austin, Texas, April 1990.
- "Alternative Treatments of Large Plant Additions -- Modeling the Alternatives," University of Texas at Dallas Public Utilities Conference, July 1989.
- "Industrial Customer Electrical Requirements," Edison Electric Institute Financial Conference, Scottsdale, Arizona, October 1988.
- "Acquisitions and Consolidations in the Electric Power Industry," Conference on Emerging Issues of Competition in the Electric Utility Industry, University of Texas at Austin, May 1988.
- "The General Fund Transfer - Is It A Tax? Is It A Dividend Payout? Is It Fair?" The Texas Public Power Association Annual Meeting, Austin, May 1984.
- "Avoiding 'Rate Shock' - Preoperational Phase-In Through CWIP in Rate Base," Edison Electric Institute, Finance Committee Annual Meeting, May 1983.
- "A Cost-Benefit Analysis of Alternative Bond Ratings Among Electric Utility Companies in Texas," (with B.L. Heidebrecht and J.L. Nash), Texas Senate Subcommittee on Consumer Affairs, December 1982.
- "Texas PUC Rate of Return and Construction Work in Progress Methods," New York Society of Security Analysts, New York, August 1982.
- "In Support of Debt Service Requirements as a Guide to Setting Rates of Return for Subsidiaries," Financial Forum, National Society of Rate of Return Analysts, Washington, D.C., May 1982.

PUBLICATIONS

- "Institutional Constraints on Public Fund Performance," (with B.L. Hadaway) *Journal of Portfolio Management*, Winter 1989.
- "Implications of Savings and Loan Conversions in a Deregulated World," (with B.L. Hadaway) *Journal of Bank Research*, Spring 1984.
- "Regulatory Treatment of Construction Work in Progress," abstract, (with B.L. Heidebrecht and J. L. Nash), *Rate & Regulation Review*, Edison Electric Institute, December 20, 1982.
- "Financial Integrity and Market-to-Book Ratios in an Efficient Market," (with W. L. Beedles), *Gas Pricing & Ratemaking*, December 7, 1982.
- "An Analysis of the Performance Characteristics of Converted Savings and Loan Associations," (with B.L. Hadaway) *Journal of Financial Research*, Fall 1981.
- "Inflation Protection from Multi-Asset Sector Investments: A Long-Run Examination of Correlation Relationships with Inflation Rates," (with B.L. Hadaway), *Review of Business and Economic Research*, Spring 1981.
- "Converting to a Stock Company-Association Characteristics Before and After Conversion," (with B.L. Hadaway), *Federal Home Loan Bank Board Journal*, October 1980.
- "A Large-Sample Comparative Test for Seasonality in Individual Common Stocks," (with D.P. Rochester), *Journal of Economics and Business*, Fall 1980.
- "Diversification Possibilities in Agricultural Land Investments," *Appraisal Journal*, October 1978.
- "Further Evidence on Seasonality in Common Stocks," (with D.P. Rochester), *Journal of Financial and Quantitative Analysis*, March 1978.

EXHIBIT

SCH-1

UNS Gas, Inc. Comparable Company Fundamental Characteristics

No.	Company	(1)		(2)		(3)		
		% Regulated Revenue	S&P	Credit Rating	Moody's	Common Equity Ratio	Long-Term Debt Ratio	Preferred Stock Ratio
1	Atmos Energy Corp.	65.0%	BBB+	Baa2	Baa2	54.6%	45.4%	0.0%
2	NiSource Inc.	87.5%	BBB-	Baa2	Baa2	45.3%	54.6%	0.1%
3	N.W. Nat'l Gas	94.2%	A+	A1	A1	53.5%	46.5%	0.0%
4	Piedmont Nat'l	100.0%	A	A3	A3	59.0%	41.0%	0.0%
5	Southwest Gas	85.5%	BBB	Baa2	Baa2	50.9%	49.1%	0.0%
6	Alliant Energy Co.	92.4%	A-/BBB+	A2/A3	A2/A3	49.5%	46.3%	4.2%
7	Ameren	100.0%	BBB-	Baa2	Baa2	50.9%	48.2%	0.9%
8	Avista Corp.	91.0%	BBB+	Baa1	Baa1	51.5%	48.5%	0.0%
9	Black Hills Corp	85.7%	BBB+	A3	A3	50.0%	50.0%	0.0%
10	Con. Edison	86.2%	A-	A3/Baa1	A3/Baa1	50.0%	50.0%	0.0%
11	DTE Energy Co.	77.6%	A	A2	A2	48.7%	51.3%	0.0%
12	Empire District	98.6%	BBB+	A3	A3	48.7%	51.3%	0.0%
13	Entergy Corp.	77.8%	A-/BBB+	Baa1	Baa1	42.1%	56.3%	1.6%
14	PG&E Corp.	100.0%	BBB+	A3	A3	49.5%	49.5%	1.0%
15	Pepco Holdings	71.0%	A	A3	A3	52.5%	47.5%	0.0%
16	P.S. Enterprise Gp.	66.7%	A-	A2	A2	60.5%	39.5%	0.0%
17	SCANA Corp.	72.9%	A-	A3	A3	47.1%	52.9%	0.0%
18	Sempra Energy	75.7%	A+	Aa3	Aa3	52.0%	47.0%	1.0%
19	Teco Energy, Inc.	76.6%	BBB	Baa1	Baa1	40.8%	59.2%	0.0%
20	Vectren Corp.	73.4%	A-	A2	A2	50.1%	49.9%	0.0%
21	Wisconsin Energy	99.1%	A-	A1	A1	49.0%	50.6%	0.4%
22	Xcel Energy Inc.	99.3%	A	A2	A2	46.5%	53.0%	0.5%
Average		85.3%	A-/BBB+	A3	A3	50.1%	49.4%	0.4%

Column Sources:

- (1) Most recent company 10-Ks.
- (2) AUS Utility Reports, March 2011.
- (3) Value Line Investment Survey, Electric Utility (East), Feb 25, 2011; (Central), Mar 25, 2011; (West), Feb 4, 2011; Natural Gas Utility, Mar 11, 2011.

UNSGas, Inc.
Comparable Company Recovery Mechanisms

No.	Comparable Company	Operating Company	Jurisdiction	Utility Type	Elec Gas	Fuel/Purch Power/Gas	Energy Efficiency	Environmental	Transmission	Renewable Resources	Decoupling	RECOVERY MECHANISM FOR THE FOLLOWING COSTS:		
												Other	Weather	Bad debts, weather, capital
1	Almos Energy Corp.	Almos Energy Mid-Tex	TX	Del	X	X						Bad debts, weather, capital	Weather	Bad debts, weather
		Almos Energy Kentucky/Mid-States	KY, TN	Del	X	X						Weather	Bad debts, weather, capital	Weather
		Almos Energy Louisiana	LA	Del	X	X						Weather	Bad debts, weather, capital	Weather
		Almos Energy West Texas	TX	Del	X	X						Weather	Bad debts, weather, capital	Weather
		Almos Energy Colorado-Kansas	CO, KS	Del	X	X						Weather	Bad debts, weather, capital	Weather
		Almos Energy Mississippi	MS	Del	X	X						Weather	Bad debts, weather, capital	Weather
2	NISource Inc.	Northern Indiana	IN	VI	X	X		X						
		Northern Indiana	IN	Del	X	X							Weather, capital	Weather, capital
		Columbia	OH, PA, VA, KY	Del	X	X	X				X		Capital	Capital
		Columbia Gas of Massachusetts	MA	Del	X	X					X		Weather, capital	Weather, capital
3	N.W. Natural Gas	N.W. Natural Gas	OR, WA	Del	X	X	X	X	X		X		Weather, capital, pension, reliability	Weather, capital, pension, reliability
4	Piedmont Nat'l Gas	Piedmont Nat'l Gas	NC, SC, TN	Del	X	X	X				X		Weather, capital	Weather, capital
5	Southwest Gas	Southwest Gas	NV, AZ	Del	X	X					X		Weather, capital	Weather, capital
6	Alliant Energy Co.	Interstate Power & Light	IA	VI, Del	X	X	X						Line cleaning, pension, capital	Line cleaning, pension, capital
		Wisconsin Power & Light	WI	VI, Del	X	X	X						Bad debts, reliability, capital	Bad debts, reliability, capital
7	Ameren	UE	MO	VI, Del	X	X	X						Income taxes	Income taxes
		AIC	IL	Del	X	X	X						Bad debts, weather, other taxes, capital	Bad debts, weather, other taxes, capital
8	Avista Corp.	Avista Utilities	WA, OR	VI, Del	X	X	X						Weather	Weather
9	Black Hills Corp.	Black Hills Power	SD, MT	VI	X	X				X			Bad debts, storm/line cleaning	Bad debts, storm/line cleaning
		Cheyenne Light	WY	VI, Del	X	X							Reliability	Reliability
		Colorado Electric	CO	VI	X	X	X						Certain power plant investment	Certain power plant investment, formula rate plan
		Gas Utilities	KS, NE	Del	X	X							Formula rate plan	Formula rate plan
10	Con. Edison Co.	Con. Ed., Orange & Rookland	NY	Del	X	X							Certain power plant investment, formula rate plan	Certain power plant investment, formula rate plan
11	DTE Energy Co.	Detroit Edison, MichCon	MI	VI, Del	X	X	X	X			X		Storm/line cleaning	Storm/line cleaning
12	Empire District	Empire District	MO	VI, Del	X	X	X						Approved resource plan investment, cost of capital	Approved resource plan investment, cost of capital
13	Energy Corp.	Energy Arkansas	AR	VI	X	X							Smart meters	Smart meters
		Energy Gulf States Louisiana	LA	VI, Del	X	X	X						Weather, capital	Weather, capital
		Energy Texas	TX	VI	X	X							Weather	Weather
		Energy Louisiana	LA	VI	X	X							Cost of capital	Cost of capital
		Energy Mississippi	MS	VI	X	X							Bad debts, weather, nuclear decomm, transmission inv	Bad debts, weather, nuclear decomm, transmission inv
		Energy New Orleans	LA	VI, Del	X	X	X						Coal conversion investment	Coal conversion investment
14	PG&E Corp.	Pacific Gas & Electric	CA	VI, Del	X	X	X	X						
15	Pecco Holdings	Potomac Electric Power Co.	DC, MD	Del	X	X								
		Delmarva Power & Light	DE, MD	Del	X	X								
		Atlantic City Electric Co.	NJ	Del	X	X								
16	P.S. Enterprise Gp.	PSEG	NJ	Del	X	X	X	X						
17	SCANA Corp.	South Carolina E&G	SC, NC	VI, Del	X	X	X	X		X				
18	Sempra Energy	SDG&E, SoCalGas	CA	VI, Del	X	X	X	X						
19	TECO Energy, Inc.	Tampa Electric, Peoples Gas System	FL	VI, Del	X	X	X	X						
20	Vectren Corp.	SIEMCO, Indiana Gas	IN	VI, Del	X	X	X	X						
21	Wisconsin Energy	Wisconsin Electric, Wisconsin Gas	WI	VI, Del	X	X	X	X		X				
22	Xcel Energy Inc.	NSP-Minnesota	MN	VI, Del	X	X	X	X		X				
		NSP-Wisconsin	WI	VI, Del	X	X	X	X		X				
		PSC Colorado	CO	VI, Del	X	X	X	X		X				
		Southwestern Public Service	TX	VI	X	X	X	X		X				
Summary of Results		Cos with Recovery Mechanisms				22	16	11	8	4	11			18
		Total Companies	22											

Source: Company 10-K's
Note: VI=Vertically Integrated; Del=Delivery

EXHIBIT

SCH-2

UNS Gas, Inc.
Market Value of Assets and Equity
(\$ Millions)

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	
No.	Company	Market Value of Common Equity	Book Value of Liabilities	Market Value of Assets	Book Value of Non-Plant Assets	Market Value of Plant Assets	Book Value of Plant Assets	Market to Book Ratio for Plant Assets	Market to Book Ratio for Common Equity
1	Atmos Energy Corp.	\$ 2,935	\$ 4,947	\$ 7,882	\$ 2,362	\$ 5,520	\$ 4,859	1.14	1.29
2	NiSource Inc.	\$ 5,057	\$ 15,016	\$ 20,073	\$ 8,937	\$ 11,136	\$ 11,002	1.01	1.03
3	N.W. Nat'l Gas	\$ 1,226	\$ 1,924	\$ 3,149	\$ 762	\$ 2,387	\$ 1,854	1.29	1.77
4	Piedmont Nat'l*	\$ 2,059	\$ 2,274	\$ 4,333	\$ 996	\$ 3,337	\$ 2,294	1.45	2.03
5	Southwest Gas	\$ 1,696	\$ 2,817	\$ 4,513	\$ 949	\$ 3,563	\$ 3,035	1.17	1.45
6	Alliant Energy Co.	\$ 4,151	\$ 6,389	\$ 10,540	\$ 3,259	\$ 7,281	\$ 6,024	1.21	1.43
7	Ameren	\$ 6,813	\$ 15,785	\$ 22,598	\$ 5,662	\$ 16,936	\$ 17,853	0.95	0.88
8	Avista Corp.	\$ 1,296	\$ 2,814	\$ 4,110	\$ 1,288	\$ 2,822	\$ 2,652	1.06	1.15
9	Black Hills Corp	\$ 1,204	\$ 2,611	\$ 3,815	\$ 1,216	\$ 2,599	\$ 2,495	1.04	1.09
10	Con. Edison	\$ 14,047	\$ 25,085	\$ 39,132	\$ 13,810	\$ 25,322	\$ 22,336	1.13	1.27
11	DTE Energy Co.	\$ 7,834	\$ 18,174	\$ 26,008	\$ 11,904	\$ 14,104	\$ 12,992	1.09	1.17
12	Empire District	\$ 906	\$ 1,264	\$ 2,170	\$ 412	\$ 1,758	\$ 1,510	1.16	1.38
13	Entergy Corp.	\$ 18,334	\$ 30,189	\$ 48,523	\$ 16,498	\$ 32,025	\$ 22,187	1.44	2.16
14	PG&E Corp.	\$ 18,501	\$ 34,743	\$ 53,244	\$ 15,960	\$ 37,284	\$ 30,065	1.24	1.64
15	Pepco Holdings	\$ 4,159	\$ 10,250	\$ 14,409	\$ 6,807	\$ 7,602	\$ 7,673	0.99	0.98
16	P.S. Enterprise Gp.	\$ 16,958	\$ 20,276	\$ 37,234	\$ 13,519	\$ 23,715	\$ 16,390	1.45	1.76
17	SCANA Corp.	\$ 5,179	\$ 9,266	\$ 14,445	\$ 4,387	\$ 10,058	\$ 8,581	1.17	1.40
18	Sempra Energy	\$ 12,490	\$ 21,256	\$ 33,746	\$ 10,407	\$ 23,339	\$ 19,876	1.17	1.38
19	Teco Energy, Inc.	\$ 3,852	\$ 5,025	\$ 8,877	\$ 1,566	\$ 7,311	\$ 5,629	1.30	1.78
20	Vectren Corp.	\$ 2,108	\$ 3,325	\$ 5,433	\$ 1,809	\$ 3,624	\$ 2,955	1.23	1.46
21	Wisconsin Energy	\$ 6,954	\$ 9,258	\$ 16,212	\$ 5,028	\$ 11,184	\$ 8,032	1.39	1.83
22	Xcel Energy Inc.	\$ 11,410	\$ 19,304	\$ 30,714	\$ 6,725	\$ 23,990	\$ 20,663	1.16	1.41
Average Value:								1.19	1.44
Median Value:								1.17	1.41

Financial data as of 12/31/10, except as noted.

Data obtained from individual company SEC Forms 10-K and 10-Q.

*Data for 1/31/2011 to match 1st quarter of company fiscal year.

Column Notes

A: Market Value of Common Equity = shares outstanding × three-month average stock price Dec 2010 - Feb 2011.

B: Total Liabilities and Capital minus Book Value of Equity.

C: Column A + Column B.

D: Total Assets minus Net Plant.

E: Column C minus Column D.

F: Net Plant minus CWIP.

G: Column E divided by Column F.

H: Column A divided by Book Value of Equity.

EXHIBIT

SCH-3

UNS Gas, Inc.
Historical Capital Market Costs

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Prime Rate	6.9%	4.7%	4.1%	4.3%	6.2%	8.0%	8.1%	5.1%	3.3%	3.3%
Consumer Price Index	1.6%	2.5%	2.0%	3.3%	3.3%	2.5%	4.1%	0.0%	2.8%	1.4%
Long-Term Treasuries	5.5%	5.4%	5.0%	5.1%	4.7%	5.0%	4.8%	4.3%	4.1%	4.3%
Moody's Avg Utility Debt	7.7%	7.5%	6.6%	6.2%	5.7%	6.1%	6.1%	6.7%	6.3%	5.6%
Moody's Baa Utility Debt	8.0%	8.0%	6.8%	6.4%	5.9%	6.3%	6.3%	7.2%	7.1%	6.0%

SOURCES:

Prime Interest Rate - Federal Reserve Bank of St. Louis website
Consumer Price Index For All Urban Consumers: All Items (Seasonally Adjusted, December to December) - Federal Reserve Bank of St. Louis website
Long-Term Treasuries - Federal Reserve Bank of St. Louis website; 30-year Treasury bonds 2001 and 2007-2010; 20-year Treasury bonds 2002-2006
Moody's Average Utility Debt - Moody's (Mergent) Bond Record
Moody's Baa Utility Debt - Moody's (Mergent) Bond Record

UNS Gas, Inc.
Long-Term Interest Rate Trends

Month	Triple-B Utility Rate	30-Year Treasury Rate	Triple-B Utility Spread
Jan-08	6.35	4.33	2.02
Feb-08	6.60	4.52	2.08
Mar-08	6.68	4.39	2.29
Apr-08	6.81	4.44	2.37
May-08	6.79	4.60	2.19
Jun-08	6.93	4.69	2.24
Jul-08	6.97	4.57	2.40
Aug-08	6.98	4.50	2.48
Sep-08	7.15	4.27	2.88
Oct-08	8.58	4.17	4.41
Nov-08	8.98	4.00	4.98
Dec-08	8.11	2.87	5.24
Jan-09	7.90	3.13	4.77
Feb-09	7.74	3.59	4.15
Mar-09	8.00	3.64	4.36
Apr-09	8.03	3.76	4.27
May-09	7.76	4.23	3.53
Jun-09	7.31	4.52	2.79
Jul-09	6.87	4.41	2.46
Aug-09	6.36	4.37	1.99
Sep-09	6.12	4.19	1.93
Oct-09	6.14	4.19	1.95
Nov-09	6.18	4.31	1.87
Dec-09	6.26	4.49	1.77
Jan-10	6.16	4.60	1.56
Feb-10	6.25	4.62	1.63
Mar-10	6.22	4.64	1.58
Apr-10	6.19	4.69	1.50
May-10	5.97	4.29	1.68
Jun-10	6.18	4.13	2.05
Jul-10	5.98	3.99	1.99
Aug-10	5.55	3.80	1.75
Sep-10	5.53	3.77	1.76
Oct-10	5.62	3.87	1.75
Nov-10	5.85	4.19	1.66
Dec-10	6.04	4.42	1.62
Jan-11	6.06	4.52	1.54
Feb-11	6.10	4.66	1.44
3-Mo Avg	6.07	4.53	1.53
12-Mo Avg	5.94	4.25	1.69

Sources: Mergent Bond Record (Utility Rates); www.federalreserve.gov (Treasury Rates).

Three month average is for December 2010-February 2011.

Twelve month average is for March 2010-February 2011.

Economic Indicators

Seasonally Adjusted Annual Rates — Dollar Figures in Billions

	2009				2010				E2011					
	A2010	E2011	2009	A2010	E2011	2010	Q1	Q2	Q3	AQ4	Q1	Q2	Q3	Q4
Gross Domestic Product														
GDP (current dollars)	\$14,119.1	\$14,660.2	\$15,314.7	(1.7)	3.8	4.5	\$14,446.4	\$14,578.7	\$14,745.1	\$14,870.4	\$15,093.0	\$15,219.2	\$15,380.8	\$15,565.9
Annual rate of increase (%)	(1.7)	3.8	4.5	-	-	-	4.8	3.7	4.6	3.4	6.1	3.4	4.3	4.9
Annual rate of increase—real GDP (%)	(2.6)	2.9	3.1	-	3.7	-	3.7	1.7	2.6	3.2	3.8	3.2	3.6	3.6
Annual rate of increase—GDP deflator (%)	0.9	1.0	1.3	-	-	-	1.0	1.9	2.1	0.3	2.1	0.1	1.6	1.3
*Components of Real GDP														
Personal consumption expenditures	\$9,153.9	\$9,315.7	\$9,613.7	(1.2)	1.8	3.2	\$9,225.4	\$9,275.7	\$9,330.6	\$9,431.2	\$9,501.1	\$9,582.5	\$9,652.0	\$9,719.3
% change	(1.2)	1.8	3.2	-	-	-	1.9	2.2	2.4	4.4	3.0	3.5	2.9	2.8
Durable goods	1,094.6	1,178.6	1,300.5	(3.7)	7.7	10.3	1,138.9	1,157.8	1,179.3	1,238.5	1,262.1	1,292.5	1,313.6	1,333.7
Non-durable goods	2,017.4	2,073.7	2,139.9	(1.2)	2.8	3.2	2,053.5	2,063.4	2,076.2	2,101.7	2,120.7	2,134.1	2,146.9	2,157.9
Services	6,032.7	6,065.4	6,192.4	(0.8)	0.5	2.1	6,029.6	6,053.4	6,078.9	6,101.9	6,132.2	6,174.0	6,212.3	6,251.1
Nonresidential fixed investment	1,290.8	1,362.3	1,475.8	(17.1)	5.5	8.3	1,302.6	1,355.3	1,388.0	1,403.1	1,416.5	1,451.2	1,496.3	1,539.2
% change	(17.1)	5.5	8.3	-	-	-	7.8	17.2	10.0	4.4	3.9	10.2	13.0	12.0
Producers durable equipment	916.3	1,054.9	1,201.1	(15.3)	15.1	13.9	989.7	1,046.0	1,084.2	1,099.5	1,131.4	1,178.8	1,226.0	1,268.3
Residential fixed investment	333.9	323.1	331.1	(23.2)	(3.2)	2.5	321.4	340.7	313.8	316.3	310.6	324.3	337.2	352.4
% change	(33.2)	(3.2)	2.5	-	-	-	(12.8)	26.2	(28.0)	3.2	(7.0)	18.8	16.9	19.2
Net change in business inventories	(113.1)	60.4	77.1	-	-	-	44.1	68.8	121.4	7.2	67.4	79.3	82.9	79.0
Gov't purchases of goods & services	2,542.6	2,570.1	2,553.2	1.6	1.1	(0.7)	2,540.2	2,564.9	2,589.6	2,585.8	2,589.1	2,564.2	2,546.4	2,533.1
Federal	1,027.6	1,077.0	1,080.8	5.7	4.8	0.4	1,048.4	1,071.5	1,094.3	1,093.9	1,090.4	1,084.3	1,078.2	1,070.4
State & local	1,514.9	1,493.1	1,472.4	(0.9)	(1.3)	(1.3)	1,496.8	1,493.1	1,501.7	1,498.4	1,485.5	1,486.3	1,474.7	1,469.0
Net exports	(363.0)	(421.2)	(414.6)	-	-	-	(338.4)	(449.0)	(505.0)	(392.2)	(391.9)	(416.2)	(416.2)	(416.2)
Exports	1,490.7	1,665.4	1,812.4	(9.5)	11.7	8.8	1,616.4	1,652.1	1,679.3	1,713.9	1,748.2	1,789.3	1,834.9	1,877.4
Imports	1,853.8	2,086.6	2,227.1	(13.6)	12.6	6.7	1,954.8	2,101.1	2,184.3	2,106.1	2,140.2	2,205.5	2,269.1	2,293.6
**Income & Profits														
Personal income	\$12,174.9	\$12,545.3	\$13,201.9	(1.7)	3.0	5.2	\$12,350.3	\$12,517.1	\$12,592.8	\$12,721.1	\$12,980.9	\$13,141.2	\$13,285.8	\$13,399.6
Disposable personal income	11,034.9	11,378.4	11,874.3	0.7	3.1	4.4	11,215.6	11,368.0	11,415.1	11,514.7	11,691.6	11,823.9	11,944.9	12,036.7
Savings rate (%)	5.9	5.8	5.6	-	-	-	5.5	6.2	5.9	5.4	5.6	5.8	5.7	5.3
Corporate profits before taxes	1,316.7	1,795.9	1,630.1	(1.2)	36.4	(9.2)	1,772.9	1,788.2	1,845.7	1,776.8	1,743.4	1,599.3	1,578.7	1,598.8
Corporate profits after taxes	1,061.8	1,382.0	1,172.3	3.6	30.2	(15.2)	1,369.7	1,382.6	1,416.3	1,359.4	1,251.8	1,151.0	1,136.2	1,150.1
Earnings per share (S&P 500)	51.30	76.86	92.79	244.8	49.8	20.7	61.26	67.43	72.04	76.86	83.87	87.37	91.21	92.79
†Prices & Interest Rates														
Consumer price index	(0.3)	1.6	1.9	-	-	-	1.5	(0.7)	1.5	2.6	3.8	(0.1)	2.0	1.9
Treasury bills	0.2	0.1	0.3	-	-	-	0.1	0.1	0.2	0.1	0.2	0.2	0.3	0.5
10-yr notes	3.3	3.2	3.8	-	-	-	3.7	3.5	2.8	2.9	3.5	3.7	3.9	4.1
30-yr bonds	4.1	4.3	4.9	-	-	-	4.6	4.4	3.9	4.2	4.7	4.9	5.0	5.2
New issue rate—corporate bonds	5.3	4.9	5.5	-	-	-	5.3	5.0	4.6	4.9	5.2	5.4	5.6	5.8
Other Key Indicators														
Housing starts (1,000 units SAAR)	554.3	586.4	675.1	(38.4)	5.8	15.1	617.0	602.0	588.3	538.3	583.6	638.4	709.9	788.6
Auto & truck sales (1,000,000 units)	10.4	11.5	13.2	(21.2)	11.0	14.0	11.0	11.3	11.6	12.3	12.5	12.9	13.4	13.9
Unemployment rate (%)	9.3	9.6	8.9	-	-	-	9.7	9.6	9.6	9.6	9.1	8.9	8.8	8.7
\$U.S. dollar	4.3	(3.0)	(5.1)	-	-	-	11.3	15.6	(8.5)	(14.4)	(5.5)	(1.5)	(2.0)	(2.3)

Note: Annual changes are from prior year and quarterly changes are from prior quarter. Figures may not add to totals because of rounding. A—Advance data. P—Preliminary. E—Estimated. R—Revised.
 **2005 Chain-weighted dollars. †Trailing 4 quarters. ‡Average for period. \$Quarterly % changes at quarterly rates. This forecast prepared by Standard & Poor's.

EXHIBIT

SCH-4

UNS Gas, Inc.
GDP Growth Rate Forecast

	Nominal GDP	% Change	GDP Price Deflator	% Change	CPI	% Change
1950	313.3		15.0		25.0	
1951	347.9	11.0%	15.9	5.6%	26.5	6.0%
1952	371.4	6.8%	16.1	1.5%	26.7	0.9%
1953	375.9	1.2%	16.2	0.8%	26.9	0.6%
1954	389.4	3.6%	16.4	0.8%	26.8	-0.4%
1955	426.0	9.4%	16.8	2.6%	26.9	0.4%
1956	448.1	5.2%	17.3	3.3%	27.6	2.8%
1957	461.5	3.0%	17.8	2.7%	28.5	3.0%
1958	485.0	5.1%	18.3	2.5%	29.0	1.8%
1959	513.2	5.8%	18.4	0.9%	29.4	1.5%
1960	523.7	2.0%	18.7	1.4%	29.8	1.4%
1961	562.6	7.4%	18.9	1.1%	30.0	0.7%
1962	593.3	5.5%	19.1	1.3%	30.4	1.2%
1963	633.5	6.8%	19.4	1.4%	30.9	1.6%
1964	675.6	6.6%	19.7	1.5%	31.3	1.2%
1965	747.5	10.6%	20.1	2.0%	31.9	1.9%
1966	806.9	7.9%	20.8	3.5%	32.9	3.4%
1967	852.7	5.7%	21.4	3.1%	34.0	3.3%
1968	936.2	9.8%	22.4	4.6%	35.6	4.7%
1969	1004.5	7.3%	23.6	5.2%	37.7	5.9%
1970	1052.7	4.8%	24.7	5.0%	39.8	5.6%
1971	1151.4	9.4%	25.9	4.7%	41.1	3.3%
1972	1286.6	11.7%	27.1	4.5%	42.5	3.4%
1973	1431.8	11.3%	28.9	6.8%	46.3	8.9%
1974	1552.8	8.5%	32.0	10.7%	51.9	12.1%
1975	1713.9	10.4%	34.4	7.6%	55.6	7.1%
1976	1884.5	10.0%	36.3	5.4%	58.4	5.0%
1977	2110.8	12.0%	38.7	6.7%	62.3	6.7%
1978	2416.0	14.5%	41.5	7.3%	67.9	9.0%
1979	2659.4	10.1%	45.2	8.7%	76.9	13.3%
1980	2915.3	9.6%	49.6	9.7%	86.4	12.4%
1981	3194.7	9.6%	53.6	8.3%	94.1	8.9%
1982	3312.5	3.7%	56.4	5.2%	97.7	3.8%
1983	3688.1	11.3%	58.3	3.3%	101.4	3.8%
1984	4034.0	9.4%	60.4	3.6%	105.5	4.0%
1985	4318.7	7.1%	62.1	2.8%	109.5	3.8%
1986	4543.3	5.2%	63.5	2.3%	110.8	1.2%
1987	4883.1	7.5%	65.5	3.1%	115.6	4.3%
1988	5251.0	7.5%	67.9	3.7%	120.7	4.4%
1989	5581.7	6.3%	70.3	3.5%	126.3	4.6%
1990	5846.0	4.7%	73.2	4.2%	134.2	6.3%
1991	6092.5	4.2%	75.5	3.2%	138.2	3.0%
1992	6493.6	6.6%	77.1	2.2%	142.3	3.0%
1993	6813.8	4.9%	78.8	2.2%	146.3	2.8%
1994	7248.2	6.4%	80.5	2.1%	150.1	2.6%
1995	7542.5	4.1%	82.1	2.0%	153.9	2.5%
1996	8023.0	6.4%	83.6	1.8%	159.1	3.4%
1997	8505.7	6.0%	85.0	1.6%	161.8	1.7%
1998	9027.5	6.1%	85.9	1.1%	164.4	1.6%
1999	9607.7	6.4%	87.2	1.5%	168.8	2.7%
2000	10129.8	5.4%	89.4	2.5%	174.6	3.4%
2001	10373.1	2.4%	91.2	2.0%	177.4	1.6%
2002	10766.9	3.8%	92.8	1.8%	181.8	2.5%
2003	11416.5	6.0%	94.8	2.1%	185.5	2.0%
2004	12144.9	6.4%	97.9	3.2%	191.7	3.3%
2005	12915.6	6.3%	101.3	3.5%	198.1	3.3%
2006	13611.5	5.4%	104.2	2.9%	203.1	2.5%
2007	14291.3	5.0%	106.9	2.6%	211.4	4.1%
2008	14191.2	-0.7%	109.2	2.1%	211.3	0.0%
2009	14277.3	0.6%	109.7	0.4%	217.2	2.8%
2010	14861.0	4.1%	111.2	1.4%	220.2	1.4%
10-Year Average		3.9%		2.2%		2.4%
20-Year Average		4.8%		2.1%		2.5%
30-Year Average		5.6%		2.7%		3.2%
40-Year Average		6.9%		3.9%		4.4%
50-Year Average		7.0%		3.7%		4.1%
60-Year Average		6.7%		3.4%		3.7%
Average of Periods		5.8%		3.0%		3.4%

Source: St. Louis Federal Reserve Bank, www.research.stlouisfed.org

EXHIBIT

SCH-5

UNS Gas, Inc.
Discounted Cash Flow Analysis
Summary Of DCF Model Results

Company	Constant Growth DCF Model Analysts' Growth Rates	Constant Growth DCF Model Long-Term GDP Growth	Low Near-Term Growth Two-Stage Growth DCF Model
1 Atmos Energy Corp.	8.5%	10.0%	9.6%
2 NiSource Inc.	10.6%	10.9%	10.1%
3 N.W. Nat'l Gas	7.4%	9.6%	9.2%
4 Piedmont Nat'l	7.7%	9.9%	9.7%
5 Southwest Gas	7.6%	8.7%	8.6%
6 Alliant Energy Co.	11.0%	10.4%	10.3%
7 Ameren	7.9%	11.2%	10.4%
8 Avista Corp.	10.3%	10.6%	10.6%
9 Black Hills Corp	10.9%	10.6%	10.1%
10 Con. Edison	8.6%	10.7%	10.1%
11 DTE Energy Co.	10.4%	10.9%	10.7%
12 Empire District	42.4%	11.7%	11.1%
13 Entergy Corp.	6.5%	10.5%	10.2%
14 PG&E Corp.	10.8%	9.9%	9.8%
15 Pepco Holdings	9.8%	11.6%	11.0%
16 P.S. Enterprise Gp.	7.9%	10.1%	9.8%
17 SCANA Corp.	9.0%	10.6%	10.1%
18 Sempra Energy	8.2%	9.0%	9.1%
19 Teco Energy, Inc.	11.7%	10.6%	10.5%
20 Vectren Corp.	10.5%	11.2%	10.8%
21 Wisconsin Energy	11.1%	8.9%	9.7%
22 Xcel Energy Inc.	10.1%	10.2%	9.9%
GROUP AVERAGE	10.1%	10.3%	10.1%
GROUP MEDIAN	10.4%	10.5%	10.1%

Sources: Value Line Investment Survey, Electric Utility (East), Feb 25, 2011; (Central), Mar 25, 2011; (West), Feb 4, 2011; Natural Gas Utility, Mar 11, 2011.

DCF results outside of a 200 basis point band around the latest four quarter average allowed gas utility ROE of 10.08% (from RRA) are considered outliers and are eliminated. In other words, ROEs below 8.08% and above 12.08% are eliminated.

NOTE: SEE PAGE 5 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

UNS Gas, Inc.
Constant Growth DCF Model
Analysts' Growth Rates

Company	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Recent Price(P0)	Next Year's Div(D1)	Dividend Yield	Value Line	Analysts' Estimated Growth			Average Growth (Cols 4-7)	ROE K=Div Yld+G (Cols 3+8)
					Zacks	Thomson	Reuters		
1 Atmos Energy Corp.	32.39	1.37	4.23%	5.00%	4.50%	3.60%	4.00%	4.28%	8.5%
2 NiSource Inc.	18.14	0.92	5.07%	7.50%	3.00%	5.73%	6.05%	5.57%	10.6%
3 N.W. Nat'l Gas	45.97	1.74	3.79%	3.00%	4.40%	3.63%	3.62%	3.66%	7.4%
4 Piedmont Nat'l	28.69	1.17	4.08%	3.50%	4.50%	3.53%	3.03%	3.64%	7.7%
5 Southwest Gas	37.19	1.08	2.89%	7.50%	6.00%	2.65%	2.67%	4.71%	7.6%
6 Alliant Energy Co.	37.43	1.74	4.65%	7.00%	5.00%	7.94%	5.33%	6.32%	11.0%
7 Ameren	28.34	1.54	5.43%	NA	NA	NA	2.45%	2.45%	7.9%
8 Avista Corp.	22.69	1.08	4.76%	8.50%	4.70%	4.50%	4.50%	5.55%	10.3%
9 Black Hills Corp	30.66	1.46	4.76%	6.50%	6.00%	6.00%	6.00%	6.13%	10.9%
10 Con. Edison	49.41	2.41	4.88%	2.50%	4.00%	4.23%	4.18%	3.73%	8.6%
11 DTE Energy Co.	46.24	2.35	5.08%	5.50%	5.00%	5.75%	5.22%	5.37%	10.4%
12 Empire District	21.80	1.28	5.87%	7.00%	NA	6.00%	NA	6.50%	12.4%
13 Entergy Corp.	71.97	3.36	4.67%	1.00%	1.50%	2.00%	2.97%	1.87%	6.5%
14 PG&E Corp.	46.81	1.92	4.10%	6.00%	7.70%	6.68%	6.31%	6.67%	10.8%
15 Pepco Holdings	18.48	1.08	5.85%	0.50%	4.30%	7.00%	3.82%	3.91%	9.8%
16 P. S. Enterprise Gp.	34.78	1.37	4.31%	2.00%	0.50%	3.67%	4.75%	2.73%	7.0%
17 SCANA Corp.	41.20	1.96	4.76%	3.00%	4.60%	4.72%	4.61%	4.23%	9.0%
18 Sempra Energy	52.04	1.68	3.23%	1.00%	7.00%	5.97%	5.97%	4.99%	8.2%
19 Teco Energy, Inc.	17.93	0.86	4.77%	8.00%	5.30%	7.83%	6.67%	6.95%	11.7%
20 Vectren Corp.	25.80	1.40	5.43%	5.50%	5.00%	4.80%	4.80%	5.03%	10.5%
21 Wisconsin Energy	29.74	0.92	3.09%	7.50%	8.00%	8.50%	8.07%	8.02%	11.1%
22 Xcel Energy Inc.	23.65	1.03	4.36%	5.50%	5.10%	6.19%	6.07%	5.72%	10.1%
GROUP AVERAGE	32.84	1.48	4.60%	5.30%	5.28%	5.96%	5.44%	5.50%	10.1%
GROUP MEDIAN			4.76%						10.4%

Sources: Value Line Investment Survey, Electric Utility (East), Feb 25, 2011; (Central), Mar 25, 2011; (West), Feb 4, 2011; Natural Gas Utility, Mar 11, 2011.

DCF results outside of a 200 basis point band around the latest four quarter average allowed gas utility ROE of 10.08% (from RRA) are considered outliers and are eliminated. In other words, ROEs below 8.08% and above 12.08% are eliminated.

NOTE: SEE PAGE 5 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

UNS Gas, Inc.
Constant Growth DCF Model
Long-Term GDP Growth

	(10)	(11)	(12)	(13)	(14)
Company	Recent Price(P0)	Next Year's Div(D1)	Dividend Yield	GDP Growth (Cols 12+13)	ROE K=Div Yld+G
1 Atmos Energy Corp.	32.39	1.37	4.23%	5.80%	10.0%
2 NiSource Inc.	18.14	0.92	5.07%	5.80%	10.9%
3 N.W. Nat'l Gas	45.97	1.74	3.79%	5.80%	9.6%
4 Piedmont Nat'l	28.69	1.17	4.08%	5.80%	9.9%
5 Southwest Gas	37.19	1.08	2.89%	5.80%	8.7%
6 Alliant Energy Co.	37.43	1.74	4.65%	5.80%	10.4%
7 Ameren	28.34	1.54	5.43%	5.80%	11.2%
8 Avista Corp.	22.69	1.08	4.76%	5.80%	10.6%
9 Black Hills Corp	30.66	1.46	4.76%	5.80%	10.6%
10 Con. Edison	49.41	2.41	4.88%	5.80%	10.7%
11 DTE Energy Co.	46.24	2.35	5.08%	5.80%	10.9%
12 Empire District	21.80	1.28	5.87%	5.80%	11.7%
13 Energy Corp.	71.97	3.36	4.67%	5.80%	10.5%
14 PG&E Corp.	46.81	1.92	4.10%	5.80%	9.9%
15 Pepco Holdings	18.48	1.08	5.85%	5.80%	11.6%
16 P.S. Enterprise Gp.	31.78	1.37	4.31%	5.80%	10.1%
17 SCANA Corp.	41.20	1.96	4.76%	5.80%	10.6%
18 Sempra Energy	52.04	1.68	3.23%	5.80%	9.0%
19 Teco Energy, Inc.	17.93	0.86	4.77%	5.80%	10.6%
20 Vectren Corp.	25.80	1.40	5.43%	5.80%	11.2%
21 Wisconsin Energy	29.74	0.92	3.09%	5.80%	8.9%
22 Xcel Energy Inc.	23.65	1.03	4.36%	5.80%	10.2%
GROUP AVERAGE	34.47	1.53	4.55%	5.80%	10.3%
GROUP MEDIAN			4.71%		10.5%

Sources: Value Line Investment Survey, Electric Utility (East), Feb 25, 2011; (Central), Mar 25, 2011; (West), Feb 4, 2011; Natural Gas Utility, Mar 11, 2011.

NOTE: SEE PAGE 5 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

UNS Gas, Inc.
Low Near-Term Growth
Two-Stage Growth DCF Model

Company	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
	2011/12 Div	2014/15 Div	Annual Change to 2014/15	Recent Price	Year 1 Div	Year 2 Div	Year 3 Div	Year 4 Div	Year 5 Div	Year 5-150 Growth	ROE=Internal Rate of Return (Yrs 0-150)
	CASH FLOWS										
1 Atmos Energy Corp.	1.38	1.45	0.02	-32.39	1.38	1.40	1.43	1.45	1.53	5.80%	9.6%
2 NiSource Inc.	0.92	0.92	0.00	-18.14	0.92	0.92	0.92	0.92	0.97	5.80%	10.1%
3 N.W. Nat'l Gas	1.76	1.88	0.04	-45.97	1.76	1.80	1.84	1.88	1.99	5.80%	9.2%
4 Piedmont Nat'l	1.19	1.31	0.04	-28.69	1.19	1.23	1.27	1.31	1.39	5.80%	9.7%
5 Southwest Gas	1.10	1.25	0.05	-37.19	1.10	1.15	1.20	1.25	1.32	5.80%	8.6%
6 Alliant Energy Co.	1.78	2.00	0.07	-37.43	1.78	1.85	1.93	2.00	2.12	5.80%	10.3%
7 Ameren	1.54	1.54	0.00	-28.34	1.54	1.54	1.54	1.54	1.63	5.80%	10.4%
8 Avista Corp.	1.08	1.30	0.07	-22.69	1.08	1.15	1.23	1.30	1.38	5.80%	10.6%
9 Black Hills Corp	1.46	1.55	0.03	-30.66	1.46	1.49	1.52	1.55	1.64	5.80%	10.1%
10 Con. Edison	2.42	2.48	0.02	-49.41	2.42	2.44	2.46	2.48	2.62	5.80%	10.1%
11 DTE Energy Co.	2.40	2.70	0.10	-46.24	2.40	2.50	2.60	2.70	2.86	5.80%	10.7%
12 Empire District	1.28	1.35	0.02	-21.80	1.28	1.30	1.33	1.35	1.43	5.80%	11.1%
13 Entergy Corp.	3.40	3.70	0.10	-71.97	3.40	3.50	3.60	3.70	3.91	5.80%	10.2%
14 PG&E Corp.	1.92	2.20	0.09	-46.81	1.92	2.01	2.11	2.20	2.33	5.80%	9.8%
15 Pepco Holdings	1.08	1.12	0.01	-18.48	1.08	1.09	1.11	1.12	1.18	5.80%	11.0%
16 P.S. Enterprise Gp.	1.37	1.50	0.04	-31.78	1.37	1.41	1.46	1.50	1.59	5.80%	9.8%
17 SCANA Corp.	1.98	2.10	0.04	-41.20	1.98	2.02	2.06	2.10	2.22	5.80%	10.1%
18 Sempra Energy	1.68	2.05	0.12	-52.04	1.68	1.80	1.93	2.05	2.17	5.80%	9.1%
19 Teco Energy, Inc.	0.87	1.00	0.04	-17.93	0.87	0.91	0.96	1.00	1.06	5.80%	10.5%
20 Vectren Corp.	1.41	1.50	0.03	-25.80	1.41	1.44	1.47	1.50	1.59	5.80%	10.8%
21 Wisconsin Energy	1.04	1.40	0.12	-29.74	1.04	1.16	1.28	1.40	1.48	5.80%	9.7%
22 Xcel Energy Inc.	1.03	1.15	0.04	-23.65	1.03	1.07	1.11	1.15	1.22	5.80%	9.9%
GROUP AVERAGE											10.1%
GROUP MEDIAN											10.1%

Sources: Value Line Investment Survey, Electric Utility (East), Feb 25, 2011; (Central), Mar 25, 2011; (West), Feb 4, 2011; Natural Gas Utility, Mar 11, 2011.

NOTE: SEE PAGE 5 OF THIS EXHIBIT FOR FURTHER EXPLANATION OF EACH COLUMN.

UNS Gas, Inc.
Discounted Cash Flow Analysis
Column Descriptions

- Column 1: Three-month Average Price per Share (Dec 2010-Feb 2011) Column 14: Column 12 Plus Column 13
- Column 2: Estimated 2011 Div per Share from Value Line
(Average 2011/2012 Div per Share for East/Central/Nat Gas Utilities) Column 15: Estimated 2011 Div per Share from Value Line
(Average 2011/2012 Div per Share for East/Central/Nat Gas Utilities)
- Column 3: Column 2 Divided by Column 1 Column 16: Estimated 2014 Div per Share from Value Line
(2015 Div per Share for East/Central/Nat Gas Utilities)
- Column 4: "Est'd '07-'09 to '13-'15" Earnings Growth Reported by Value
Line ("Est'd '08-'10 to '14-'16" for East/Central/Nat Gas Utilities) Column 17: (Column 16 Minus Column 15) Divided by Three
- Column 5: "Next 5 Years" Company Growth Estimate as
Reported by Zacks.com Column 18: See Column 1
- Column 6: "Next 5 Years (per annum) Growth Estimate Reported
by Thomson Financial Network (at Yahoo Finance) Column 19: See Column 15
- Column 7: Mean "LT Growth Rate (%)" Reported by Reuters.com Column 20: Column 19 Plus Column 17
- Column 8: Average of Columns 4-7 Column 21: Column 20 Plus Column 17
- Column 9: Column 3 Plus Column 8 Column 22: Column 21 Plus Column 17
- Column 10: See Column 1 Column 23: Column 22 Increased by the Growth
Rate Shown in Column 24
- Column 11: See Column 2 Column 24: See Column 13
- Column 12: Column 11 Divided by Column 10 Column 25: The Internal Rate of Return of the Cash Flows
in Columns 18-23 along with the Dividends
for the Years 6-150 Implied by the Growth
Rates shown in Column 24
- Column 13: Average of GDP Growth During the Last 10 year, 20 year,
30 year, 40 year, 50 year, and 60 year growth periods.
See Exhibit SCH-4

EXHIBIT

SCH-6

UNS Gas, Inc.

Risk Premium Analysis

(Based on Projected Interest Rates)

	MOODY'S AVERAGE PUBLIC UTILITY BOND YIELD (1)	AUTHORIZED GAS COMPANY RETURNS (2)	INDICATED RISK PREMIUM
1980	13.15%	14.05%	0.90%
1981	15.62%	15.11%	-0.51%
1982	15.33%	15.62%	0.29%
1983	13.31%	15.25%	1.94%
1984	14.03%	15.31%	1.28%
1985	12.29%	14.75%	2.46%
1986	9.46%	13.46%	4.00%
1987	9.98%	12.74%	2.76%
1988	10.45%	12.85%	2.40%
1989	9.66%	12.88%	3.22%
1990	9.76%	12.67%	2.91%
1991	9.21%	12.46%	3.25%
1992	8.57%	12.01%	3.44%
1993	7.56%	11.35%	3.79%
1994	8.30%	11.35%	3.05%
1995	7.91%	11.43%	3.52%
1996	7.74%	11.19%	3.45%
1997	7.63%	11.29%	3.66%
1998	7.00%	11.51%	4.51%
1999	7.55%	10.66%	3.11%
2000	8.14%	11.39%	3.25%
2001	7.72%	10.95%	3.23%
2002	7.53%	11.03%	3.50%
2003	6.61%	10.99%	4.38%
2004	6.20%	10.59%	4.39%
2005	5.67%	10.46%	4.79%
2006	6.08%	10.43%	4.35%
2007	6.11%	10.24%	4.13%
2008	6.65%	10.37%	3.72%
2009	6.28%	10.19%	3.91%
2010	5.55%	10.08%	4.53%
AVERAGE	8.94%	12.09%	3.15%

INDICATED COST OF EQUITY

PROJECTED TRIPLE-B UTILITY BOND YIELD*	6.43%
MOODY'S AVG ANNUAL YIELD DURING STUDY	8.94%
INTEREST RATE DIFFERENCE	-2.51%
INTEREST RATE CHANGE COEFFICIENT	-41.71%
ADJUSTMENT TO AVG RISK PREMIUM	1.05%
BASIC RISK PREMIUM	3.15%
INTEREST RATE ADJUSTMENT	1.05%
EQUITY RISK PREMIUM	4.19%
PROJECTED TRIPLE-B UTILITY BOND YIELD*	6.43%
INDICATED EQUITY RETURN	10.62%

(1) Moody's Investors Service

(2) Regulatory Focus, Regulatory Research Associates, Inc.

*Projected triple-B bond yield is 153 basis points over projected long-term Treasury bond rate of 4.9% from Exhibit SCH-3, p. 3. The triple-B spread is for 3 months ended February 2011 from Exhibit SCH-3, p. 2.

UNS Gas, Inc.

Risk Premium Analysis

(Based on Current Interest Rates)

	MOODY'S AVERAGE PUBLIC UTILITY BOND YIELD (1)	AUTHORIZED GAS COMPANY RETURNS (2)	INDICATED RISK PREMIUM
1980	13.15%	14.05%	0.90%
1981	15.62%	15.11%	-0.51%
1982	15.33%	15.62%	0.29%
1983	13.31%	15.25%	1.94%
1984	14.03%	15.31%	1.28%
1985	12.29%	14.75%	2.46%
1986	9.46%	13.46%	4.00%
1987	9.98%	12.74%	2.76%
1988	10.45%	12.85%	2.40%
1989	9.66%	12.88%	3.22%
1990	9.76%	12.67%	2.91%
1991	9.21%	12.46%	3.25%
1992	8.57%	12.01%	3.44%
1993	7.56%	11.35%	3.79%
1994	8.30%	11.35%	3.05%
1995	7.91%	11.43%	3.52%
1996	7.74%	11.19%	3.45%
1997	7.63%	11.29%	3.66%
1998	7.00%	11.51%	4.51%
1999	7.55%	10.66%	3.11%
2000	8.14%	11.39%	3.25%
2001	7.72%	10.95%	3.23%
2002	7.53%	11.03%	3.50%
2003	6.61%	10.99%	4.38%
2004	6.20%	10.59%	4.39%
2005	5.67%	10.46%	4.79%
2006	6.08%	10.43%	4.35%
2007	6.11%	10.24%	4.13%
2008	6.65%	10.37%	3.72%
2009	6.28%	10.19%	3.91%
2010	5.55%	10.08%	4.53%
AVERAGE	8.94%	12.09%	3.15%

INDICATED COST OF EQUITY

CURRENT TRIPLE-B UTILITY BOND YIELD*	6.07%
MOODY'S AVG ANNUAL YIELD DURING STUDY	8.94%
INTEREST RATE DIFFERENCE	-2.87%

INTEREST RATE CHANGE COEFFICIENT	-41.71%
ADJUSTMENT TO AVG RISK PREMIUM	1.20%

BASIC RISK PREMIUM	3.15%
INTEREST RATE ADJUSTMENT	1.20%
EQUITY RISK PREMIUM	4.34%

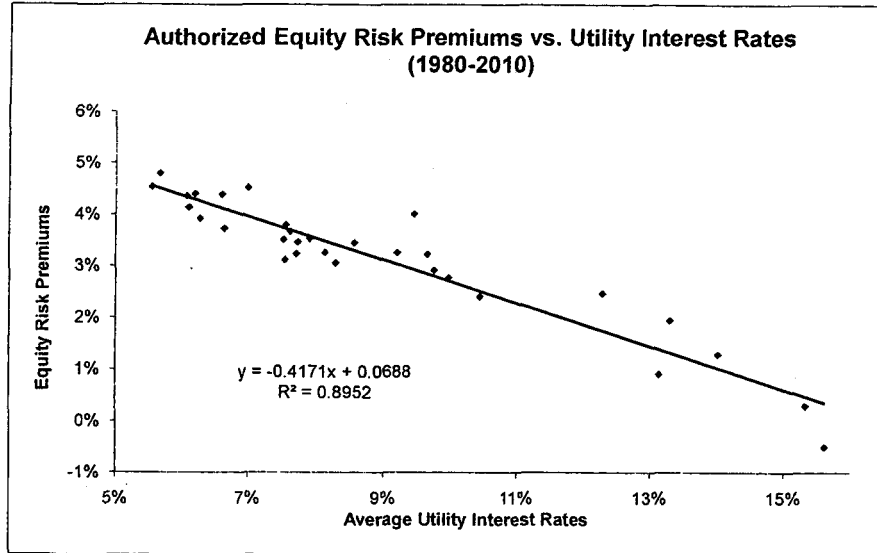
CURRENT TRIPLE-B UTILITY BOND YIELD*	6.07%
INDICATED EQUITY RETURN	10.41%

(1) Moody's Investors Service

(2) Regulatory Focus, Regulatory Research Associates, Inc.

*Current triple-B utility bond yield is three month average of Moody's Triple-B Public Utility Bond Yield Average through February 2011 from Exhibit SCH-3, p. 2.

UNS Gas, Inc.
Risk Premium Analysis
Regression Analysis & Interest Rate Change Coefficient



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.946125577
R Square	0.895153607
Adjusted R Square	0.891538214
Standard Error	0.004144593
Observations	31

ANOVA

	df	SS	MS	F	Significance F
Regression	1	0.004253103	0.004253103	247.5951145	9.71512E-16
Residual	29	0.000498152	1.71777E-05		
Total	30	0.004751255			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.06876819	0.002483473	27.69033381	2.07972E-22	0.063688918	0.073847462	0.063688918	0.073847462
X Variable 1	-0.417149936	0.026510697	-15.73515537	9.71512E-16	-0.471370399	-0.362929474	-0.471370399	-0.362929474

BEFORE THE ARIZONA CORPORATION COMMISSION

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

COMMISSIONERS

GARY PIERCE - CHAIRMAN
BOB STUMP
SANDRA K. KENNEDY
PAUL NEWMAN
BRENDA BURNS

G-04204A-11-0158

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-_____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

UNS GAS, INC.

APPLICATION

TESTIMONY AND EXHIBITS

VOLUME 2 of 3

April 8, 2011

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE - CHAIRMAN
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

Direct Testimony of

Craig A. Jones

on Behalf of

UNS Gas, Inc.

April 8, 2011

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

TABLE OF CONTENTS

I.	Introduction.....	1
II.	Conservation Adjustment Tracker	7
III.	Weather Normalization.....	12
IV.	Customer Annualization Adjustment.....	16
V.	New Rates Annualization Adjustment.....	19
VI.	Class Cost-of-Service Study	19
VII.	Rate Design.....	24
VIII.	Low-Income Programs.....	31
IX.	Rules and Regulations.....	39
X.	Proposed Tariff	40

Exhibits

Exhibit CAJ-1	Backcast Illustration
Exhibit CAJ-2	Conservation Adjustment Tracker Tariff
Exhibit CAJ-3	CAT Plan of Administration
Exhibit CAJ-4	Revenue Proof
Exhibit CAJ-5	Clean version of Rules and Regulations
Exhibit CAJ-6	Redlined version of Rules and Regulations
Exhibit CAJ-7	Clean version of Tariffs
Exhibit CAJ-8	Redlined version of Tariffs

1 **I. INTRODUCTION.**

2

3 **Q. Please state your name and address.**

4 A. My name is Craig A. Jones. My business address is One South Church Avenue, Tucson,
5 Arizona 85701.

6

7 **Q. By whom are you employed and what are your duties and responsibilities?**

8 A. I am employed by Tucson Electric Power Company ("TEP") as the Director of Pricing. As
9 the Director of Pricing, I am responsible for various rate-related matters including
10 monitoring and coordinating the determination of revenue requirements, customer pricing
11 options and support and the rate structures for all the regulated subsidiaries of UniSource
12 Energy Corporation ("UniSource Energy"), including UNS Gas, Inc. ("UNS Gas") and
13 UNS Electric, Inc. ("UNS Electric"). This includes overseeing the development of the
14 cost-of-service analysis and rate design in general rate cases.

15

16 **Q. Please describe your educational background.**

17 A. I graduated from the University of Missouri - Columbia in December 1980 with a Bachelor
18 of Science Degree in Agricultural Engineering. In May 1981, I received a Bachelor of
19 Science Degree in Agricultural Mechanization. I have completed much of the course work
20 required for a Master's Degree in Agricultural Engineering at the University of Missouri -
21 Columbia. I am qualified as an Engineer-in-Training under the laws of the State of
22 Missouri.

23

24 **Q. Please describe your professional background and experience.**

25 A. In February 1983, I joined the Staff of the Missouri Public Service Commission as a Rate
26 Engineer. My responsibilities included analyzing and making recommendations relating to
27 purchased gas adjustment filings, actual cost adjustment filings, rate cases, certificate

1 applications, intrastate pipeline applications and applications to establish new local
2 distribution systems. I left the Missouri Public Service Commission in December 1994 to
3 take a position with the New York State Electric and Gas Corporation ("NYSEG"). My
4 responsibilities at NYSEG included establishing prices to be used in "repackaged" contract
5 offerings, training co-workers and end-users with respect to the application of new rates
6 and service concepts, and complying with Commission filing requirements, including the
7 calculation and filing of the monthly gas cost adjustment filings with the New York Public
8 Service Commission.

9
10 I left NYSEG in April 1998 to take a position as Rates Manager with Citizens Energy
11 Group (formerly Citizens Gas & Coke Utility) ("Citizens") in Indianapolis, Indiana. In
12 March 2004, I was promoted to Manager - Rates and Regulatory Affairs. I was responsible
13 for various rate-related matters associated with both the natural gas and steam utilities
14 operated by Citizens, including the annual filings for approval of a fuel cost adjustment for
15 the steam utility and the development of the monthly gas cost adjustment filings, various
16 miscellaneous tariff filings, special contracts, and numerous other rate-related activities for
17 the gas and steam utilities, including cost of service and rate design in general rate cases.

18
19 In November 2009 I left my position at Citizens and joined Tucson Electric Power
20 ("TEP") as the Director of Pricing. Since joining TEP I have actively participated in the
21 Commission's Decoupling Workshops, Line Extension reviews, oversaw the UNS Electric
22 Compliance filing, the filing of TEP's Community Solar tariff and other Pricing and
23 Regulatory activities.

24
25 **Q Have you previously testified before any regulatory agencies?**

26 **A.** Yes. I testified before Indiana Public Service Commission on numerous occasions,
27 including in Cause Nos. 41969-FAC01-FAC15, 41969-FAC03(S1), 41969-FAC06(S1),

1 41605, 41824, 42578, 42726, 42767, 43025, 43463 37399-GCA68, 37399-GCA68(S1),
2 37399-GCA69, and 37399-GCA77. I also have testified before the Missouri Public
3 Service Commission regarding rates, tariffs, and certificate applications.
4

5 **Q. What is the purpose of your Direct Testimony in this proceeding?**

6 A. My testimony will discuss: (1) UNS Gas' proposed revenue decoupling mechanism
7 designed to recover authorized revenues for fixed costs and address the associated issues
8 inherent in the Gas Energy Efficiency Rules; (2) the weather normalization adjustment; (3)
9 the customer annualization adjustment; (4) the adjustment to annualize rates; (5) the class
10 cost-of-service study ("CCOSS"); (6) rate design changes, including changes affecting its
11 Customer Assistance Residential Energy Support ("CARES") program for low-income
12 customers; and (7) changes to the Company's rules and regulations and rate tariffs. I am
13 sponsoring Schedules G and H which summarize the class cost-of-service study, rate
14 design and proof of revenue in this proceeding. I am also sponsoring the tariffs being
15 proposed in this case.
16

17 **Q. Could you please summarize your Direct Testimony?**

18 A. First, I will discuss the Company's proposed fixed revenue decoupling mechanism – the
19 Conservation Adjustment Tracker ("CAT") – which is designed to be consistent with the
20 "Final ACC Policy Statement Regarding Utility Disincentives to Energy Efficiency and
21 Decouple Rate Structures" issued on December 29, 2010 ("Decoupling Policy
22 Statement"). The decoupling mechanism is designed to: (1) account for losses due to the
23 energy efficiency standard; (2) help mitigate the financial disincentive – and align the
24 policy in the Gas Energy Efficiency Rules with the Company's interest – to promote
25 energy efficiency; and (3) mitigate the Company's dependence on consumption to
26 achieve recovery of its authorized revenue requirement. This mechanism will allow the
27 Company to more actively promote energy efficiency programs while still providing the

1 Company a reasonable opportunity to recover its authorized revenue requirement. A
2 decoupling mechanism can remove some of the disincentives for the Company to
3 promote efficiency, but alone is not specifically designed to create an incentive for
4 energy efficiency. That incentive, however, has already been determined by the
5 Commission in adopting the Gas Energy Efficiency Rules. Therefore, it is necessary for
6 the Commission to adopt the Company's CAT proposal to allow the Company a
7 reasonable opportunity to recover its authorized revenue requirement and to earn a just
8 and reasonable return especially in light of the Commission's adoption of the Gas Energy
9 Efficiency Rules.

10
11 Second, I am proposing weather normalization and customer annualization adjustments
12 to reflect test-year billing determinants (customer count and usage) under normal weather
13 and seasonally adjusted year-end customer levels. Commission-approved methodologies
14 were used for both adjustments.

15
16 Third, I discuss the Company's class cost-of-service study. In UNS Gas' last general rate
17 case,¹ mains and regulators (a substantial component of non-commodity costs) were
18 allocated on proportional responsibility and customer costs on weighted customers;
19 because these methods were approved in that last general rate case, I have used those
20 methods in this case. The cost-of-service study follows the traditional "functionalize,
21 classify, and allocate" structure Company has employed in its two prior rate cases.²

22
23 Fourth, I discuss the Company's rate design proposals. To enhance revenue stability and
24 geographic equity among weather-sensitive customers (including residential customers),
25 the Company is proposing monthly customer charge increases for each customer class.

26
27 ¹ Docket No. G-04204A-08-0571; Decision No. 71623 (April 14, 2010).

² The Commission orders for these cases are Decision No. 70011 (November 27, 2007) (deciding the Company's 2005 rate filing), and Decision No. 71623 (which decided its 2008 rate filing).

1 For residential customers, the monthly charge would increase from \$10.00 to \$11.00. As
2 discussed more thoroughly later in my testimony, Customer Charges for other classes
3 will also be increased and in the case of the larger customer classes the increase will be
4 more substantial based on the results of the Cost of Service Study. These higher
5 customer charges help shield cost recovery from the uncertainties of fluctuating weather-
6 sensitive therm usage, which is reasonable and appropriate because most of the
7 Company's non-fuel related costs are fixed. Most of the Company's non-fuel related
8 expenses do not vary with weather; however, under the current rate design, which
9 recovers fixed costs through volumetric sales, the revenues the Company receives vary
10 significantly with weather. Additionally, the results of the Cost of Service Study indicate
11 that the large customer classes are being substantially subsidized by the residential and
12 small commercial classes. In order to minimize the impact of the requested rate increase,
13 the Company is proposing to eliminate only a portion of the subsidy in this proceeding.
14 As a result, the proposed changes to the volumetric charges for the large customer classes
15 will be a larger per-unit increase than for the residential class. The overall impact on
16 total bills, however, will still be moderate since the delivery charges for these large
17 customer classes are currently so low. For example, the impact on the total bill for a
18 large industrial I-32 customer is only a 7.2% increase even though the percentage
19 increase to the non-fuel portion of the bill is 56%.

20
21 Fifth, I will also discuss the Company's proposal relating to low-income assistance
22 programs. For this case, the Company identified two options to rectify what is becoming
23 a substantial subsidy of the CARES customers by all other rate payers. This ever-
24 increasing subsidy resulted from the unprecedented growth in CARES enrollments since
25 the last test year. These two options are designed to (i) retain the level of subsidy
26 necessary to provide assistance to our low-income customers; (ii) balance the level of
27 subsidy needed against the impact on the Company's other customers; and (iii) allow the

1 Company to mitigate and account for the substantial losses associated with the growing
2 number of CARES customers (currently at approximately 10% of total residential
3 customers and growing). Our preferred alternative is based on moving the non-fuel rates
4 applicable to CARES customer back in synch with other residential customers and make
5 a revenue-neutral reduction to the purchased gas adjustor ("PGA") rates paid by the
6 CARES customers. This method does not reduce the total annual subsidy, but it will
7 change how CARES customers are billed. Moreover, once the economy begins to
8 recover and less customers need CARES assistance, it will reduce the growing impact
9 that this subsidy has on other customers.

10
11 If the Commission determines this method is not acceptable, then the alternative we
12 propose is to keep the current rate design in place for the CARES customers with some
13 modification to reduce the subsidy. With the significant increase in the number of
14 CARES customers, it is necessary and appropriate to reduce the amount other customers
15 subsidize CARES customers while still providing a substantial discount to CARES
16 customers. As an alternative to the shift in subsidy to the PGA, the Company proposes to
17 increase the customer charge for CARES customers to \$9.00 (from \$7.00) and reduce the
18 per-therm discount in the winter months of November through April to \$0.10 per therm
19 (from \$0.15 per therm). Also, since the number of CARES customers has been
20 increasing so rapidly, the Company believes the billing determinants used in the revenue
21 proof in this case should be updated to reflect any additional migration of CARES
22 customers from the residential rate. This will be a known and measurable event that
23 should be addressed to help reduce the margin loss that will occur even before the new
24 rates go into effect.

25
26 Finally, I am sponsoring the Company's rate tariffs and its rules and regulations. The
27 changes to the tariffs are minor and primarily relate to the way they are formatted. I have

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

modified the headers and footers in both the rate tariffs and rules and regulations to allow for references to revision numbers to be included. The remaining changes are relatively minor and will be discussed in more detail later in my testimony.

II. CONSERVATION ADJUSTMENT TRACKER.

Q. Is UNS Gas proposing a revenue decoupling mechanism?

A. Yes. We are proposing a mechanism that is designed to reduce the linkage between volumetric sales and margin revenues (non-fuel). Further, UNS Gas' proposed decoupling mechanism – the Conservation Adjustment Tracker (“CAT”) – reduces the financial disincentive associated with conservation and the related reduction in sales, and counterbalances the additional risk to the Company associated with achieving the ambitious goals established in the Commission’s Gas Energy Efficiency Rules. Many states have approved decoupling mechanisms as a means of supporting their energy efficiency efforts. This is because most conservation and demand-side management programs contribute to sales erosion and exacerbate a utility’s inability to recover its authorized revenue requirement

We designed this mechanism to be consistent with the Decoupling Policy Statement, the recent Gas Energy Efficiency Rules approved in Decision No. 72042 (December 10, 2010), and the numerous Commission-sponsored workshops on the subject. This is UNS Gas’ first rate case since the Commission issued its Decoupling Policy Statement on December 29, 2010.

1 **Q. Would you provide examples of why you believe that the Company's proposed**
2 **decoupling mechanism is consistent with the Commission's Policy Statement?**

3 A. Yes. We designed a full decoupling mechanism to keep it simple. It addresses both: (i)
4 lost revenues resulting from implementing the Gas Energy Efficiency Rules, and the
5 associated decline in use per customer; and (ii) weather-related shifts in consumption.
6 We have only included rate classes that will be most affected by the implementation of
7 energy efficiency related changes and those classes with a more homogeneous revenue
8 per customer characteristic. In accordance with the Commission's Decoupling Policy
9 Statement, we propose to spread any adjustment using a single adjustment rate applicable
10 to all participating rate classes. We further propose that the percentage increase to total
11 revenues as the result of the mechanism be capped at 6%, but do not propose a floor to
12 the percentage discount. And most importantly, this is a revenue-per-customer-based
13 mechanism.

14
15 **Q. What classes do you propose be included in the CAT mechanism?**

16 A. We are proposing to include the customers that tend to be most affected by conservation
17 and the addition of energy-efficiency equipment, and contain enough customers to not be
18 subjected to large swings if a single customer is added or removed from the class. Those
19 include the residential, small commercial and the small public authority customer classes.

20
21 **Q. What classes are excluded and why?**

22 A. We propose to exclude lighting, irrigation, compressed natural gas and the larger
23 customer classes. Efficiency improvements will not have as much impact on these classes
24 and therefore we have chosen to exclude them from the calculations. None of these
25 classes have more than 32 customers in the class and some have as low as 2. With this
26 low number of customers in a class, any time a customer is added or leaves the class, the
27

1 impact on the remaining customers could be skewed. As a result these classes have been
2 excluded from the decoupling mechanism.

3
4 **Q. Please explain how the CAT will work.**

5 A. Our proposed mechanism includes an “authorized” margin (total revenue less fuel cost)
6 per customer calculation each month for the affected rate classes. This “authorized”
7 margin will be based on final numbers approved in this rate case: it will reflect the total
8 revenue requirement approved for each rate class by month as adjusted to remove fuel.
9 Ideally, this will allow the Company the opportunity to actually recover the total revenue
10 requirement approved by the Commission in the Company’s most recent rate case for the
11 participating classes. To implement the mechanism the Company will calculate a “target”
12 margin each month by rate class. This “target” margin will be calculated by adjusting the
13 “authorized” margin up or down to reflect the change in customer numbers in that class
14 for that month as compared to the number of customers approved in the most recent rate
15 case. Each month that “target” margin will be compared to the “actual” margin realized
16 for that month, by class. This adjustment to “target” margin is done to prevent the utility
17 from making more or less than the authorized revenue per customer when a customer is
18 added to the system or leaves the system. The difference (over-collected or under-
19 collected) will be accrued monthly over a 12-month period. Annually, the Company will
20 submit a filing to the Commission requesting that this accumulated 12-month balance be
21 spread over estimated sales volumes in a subsequent 12-month period. The filing will
22 request approval of a surcharge or sur-credit that will be designed to bring the company
23 back to the “authorized” margin level approved in the prior rate case for each of the
24 affected rate classes (as adjusted for customer growth or decline).

25
26 A simple example of how this might work follows: In a rate case we have an
27 “authorized” margin of \$100 per customer for 1,000 customers resulting in a total

1 "authorized" margin of \$100,000. (This would be the "target" margin if customer
2 numbers did not change.) The first month we find we have increased to 1,050 customers
3 in this class. Our new "target" margin for that month becomes \$100 times 1,050 or
4 \$105,000. If our "actual" margin for that class in that month is \$110,000, we will then
5 accrue a credit of \$5000 to the tracking account for that month ("target" margin of
6 \$105,000 minus "actual" margin of \$110,000 = \$5000 credit). If the "actual" margin for
7 that class in that month is \$100,000 then we will accrue a \$5,000 charge to the tracking
8 account for that month to bring us back to the \$105,000 "target" margin. This calculation
9 will be done each month (for each customer class) for 12 months; then the Company
10 makes an application to the Commission for either a surcharge or sur-credit. The
11 Company will make this application annually, consequently clearing the decoupling
12 account for the next year (subject to any carry-over that may result from the application
13 of the 6% cap).

14
15 Accounting records and schedules showing the rate calculations will be maintained to
16 clearly document the monthly entries and calculations and provide an auditable record of
17 the CAT transactions. The Company has prepared new tariffs and work papers to better
18 describe the details of the process.

19
20 **Q. Will the CAT result in the Company over-earning?**

21 A. No. The CAT bases the "target" margin for the class on the test year "authorized"
22 margin for the class approved in the most recent rate case; consequently, the potential for
23 over- or under-earning is minimized or eliminated. By tying any adjustment to the
24 "authorized" revenue-per-customer margin (for each customer class), the mechanism
25 prevents the company from realizing more revenues due to colder than normal weather or
26 resulting from any increased use per customer. With the CAT, those additional revenues
27 would be returned to the customers. The reverse is also true; any reduction in use per

1 customer (such as from conservation due to energy efficiency) or reduction in sales due
2 to warmer than normal weather that would have historically resulted in a loss of revenue
3 to the company will now be recovered from customers during the period between rate
4 cases – but only up to the “authorized” margin per customer. Further, the CAT does not
5 sever the relationship between Company earnings and its need to properly manage costs.
6

7 **Q. Will the CAT result in large surcharges to the customers?**

8 **A.** No. Any adjustments resulting from revenue decoupling tend phased in and to be small.
9 This was discussed thoroughly at the Commission’s decoupling workshops and was
10 addressed in the conclusions expressed by Pamela Lesh in her comprehensive review of
11 decoupling mechanisms.³ Her conclusion was that “decoupling adjustments tend to be
12 small, even miniscule.” Our proposed increase to the customer charges will also reduce
13 the total dollars subject to adjustment in the CAT.
14

15 Although UNS Gas anticipates any CAT-related adjustments to be small, we are
16 proposing to limit any upward adjustment to six percent of total revenues. We are not
17 proposing to limit the downward adjustment in rates. While we do not have monthly
18 margin numbers from prior cases that would be needed to analyze the impact of the
19 decoupling mechanism on an historic basis, we did do an analysis using annual data in
20 the Commission’s decoupling workshops. The chart we presented in the decoupling
21 workshops that shows an estimate of what we believe the annual decoupling adjustment
22 would have been over the last few years. Under the illustrative assumptions made for
23 purposes of the decoupling workshop, the annual impacts to all affected customer classes
24 were 2.15% or less and amounted to no more than a \$0.02 per therm adjustment. This
25 chart has been attached as Exhibit No. CAJ -1.
26

27 ³ See Pamela G. Lesh, *Rate Impacts and Key Design Elements of Gas and Electric Utility Decoupling, A Comprehensive Review (2009)*.

1 For illustrative purposes, I have also attached Exhibit No. CAJ-2 and Exhibit No. CAJ - 3
2 as an example of the tariff rider we would propose to have approved and the Plan of
3 Administration (“POA”) describing the process.

4
5 **Q. In short, why do you believe the Commission should approve the Company’s**
6 **proposed decoupling mechanism?**

7 A. The proposed decoupling mechanism aligns the Company’s interest in having an
8 opportunity to earn a just and reasonable return with the Commission’s policy to promote
9 conservation and demand side management through its Gas Energy Efficiency Rules. In
10 other words, the CAT is necessary to remove the financial disincentive to promote energy
11 efficiency. Additionally, the CAT mitigates the Company’s dependence on consumption
12 to achieve recovery of its authorized revenue requirement; this is appropriate given that
13 the majority of the Company’s non-commodity costs are fixed rather than variable.

14
15 **III. WEATHER NORMALIZATION.**

16
17 **Q. What is the purpose of a weather normalization adjustment?**

18 A. A weather normalization adjustment is performed to represent test-year sales, revenues
19 and costs under normal weather conditions. Energy consumption for several UNS Gas
20 customer classes is weather sensitive. For instance, a significant portion of energy usage
21 in the winter comes from space heating. Some winters, however, are cooler than normal
22 and result in the Company receiving more revenues than would be realized in a normal
23 year. This is a natural result of more energy being needed for customers to warm their
24 homes and businesses as temperatures become colder. The reverse of this occurs when
25 warmer than normal weather is experienced. The Company will receive less revenue
26 because less energy is needed to heat homes and businesses. The purpose of weather
27 normalization is to “average” out these differences, so one can get a better sense as to

1 what the Company is likely to receive in revenues during a normalized year. In other
2 words, the weather normalization adjustment quantifies the change in therm sales and the
3 related revenues that would have occurred if the weather in the test-year had been typical.

4
5 Traditionally weather normalization is deemed appropriate not only because it is a
6 reasonable way to approximate test year sales volumes under "normal" weather
7 conditions, but it also neutralizes any incentive a Company might have to file rate cases
8 only when warmer-than-normal years take place.

9
10 **Q. How is annual usage normalized based on the weather in order to make this**
11 **adjustment?**

12 **A.** The industry uses a variable known as heating degree days ("HDD") as a gauge to help
13 determine the heating requirements of a particular day. Gas heating requirements are
14 small or non-existent when average daily temperatures are greater than 65 degrees
15 Fahrenheit. It is typically assumed that as average temperatures drop below 65 degrees
16 Fahrenheit on a given day, the need for energy to heat a home or business will increase.
17 A HDD is measured by subtracting the average of the maximum and minimum
18 temperature for that day from 65 degrees.

19
20 Actual HDDs for the UNS Gas service territory by geographical service area ("trend
21 area") are then compared to what the typical or normal weather has been in those areas.
22 The normal weather for each calendar month is determined by averaging the monthly
23 HDDs that have been recorded over the last ten years for that particular "trend area".
24 UNS Gas serves a variety of climates. To recognize the disparity between these locations,
25 six "trend areas" are used in this calculation. Normalized usage is determined for each
26 individual "trend area" based on the actual number of customers in that "trend area".
27

1 Individual "trend area" results are then blended to quantify the weather normalized usage
2 for the Company as a whole.

3
4 **Q. Please explain further the weather normalization calculation.**

5 A. To quantify how much gas usage changes in response to weather deviating from normal,
6 the statistical technique of linear regression analysis was used. Regression analysis is
7 used to estimate how much a dependent variable "y" (e.g., average use-per-customer
8 ("UPC")) changes in response to some change in an independent variable "x" (e.g.,
9 HDD). This estimate, the slope coefficient (rise over run), represents the change in "y"
10 divided by the change in "x." Specifically, the analysis focused on the consumption
11 behavior of a single average customer – on this customer's UPC. Regression models
12 estimate how much gas UPC changed in response to a change of one HDD. To put it
13 another way, regression estimates the change in an average customer's monthly gas usage
14 associated with a one degree (Fahrenheit) change in each hour of a single day's
15 temperature (a one HDD change).

16
17 This analysis is conducted by month, by class, and by "trend area". A monthly analysis
18 recognizes that the impact on UPC of HDD varies by month. UNS Gas has six distinct
19 "trend areas" - Flagstaff, Kingman (Mohave County), Nogales (Santa Cruz County),
20 Prescott, Verde, and Show Low.

21
22 When regression is used for weather adjustments, one multiplies the slope coefficient
23 (change in UPC/change in HDD) by the deviation from normal weather (i.e., the
24 difference in normal and actual HDD (which is: $HDDN - HDDA$)). Note that when
25 actual HDD ("HDDA") is greater than normal HDD ("HDDN"), the calculated difference
26 is negative. A negative adjustment here is indicative of a colder than normal month. To
27 normalize UPC, a negative adjustment is added to actual UPC and a normalized UPC

1 lower than the actual UPC results. In this case, we can say that weather was more
2 extreme than normal (*i.e.*, cooler in the winter), on average.

3
4 Likewise, when HDDA is less than HDDN, the calculated difference is positive. A
5 positive adjustment here is indicative of a warmer than normal month. To normalize
6 UPC, a positive adjustment is added to actual UPC and a normalized UPC higher than the
7 actual UPC results. In this case, we can say that weather was less extreme than normal
8 (*i.e.*, warmer (less cold) in the winter), on average.

9
10 The result of this calculation is the weather adjustment in therms per customer. To obtain
11 the total weather adjustment, the weather adjustment per customer is simply multiplied
12 by the annualized number of customers by month.

13

14 **Q. Is a weather normalization adjustment performed for all classes?**

15 A. No. Weather normalization calculations were performed only for weather-sensitive
16 classes, as identified through regression analysis. The weather-sensitive classes for UNS
17 Gas are residential, commercial, and public authority. Regression analysis revealed no
18 statistically significant relationship between industrial class usage and weather; therefore,
19 no industrial weather adjustment is proposed.

20

21 **Q. What did your calculations show?**

22 A. Overall, weather was more extreme than normal during the test year (*i.e.*, colder in the
23 winter, on average). Therefore, sales were slightly higher than normal resulting in a
24 “negative” adjustment to sales volumes (therms).

25

26

27

1 **Q. What was the effect of weather adjustments on test-year revenues?**

2 A. Because sales during the test year were slightly higher than normal due to the weather, it
3 is necessary to make negative adjustments to reflect a “normalized” level of sales. The
4 net result of these weather normalization adjustments was to adjust the total actual
5 revenues downward. The weather adjustment was a negative \$795,672.

6
7 **IV. CUSTOMER ANNUALIZATION ADJUSTMENT.**

8
9 **Q. What is the purpose of a customer annualization adjustment in the rate-making
10 process?**

11 A. Customer annualization adjustments should restate the number of test-year bills and
12 volumes to reflect a “normal” number of customers and related volumes. Adjusting the
13 number of customers to a “normal” level for each month of the year allows for the overall
14 revenues to be adjusted to a level that will more accurately match test year revenues with
15 adjusted test year plant and other operating costs. An adjustment to customer numbers
16 would entail a proportional adjustment to therms typically based on weather normalized
17 use-per-customer.

18
19 **Q. Should the annualizations for gas companies be the same as for electric companies?**

20 A. No, because natural gas companies have a different customer number profile over the
21 course of a year than electric companies. Typically, natural gas is used primarily for
22 heating purposes. In many circumstances, customers can do without using any natural gas
23 during the summer months. For a typical natural gas distribution company the customer
24 counts will almost always decline during the summer months. Therefore, any accurate
25 annualization of customer numbers must recognize the dip in customer numbers during
26 the summer months. Not doing so will result in an over-statement of revenues.

27

1 This is different than for electric companies, which have a different customer number
2 profile. Thus, the method used to annualize customer numbers should be done in a
3 slightly different manner for gas companies.
4

5 **Q. How did UNS Gas address this summer dip in customer numbers?**

6 A. Based on the outcome of prior Commission decisions for both UNS Gas and for
7 Southwest Gas Corporation (specifically Decision Nos. 60352, 64172, 68487 and 70665),
8 I am proposing a method that captures the seasonal nature of the test-year-customer
9 growth.
10

11 In this proceeding, there are enough negative monthly adjustments to tip the net customer
12 annualization adjustment (the sum of all annualization adjustments across months and
13 across classes) negative. I am supporting the proposed negative annualization adjustment
14 on the grounds that it is calculated using the Commission-approved methodology. The
15 Company's adjustment for cyclicity brings monthly adjusted customers to levels
16 adjusted for cyclicity and consistent with test-year-end levels – not simply to levels
17 equal to year-end levels.
18

19 **Q. What method was used to develop the customer annualization adjustments?**

20 A. In choosing a method, I considered my past experience with natural gas utilities in other
21 jurisdictions, the method approved in Decision 70011 (UNS Gas' 2006 rate case) and the
22 method approved in the last four Southwest Gas general rate cases (which is very similar
23 to the method I use here). In my opinion the appropriate annualization must take into
24 consideration the seasonal nature of natural gas customers. My method captures the
25 seasonal nature of test year customer growth (or decline if appropriate) by comparing the
26 number of customers in the last month of the test year, December 2010, to the same
27 month of the prior year, December, 2009. The growth in customers is then prorated

1 across the test year in declining intervals. January, 2010 is adjusted by 11/12ths of the
2 adjustment. February, 2010 is adjusted by 10/12ths of the adjustment. The remaining
3 months of the test year are adjusted accordingly until the last month which sees no
4 adjustment. The respective volume adjustments were calculated by multiplying each
5 month's customer additions by the weather adjusted use per customer. Resulting
6 customer and volume adjustments were then added to the weather-normalized monthly
7 bills and volumes. Those monthly results were accumulated to produce annualized test
8 year monthly bills and volumes.

9
10 **Q. Why were the customer annualization adjustments only made for the residential,**
11 **small general service and public authority classes?**

12 A. With the exception of these three classes, all other rate classes were annualized based on
13 an analysis by individual customer. The residential, small general service and public
14 authority include tens of thousands of billing records and analyzing them by individual
15 customer would not be practical or cost effective.

16
17 **Q. What was the effect of customer annualization adjustment on test year revenues?**

18 A. The total customer annualization adjustment is a negative \$13,812.

19
20 **Q. How does the customer annualization adjustment affect test-year customers and sales?**

21 A. Negative customer annualization adjustments affect customers and therms. This means
22 that adjusted billing determinants, both customers and therms, will have been "on
23 average" adjusted downward. I say "on average" because some classes may effectively
24 see customer and/or term decreases, while other classes may see the opposite. The
25 customer annualization adjustment's customer count varies by class; however, the net
26 effect is as if there is a reduction in "average" customers.

27

1 **V. NEW RATES ANNUALIZATION ADJUSTMENT.**

2

3 **Q. Do you make any adjustments related to new rates that went into effect in April**
4 **2010?**

5 A. Yes. As part of the process of annualizing and normalizing the total sales and resulting
6 revenues we included a calculation that annualized the impact of the new UNS Gas rates
7 that went into effect on April 1, 2010. We increased the test year revenues to reflect the
8 application of the April 1, 2010 rates to January, February and March sales for each class.

9

10 **Q. What is the effect of the new rate annualization adjustment?**

11 A. As shown on Schedule H-2, page 2, line 16, Column B, the revenue (rate) annualization
12 results in a \$757,392 adjustment.

13

14 **VI. CLASS COST-OF-SERVICE STUDY.**

15

16 **Q. What is the purpose of a class cost-of-service study?**

17 A. A cost of service study is an analysis of costs used to assign to each customer class its
18 proportionate share of a utility's total cost of providing service. The total cost of
19 providing service generally is referred to as a utility's revenue requirement. While
20 positions might vary on exactly how the components of a utility's revenue requirement
21 should be allocated (*i.e.*, assumptions used in cost of service models may vary), the
22 ultimate purpose of a cost of service study is always the same—the assignment of costs to
23 those customer classes causing the cost. As part of this purpose the cost of service study
24 will assign each component a cost “classification” such as demand-related, energy-related
25 or customer-related. A cost component may be one of three things: (1) an individual rate
26 base or expense account as defined in the FERC Uniform System of Accounts; (2) a
27 portion of a single FERC account (*e.g.*, the “demand-related” portion of an account), or

1 (3) some composite of accounts. Using composites of accounts helps reduce the physical
2 size of the model.

3
4 **Q. What are the steps in designing a class cost-of-service study?**

5 A. There are three basic steps involved in developing a class cost-of-service study. Those
6 steps are functionalization, classification, and allocation. Functionalization involves
7 grouping cost components by purpose or function. Some examples of functions include
8 distribution mains, distribution regulators, and metering. These and other plant items are
9 separated into functional categories. The class cost-of-service study presented by the
10 Company in this proceeding identifies over twenty different functions. The next step,
11 classification, involves identifying each function as demand-related, energy-related or
12 customer-related. The final step, allocation, involves apportioning each cost component
13 to the classes of service (*e.g.*, residential, commercial and industrial).

14
15 **Q. Please describe how costs are classified for purposes of the class cost-of-service
16 study.**

17 A. Costs classified as demand are most affected by capacity requirements at the time of
18 maximum (peak) consumption. These demand-classified costs are either coincident,
19 meaning that they occur at the same time, or non-coincident, meaning they occur at times
20 that may vary. Coincident demands tend to be more correlated with the costs of
21 “upstream” facilities (*i.e.*, common facilities serving all customers or the bulk of the
22 customers). Non-coincident demands become more correlated with cost of facilities as
23 we move downstream through the distribution system to the end-users. Non-coincident
24 demands are more localized.

25
26 Costs classified as energy are most affected by therm sales by class. Finally, costs
27 classified as “customer” are based on class customer counts – either non-weighted counts

1 or weighted counts. Weighted counts take into account not just the number of customers
2 but the level of costs imposed by the customers. In dealing with billing costs, for
3 example, a residential customer may be defined as one “weighted customer” and an
4 industrial customer that costs 20 times as much to bill would count as 20 “weighted
5 customers.”
6

7 **Q. Please describe the allocation step in designing a class cost-of-service study?**

8 A. As I stated above, allocation involves assigning each cost component to the different
9 classes of service, including residential, commercial and industrial. Each function has a
10 single allocation factor that applies to all cost components in that function. The
11 allocation factor should be based upon an equitable method that harmonizes the cost-
12 causation with the functional cost being considered. In other words, the allocation should
13 be done in a way where the cost-causation for the functional cost considered is properly
14 identified.
15

16 **Q. Please describe the class cost-of-service study model used in this proceeding.**

17 A. The model, created in Microsoft Excel, starts with cost components by function, known
18 as functionalized costs. The model presents functionalized and classified costs vertically
19 (*i.e.*, in rows down the spreadsheet) and the allocation of costs to rate classes horizontally
20 (*i.e.*, in columns across the spreadsheet). Each functionalized and classified cost is then
21 fully allocated to the customer classes. The percentage of a given cost allocated to a
22 specific class will depend on the function and its associated allocation factor. A cost
23 associated with billing customers, for example, should be allocated so that it reasonably
24 approximates the cost of billing the customers by class. As mentioned above, a weighted
25 customer basis would be used to derive a factor that reflects both the number of
26 customers by class and the level of costs each customer class imposes.
27

1 **Q. Are there different types of allocation factors?**

2 A. Yes. Some allocation factors used are “external” allocation factors. External allocation
3 factors are determined independent of the magnitude of specific costs in the class cost-of-
4 service study (that is, the external allocation factor is developed in an analysis separate
5 from the study). An example of an external allocation factor is distribution mains
6 (“DISTMAIN”) listed in the class cost-of-service study as a demand-related factor used
7 for the allocation of distribution mains. This factor is based on the Proportional
8 Responsibility method discussed below.

9
10 **Q. Are there internal allocation factors?**

11 A. Yes, an internal allocation factor is calculated within the class cost-of-service study
12 model and is dependent on the cost components found therein. For example,
13 Accumulated Deferred Income Taxes are allocated based on Total Plant in Service
14 (“PLANT”). Total Plant in Service is a composite of different plant categories (e.g.,
15 intangible, transmission, distribution, and general). To the extent that plant categories are
16 allocated differently, the Total Plant in Service allocator will vary based on the level of
17 different plant types. Total Plant in Service, like all internal allocation factors, is a
18 weighted average of other allocation factors. The relative size of cost components
19 determines the weights in the weighted average.

20
21 **Q. Is there a listing of allocation factors?**

22 A. Yes. Allocation factors are listed in Schedule G-7. As shown, some factors are
23 “customer-related.” Studies on metering, services and meter reading provide the basis for
24 the customer-related factors. Additionally, there are factors based on labor costs,
25 throughput or internal factors based on individual or aggregate costs.

26
27

1 **Q. Please describe the Proportional Responsibility method?**

2 A. The Proportional Responsibility method is based on the respective class' share of total
3 load in each of the twelve months for the test-year. The peak load months are more
4 heavily weighted under Proportional Responsibility. A class' share of total load in low
5 load months has only a small impact on the factor. Several allocation factors, including
6 DISTR, DISTMAIN, DISTREG and TRANS are based on proportional responsibility.
7 Factors such as DISTR, DISTMAIN, DISTREG and TRANS are external factors because
8 the Proportional Responsibility method is based on class loads, and is calculated
9 independently of the magnitude of any cost components. The Proportional Responsibility
10 method drives many significant costs in the class cost-of-service study model.
11

12 **Q. Has the Proportional Responsibility method been used in a previous general rate
13 case filing?**

14 A. Yes. This method was used and approved in Decision No. 66028 (July 3, 2003), when
15 the Commission approved UniSource Energy Corporation acquiring the Arizona gas
16 assets of Citizens Communications Company ("Citizens"); the Commission approved a
17 settlement agreement involving a rate case involving Citizens' gas assets acquired by
18 UniSource. This method was also approved in UNS Gas' 2006 general rate case,
19 Decision No.70011 (November 27, 2007) and was used in setting rates in UNS Gas' 2008
20 general rate case (Decision No. 71623 (April 14, 2010)).
21

22 **Q. Have you allocated your proposed revenue by class so as to generate an equalized
23 return by class, as indicated by your class cost-of-service study?**

24 A. Not at this time. Even though the Cost of Service Study indicates not all classes are
25 contributing equally to the system return, in this case I am proposing to apply the theory
26 of gradualism and adjust rates in a manner that will allow us to start moving the return by
27 class towards an equalized level. Based on the results of the Cost of Service Study, the

1 larger classes are benefitting from a subsidy by the smaller classes. The existing subsidy
2 being enjoyed by the larger customer classes is so significant that it will need to be
3 addressed in steps in order to move toward an equalized return by class. Previous
4 Commission decisions that I reviewed in preparing my analysis and direct testimony have
5 approved an across the board revenue increase applicable to all classes. To implement
6 an across the board adjustment simply exacerbates any disparity between returns by class.
7 In my opinion, traditional cost-based rate design would dictate a movement toward an
8 equalized return by class and therefore I am proposing rates designed to accomplish
9 movement in that direction. The large customers are being substantially subsidized by
10 the residential and small commercial rate classes, therefore the large customer classes
11 should see a larger share of the overall rate increase. These large customer classes could
12 see their rates increased by approximately \$2.5 million before an equalized return would
13 be realized. As an example, this calculation can be made for one of the classes by
14 subtracting the return at proposed rates for the Large Volume Industrial class found on
15 line 43, column G of Schedule G-2 from the levelized return on rate base found on line
16 18, column G of Schedule G-2. This indicates the Large Volume Industrial would need to
17 have rates designed to recover another \$1.7 million to contribute equally to the system
18 average return on rate base. Even though this increase could be justified based on the
19 results of the Cost of Service Study, I am proposing that only a portion of this increase be
20 adopted in this proceeding. Please refer to Exhibit No. CAJ-4, UNS Gas' Revenue Proof
21 to see the proposed rate for each class and the related allocation of the revenue deficiency
22 being requested.

23
24
25
26
27

1 **VII. RATE DESIGN.**

2
3 **Q. What are the Company's objectives in rate design?**

4 A. The Company has three primary objectives in rate design: (1) to more equitably collect
5 the Company's fixed costs among customer classes; (2) to increase rates for those classes
6 benefitting from subsidies from classes paying more than the system average return on
7 plant; and (3) to either shift the large subsidy our low-income customers are benefiting
8 from to a more appropriate and timely recovery mechanism, or to reduce the amount of
9 that subsidy which is paid for by our remaining customers. In the event the Company's
10 preferred method of changing the CARES customer's rates is not accepted, the back-up
11 position does make a change in the way rates are applied to the CARES customers as I
12 discuss later in my testimony.

13
14 **Q. Please summarize your rate design recommendations.**

15 A. First, UNS Gas proposes an increase in monthly customer charges to levels that better
16 match the true customer-related costs, as indicated by the class cost-of-service study.
17 Under the class cost-of-service study, the "bare bones" monthly customer charges are
18 calculated to be \$14 for residential service, approximately \$27 to \$210 for small
19 commercial/industrial customers and approximately \$756 to \$5377 for large
20 commercial/industrial customers. "Bare-bones" customer charges restrict the customer
21 classification to metering, meter-reading, service (service drop) to the specific customer,
22 customer service and billing; only those categories of costs are included in the monthly
23 customer charge. On the other hand, no demand-related distribution mains or distribution
24 regulators are included in the monthly customer charge (as they might under a minimum
25 system or zero intercept approach). The "bare-bones" approach leads to relatively low
26 customer charges. Even so, we are not proposing to increase monthly customer charges
27 fully to the charges suggested by the class cost-of-service study.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

UNS Gas proposes to increase residential customer charges from the current \$10.00 per month to \$11.00 per month when new rates are implemented. As shown in Schedule H-3, page 1, the proposed rates per therm (exclusive of gas commodity costs) are proposed to be \$0.3324 for this residential class, a \$0.0054 per therm increase. The proposed customer charge is still below the \$14 "bare-bones" customer charge supported by the class cost-of-service study.

Customer charges for the non-residential classes generally also are raised closer to levels indicated by the class cost-of-service study. UNS Gas is proposing customer charges of \$20.00 for small commercial/industrial customers (from the current \$15.50) and \$225.00 for large commercial/industrial customers (from the current \$105.00). As evidenced in Schedule G-6-1, line 48, page 1, the proposed commercial/industrial charges are still well below the true costs of providing service. These increased customer charges will mitigate the subsidy issue and allow the Company to recover some of its fixed costs. Any remaining authorized revenue requirement allocated to these classes will be recovered through an adjustment to the volumetric delivery rate for the specific class. I have proposed a \$0.0644, \$0.0571, and \$0.0605 per therm increase for the large commercial, large industrial and large public authority classes, respectively. Because these larger classes rates are currently so low (Large Volume Industrial's volumetric rate is approximately 30% of the residential rate) the percentage increase appears to be worse than it is. After blending fuel into the total bill a typical large industrial customer will experience a 7.2% increase in their annual bill. This allows for almost a third of the subsidy these large customers have been enjoying to be eliminated.

1 **Q. Why does UNS Gas prefer increasing the customer charges over increasing the**
2 **volumetric (per therm) charges to recover fixed costs?**

3 A. UNS Gas currently collects the bulk of its fixed costs through a volumetric charge, which
4 is a conceptually flawed rate design. This is because the bulk of a gas utility's investment
5 is fixed and it does not vary with the volume of gas the customer uses on a given day.
6 The Company is in the business of providing safe and reliable gas service; but it does not
7 make a profit off the natural gas commodity sold to retail customers. Rather, the
8 Company's business is providing gas service and ensuring customer access to gas. This
9 means that facilities and personnel must be in place to ensure customer demand is met –
10 365 days a year. In short, the Company earns a return on the distribution infrastructure it
11 provides to ensure gas service. None of the need to ensure that service is available
12 (including having the distribution infrastructure in place) changes. This is why the
13 majority of UNS Gas' investment is fixed; so that the Company can continue to ensure
14 availability of service.

15
16 Like with the residential class, the periodic variation in throughput has limited impact on
17 the true, non-fuel cost of serving customers. Most non-fuel costs are fixed and will
18 ultimately produce a mismatch between costs and revenues when a substantial portion of
19 the revenues are recovered through weather-sensitive sales. Increasing customer charges
20 helps to address this mismatch. When customer charges are increased, volumetric
21 charges are decreased (holding revenue requirement and other factors constant).
22 Customer charge revenue stays relatively constant within a given month – despite
23 weather variations, conservation efforts or (in the short run) economic activity.
24 Consequently, customer charges provide a relatively stable and predictable source for
25 funding fixed costs, which constitute the bulk of a gas system's margin costs.

26
27

1 Additionally, as mentioned in the Commission's workshops addressing the issue of
2 decoupling, an increase in customer charges will have the effect of minimizing any
3 adjustment that will be passed through a decoupling mechanism. This has the affect of
4 stabilizing rates for all customers and minimizing any decoupling related adjustment.
5 Further, the Commission policy of energy efficiency is at odds with the current rate
6 design for UNS Gas as the Company currently depends significantly on increased
7 consumption to recover its fixed costs.

8
9 **Q. Are there other reasons to increase the per-customer charge rather than increasing**
10 **the volumetric charge?**

11 **A.** Yes. The Company's proposed rate design – together with its proposed decoupling
12 mechanism – will provide it with a reasonable opportunity to recover its authorized
13 revenue requirement. This will also improve revenue stability for the Company.
14 Because of that revenue stability, the Company is better able to plan for system
15 maintenance and improvements and to better ensure safe, reliable and quality service to
16 its customers. UNS Gas' costs to maintain such service are fixed and do not vary in
17 times of high usage versus low usage – because it is a distribution infrastructure
18 company. The Company makes no profit on the natural gas commodity itself. Lessening
19 the dependence on gas sales (as its proposals would do) provides more certainty and
20 predictability regarding the Company expenditures for the improvements and upgrades to
21 best ensure safe and reliable service. In short, the Company's rate design and decoupling
22 proposals directly benefits our customers and the Company as it facilitates UNS Gas'
23 need to plan for maintaining and improving gas service to its customers.

1 **Q. Does the current recovery of fixed costs through volumetric charges create**
2 **problems other than revenue instability?**

3 A. Yes. First, the collection of significant fixed costs through volumetric charges places a
4 disproportionate burden on larger energy users, which in turn results in a geographical
5 inequity on UNS Gas' system due to the varied climates existing in our service territories.
6 Customers in cooler areas have higher usage, on average, and pay more than their share
7 of fixed costs. If the Company can shift revenue collection away from volumetric
8 charges, it can reduce the cross-subsidization that occurs when usage within customer
9 classes varies significantly based on geography and climate.

10

11 Second, an over-dependence on fixed cost recovery through volumetric charges creates
12 an economic disincentive for the utility to promote conservation. If margin is collected
13 primarily through usage (volumetrically), conservation may significantly erode a gas
14 distribution utility's ability to earn its authorized rate of return. A decoupling mechanism
15 can mitigate those effects to a certain extent, however.

16

17 **Q. How has the nature of UNS Gas' service territory exacerbated the geographical**
18 **inequity?**

19 A. Since natural gas usage is driven largely by weather, the Company's current rates have
20 resulted in customers in cooler areas (districts with more HDDs) subsidizing those living
21 in warmer areas. This disparity is exacerbated by the stark geographic differences in
22 UNS Gas' service territory, which includes areas that are either among the coldest (*e.g.*,
23 Flagstaff) or the hottest (*e.g.*, Lake Havasu City) parts of Arizona. Customers in the
24 coldest corners of our service territory – those affected most by increased volumetric
25 charges (in addition to the commodity cost of natural gas itself) during home heating
26 season – shoulder the additional burden of subsidizing the fixed cost of serving customers
27 who spend their winters in far more moderate climates.

1 **Q. How do you respond to the criticism raised in past rate cases that the Company**
2 **requests higher customer charges: (1) solely to guarantee a more stable recovery of**
3 **its margin; and (2) that such a rate design encourages greater use of natural gas at a**
4 **time when UNS Gas should be encouraging conservation?**

5 **A.** I disagree with both criticisms. As a viable business interest, a utility should always seek
6 to earn its authorized return. However, in this case, the main driver for our rate design is
7 to continue our gradual effort to reduce customers in colder climates from unduly
8 subsidizing those in warmer climates – while also mitigating the impacts of reduced
9 consumption on the Company’s ability to achieve its revenue requirement. The Company
10 is also interested in designing rates that more accurately mirror the costs they are
11 supposed to be recovering. The utility’s costs are primarily fixed; therefore, a cost-based
12 rate design would dictate the cost recovery method should also be oriented more toward a
13 fixed cost recovery rate. And it incentivizes the Company to implement cost-effective
14 energy efficiency solutions.

15
16 **Q. Mr. Jones, will the Company’s proposed rate design *guarantee* it the ability to earn**
17 **its authorized rate-of-return?**

18 **A.** Absolutely not. The Company’s rate design hardly guarantees achieving its authorized
19 rate-of-return (“ROR”). A significant percentage of *margin* recovery will still be
20 collected through the volumetric charges. For example, for UNS Gas’ residential rate R-
21 10 (which is the rate responsible for approximately 70.2% of system margin revenue)
22 57.5% of margin currently is collected through volumetric charges. Without some form
23 of decoupling mechanism, this large allocation of fixed cost to a volumetric charge will
24 potentially result in large swings in how much revenue is collected to capture the
25 company’s authorized rate-of-return. Cold weather could result in an over-recovery and
26 warm weather will result in under-recovery of revenues. Of course any conservation
27 effort or decreased use per customer will, by design, result in under earnings for the

1 utility. Even with a 2-year rate-case cycle, operating costs, material costs and plant
2 expansions have consistently moved costs in an upward direction. These factors do not
3 allow the Company an opportunity to earn its authorized rate-of-return. In fact, they
4 almost guarantee the Company will *not* earn its authorized rate-of-return. This is
5 evidenced in Mr. Grant's direct testimony, where he shows that UNS Gas' actual rate-of-
6 return has been consistently below the Company's authorized rate-of-return.

7
8 The proposed rate design here gradually assuages this dilemma by a moderate shift
9 toward cost-based rates.

10
11 **Q. Will the increased customer charge reduce the incentive to conserve?**

12 **A.** No. Despite the fact that higher customer charges result in lower volumetric charges,
13 customers will still have plenty of incentive to conserve natural gas. This is because
14 when they conserve they avoid the gas commodity costs and any remaining volumetric
15 charges. The customer charge and volumetric charge combined only account for 34% of
16 a typical residential customer's total annual bill. The remaining 66% is the cost of fuel
17 (that is, the commodity cost for natural gas). This is the largest portion of the bill and
18 customers will always have the incentive to conserve unless the price of the commodity
19 itself approaches zero; the chances of that happening are highly unlikely.

20
21 **VIII. LOW-INCOME PROGRAMS.**

22
23 **Q. Please describe the current CARES rate structure.**

24 **A.** Currently, CARES customers pay a basic monthly service charge of \$7.00 per month, and
25 receive a per-therm discount from their volumetric rate of \$0.15 per therm for the first
26 100 therms for the winter months (from November through April). Under the current rate
27 design, every CARES customer essentially receives up to \$125 of annual subsidy from

1 non-CARES customers (primarily other residential customers) taking service through
2 other rate schedules.

3

4 **Q. Has the Company experienced a large increase in CARES customers since the last**
5 **rate case?**

6 A. Yes. In June, 2008 (the end of the test year used in the Company's most recent rate case)
7 UNS Gas had 7,077 customers enrolled in CARES. As of December 2009, the number
8 increased to 8,659; in December 2010, the number of enrolled customers jumped to
9 10,039, a 42% increase in the number of CARES customers since the end of the last test
10 year. By February 2011, the number had increased to 10,466, a 4% increase in two
11 months. This is not an increase in the total number of customers the Company serves;
12 rather, this is simply a migration (or exodus) of customers moving to a substantially
13 discounted and subsidized CARES rate. Absent a change to the Company's rate design, a
14 smaller number of customers will be subsidizing an increasing number of CARES
15 customers. Moreover, the utility will experience an approximate margin loss of up to
16 \$125 per year for each residential customer that migrates to the CARES tariff from
17 another residential tariff after the end of the test year used in the proceeding establishing
18 any new rates. This is an additional impact beyond the level of subsidy other customers
19 provide to CARES customers that I described in my previous answer. This built-in loss
20 of revenue for the Company will continue to grow until the Company can reset the
21 customer numbers in a future rate case.

22

23 **Q. Based upon the significant increase, is the Company reevaluating the process for**
24 **enrolling customers into CARES?**

25 A. Since the level of CARES enrollment is fast approaching 10% of our total residential
26 customers, it appears time to ensure the Company has appropriate requirements in place
27 to verify a customer's eligibility. While there is still a need for the CARES program, the

1 Company will start requiring more documentation that supports customer eligibility.
2 Further, we believe everyone should re-apply to enroll in CARES on an annual basis. Re-
3 applying each year will help confirm that only the customers who need assistance the
4 most are eligible for the subsidized rate.
5

6 **Q. Why do you believe it is now necessary to review the rules associated with**
7 **participating on the CARES program?**

8 **A.** A CARES customer is being subsidized by the other customers in an amount of up to
9 \$125 per customer per year. If the current level of participation is built into the proposed
10 rates, then the remaining customers will be subsidizing the CARES customer class by
11 over \$1.2 million per year (10,039 CARES customers times \$125 subsidy per CARES
12 customer).
13

14 Additionally, at the recent CARES customer growth rate, the Company has absorbed
15 annual revenue loss of approximately \$350,000 per year – as a result of increasing
16 CARES enrollment since the last rate case. By the time this case is decided that could
17 equate to nearly \$1 million in lost revenues by the Company, which is *over* 30% of the
18 entire revenue increase allowed in UNS Gas' last rate case. In just the first two months
19 following the end of the test year, an additional 400 customers have been added to the
20 CARES customer class. Others will continue to be added to the program over time. The
21 current growth rate will once again create a circumstance where the Company is virtually
22 guaranteed a revenue shortfall from the residential class. This revenue shortfall is in
23 addition to the already substantial subsidy built into the non-CARES customer's rates.
24 The Company believes that allowing the participation to increase above the 10% level
25 without performing a more diligent review of the applicant's eligibility will result in an
26 unfair burden to the remaining ratepayers and compromise the Company's opportunity to
27 earn a fair return.

1 **Q. What is UNS Gas' proposal to address this problem?**

2 A. The Company will require all CARES participants to submit appropriate documentation
3 verifying their eligibility when they first apply and then re-apply and resubmit updated
4 documentation each year. If the documentation is not submitted or does not verify their
5 eligibility, the customer will be removed from the CARES rate. This will reduce the
6 amount of subsidies provided to customers who are no longer under financial duress or
7 cannot otherwise prove their need. The Company will require that all applicants provide
8 documentation including copies of the prior year's tax filing with a verifiable ID at a
9 minimum. These requirements should be simple to meet and are necessary to ensure the
10 eligibility of our customers who qualify for the discount.

11
12 **Q. Is the Company proposing any changes to its CARES pricing plan?**

13 A. Yes. The quickly increasing number of CARES customers has resulted in a substantial
14 loss of margin revenues since the end of the 2008 test year, which was unanticipated
15 when the Company's last rate case concluded in 2010. This is the result of this additional
16 customer migration from the residential rate to the CARES rate that was not factored into
17 the discounts for CARES customers approved in previous Commission decisions.

18
19 Consequently, we are proposing a change in the way these subsidies should be recovered;
20 our proposal is to return the CARES customers to the rates in place for the other
21 residential customers, but shift the discount to the fuel side of their bills. The Company
22 is proposing that the approximate \$900,000 subsidy built into the CARES customer's
23 current rates (based on the CARES participant numbers in the prior case) be provided to
24 the CARES customers through a revenue-neutral shift from the delivery charges to the
25 Purchased Gas Adjustment ("PGA"). The full \$900,000 subsidy will be spread over the
26 normalized test year purchase volumes of CARES customers. This will produce an
27 approximate \$.024 per-therm discount for the CARES customer's purchases in the six

1 winter months (November through April). The remainder of the year will be priced at the
2 full PGA rate in effect for the month. This discount amount will be recalculated each fall
3 before the November PGA rates are effective and will be discounted off of the monthly
4 PGA rate as long as the CARES discounted rate (commodity rate less CARES PGA
5 discount) does not drop below \$0.30 per therm.

6
7 **Q. Will this revenue-neutral change benefit non-CARES customers and the Company?**

8 A. Yes. By putting the subsidy through the PGA, the amount that non-CARES customers
9 will provide can be adjusted based on the actual number of CARES customers. For
10 instance, if the economy improves and the number of CARES customers decline, then the
11 subsidy other customer classes provide for is reduced and those non-CARES customers
12 will receive that benefit in a much more timely fashion through a credit adjustment in the
13 PGA. In fact, subsidizing CARES through the PGA provides both a more timely and a
14 more accurate response to changing CARES enrollment.

15
16 This method of subsidy recovery will also take the utility out of the position of either
17 making money on the number of CARES customers (if they decline after the test year), or
18 losing money on the number of CARES customers (if they increase). Only the actual
19 amount of subsidy dollars realized by CARES customers will be shifted to the remaining
20 customers; no more, no less. This method is also consistent with the Commission's prior
21 approval for recovering the discounted amount as a subsidy from other rate classes.

22
23 **Q. Do you believe the Commission will be receptive to this type of subsidy recovery for
24 the CARES customers?**

25 A. Yes. The Commission has already approved this method of subsidized shift in costs for
26 UNS Electric. In the last rate decision for UNS Electric, the Commission ordered it to
27 apply the same percentage discount to the Purchase Power Fuel Adjustment Clause

1 (“PPFAC”) components as applied to the base power supply for CARES customers.⁴ The
2 PPFAC is the electric company’s equivalent to the PGA.
3

4 **Q. Will this require a modification to the PGA mechanism?**

5 A. The only change to the PGA process will relate to tracking two fuel prices. The price that
6 is calculated using the current process and the discounted price for CARES customers for
7 their purchases during the winter months. Ultimately actual costs will be compared to
8 actual revenues recovered for purposes of PGA reconciliation. No other changes would
9 be necessary.
10

11 **Q. You mentioned that this proposal will be revenue neutral to an average CARES
12 customer. Would you provide an example to show how this is accomplished?**

13 A. Yes. This proposal will be revenue neutral on average. As with any revenue-neutral
14 change in rates for a class of customers, some will see changes that will be increases and
15 some will see changes that will be decreases in the bill. Overall the changes net to a
16 revenue-neutral conclusion. In every case where gas is consumed, the CARES customer
17 will be paying less than the normal residential customer using the same volume of gas.
18 The following table is illustrative and based on current rates (i.e. not the final rates) and
19 shows how this change will be designed to produce revenue neutral results:
20

RATES	Residential R-10 Current	CARES R-12 current	CARES Neutral Rate Shift
Customer Charge	\$10.00	\$7.00	\$10.00
Delivery Charge 1 st 100 Therm		\$0.1770	\$0.0000
Delivery Charge per Therm	\$0.3270	\$0.3270	\$0.3270
PGA	\$0.6839	\$0.6839	\$0.5124
WINTER BILL IMPACTS			
Therm	105	105	105
Customer Charge	\$10.00	\$7.00	\$10.00
Delivery Charge 1 st 100 Therm	0.00	17.70	0
Delivery Charge	34.34	1.64	34.34
PGA	71.81	71.81	53.81
Total Bill	\$116.15	\$98.15	\$98.15

27
⁴ See Decision No. 71914 at Finding of Fact No. 49 on page 74.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27

In the test year, the average CARES customer usage was approximately 64 therms per month. However, during colder months, that usage could approach or exceed the 105 therms used in the table above.

Q. Earlier in your testimony you mentioned you would consider an alternative to this proposal if deemed more appropriate by the Commission. Would you explain that alternative?

A. As a secondary alternative, UNS Gas proposes to increase the CARES residential rate from \$7.00 to \$9.00 and to reduce the per-therm discount (from November through April) from \$0.15 per therm to \$0.10 per therm.

Q. Why would the Company propose these changes in the CARES rate and discount as an alternative to shifting the subsidy to the PGA?

A. These changes will allow the low-income customers to continue to realize a benefit from discounted rates. However, the charges will prevent the disparity between CARES and non-CARES customers from increasing even more, which would result in even greater subsidies. The CARES customer charge has remained unchanged since 2003 – the year that UNS Gas acquired the system from Citizens. This has allowed CARES customers to avoid contributing to any cost increases for over seven years (at a minimum), while customers in other rate classes have increasingly subsidized the CARES customers. On the other hand, many non-CARES customers still find the cost of paying their natural gas bill significant. Non-CARES customers, most of whom are not affluent customers, should not be required to bear an even larger burden to subsidize CARES customers. Unless something is done to halt the continually expanding number of the CARES customers, that burden will continue to increase.

1 **Q. Please explain the proposed changes in the CARES rate and discounts you are**
2 **proposing if the Commission does not accept your proposal to shift the subsidy to**
3 **the PGA.**

4 A. I have proposed the customer charge for a regular residential customer be increased from
5 \$10.00 to \$11.00. The current CARES customer charge is \$7.00 per month, which is a
6 \$3.00 per month discount. Increasing the CARES customer charge to \$9.00 per month
7 still provides a \$2.00 per-month discount from the regular residential customer's
8 customer charge which amounts to an 18% discount in the customer charge for the
9 CARES customer. I also propose to reduce the per-therm discount to \$0.10 from \$0.15
10 discount; a \$0.10 per-therm discount equates to almost a 30% discount of the volumetric
11 delivery charge.

12
13 **Q. Is the Company proposing to change the applicability of the per-therm discount**
14 **(currently for the first 100 therms) under your back-up proposal?**

15 A. Yes. Regardless of whether the subsidy is recovered through the PGA or in the
16 discounted margin rates, UNS Gas will apply the per-therm discount to all purchases by
17 the CARES customers in the winter months. Company believes the additional volumes
18 (20,000 therms during the test year) are small enough that the associated increase in the
19 subsidy amount does not justify the added cost of modifying the billing system to handle
20 the addition of a second PGA rate on these customers' bills if our preferred method is
21 approved. Removing the cap on what winter volumes are discounted is also consistent
22 with Southwest Gas's proposal in their pending rate case if the discounts remain in the
23 margin portion of the CARES customers' rates.

24
25
26
27

1 **Q. Do you believe the current increase in CARES customers is large enough to require**
2 **an update in billing determinants at the hearing in this case?**

3 A. Yes. As I mentioned earlier, in just two months since the end of the test year, the number
4 of CARES customers has increased from 10,039 to 10,466. That is approximately 215
5 customers per month migrating from the regular residential rate tariff to the discounted
6 CARES rate tariff. Assuming an 18-month lag between the filing of this case and a final
7 decision, the number of CARES customers could increase by 3,870 at the growth rate
8 experienced in January and February 2011. At an approximate subsidy of up to \$125 per
9 CARES customer, this would result in nearly \$500,000 of additional loss in annual
10 margin revenues before the Commission issues a decision in this case.

11
12 **Q. Does UNS Gas propose any additional expansion of assistance programs beyond the**
13 **CARES-eligible group is necessary at this time?**

14 A. No. UNS Gas recognizes that there are residential customers with income exceeding
15 150% of poverty level that are struggling to pay their utility bills. The Company already
16 offers assistance to approximately 10% of residential customers through CARES. To
17 increase eligibility any more will place additional undue burden on the remaining
18 customers.

19
20 **IX. RULES AND REGULATIONS.**

21
22 **Q. Please describe any proposed changes to the Company's Rules and Regulations in**
23 **this rate case filing.**

24 A. UNS Gas is proposing some minor pricing modifications to Section 17 of the Rules and
25 Regulations in this docket, particularly with respect to Statement of Additional Charges.

26
27

1 **Q. Please describe the proposed changes in charges listed in Section 17 of the Statement**
2 **of Additional Charges.**

3 A. UNS Gas is proposing to increase the Service Establishment Fee After Normal Business
4 Hours. The fee is being changed from \$50 to \$70 to reflect the current actual cost of
5 service. In addition, the Collection Fee definition and related language later in the rules
6 and regulations have been clarified to indicate that the trip charge applies either to
7 collecting a gas bill at a customer premise or leaving a collection door hanger advising the
8 customer of imminent disconnection of service for non-payment of bill. The charge itself
9 is unchanged.

10 A.2. Collection Fee (Collection at Customer Premise, Door Hanging Fee) \$20.00

11 B. Service Establishment, Re-establishment or Reconnection

12 After Normal Business Hours (same day request scheduled) \$70.00

13
14 **Q. Is UNS Gas proposing any other changes to its Rules and Regulations?**

15 A. Yes. Most changes are cosmetic. We have modified a couple of definitions and changes
16 references to "Pricing Plans" to Rates. We have also proposed a couple changes to the
17 items requested from a customer when applying for service as well as a couple of changes
18 designed to streamline the credit and deposit rules. We added a provision that states service
19 can be refused if the customer does not grant the utility access to the meter serving the
20 customer. We have also specified that a person at least 18 years old must be present at any
21 appointment. All other minor changes are identified in the redline version of the Rules and
22 Regulations (Exhibit No. CAJ-6).

23
24 **Q. Is a copy of the proposed modifications to the Rules and Regulations attached?**

25 A. Yes, both clean and redlined copies of the revised Rules and Regulations are attached as
26 Exhibit Nos. CAJ-5 and CAJ-6, respectively, to my Direct Testimony.

27

1 **X. PROPOSED TARIFF.**

2

3 **Q. Are UNS Gas' proposed tariffs included with your Direct Testimony?**

4 A. Yes, the proposed tariffs are attached to my Direct Testimony as Exhibit Nos. CAJ-7
5 (clean copy) and CAJ-8 (redlined copy). In addition to updated rates the tariffs reflect a
6 change in appearance due to our returning the Sheet number and the Sheet being
7 cancelled to the header of all tariffs. We also made presentation changes to the footers of
8 all tariffs. The changes will make it easier for all parties to keep track of any future
9 revisions to the tariffs and the Sheet Nos. will make it easier to find tariffs in the future.
10 Other necessary changes to the CARES rate tariff and PGA rider have been included as
11 well as a new CAT Rider. We are also proposing to eliminate the CGS (Competitive Gas
12 Service) tariff, which has never had a customer served under its provisions since UNS
13 Gas purchased the system over five years ago. Any other changes are minor and can be
14 identified as a redlined change in Exhibit No. CAJ-8 referenced above.

15

16 **Q. Does this conclude your Direct Testimony?**

17 A. Yes, it does.

18

19

20

21

22

23

24

25

26

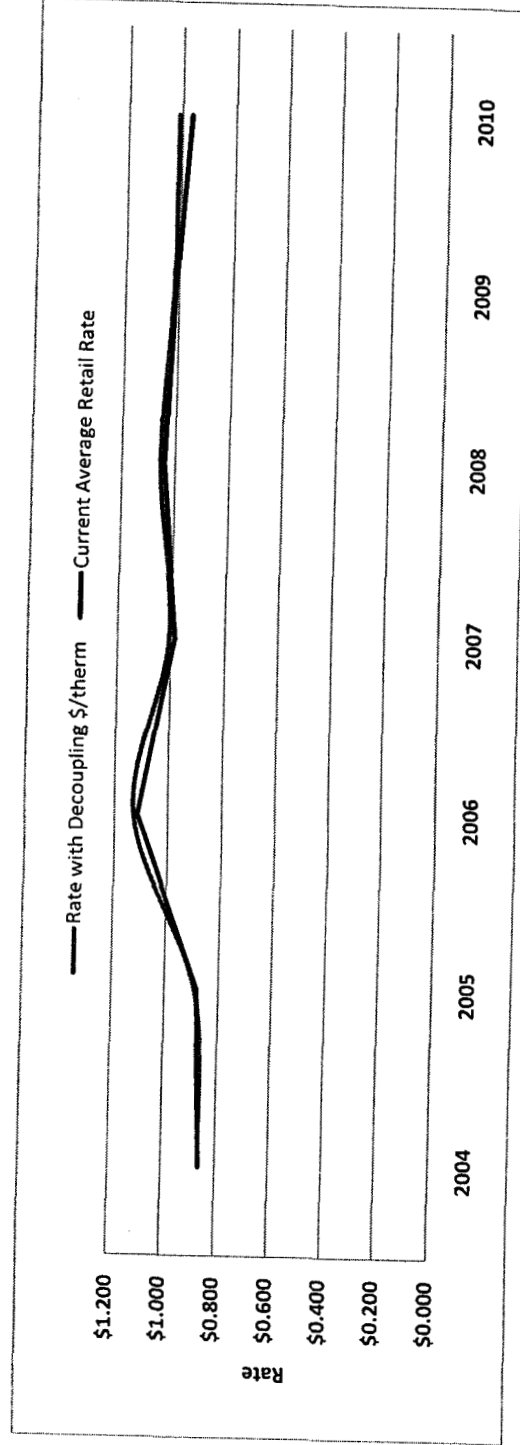
27

EXHIBIT

CAJ-1

UNS GAS, INC. DECOUPLING CALCULATION

	2004	2005	2006	2007	2008	2009	2010	2011
% Over/ Under to Total Retail Revenue		0.84%	1.28%	2.15%	1.51%	0.64%	2.12%	0.97%
Total Over / (Under) Recovery		(\$1,882,391)	(\$2,918,690)	(\$2,196,376)	(\$859,876)	(\$2,760,227)	(\$1,293,089)	
ANNUAL ADJUSTMENT () = Credit		\$0.0074	\$0.0142	\$0.0212	\$0.0156	\$0.0064	\$0.0210	
Rate with Decoupling \$/therm		\$0.860500	\$1.128800	\$1.005600	\$1.054600	\$1.017600	\$1.010900	
Current Average Retail Rate		\$0.860500	\$1.114600	\$0.984400	\$1.039000	\$1.011200	\$0.962800	



EXHIBIT

CAJ-2



UNS Gas, Inc.

Original Sheet No.: 706

Superseding: _____

Conservation Adjustment Tracker (CAT)

APPLICABILITY

The Conservation Adjustment Tracker ("CAT") applies to the following Pricing Plans:

Residential Service R-10
Small Volume Commercial Service C-20

Customer Assistance Residential Energy Support (CARES) R-12
Small Public Authority Service PA-40.

CHANGE IN RATE

The CAT recovers or refunds any variation between the Company's monthly non-fuel retail charges billed ("Margin") and the authorized margin approved in the Company's most recent rate case. A single charge or credit will be placed in effect and charged to the participating rate classes for a 12-month period the CAT adjustment is applicable. If this calculation results in a charge the total amount being recovered cannot exceed 6% of the Company's most recent Calendar Year Revenues for the participating Rate Classes.

The CAT shall be applied to all monthly net bills at a rate of .XXXX per therm for the period March 20XX through February 20XX.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan.

Authorized Margin and Customer Counts:

	R-10 / R-12		C-20		P-40	
	Margin	Customer	Margin	Customer	Margin	Customer
January	5,907,320	134,882	1,418,059	11,211	300,170	1,075
February	5,012,428	134,711	1,191,960	11,214	254,550	1,076
March	4,436,335	134,462	1,002,518	11,191	212,900	1,076
April	3,356,749	134,149	788,667	11,153	140,885	1,072
May	2,553,018	133,766	606,165	11,119	79,662	1,082
June	2,026,126	133,525	538,793	11,056	38,801	1,082
July	1,990,049	133,174	539,950	11,010	35,027	1,081
August	2,021,153	133,131	521,097	10,972	35,645	1,080
September	2,055,522	133,161	528,602	10,954	44,968	1,088
October	2,571,672	133,492	749,758	11,038	74,159	1,097
November	4,375,075	133,846	1,120,333	11,138	202,274	1,091
December	5,275,801	134,136	1,267,815	11,204	259,615	1,092

Filed By: Kentton Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-6
Effective: Pending
Decision No.:

EXHIBIT

CAJ-3

UNS Gas, INC.
Conservation Adjustment Tracker
Plan of Administration

GENERAL DESCRIPTION

This document describes the plan for administering the Conservation Adjustment Tracker (“CAT”) approved by the Arizona Corporation Commission (“ACC”) in Decision No. XXXXX (date). The CAT provides for the recovery or return of non-fuel fixed cost retail revenues (“margin”) that differs from the amount authorized in the utility’s most recent rate case as adjusted for changes in customer numbers.

The CAT described in this Plan of Administration (“POA”) uses the margin per customer approved for each class in the utility’s most recent rate case and after adjusting it for changes in customer numbers makes a comparison to the actual margin realized by that class. Any over or under recoveries will be tracked monthly during the measurement period and returned or charged to the customers in the next CAT effective period.

DEFINITIONS

Actual Customer Numbers – The specific number of customers (billing units) billed by the utility in a given month in each Rate Class.

Actual Margin – The total revenues for a specified class in the month in question reduced by fuel amount included in those revenues.

Approved Customer Numbers – The specific number of customers (billing units) used in the last rate case to develop the Authorized Margin.

Authorized Margin – Total retail revenues approved for a specified Rate Class in the utility’s most recent rate case less the fuel costs included in those revenues. (Does not include sales or other use type taxes.)

Authorized Margin per Customer – The margin per customer approved in the utility’s most recent rate case. The Authorized Margin per Customer is calculated by dividing the Authorized Margin by the Approved Customer Number.

CAT Adjustment – The CAT Adjustment will be the accumulated balance in the CAT Adjustment Tracking Account and True-up Component Account for the Measurement Period divided by the forecasted sales volumes in the participating Rate Classes over the next Effective Period.

CAT Adjustment Tracking Account – An account that tracks on a monthly basis all positive and negative differentials between the Target Margin and the Actual Margin for each month for each Rate Class during the Measurement Period. The balance of this account is subject to periodic audit.

Customer Growth Margin – The Authorized Margin per Customer times the difference between the Approved Customer Numbers and the Actual Customer Numbers. Increased customer numbers result in a positive number and a decrease in customer numbers will result in a negative number.

Effective Period – The CAT Adjustment will be effective for a twelve month period starting with the 1st day of March following the Measurement Period and ending on the following last day of February.

Filing Date – The 1st day of February following the Measurement Period.

Measurement Period – Will be a 12-month period beginning with January 1st of a calendar year through December 31 of the same calendar year.

Rate Class – Class of customers on an individual Rate Tariff. For purposes of this provision the applicable rate classes are:

- Residential R-10 and R12
- Commercial R-20
- Public Authority R-40

Target Margin – The Target Margin is the Authorized Margin for a Rate Class increased or decreased by the Authorized Margin per Customer multiplied by the difference between the Approved Number of Customers and the Actual Number of Customers. An increase in customer numbers will increase the Authorized Margin and a decrease in customer numbers will reduce the Authorized Margin.

True-up Component – The True-up Component will be the accumulated balance in the True-up Component Tracking Account at the end of a measurement period.

True-up Component Tracking Account – An account that tracks on a monthly basis the difference between the amount to be recovered or refunded through the CAT Adjustment in effect during a Measurement Period and actual levels. The balance of this account is subject to periodic audit.

PROCESS DESCRIPTION

At the conclusion of the utility's rate case the ACC will approve by month, normalized customer numbers and associated therm sales for all applicable rate classes. These approved levels can be found on the approved CAT Tariff. These numbers will be used to calculate the monthly Authorized Margin per Customer to be used in the CAT process.

Each month the Actual Customer Numbers will be compared to the Approved Customer Numbers for the Rate Class in that month. The difference between these two numbers will then be multiplied by the Authorized Margin Per Customer approved for that class in that month. This will result in an adjustment to the Authorized Margin for the Rate Class in that month and result in a Target Margin. This Target Margin is then compared to the Actual Margin for the specified Rate Class for the month being analyzed. The difference, either positive or negative will be added to the CAT Adjustment Tracking Account and repeated monthly for each Rate Class for the Measurement Period.

Each month this calculation will be made for every participating Rate Class and the resulting entries into the CAT Adjustment Tracking Account will accumulate for the Measurement Period. Additionally, at the close of business each month a calculation will be made to determine the amount of over or under collection that occurred in that month based on the application of the CAT Adjustment in effect for the measurement month. This amount will be recorded to the True-up Component Tracking Account. The balance in the True-up Component Tracking Account will be accumulated through the Measurement Period and included in the subsequent CAT Adjustment.

Each February the utility will file a revised CAT Adjustment that will reflect the clearing of the True-up Component Tracking Account and the CAT Adjustment Tracking Account, both for the Measurement Period. These total dollars will net to a positive or negative amount that will be divided by the forecasted sales during the Effective Period. The total dollars will be divided by the total therms resulting in a single per therm adjustment that will be applied to all participating Rate Classes. This filing will reflect a March 1, effective date. Draft worksheets have been enclosed for reference. The rates will be effective for the first billing cycle in March and will remain in effect until a subsequent year's CAT Adjustment becomes effective.

The first year the CAT filing is made, it may not reflect a full year's calculations. The first February 1 filing will contain a CAT Adjustment for only the months in effect since the approval of the most recent rate case. The subsequent year's CAT Adjustment filings will contain a full year's adjustment, but will only contain a partial year's True-up Component Tracking. The second full year's CAT filing will contain both a full year's accounting from the CAT Adjustment Tracking Account and the True-up Component Tracking Account.

VERIFICATION AND AUDIT

The amounts collected or refunded through the CAT Adjustment will be subject to periodic audit by Commission Staff to assure their completeness and accuracy.

TARIFF AND SCHEDULES

Exhibit 1 – CAT Tariff

Exhibit 2 – Schedules

Schedule 1, CAT Adjustment Annual Calculation Worksheet;

Schedule 2, CAT Adjustment Tracking Account Summary Worksheet;

Schedule 3, CAT Adjustment Worksheets, Residential, Commercial and Public Authority;

Schedule 4, True-up Calculation

Exhibit 3 – Support Materials



UNS Gas, Inc.

Original Sheet No.: 706
Superseding: _____

Conservation Adjustment Tracker (CAT)

APPLICABILITY

The Conservation Adjustment Tracker ("CAT") applies to the following Pricing Plans:

Residential Service R-10 Customer Assistance Residential Energy Support (CARES) R-12
Small Volume Commercial Service C-20 Small Public Authority Service PA-40.

CHANGE IN RATE

The CAT recovers or refunds any variation between the Company's monthly non-fuel retail charges billed ("Margin") and the authorized margin approved in the Company's most recent rate case. A single charge or credit will be placed in effect and charged to the participating rate classes for a 12-month period the CAT adjustment is applicable. If this calculation results in a charge to customers, then the total amount recovered cannot exceed 6% of the Company's most recent Calendar Year Revenues for the participating Rate Classes.

The CAT shall be applied to all monthly net bills at a rate of .XXXX per therm for the period March 20XX through February 20XX.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan.

Authorized Margin and Customer Counts:

	R-10 / R-12		C-20		P-40	
	Margin	Customer	Margin	Customer	Margin	Customer
January	5,907,320	134,882	1,418,059	11,211	300,170	1,075
February	5,012,428	134,711	1,191,960	11,214	254,550	1,076
March	4,436,335	134,462	1,002,518	11,191	212,900	1,076
April	3,356,749	134,149	788,667	11,153	140,885	1,072
May	2,553,018	133,766	606,165	11,119	79,662	1,082
June	2,026,126	133,525	538,793	11,056	38,801	1,082
July	1,990,049	133,174	539,950	11,010	35,027	1,081
August	2,021,153	133,131	521,097	10,972	35,645	1,080
September	2,055,522	133,161	528,602	10,954	44,968	1,088
October	2,571,672	133,492	749,758	11,038	74,159	1,097
November	4,375,075	133,846	1,120,333	11,138	202,274	1,091
December	5,275,801	134,136	1,267,815	11,204	259,615	1,092

Filed By: Kent Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-6
Effective: Pending
Decision No.:

UNS Gas Inc.
CAT ADJUSTMENT ANNUAL CALCULATION WORKSHEET

	Residential Rate No. R-10 and R-12 A	Commercial Rate No. R-20 B	Public Authority Rate No. R-40 C	Total D
1 Actual Revenue	\$39,421,157	\$9,943,187	\$1,662,707	\$51,027,051
2 Adjust for Riders:				
3 CAT (after first year)	\$0	\$0	\$0	\$0
4 Fuel Cost	\$0	\$0	\$0	\$0
5 DSM Charges	\$0	\$0	\$0	\$0
6 Actual Margin	\$39,421,157	\$9,943,187	\$1,662,707	\$51,027,051
7 Authorized Margin	\$41,581,248	\$10,273,716	\$1,678,658	\$53,533,622
8 Add: Customer Growth Margin	(\$177,732)	\$87,793	\$0	(\$89,948)
9 Target Margin	\$41,403,516	\$10,361,499	\$1,678,658	\$53,443,674
10 CAT Amount (line 9 - 6) to Sch 1, line 1	\$1,982,359	\$418,312	\$15,951	\$2,416,622

**UNS Gas Inc.
CAT ADJUSTMENT TRACKING ACCOUNT SUMMARY WORKSHEET**

	Residential Rate No. R-10 and R-12 A	Commercial Rate No. R-20 B	Public Authority Rate No. R-40 C	Total D
1	CAT Amount from Schedule 2, line 10	\$1,982,359	\$418,312	\$15,951
2	Less: True-up Component from Sch 3, line 9			\$2,416,622
3	Total CAT Adjustment	\$1,982,359	\$418,312	\$15,951
4	Est. Sales (therm estimate for Effective year)			105,783,086
5	CAT Adjustment per therm (line 3 / line 4)			<u>\$0.0228</u>
6	Total Revenues with fuel			\$110,109,859
7	Percentage Change (line 3 / line 6)			<u>2.19%</u>

Line 2 is the variance under/over recovered from the prior year. It will be remaining amount in the accrual account and will be rolled into new rate.
 Line 4 is the forecasted therm sales for the participating classes for the twelve months of the Effective period.
 Line 5, Column D is the CAT rate to be reflected in Tariff Sheet No. 706
 Line 6 is the total revenues, including fuel for the participating classes in the True-up year.
 Line 7 is the mathematical test to determine if the total CAT adjustment exceeds the 6% of total revenues the adjustment is capped at.

CAT ADJUSTMENT TRACKING WORKSHEET

Line	GAS REVENUES	January	February	March	April	May	June	July	August	September	October	November	December	Total
1	Commercial C-20 Small Volume Commercial	\$1,372,303	\$1,153,533	\$970,231	\$763,311	\$586,724	\$521,534	\$522,653	\$504,410	\$511,672	\$725,661	\$1,084,226	\$1,226,929	\$9,943,187
2	Adjust for (- charge/ + credit):													
3	CAT (after first year)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Fuel Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	DSM Charges	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Actual Margin	\$1,372,303	\$1,153,533	\$970,231	\$763,311	\$586,724	\$521,534	\$522,653	\$504,410	\$511,672	\$725,661	\$1,084,226	\$1,226,929	\$9,943,187
7	Authorized Margin Order	\$1,418,059	\$1,191,960	\$1,002,518	\$788,667	\$606,165	\$538,793	\$539,950	\$521,097	\$528,602	\$749,758	\$1,120,333	\$1,267,815	\$10,273,716
8	Adjustment to tie to annual Order Granted Margin	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	Authorized Margin (see Tariff No. 706)	\$1,418,059	\$1,191,960	\$1,002,518	\$788,667	\$606,165	\$538,793	\$539,950	\$521,097	\$528,602	\$749,758	\$1,120,333	\$1,267,815	\$10,273,716
10	Add: Customer Growth Margin (line 19)	\$22,894	\$17,538	\$13,348	\$9,334	\$6,324	\$4,825	\$4,021	\$3,135	\$2,413	\$2,242	\$1,710	\$0	\$87,783
11	Target Margin	\$1,440,953	\$1,209,498	\$1,015,866	\$798,001	\$612,489	\$543,617	\$543,972	\$524,231	\$531,015	\$752,000	\$1,122,043	\$1,267,815	\$10,361,499
12	CAT Adjustment Tracking Amount	\$68,650.26	\$55,965.33	\$45,634.81	\$34,690.18	\$25,764.93	\$22,083.02	\$21,318.25	\$19,820.98	\$19,342.87	\$26,338.50	\$37,816.80	\$40,886.06	\$418,312.00
13	Approved Customer Numbers	11,211	11,214	11,191	11,153	11,119	11,056	11,010	10,972	10,954	11,038	11,138	11,204	11,105
14	Customer Growth Margin													
15	Actual Customer Numbers	11,392	11,379	11,340	11,285	11,235	11,155	11,092	11,038	11,004	11,071	11,155	11,204	11,196
16	Approved Customer Number (see Tariff No. 706)	11,211	11,214	11,191	11,153	11,119	11,056	11,010	10,972	10,954	11,038	11,138	11,204	11,105
17	Customer Growth (Line 15 - Line 16)	181	165	149	132	116	99	82	66	50	33	17	-	91
18	Authorized Margin per Customer (line 9 / line 13)	\$126,4882	\$106,2921	\$89,5825	\$70,7134	\$54,5161	\$48,7331	\$49,0418	\$47,4933	\$48,2566	\$67,9252	\$100,5865	\$113,1573	\$76,8988
19	Customer Growth Margin (line 18 x line 17)	\$22,894	\$17,538	\$13,348	\$9,334	\$6,324	\$4,825	\$4,021	\$3,135	\$2,413	\$2,242	\$1,710	\$0	\$87,783

CAT ADJUSTMENT TRACKING WORKSHEET

Line	GAS REVENUES	January	February	March	April	May	June	July	August	September	October	November	December	Total
1	Public Authority PA-40 Small Volume	\$297,813	\$252,486	\$211,104	\$139,554	\$78,720	\$38,121	\$34,373	\$34,987	\$44,247	\$73,247	\$200,540	\$257,513	\$1,662,707
2	Adjust for (- charge/ + credit):													
3	CAT (after first year)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Fuel Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	DSM Charges	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6	Actual Margin	\$297,813	\$252,486	\$211,104	\$139,554	\$78,720	\$38,121	\$34,373	\$34,987	\$44,247	\$73,247	\$200,540	\$257,513	\$1,662,707
7	Authorized Margin Order													
8	Adjustment to tie to annual Order Granted Margin	\$300,170	\$254,550	\$212,900	\$140,885	\$79,662	\$38,801	\$35,027	\$35,645	\$44,968	\$74,159	\$202,274	\$259,615	\$1,678,658
9	Authorized Margin (see Tariff No. 706)	\$300,170	\$254,550	\$212,900	\$140,885	\$79,662	\$38,801	\$35,027	\$35,645	\$44,968	\$74,159	\$202,274	\$259,615	\$1,678,658
10	Add. Customer Growth Margin (line 19)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11	Target Margin	\$300,170	\$254,550	\$212,900	\$140,885	\$79,662	\$38,801	\$35,027	\$35,645	\$44,968	\$74,159	\$202,274	\$259,615	\$1,678,658
12	CAT Adjustment Tracking Amount	\$2,357	\$2,064	\$1,796	\$1,331	\$942	\$679	\$654	\$658	\$721	\$912	\$1,734	\$2,103	\$15,951
13	Approved Customer Numbers	1,075	1,076	1,076	1,072	1,082	1,082	1,081	1,080	1,088	1,097	1,091	1,092	1,083
14	Customer Growth Margin													
15	Actual Customer Numbers	1,075	1,076	1,076	1,072	1,082	1,082	1,081	1,080	1,088	1,097	1,091	1,092	1,083
16	Approved Customer Number (see Tariff No. 706)	1,075	1,076	1,076	1,072	1,082	1,082	1,081	1,080	1,088	1,097	1,091	1,092	1,083
17	Customer Growth (Line 15 - Line 16)													
18	Authorized Margin per Customer (line 9 / line 13)	\$279,2279	\$236,5708	\$197,8628	\$131,4227	\$73,6247	\$35,8601	\$32,4029	\$33,0048	\$41,3313	\$67,6019	\$185,4023	\$237,7428	\$129,3379
19	Customer Growth Margin (line 18 x line 17)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

TRUE-UP COMPONENT TRACKING ACCOUNT WORKSHEET

Schedule No. 4
True-up Calculation

Line	True-up Variance Calculation	January	February	March	April	May	June	July	August	September	October	November	December	Total
1	Forecasted Sales (Therms)	18,686,829	15,037,935	12,499,769	8,246,442	4,976,990	3,013,608	2,909,092	2,944,131	3,106,994	5,521,761	12,705,039	16,134,495	105,783,086
2	CAT rate for Prior True-up Period (Sch 1, line 5)	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	
3	CAT rate for 2nd Prior True-up Period	\$426,060	\$342,865	\$284,995	\$188,019	\$113,475	\$68,710	\$66,327	\$67,126	\$70,839	\$125,886	\$289,675	\$367,866	\$2,411,854
4	Calculated CAT adjustment													
5	Actual Sales (Therms)	18,686,829	15,037,935	12,499,769	8,246,442	4,976,990	3,013,608	2,909,092	2,944,131	3,106,994	5,521,761	12,705,039	16,134,495	105,783,086
6	CAT rate for Prior True-up Period (Sch 1, line 5)	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	\$0.0228	
7	CAT rate for 2nd Prior True-up Period	\$426,060	\$342,865	\$284,995	\$188,019	\$113,475	\$68,710	\$66,327	\$67,126	\$70,839	\$125,886	\$289,675	\$367,866	\$2,411,854
8	Calculated CAT adjustment													
9	True-up Tracking Amount (ln 4 - ln 8)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

This worksheet tracks monthly CAT recoveries/credits and compares them to the forecasted amounts. The variance is carried forward to next years variance on Schedule 1, line 2, Column D.

For Informational Purposes Only

		<u>R-10</u>	<u>R-12</u>	<u>C20</u>	<u>P-40</u>	<u>Total</u>
		A	B	C	D	E
Customers						
1	Jan-10	126,150	8,732	11,211	1,075	147,168
2	Feb-10	125,700	9,011	11,214	1,076	147,001
3	Mar-10	125,401	9,061	11,191	1,076	146,729
4	Apr-10	125,130	9,019	11,153	1,072	146,374
5	May-10	124,766	9,000	11,119	1,082	145,967
6	Jun-10	124,065	9,460	11,056	1,082	145,663
7	Jul-10	123,787	9,387	11,010	1,081	145,265
8	Aug-10	123,664	9,467	10,972	1,080	145,183
9	Sep-10	123,653	9,508	10,954	1,088	145,203
10	Oct-10	123,860	9,632	11,038	1,097	145,627
11	Nov-10	124,053	9,793	11,138	1,091	146,075
12	Dec-10	124,110	10,026	11,204	1,092	146,432
13	Adjusted Customers	1,494,339	112,096	133,260	12,992	1,752,687
Therms						
14	Jan-10	12,568,612	836,289	4,271,320	1,010,607	18,686,829
15	Feb-10	10,032,164	666,646	3,491,504	847,622	15,037,935
16	Mar-10	8,357,257	604,115	2,839,524	698,873	12,499,769
17	Apr-10	5,211,859	488,476	2,104,203	441,904	8,246,442
18	May-10	3,002,302	275,249	1,476,761	222,678	4,976,990
19	Jun-10	1,536,043	152,899	1,247,920	76,745	3,013,608
20	Jul-10	1,466,160	125,156	1,254,449	63,327	2,909,092
21	Aug-10	1,577,722	109,285	1,191,534	65,590	2,944,131
22	Sep-10	1,666,548	123,608	1,218,408	98,430	3,106,994
23	Oct-10	3,194,369	148,844	1,976,380	202,169	5,521,761
24	Nov-10	8,448,493	347,777	3,248,706	660,064	12,705,039
25	Dec-10	10,835,695	680,380	3,753,624	864,797	16,134,495
26	Adjusted Therms	67,897,224	4,558,724	28,074,332	5,252,806	105,783,086
2010 Test Year Margin						
27	Jan-10	\$5,371,436	\$334,591	\$1,372,303	\$297,813	\$7,376,143
28	Feb-10	\$4,537,518	\$281,070	\$1,153,533	\$252,486	\$6,224,607
29	Mar-10	\$3,986,833	\$260,973	\$970,231	\$211,104	\$5,429,141
30	Apr-10	\$2,955,578	\$222,865	\$763,311	\$139,554	\$4,081,307
31	May-10	\$2,229,413	\$153,006	\$586,724	\$78,720	\$3,047,863
32	Jun-10	\$1,742,936	\$116,218	\$521,534	\$38,121	\$2,418,810
33	Jul-10	\$1,717,304	\$106,635	\$522,653	\$34,373	\$2,380,966
34	Aug-10	\$1,752,555	\$102,005	\$504,410	\$34,987	\$2,393,958
35	Sep-10	\$1,781,491	\$106,976	\$511,672	\$44,247	\$2,444,387
36	Oct-10	\$2,283,159	\$116,096	\$725,661	\$73,247	\$3,198,163
37	Nov-10	\$4,003,187	\$182,274	\$1,084,226	\$200,540	\$5,470,227
38	Dec-10	<u>\$4,784,372</u>	<u>\$292,666</u>	<u>\$1,226,929</u>	<u>\$257,513</u>	<u>\$6,561,480</u>
39	Total Test Year Marg	\$37,145,782	\$2,275,375	\$9,943,187	\$1,662,707	\$51,027,051
APPROVED MARGIN DECISION NO. XXXXX						
40	Jan-10	\$5,535,292	\$372,028	\$1,418,059	\$300,170	\$7,625,548
41	Feb-10	\$4,693,314	\$319,114	\$1,191,960	\$254,550	\$6,458,938
42	Mar-10	\$4,137,306	\$299,029	\$1,002,518	\$212,900	\$5,651,753
43	Apr-10	\$3,096,344	\$260,406	\$788,667	\$140,885	\$4,286,301
44	May-10	\$2,363,186	\$189,832	\$606,165	\$79,662	\$3,238,844
45	Jun-10	\$1,871,609	\$154,517	\$538,793	\$38,801	\$2,603,720
46	Jul-10	\$1,845,490	\$144,559	\$539,950	\$35,027	\$2,565,026
47	Aug-10	\$1,880,952	\$140,201	\$521,097	\$35,645	\$2,577,895
48	Sep-10	\$1,910,144	\$145,379	\$528,602	\$44,968	\$2,629,093
49	Oct-10	\$2,416,602	\$155,070	\$749,758	\$74,159	\$3,395,590
50	Nov-10	\$4,152,586	\$222,489	\$1,120,333	\$202,274	\$5,697,682
51	Dec-10	<u>\$4,940,989</u>	<u>\$334,811</u>	<u>\$1,267,815</u>	<u>\$259,615</u>	<u>\$6,803,231</u>
52	Total Test Year Marg	\$38,843,813	\$2,737,435	\$10,273,716	\$1,678,658	\$53,533,622

EXHIBIT

CAJ-4

UNS GAS, INC. PROPOSED RATES AND REVENUE SUMMARY
TEST PERIOD TME DECEMBER 31, 2010

Line No.	Class of Service	Test Year Rates	TY Adjusted Billing Determinants	TY Adjusted Revenues by Rate Class	Test Year CARES New-Rate Design	TY ADJUSTED REVENUES CARES	Proposed Rates	Proposed Revenues	Revenue Increase	Percentage Increase
		A	B	C	D	E	F	G	H	I
Residential Service (R10)										
1	Customer Charge	\$10.00	1,481,879	\$14,818,790			\$11.00	\$16,300,669		
2	Distribution Margin Therms	\$0.3270	66,817,465	\$21,849,311			\$0.3324	\$22,210,125		
3	TOTAL R10			\$36,668,101				\$38,510,794	\$1,842,693	5.03%
Residential Service Cares (R12)										
4	Customer Charge	\$7.00	120,695	\$844,865	\$10.00	\$1,206,950	\$11.00	\$1,327,645		
5	Therms - Non Discount	\$0.3270	1,337,204	\$437,266	\$0.3270	\$437,266	\$0.3324	\$444,486		
6	Therms - Winter Discount	\$0.1770	3,463,996	\$613,127	\$0.3270	\$1,132,727	\$0.3324	\$1,151,432		
7	TOTAL R12			\$1,895,258		\$2,776,942		2,923,564	\$1,028,306	54.26%
Small Volume Commercial Service (C20)										
8	Customer Charge	\$15.50	133,260	\$2,065,530			\$20.00	\$2,665,200		
9	Distribution Margin Therms	\$0.2806	28,074,332	\$7,877,658			\$0.2888	\$8,107,867		
10	TOTAL R20			\$9,943,188				\$10,773,067	\$829,880	8.35%
Large Volume Commercial and Transport Service (C22)										
11	Customer Charge	\$105.00	484	\$50,820			\$225.00	\$108,900		
12	Distribution Margin Therms	\$0.1857	4,277,857	\$794,398			\$0.2501	\$1,069,892		
13	TOTAL R22			\$845,218				\$1,178,792	\$333,574	39.47%
Small Volume Industrial Service (I-30)										
14	Customer Charge	\$15.50	204	\$3,162			\$20.00	\$4,080		
15	Distribution Margin Therms	\$0.2540	461,542	\$117,232			\$0.3900	\$180,001		
16	TOTAL I30			\$120,394				\$184,081	\$63,688	52.90%
Large Volume Industrial and Transport Service (I-32)										
17	Customer Charge	\$105.00	219	\$22,995			\$225.00	\$49,275		
18	Distribution Margin Therms	\$0.1029	13,716,948	\$1,411,474			\$0.1600	\$2,194,712		
19	Distribution Margin Discount Therms	\$0.0772	3,742,082	\$288,795			\$0.1200	\$449,050		
20	TOTAL I32			\$1,723,264				\$2,693,037	\$969,772	56.28%
Small Volume Public Authority (PA-40)										
21	Customer Charge	\$15.50	13,133	\$203,562			\$20.00	\$262,660		
22	Distribution Margin Therms	\$0.2782	5,197,028	\$1,445,813			\$0.2935	\$1,525,328		
23	TOTAL PA40			\$1,649,375				\$1,787,988	\$138,613	8.40%
Large Volume Public Authority and Transport Service (PA-42)										
24	Customer Charge	\$105.00	162	\$17,010			\$225.00	\$36,450		
25	Distribution Margin Therms	\$0.1295	6,469,737	\$837,831			\$0.1900	\$1,229,250		
26	TOTAL PA42			\$854,841				\$1,265,700	\$410,859	48.06%
Special Gas Light Service (PA-44)										
27	Special Lighting Service	\$19.56	84	\$1,643			\$20.00	\$1,680		
28	TOTAL PA44		1,662	\$1,643				\$1,680	\$37	2.25%
Irrigation Service (IR-60)										
29	Customer Charge	\$15.50	47	\$729			\$20.00	\$940		
30	Distribution Margin Therms	\$0.3442	27,639	\$9,513			\$0.3677	\$10,163		
31	TOTAL IR60			\$10,242				\$11,103	\$861	8.41%
Transport T2 Service										
32	Customer Charge	\$105.00	12	\$1,260			\$225.00	\$2,700		
33	Reservation Charge	\$4,457.77	12	\$53,493			\$4,559.62	\$54,715		
34	Distribution Margin Therms	\$0.0078	3,012,173	\$23,495			\$0.0083	\$24,850		
35	Large Volume Commercial Transport Service (C22)			\$78,248				\$2,266	\$4,018	5.13%
36	Customers		1,750,179							
37	Therms		136,599,666							
38	Total Revenues			\$53,789,771				\$59,412,072	\$5,622,301	10.45%

EXHIBIT

CAJ-5

EXHIBIT

CAJ-6

EXHIBIT

CAJ-7

EXHIBIT

CAJ-8

EXHIBIT

CAJ-5



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 900
Superseding: _____

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
1	APPLICABILITY OF RULES AND REGULATIONS AND DESCRIPTION OF SERVICE	901
2	DEFINITIONS	902
3	ESTABLISHMENT OF SERVICE	903
4	MINIMUM CUSTOMER INFORMATION REQUIREMENTS	904
5	MASTER METERING	905
6	SERVICE LINES AND ESTABLISHMENTS	906
7	EXTENSION OF LINES	907
8	PROVISION OF SERVICE	908
9	METER READING	909
10	BILLING AND COLLECTION	910
11	TERMINATION OF SERVICE	911
12	ADMINISTRATIVE AND HEARING REQUIREMENTS	912
13	BUDGET BILLING PAYMENT PLAN	913
14	CURTAILMENT PLAN	914
15	RATES AND UNIT MEASUREMENT	915
16	GAS METER TESTING AND MAINTENANCE PLAN	916
17	STATEMENT OF ADDITIONAL CHARGES	917

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 901
Superseding: _____

**SECTION NO. 1
APPLICABILITY OF RULES AND REGULATIONS AND DESCRIPTION OF SERVICE**

- A. Company is a gas utility operating within portions of the state of Arizona. The Company will provide service to any person, institution or business located within its service area in accordance with the provisions of its Rates and the terms and conditions of these Rules and Regulations.
- B. All gas delivered to any Customer is for the sole use of such Customer on that Customer's premises only. Gas delivered by the Company shall not be redelivered or resold, or the use thereof by others permitted unless otherwise expressly agreed to in writing by the Company. However, those Customers purchasing gas for redistribution to the Customer's own tenants (only on the Customer's premises) may separately meter each tenant distribution point for the purpose of prorating the Customer's actual purchase price of gas delivered among the various tenants on a per unit basis.
- C. These Rules and Regulations shall apply to all gas service furnished by the Company to its Customers.
- D. These Rules and Regulations are part of the Company's Rates on file with and duly approved by, the Arizona Corporation Commission. These Rules and Regulations shall remain in effect until modified, amended, or deleted by order of the ACC. No employee, agent or representative of the Company is authorized to modify the Company rules.
- E. These Rules and Regulations shall be applied uniformly to all similarly situated Customers.
- F. In case of any conflict between these Rules and Regulations and the ACC's rules, these Rules and Regulations shall apply.
- G. Whenever the Company and an Applicant or a Customer are unable to agree on the terms and conditions under which such Applicant or Customer is to be served, or are unable to agree on the proper interpretation of the these Rules and Regulations, either party may request assistance from the Consumer Services Section of the Utilities Division of the ACC. The Applicant or Customer also has the option to file an application with the ACC for a proper order, after notice and hearing.
- H. The Company's supplying gas service to the Customer and the acceptance thereof by the Customer shall be deemed to constitute an agreement by and between the Company and the Customer for delivery, acceptance of and payment for gas service under the Company's Rules and Regulations and applicable Rates.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 902
Superseding: _____

SECTION NO. 2
DEFINITIONS

A. In these Rules and Regulations, the following definitions shall apply unless the context requires otherwise:

1. "Advance in Aid of Construction" or "Advance" – Funds provided to the Company by an Applicant under the terms of a main extension agreement, the value of which may be refundable.
2. "Applicant" – A person requesting the Company to supply gas service.
3. "Application" – A request to the Company for gas service, as distinguished from any inquiry as to the availability or charges for such service.
4. "Arizona Corporation Commission" ("ACC") – The regulatory body established by Article XV of the Arizona Constitution.
5. "Billing Month" – The time interval between any two (2) regular readings of the Company's meters at approximately thirty (30) day intervals.
6. "Billing Period" – The time period between two (2) consecutive meter readings that are taken for billing purposes.
7. "British Thermal Unit" ("BTU") – The amount of heat required to raise the temperature of one (1) pound of water one (1) degree Fahrenheit, at Standard Conditions.
8. "CCF" – One hundred (100) cubic feet.
9. "CFH" – Cubic feet per hour.
10. "Commodity Charge" – The unit cost for billed usage as set forth in the Company's Rates.
11. "Company" – UNS Gas, Inc.
12. "Contributions in Aid of Construction" or "Contribution" – Funds provided to the Company by the Applicant under the terms of a main extension agreement and/or service connection tariff, the value of which are not refundable.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 902-1
Superseding: _____

SECTION NO. 2
DEFINITIONS
(continued)

13. "Cubic Foot" –
- a. In cases where gas is supplied and metered to Customers at Standard Delivery Pressure, a cubic foot of gas is the volume of gas, which at the temperature and pressure existing in the meter occupies one (1) cubic foot.
 - b. Regardless of the pressure supplied to the Customer, the volume of gas metered will be converted to the volume which the gas would occupy at Standard Conditions.
 - c. The standard cubic foot of gas used for testing the gas for heating value shall be that volume of gas which, when saturated with water vapor and at a temperature of sixty (60) degrees Fahrenheit and under a pressure equivalent to that of thirty (30) inches of mercury (mercury at thirty-two (32) degrees Fahrenheit and under standard gravity), occupies one (1) cubic foot.
14. "Curtailment Priority" – The order in which gas service is to be curtailed to various classifications of Customers, as set forth in the Company's Rates.
15. "Customer" – The person in whose name service is rendered, as evidenced by the signature on the application or contract for that service, or by the receipt and/or payment of bills regularly issued in the person's name regardless of the identity of the actual user of the service.
16. "Customer Charge" – The amount the Customer must pay the Company for the availability of gas service, excluding any gas used, as specified, in the Company's Rates.
17. "Customer Service Complaint" - Written complaint received from a Customer, or through the ACC on behalf of a Customer.
18. "Day" – Calendar day.
19. "Decatherm" – Ten (10) therms or one million (1,000,000) BTUs.
20. "Distribution Main" – A gas line of the Company from which service lines may be extended to Customers.
21. "Elderly" – A person who is sixty-two (62) years of age or older.
22. "Excess Flow Valve" ("EFV") – A device that is designed to restrict the flow of gas in a single family residence natural gas service line by automatically closing in the event that it is broken downstream of the EFV, completely cut, torn apart or otherwise separated, usually caused by some type of excavation or digging activity.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 902-2
Superseding: _____

SECTION NO. 2
DEFINITIONS
(continued)

23. "Handicapped" – A person with a physical or mental condition which substantially contributes to the person's inability to manage his or her own resources, carry out activities of daily living, or protect themselves from neglect or hazardous situations without assistance from others.
24. "Illness" – A medical ailment or sickness for which a residential Customer obtains a verifiable document from a licensed medical physician stating the nature of the illness and that discontinuance of service would be especially dangerous to the Customer's health.
25. "Inability to Pay" – Circumstances where a residential Customer:
- a. Is not gainfully employed and is unable to pay; or
 - b. Qualifies for government welfare assistance, but has not begun to receive assistance on the date that the bill is received and can obtain verification from the government welfare agency; or
 - c. Has an annual income below the published federal poverty level and can produce evidence of this; and
 - d. Signs a declaration verifying that the Customer meets one of the above criteria and is either elderly, handicapped, or suffers from an illness.
26. "Incremental Contribution Study" ("ICS") – The study described in Section 7.B.4 of these Rules and Regulations.
27. "Interruptible Gas Service" – Gas service that is subject to interruption or curtailment as specified in the Company's Rates.
28. "Law" – Any rule or requirement established and enforced by government authorities.
29. "Main Extension" – The lines and equipment necessary to extend the existing gas distribution system to provide service to additional Customers.
30. "Master Meter" – An instrument for measuring or recording the flow of gas at a single location from which said gas is transported through a piping system to tenants or occupants for their individual consumption.
31. "MCF" – One thousand (1,000) cubic feet.
32. "Meter" – The instrument for measuring and indicating or recording the volume of gas that has passed through it.
33. "Meter Set Assembly" ("MSA") – All gas components downstream of the Customer's inlet service valve to the Customer's point of delivery.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 902-3

Superseding: _____

SECTION NO. 2

DEFINITIONS

(continued)

34. "Minimum Charge" – The amount the Customer must pay for the availability of gas service and may include an amount of usage, as specified in the Company's Rates.
35. "Permanent Customer" – A Customer who is a tenant or owner of a service location who applies for and receives gas service.
36. "Permanent Service" – Service which, in the opinion of the Company, is of a permanent and established character. The use of gas may be continuous, intermittent, or seasonal in nature.
37. "Person" – Any individual, partnership, corporation, governmental agency, or other organization operating as a single entity.
38. "Point of Delivery" – The point of delivery for all gas delivered to any Customer shall be at the point of interconnection between the facilities of the Company and those of such Customer.
39. "Premises" – All of the real property and apparatus employed in a single enterprise or residence on an integral parcel of land undivided by public streets, alleys or railways.
40. "Rate" – The charge(s), related term(s) and conditions of the Company's tariffs.
41. "Residential Subdivision" – Any tract of land which has been divided into four or more contiguous lots for use in the construction of residential buildings or permanent mobile homes for either single or multiple occupancy.
42. "Residential Use" – Service to Customers using gas for domestic purposes such as space heating, air conditioning, water heating, cooking, clothes drying, and other residential uses and includes use in apartment buildings, mobile home parks, and other multi-unit residential buildings.
43. "Restricted Apparatus" – An apparatus prohibited by the ACC, another governmental agency, or the Company.
44. "Rules and Regulations" or "Company Rules" – These Rules and Regulations, which are part of the Company's Tariffs and Rates.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 902-4

Superseding: _____

SECTION NO. 2
DEFINITIONS
(continued)

- 45. "Service Areas" – The territory in which the Company has been granted a certificate of convenience and necessity and is authorized by the ACC to provide gas service.
- 46. "Service Establishment Charge" – A charge as specified in the Company's Rates which covers the cost of establishing a new account.
- 47. "Service Line" – A gas pipe that transports gas from a common source or supply (normally a distribution main) to the Customer's point of delivery.
- 48. "Service Reconnection Charge" – A charge specified in the Company's Rates that must be paid by the Customer prior to re-establishment of gas service each time the gas is disconnected for nonpayment, or for failure to comply with the Company's Rates. In addition to the Service Reconnection Charge, such returning Customer shall pay the sum of the applicable monthly Customer Charges which would have accrued had the Customer not been disconnected for non-payment or for failure to comply with the Company's Rates within the preceding twelve (12) month period.
- 49. "Service Reestablishment Charge" – A charge specified in the Company's Rates for the re-establishment of service at the same location where the same Customer had ordered a service disconnect within the preceding twelve (12) month period. In addition to the Service Re-establishment Charge, such returning Customer shall pay the sum of the applicable monthly Customer Charges which would have accrued had the Customer not ordered the disconnect.
- 50. "Service Transfer" – Transfer of service from one Customer to another, when the meter is not turned off.
- 51. "Single Family Dwelling" – A house, an apartment, or a mobile home permanently affixed to a lot, or any other permanent residential unit which is used as permanent home.
- 52. "Special Call-Out" – When Company personal is on-call and is called in from home at the request of the Customer in order to provide service.
- 53. "Standard Conditions" – 14.73 pounds per square inch absolute at sixty (60) degrees Fahrenheit.
- 54. "Standard Delivery Pressure" – 0.25 pounds per square inch gauge at the meter or point of delivery.
- 55. "Tampering" – A situation where a meter has been illegally altered. Common examples are meter bypassing and other unauthorized connections. Tampering also includes any action defined as "tampering" under A.R.S. § 40-491(4).

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 902-5

Superseding: _____

SECTION NO. 2

DEFINITIONS

(continued)

- 56. "Tariffs" – The terms and conditions of the services offered by the Company, including a schedule of the rates and charges for those services.
- 57. "Temporary Service" – Service to premises or enterprises that are temporary in character, or where it is known in advance that the service will be of limited duration. Service that, in the opinion of the Company, is for operations of speculative character is also considered temporary service.
- 58. "Therm" – A unit of heating value, equivalent to one hundred thousand (100,000) BTUs.
- 59. "Third Party Notice" – A notice sent to a person willing to receive notification of the pending discontinuance of service to a Customer of record, in order to make arrangements on behalf of said Customer that are satisfactory to the Company.
- 60. "Transmission Line" - A gas line for delivering natural gas that operates at a hoop stress of twenty percent (20%) or more of Specified Minimum Yield Strength ("SMYS"), as defined in CFR 49, Part 192 or that transports gas to a single large volume Customer such as a distribution center, factory, power plant or institutional user.
- 61. "Trip Charge" – Charges set forth in the Company's Statement of Additional Charges for services such as a Service Transfer, Collection Fee, Customer-Requested Meter Re-read, or Multiple Attempts to Connect.
- 62. "Unauthorized" – Use of gas services that is not in accordance with ACC rules, the Company's Rules and Regulations, or the Company's Rates.
- 63. "Weather Especially Dangerous to Health" – That period of time, commencing with the scheduled termination date, when the local weather forecast as predicted by the National Oceanic and Atmospheric Administration, indicates that the temperature will not exceed thirty-two (32) degrees Fahrenheit for the next day's forecast. The ACC may determine that other weather conditions are especially dangerous to health as the need arises.
- 64. "Yardline" – A gas pipe that transports gas from the Customer's point of delivery to the point of entry into the Customer's residence or other place of consumption.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 903

Superseding: _____

SECTION NO. 3
ESTABLISHMENT OF SERVICE

A. Information From Applicants

1. The Company may obtain the following minimum information from each Applicant:
 - a. Name or names of Applicant(s);
 - b. Applicant's social security number or driver's license number;
 - c. Service address or location and telephone number;
 - d. Billing address or location and telephone number, if different than service address;
 - e. Address where service was provided previously;
 - f. Date Applicant will be ready for service;
 - g. Indication of whether premises have been supplied with gas service previously;
 - h. Purpose for which service is to be used;
 - i. Indication of whether Applicant is owner or tenant of or agent for, the premises;
 - j. Information concerning the gas usage and demand requirements of the Customer; and
2. The Company may require a new Applicant for service to appear at the Company's designated place of business to produce proof of identity and sign the Company's application form.
3. Where service is requested by two or more individuals, the Company shall have the right to collect the full amount owed to the Company from any one of the Applicants.
4. An Applicant for gas service to new construction or a new extension shall complete the following Company form:
 - a. New Service Application Form

The Customer is responsible for completing and returning the Application form. Failure on the part of the Customer to provide a completed form shall be grounds for the Company to delay or refuse service. For the purpose of this Rule, the definition of new construction/extension is where there is a need to run a new service line or install new gas facilities to a property that has never had prior natural gas service.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 903-1
Superseding: _____

**SECTION NO. 3
ESTABLISHMENT OF SERVICE
(continued)**

B. Deposits

1. The Company may require from any present or prospective Customer a security deposit to guarantee payment of all bills. This deposit may be retained by the Company until service is discontinued and all bills have been paid; except as provided in Subsection B.4 below. Upon proper application by the Customer, the Company shall then return said deposit, together with any unpaid interest accrued thereon from the date of commencement of service or the date of making the deposit, whichever is later. The Company shall be entitled to apply said deposit together with any unpaid interest accrued thereon, to any indebtedness for the same class of service owed to the Company for gas service furnished to the Customer making the deposit. When said deposit has been applied to any such indebtedness, the Customer's gas service may be discontinued until all such indebtedness of the Customer is paid and a like deposit is again made with the Company by the Customer. No interest shall accrue on any deposit after discontinuance of the service to which the deposit relates.

The Company shall not require a deposit from a new Applicant for residential service if the Applicant is able to meet any of the following requirements:

- a. The Applicant has had service of a comparable nature with the Company at another service location within the past two (2) years and was not delinquent in payment more than twice during the last twelve (12) consecutive months, or was not disconnected for nonpayment; or
 - b. The Applicant can produce a letter regarding credit or verification from a gas or electric utility which states that the Applicant has had service of a comparable nature with that utility at another service location within the past two (2) years and was not delinquent in payment more than twice during the last twelve (12) consecutive months, or was not disconnected for nonpayment; or
 - c. In lieu of a cash deposit, a new Applicant may provide a letter of credit, a surety bond, or similar alternative acceptable to the Company, such as a Certificate of Deposit, as security for Company in the sum equal to the required deposit; or
 - d. The Applicant authorizes a credit check and meets the standards established by the Company.
2. The Company may issue a non-assignable, non-negotiable receipt to the Applicant for the deposit. The inability of the Customer to produce such a receipt shall in no way impair the Customer's right to receive a refund of the deposit which is reflected on the Company's records.
 3. Cash deposits held by the Company twelve (12) months or longer shall earn interest at the established one-year Treasury Constant Maturities rate, effective on the first business day of each year, as published in the Federal Reserve website. No interest will be paid on deposits for which Customers have turned service on and off within the same calendar month. Such payment of interest shall be made during January of each year for Customers served by the Company for at least six (6) months and will cover all interest accrued up to the end of the

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 903-2

Superseding: _____

**SECTION NO. 3
ESTABLISHMENT OF SERVICE
(continued)**

preceding calendar year or on the date the deposit is returned to the Customer, pursuant to Subsection B.4 below. At the Company's option, the above payments may be made either by check or by credit on the monthly bill.

- a. Residential Customers – Deposits or other instruments of credit will automatically expire or be refunded or credited to the Customer's account, after twelve (12) consecutive months of service during which time the Customer has not been delinquent more than two (2) times in a twelve month period.
 - b. All Customers – Upon final discontinuance of the use of the service and full settlement of all bills by the Customer, any deposit, not previously refunded, with accrued interest, if any, in accordance with provisions of these Rules and Regulations will be returned to the Customer or, at the Company election, it may be applied to the payment of any unpaid accounts of the Customer and the balance, if any, returned to the Customer.
4. The Company may require a Customer to establish or reestablish a deposit if the Customer became delinquent in the payment of three (3) or more bills within a twelve (12) consecutive month period, or has been disconnected from service during the last twelve (12) months.
 5. The Company may review the Customer's usage after service has been connected and adjust the deposit amount based upon the Customer's actual usage. A separate deposit may be required for each meter installed.
 6. Residential Customer deposits shall not exceed two (2) times that Customer's estimated average monthly bill. Non-residential Customer deposits shall not exceed two and one-half (2.5) times that Customer's maximum estimated monthly bill. If actual usage history is available, then that usage, adjusted for normal weather, will be the basis for the estimate.
 7. The posting of a deposit shall not preclude the Company from terminating service when the termination is due to the Customer's failure to perform any obligation under the agreement for service or any of these Rules and Regulations.

C. Grounds For Refusal Of Service

The Company may refuse to establish service if any of the following conditions exist:

1. The Applicant has an outstanding amount due for the same class of gas service with the Company and the Applicant is unwilling to make arrangements with the Company for payment; or
2. A condition exists which, in the Company's judgment, is unsafe or hazardous to the Applicant, the general population, or the Company's personnel or facilities; or

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 903-3
Superseding: _____

SECTION NO. 3
ESTABLISHMENT OF SERVICE
(continued)

3. The Applicant refuses to provide the Company with a deposit when the Customer has failed to meet the credit criteria for waiver of deposit requirements; or
4. Customer is known to be in violation of the Company's Rates; or
5. Customer fails to furnish such funds, service, equipment, and/or rights-of-way necessary to serve the Customer and which have been specified by the Company as a condition for providing service; or
6. Customer fails to provide access to the meter that would be serving the Customer.
7. Applicant falsifies his or her identity for the purpose of obtaining service.

D. Service Establishment, Re-establishment or Reconnection Charge

1. For the purpose of this Rule, the definition of service establishment is where the Customer's facilities are ready and acceptable to the Company, the Applicant has obtained all required permits and/or inspections indicating that the Applicant's facilities comply with local construction safety and governmental standards and regulations, and the Company needs only to install a meter, read a meter, or turn the service on.
2. The Company will charge for service establishment, re-establishment, or reconnection other than service transfers under usual operating procedures, during regular business hours as set forth in the Statement of Additional Charges.
3. Should service be established re-established, or reconnected during a period after the Company's regular business hours, at the Customer's request, the Customer will be required to pay an after-hour charge for the service connection as set forth in the Statement of Additional Charges. Where the Company's scheduling will not permit service establishment on the same day as requested, the Customer can elect to pay the after-hour charge for establishment that day, or his service will be established on the next available business day. Even so, a Customer's request to have the Company establish service after-hours is subject to the Company having staff available; there is no guarantee that the Company will have the staffing available for service establishment, re-establishment or reconnection after business hours.
4. For service re-establishments at the same location where the same Customer has ordered a service disconnect within the preceding twelve (12) month period, such returning Customer, in addition to the service reestablishment charge, shall pay the sum of the applicable monthly Customer Charges that would have accrued had the Customer not ordered the disconnect.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 903-4

Superseding: _____

SECTION NO. 3
ESTABLISHMENT OF SERVICE
(continued)

5. For service reconnections when due to the behavior of the Customer (*i.e.*, nonpayment, failure to comply with the Company's Rates) it has been necessary for the Company to discontinue service utilizing other than usual operating procedures prior to reconnection of gas service each time the gas is disconnected, in addition to the service reconnection charge set forth in the Statement of Additional Charges, the Customer shall pay the sum of the applicable monthly Customer Charges that would have accrued had the Customer not been disconnected within the preceding twelve (12) month period.
6. The Company will charge for the establishment or re-establishment for service transfers only, as set forth in the Statement of Additional Charges.
7. After the Company has made one failed attempt to establish service due to the Customer's absence from home, facilities not being ready, or lack of access to the point of delivery, for the second attempt and each attempt thereafter, the Customer will be required to pay the multiple-attempts-to-connect charge as set forth in the Statement of Additional Charges, in addition to the service establishment charge.

E. Temporary Service

1. Applicants for temporary service may be required to pay to the Company, in advance of service establishment, the estimated cost of installing and removing the facilities necessary for furnishing the desired service.
2. Where the duration of service is to be less than one (1) month, the Applicant may also be required to advance a sum of money equal to the estimated bill for service.
3. Where the duration of service is to exceed one (1) month, the Applicant may also be required to meet the deposit requirements of the Company, as outlined in Subsection B.1 above.
4. If at any time during the term of the agreement for service the character of a temporary Customer's operations changes so that, in the opinion of the Company, the Customer is classified as permanent, the terms of the Company's main extension rules shall apply.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 904
Superseding: _____

SECTION NO. 4
MINIMUM CUSTOMER INFORMATION REQUIREMENTS

A. Information for Residential Customers

1. The Company shall make available upon Customer request, no later than sixty (60) days from the date of request, a concise summary of the rate schedule applied for by such Customer. The summary shall include the following:
 - a. Monthly minimum or Customer charge, identifying the amount of the charge and the specific amount of usage included in the minimum charge, where applicable;
 - b. Rate blocks, where applicable; and
 - c. Any adjustment factor(s) and method of calculation.
2. Upon application or upon request, the Applicant or the Customer shall elect the applicable Rate best suited to their requirements. The Company may assist in making such election, but shall not be held responsible for notifying the Customer of the most favorable Rate and shall not be required to refund the difference in charges under different Rates.

However, new non-residential Customers whose projected consumption is near the threshold between "large" and "small" Rates, may elect the "small" rate, subject to refund, if their usage qualifies them as a "large" Customer. An existing non-residential Customer will be moved to the "large" rate, or once moved, back to the "small" rate, only if their consumption history or a clear permanent change in consumption makes it clear the Customer will meet the volume requirements of one Rate.

A review may be initiated by either the Company or the Customer. Any change of Rate, if appropriate, will be effective with the first bill issued seven (7) days after the initiation of the review. No adjustment of past billings due to Rate selection will be made to either the Company or the Customer, except for a new Customer who qualifies for the "large" Rate based on twelve (12) months of usage as set forth in this Rule.

3. Upon Customer request, the Company shall make available to the Customer, a copy of the ACC's Rules and Regulations (Arizona Administrative Code, Title 14, Article 3 - Gas Utilities) concerning:
 - a. Deposits;
 - b. Termination of Service;
 - c. Billing and Collection; and
 - d. Complaint Handling.
4. The Company, upon Customer request, shall transmit a written statement of actual consumption by the Customer for each billing period during the prior twelve (12) months unless such data is not reasonably ascertainable.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



SECTION NO. 4
MINIMUM CUSTOMER INFORMATION REQUIREMENTS
(continued)

5. The Company shall inform all new Customers of their rights to obtain the information specified above.
6. The Company shall notify each Customer of the following information, in writing, within ninety (90) days after the Customer first receives gas service at a particular location:
 - a. The Company does not maintain the Customer's buried piping;
 - b. If the Customer's buried piping is not maintained, it may be subject to the potential hazards of corrosion and leakage;
 - c. Buried gas piping should be periodically inspected for leaks, periodically inspected for corrosion if the piping is metallic, and repaired if any unsafe condition is discovered;
 - d. When excavating near buried gas piping, the piping must be located in advance, and the excavation done by hand;
 - e. Plumbing contractors and heating contractors may assist in locating, inspecting, and repairing the Customer's buried piping; and
 - f. In order to reduce damage by outside forces, the Company is a member of the statewide one call system in all areas in which the Company has underground natural gas piping.

B. Information Required Due to Changes in Rates and Charges

1. The Company shall send affected Customers a concise summary of any changes in the Company's rates and charges significantly impacting those Customers.
2. This information shall be sent to the affected Customer(s) within sixty (60) days of the effective date of the change in the Company's rates and charges.

Filed By: Kenton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 905
Superseding: _____

**SECTION NO. 5
MASTER METERING**

A. Mobile Home Parks – New Construction/Expansion

1. The Company shall refuse service to all new construction and/or expansion of existing permanent residential mobile home parks unless the construction and/or expansion are individually metered by the Company. Main extensions and service line connections to serve such new construction or expansion shall be governed by the main extension and/or service line connection policies of these rules and regulations.
2. Permanent residential mobile home parks for the purpose of this rule shall mean mobile home parks where the average length of stay for an occupant is a minimum of six (6) months.
3. For the purpose of this rule, expansion means construction which has been started for additional permanent residential spaces after the effective date of this rule.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS

A. Priority and Timing of Service Establishments

1. After an Applicant has complied with the Company's application and deposit requirements and has been accepted for service by the Company, the Company shall schedule that Customer for service establishment.
2. Service establishment shall be scheduled for completion within five (5) business days of the date the Customer has been accepted for service, except in those instances when the Customer requests service establishment beyond the five (5) business day limitation.
3. When the Company has made arrangements to meet with a Customer for service establishment purposes and the Company or the Customer cannot make the appointment during the prearranged time, the Company shall reschedule the service establishment appointment to the satisfaction of both parties.
4. The Company shall schedule service establishment appointments within a maximum range of four (4) hours during normal business hours, unless another time frame is mutually acceptable to the Company and the Customer. For any scheduled appointment an adult 18 years or older must be present.
5. Service establishments shall be made only by qualified service personnel of the Company or its authorized representatives.
6. For the purpose of this rule, service establishments can occur only when the Customer's facilities are ready and acceptable to the Company and the Company needs only to install, read the meter, or turn the service on.
7. Whenever an Applicant requests after-hours handling of his request, the Company shall charge a fee set forth in the Statement of Additional Charges unless a special call out is required. If a special call out is required, the charge shall be for a minimum of one (1) hour at a rate set forth in the Statement of Additional Charges for the service work on the Customer's premises. Special handling of calls and the related charges shall be made only upon request of the Applicant. Even so, a Customer's request to have the Company establish service after-hours is subject to the Company having staff available; there is no guarantee that the Company will have the staffing available for service establishment, re-establishment or reconnection after regular business hours.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 906-1
Superseding: _____

**SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS
(continued)**

B. Facilities

1. Customer Provided Facilities

- a. An Applicant for service shall be responsible for the safety and maintenance of all Customer piping from the point of delivery to the point of consumption.
- b. Meters shall be installed in a location suitable to the Company where the meters will be safe from street traffic, readily and safely accessible for reading, testing and inspection, and where such activities will cause the least interference and inconvenience to the Customer. The Customer shall provide, without cost to the Company and at a suitable and easily accessible location, sufficient and proper space for the installation of meters.
- c. Where the meter or service line location on the Customer's premises is changed at the request of the Customer or due to alterations on the Customer's premises, the Customer shall provide, and have installed at his expense, all Customer piping necessary for relocating the meter and the Company may make a charge for moving the meter and/or service line.
- d. On all newly-constructed Customer piping at the meter interconnection, the Customer will be required to install necessary piping and equipment before the meter is installed.

2. Company Provided Facilities

- a. The Company will install, at its own expense, the meter set assembly ("MSA") at a suitable location near the side wall of the Customer's building approximately three (3) feet or more from that front corner of the building nearest to the street in which the Company's distribution main is located. However, the Company, at its option, has the right to locate the meter at any location meeting the criteria of Subsection B.1.b of this section.

The three (3) feet as noted above refers to the approximate location of the meter from the corner of the building that is nearest to the street in which the distribution main servicing that Customer is located. The gas service riser, service cock, regulator and meter are all above ground. The service from the Company's distribution main to the building is below ground.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 906-2
Superseding: _____

**SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS
(continued)**

- b. The Company or authorized representative will install the gas service line and make all connections of the gas service line from the distribution main to the service riser. The Company will in all cases be responsible for the cost of construction of the service line from the Company's distribution main to the Customer's property line for an amount not to exceed the allowable investment as calculated by the Incremental Contribution Study (see Section No. 7, Subsection B), with the Customer reimbursing the Company for the difference. The Customer will reimburse the Company for the gas service line on the Customer's property at a rate of twenty-two dollars and fifty cents (\$22.50) per foot. The Customer is responsible for removal of landscaping prior to installation or be subject to applicable charges. For Customers who provide the trench for the service line on the Customer's property, Section No. 7, Subsection B.4.d will apply and the Customer will reimburse the Company at a rate of sixteen dollars and fifty cents (\$16.50) per foot. The Customer, at the Customer's own expense, shall furnish, install, and be responsible for all other pipe, fittings, connections, and appurtenances between the point of delivery and each point of consumption. The cost of installation, paid by the Applicant, shall be the average actual cost of installation, calculated and averaged annually by the Company.
- c. No Customer-owned pipe shall be directly connected with the Company's distribution mains or services. No connection shall be made by the Customer between the facilities of the Company, including the meter, service cock and regulator and those of the Customer, nor shall any facilities of the Company be set, connected, disconnected, removed, repaired or altered except by the Company's representatives.
- d. A single meter and a single point of delivery may be used to supply a group of buildings, such as those of a hospital or industrial establishment under single ownership or control. Such applications may fall under the Master Meter rule as defined in the Arizona Administrative Code.
- e. The Company may decline service to mobile residences or portable or other temporary structures if the conditions do not afford adequate protection for the occupant(s) thereof, or the persons or property of others. In no event will gas service be permitted, if to the Company's knowledge, the Customer or the Customer's facilities fail to meet applicable requirements of law, of the State, or of any local code.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 906-3
Superseding: _____

SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS
(continued)

3. Easements and Right-of-Way

Each Customer shall grant, at no cost to the Company, an adequate easement and right-of-way, satisfactory to the Company to ensure proper service connection. Failure on the part of the Customer to grant an adequate easement and right-of-way shall be grounds for the Company to refuse service.

4. Unauthorized work or facilities

When the Company discovers that a Customer or the Customer's Agent has performed work or has constructed facilities that has altered the installation of the Company's facilities to the point that work is necessary to restore the previously installed Company facilities to meet regulatory or Company requirements, the Company shall notify the Customer or the Customer's Agent and the Company shall take whatever actions are necessary to eliminate the hazard or violation at the Customer's expense.

5. Point of Delivery

The point of delivery for all gas delivered to any Customer shall be at the point of interconnection between the facilities of the Company and those of the Customer.

6. Excess Flow Valve Installation

In accordance with Title 49, Section 192.381 of the Code of Federal Regulations and requirements set forth in HR5782, the installation of an Excess Flow Valve ("EFV") shall be performed by the Company on each single family residence service line connected to its distribution system whether the service line is installed or entirely replaced.

- a. The Applicant shall provide the Company information concerning the gas usage and demand requirements. The EFV will be designed and constructed so that suitable gas capacity is available and satisfactory to the Company.
- b. The Company will construct, own, operate, and maintain the EFV in connection with the service line installation.
- c. Costs associated with the mandated installation of the EFV shall be paid by the Applicant as a nonrefundable Contribution in Aid of Construction ("CIAC").
 - i. The cost of installation, paid by the Applicant, shall be the average actual cost of installation, calculated and averaged annually by the Company.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 906-4
Superseding: _____

SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS
(continued)

- d. Where it is necessary to change or alter the EFV, due to a request or alteration of the Customer's premise by the Customer, the Customer shall reimburse the Company for all expenses in connection with upgrading or removing the EFV.
- e. The Company shall pay for all costs associated with replacement or maintenance of the EFV in connection with a line replacement or maintenance project.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 907
Superseding: _____

**SECTION NO. 7
EXTENSION OF LINES**

Extensions of gas distribution services and mains necessary to furnish permanent service to Applicants will be made in accordance with this rule.

A. General

The Company will construct, own, operate and maintain service line and distribution main extensions.

1. Gas service lines will be designed and installed so that suitable capacity from the Company's distribution main to a meter location on the property of the Applicant is satisfactory to the Company. If downstream usage changes or is altered by the Customer, the Customer may be responsible for costs to upgrade or enlarge the service line to accommodate additional capacity requirements.
2. Gas distribution main extensions will be only along public streets, roads, and highways, which the Company has legal right to occupy, and on public lands and private property across which rights-of-way, satisfactory to the Company, may be obtained.
3. All Company distribution mains and service lines shall be installed in accordance with all applicable Company standards.

B. Service and Main Extensions to Applicants for Service

General Policy – All service line and main line extension agreements are made on the basis of economic feasibility.

1. Facility Charge – If any Applicant fails to use natural gas for equipment stated in the application and used as the basis for estimating the allowable investment within four (4) months of the completion of the main, the Company may bill the Applicant for the incremental cost allowed towards the extension of service. The Applicant shall pay within forty-five (45) days the charge as a non-refundable contribution towards the cost of extending service.
2. At its option, the Company may require a performance bond or other surety guaranteeing bona fide operation of the facility for which the extension is requested, in accordance with Applicant's representation in the contract.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



SECTION NO. 7
EXTENSION OF LINES
(continued)

3. Master Meter Extensions – If the residential Customers are tenants in a fully improved master-metered mobile home park ("MMP") and the MMP is currently or was formerly served as a master-metered mobile home park, the allowable investment for the MMP will be calculated by the following Incremental Contribution Method and formula:

$$AI = (FR - CR) \times 5$$

where: AI = Allowable Investment

FR = The MMP's estimated future total annual revenue, assuming conversion to individual residential service, using the MMP's average park occupancy for the past two (2) years, less the Company's current average cost of purchased gas.

CR = The MMP's current total annual revenue, under the applicable schedule, averaged for the past two (2) years, less the Company's current average cost of purchased gas. If the MMP is not a current Customer of the Company, the CR will be determined on the basis of engineering estimates of occupancy and usage.

The Company will install that portion of each service in excess of the allowed investment subject to a nonrefundable contribution to be paid by the Applicant MMP prior to construction. In no event shall costs above the allowable investment be borne by the Company.

4. Incremental Contribution Method – Gas service line and main line extensions will be made by the Company at its expense for an amount not to exceed the allowable investment as calculated by an Incremental Contribution Study ("ICS").
- Allowable investment shall mean a determination by the Company that the revenues less the incremental gas cost to serve the Applicant provides a rate of return on the Company's investment no greater than the weighted average cost of capital authorized by the ACC in the Company's most recent general rate case.
 - If the ICS has an allowable investment that is more than the cost of the main extension, then the excess amount may be applied to reduce the cost of service line installation up to the Customer's property line, except that it shall not be used to reduce the cost of excess flow valve installation which shall be paid by the Customer.
 - The Company, after conducting an ICS, may at its option, extend its facilities to Customers whose usage does not satisfy the definition of economic feasibility, but who otherwise are permanent Customers, provided the Customer pays a nonrefundable contribution, necessary to make the extension economically feasible.
 - Applicants may provide trenching for service lines and/or distribution mains to the Company's specifications and the Applicant's costs will be reduced accordingly.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 907-2
Superseding: _____

SECTION NO. 7
EXTENSION OF LINES
(continued)

- e. Customers provided with line extensions using the ICS shall be reviewed annually for a period of five (5) years to determine the amount of any refund, as described in Subsection B.5 below.
- f. For the purposes of this rule, "economic feasibility" means that the estimated incremental revenues derived from serving the Applicant, less the incremental gas cost to serve the Applicant, meets the estimated costs of serving the Applicant, including meeting capital costs as determined by the weighted average cost of capital authorized by the ACC in the Company's most recent general rate case. An extension will not be considered economically feasible if the Applicant does not install a functioning water heater and furnace within four (4) months of the completion of the main.

5. Method of Refund

Amounts advanced by the Customer(s) in accordance with this rule, less any unpaid Facility Charges, shall be refunded, without interest, in the following manner:

- a. Refunds of an advance shall be made for each additional separately metered permanent service connected to the main extension for which an advance was collected using an ICS that includes the additional Customer(s).
- b. No refunds will be made for additional Customers connecting to a further extension or series of extensions constructed beyond the original extension.
- c. The Customer may request an annual survey to determine if additional Customers have been connected to and are using service from the extension. In no case shall the amount of the refund exceed the amount originally advanced.
- d. The refund period shall be five (5) years from the date of the completion of the extension. No refunds will be made by the Company after the termination of the refund period. Any portion of the advance that remains unrefunded at the end of the refund period shall be considered an unrefundable contribution.
- e. Any assignment by a Customer of their interest in any part of an advance, which at the time remains unrefunded, must be made in writing and approved by the Company.
- f. Amounts advanced under a gas main extension rule previously in effect will be refunded in accordance with the provisions of that rule.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 907-3
Superseding: _____

**SECTION NO. 7
EXTENSION OF LINES
(continued)**

C. Service and Main Extensions to Service Individually Metered Subdivisions, Tracts, Housing Projects, Multi-Family Dwellings and Mobile Home Parks or Estates

1. Advances

- a. Gas distribution service and main extensions to and within individually metered subdivisions, tracts, housing projects, multi-family dwellings and mobile home parks or estates will be constructed, owned and maintained by the Company in advance of applications for service by bona fide Customers only when the entire estimated cost of such extensions as determined by the Company, is advanced to the Company, and a main extension agreement is executed. This advance may include the cost of any gas facilities installed at the Company's expense in conjunction with a previous service or main extension in anticipation of the current extension.
- b. The Company may require a subdivider, builder or developer to provide trenching for service lines and/or distribution mains and may also require the subdivider, builder or developer to provide bedding & shading material to Company specifications.
- c. For developers who have entered into a main extension agreement and facilities have been installed and then they or some other party request subsequent reconfiguring of facilities or other changes requiring additional expenditures by the Company, these new costs will be entirely paid for with a non-refundable contribution and any refunds will be made in accordance with the original agreement. No additional agreement or extension of the time for refunds will be made to cover the area piped under the original extension agreement.
- d. Upon completion of installation, the Company will perform a reconciliation of the estimate to actual costs incurred and may bill the Customer for any variance with the new amount included in the refundable balance, or at the Company's option withhold refunds until the underpayment is satisfied.
- e. See Subsection B.3 above for requests to serve MMP through individual residential meters if the MMP is currently or was formerly served under an MMP schedule.
- f. Refunds will be made to developers as described in Subsection B.5 above.

D. General Conditions

1. Postponement of Advance

The Company, at its option, may postpone, for a period not to exceed five (5) years that portion of an advance which it estimates would be refunded under the provisions of this rule. At the end of such refund period, the Company shall collect all such amounts not previously advanced. When advances are postponed, the Applicant may be required to furnish to the Company, a Company-approved surety, to assure payment of any postponed amounts throughout the term of the facilities extension agreement up until the end of the postponement period.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 907-4
Superseding: _____

**SECTION NO. 7
EXTENSION OF LINES
(continued)**

2. The Applicants or developer will provide property location, tax identification numbers, lot numbers, street names and other property information helpful to planning an extension.
3. Contracts
 - a. Each Applicant requesting an extension in advance of applications for service will be required to execute a main extension agreement covering the terms under which the Company will install distribution mains in accordance with the provisions of the Company's Rates.
 - b. At the time service is requested, the Applicant will submit a list of natural gas equipment to be used including the BTU input.
4. One Service for a Single Premise
 - a. The Company will not install more than one service line to supply a single premise, unless it is for the convenience of the Company or an Applicant requests an additional service, and in the opinion of the Company, an unreasonable burden would be placed on the Applicant if the additional service were denied. When an additional service is installed at the Applicant's request, the Applicant shall make a nonrefundable contribution for the additional service based on the Company's estimated cost.
 - b. When a service extension is made to a meter location upon private property which is subsequently subdivided into separate premises, with the ownership portions thereof divested to other than the Applicant or the Customers, the Company shall have the right, upon written notice, to discontinue service without obligation or liability. Gas service, as required by the Applicant or Customer, will be reestablished in accordance with the applicable provisions of the Company's rules.
5. Branch Services

The Company, at its option, may install a branch service for units on adjoining premises.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:

SECTION NO. 7
EXTENSION OF LINES
(continued)

6. Main Extension Agreement Requirements

- a. Upon request by an Applicant for a main extension, the Company shall prepare, without charge, a preliminary sketch and rough estimate of the cost of the installation to be advanced by the Applicant.
- b. Any Applicant for a main extension requesting the Company to prepare detailed plans, specifications, or cost estimates may be required to deposit with the Company an amount equal to the estimated cost of preparation. The Company shall, upon request, make available within ninety (90) days after receipt of the deposit referred to above, such plans, specifications, or cost estimates of the proposed main extension. Where the Applicant authorizes the Company to proceed with the construction of the extension, the deposit shall be credited to the cost of construction; otherwise, the deposit shall be nonrefundable. If the extension is to include oversizing of facilities to be done at the Company's expense, appropriate details shall be set forth in the plans, specifications and cost estimates. Subdividers providing the Company with approved subdivision plats shall be provided with plans, specifications or cost estimates within forty-five (45) days after receipt of the deposit referred to above.
- c. The estimated cost of main extension and any resulting Main Extension Agreement is valid for ninety (90) days from the date of Company issue. Any signed agreement with appropriate payment where construction does not commence within ninety (90) days may be subject to review, recalculation and adjustment of advance requirements.
- d. Where the Company requires an Applicant to advance funds for a main extension, the Company will furnish the Applicant, upon request, with a copy of this rule prior to the Applicant's acceptance of the Company's extension agreement.



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 907-6
Superseding: _____

**SECTION NO. 7
EXTENSION OF LINES
(continued)**

- e. All main extension agreements requiring payment by the Applicant shall be in writing, signed by each party and shall include the following:
 - i. Name and address of Applicant(s);
 - ii. Proposed service address(es) or location(s);
 - iii. Description and sketch of the requested main extension;
 - iv. Description of requested service differentiated by Customer class;
 - v. Number of Customers served;
 - vi. Estimated cost to construct facilities;
 - vii. The Company's estimated start date and completion date for construction of the main extension;
 - viii. Each Applicant shall be provided a copy of the approved main extension agreements;
 - ix. Payment terms; and
 - x. A concise explanation of any refunding provisions, if applicable.

7. Relocation of Service Lines and Distribution Mains

- a. When, in the judgment of the Company, the relocation of a distribution main or service line is necessary and is due either to maintenance of adequate service or the operating convenience of the Company, the Company shall perform such work at its own expense.
- b. If relocation of a distribution main or service line is due solely to meet the convenience or the requirements of the Applicant or the Customer, such relocation, including metering and regulating facilities, shall be performed by the Company at the expense of the Applicant or the Customer.
- c. Relocation of facilities will be mandatory and at the Customer's expense when actions of the Customer restrict the Company's access to or the safety of the facility.

8. Standby Service or Residential Pool Heating

No allowance will be made for equipment used for standby or emergency purposes only or for equipment used for residential pool heating under Section No. 7, Subsection B.4.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 907-7
Superseding: _____

**SECTION NO. 7
EXTENSION OF LINES
(continued)**

9. Temporary Service

Extensions for temporary service or for operations, which in the opinion of the Company are of a speculative character or are of questionable permanency, will require an advance for the entire cost of the facilities needed, with provision for a refund using an ICS calculated annually, or at the termination of the temporary service.

10. Length and Location

The length of distribution mains or service lines required for an extension will be considered as the distance along the shortest practical and available route, as determined by the Company, from the Company's nearest permanent distribution main.

11. Service Impairment to Other Customers

When, in the judgment of the Company, providing service to an Applicant would impair service to other Customers, the cost of necessary reinforcement to eliminate such impairment may be included in the cost calculation for the extension.

12. Service From Transmission Lines

The Company will not tap a gas transmission main except when, in its sole opinion, conditions justify such a tap. Where such taps are made, the Applicant will pay the Company the cost of the tap, and extensions from the tap will be made in accordance with the provisions of this rule.

13. Other Types of Connections

Where an Applicant or Customer requests a type of service connection other than standard such as curb meters and vaults, etc., the Company will consider each such request and will grant such reasonable allowance as it may determine. The Company shall install only those facilities that it determines are necessary to provide standard natural gas service in accordance with the Company's Rates. Where the Applicant requests the Company to install special facilities which are in addition to, or in substitution for, or which result in higher costs than the standard facilities which the Company would normally install, the extra cost thereof shall be borne by the Applicant.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



SECTION NO. 7
EXTENSION OF LINES
(continued)

14. Exceptional Cases

In unusual circumstances, when the application of this rule appears impractical or unjust to either party, the Company or the Applicant may refer the matter to the ACC for special ruling or for the approval of special conditions which may be mutually agreed upon, prior to commencing construction.

15. Taxes Associated with Nonrefundable Contributions and Advances

Any federal, state or local income taxes resulting from a nonrefundable contribution or advance by the Customer in compliance with this rule will be recorded as a deferred tax and appropriately reflected in the Company's rate base. However, if the estimated cost of facilities for any service line or distribution main extension exceeds \$500,000, the Company may require the Applicant to include in the contribution or advance an amount (the "gross up amount") equal to the estimated federal, state or local income tax liability of the Company resulting from the contribution or advance, computed as follows:

$$\text{Gross Up Amount} = \frac{\text{Estimated Construction Cost}}{(1 - \text{Combined Federal-State-Local Income Tax Rate})}$$

After the Company's tax returns are completed, and actual tax liability is known, to the extent that the computed gross up amount exceeds the actual tax liability resulting from the contribution or advance, the Company shall refund to the Applicant an amount equal to such excess. When a gross-up amount is to be obtained in connection with an extension agreement, the contract will state the tax rate used to compute the gross up amount, and will also disclose the gross-up amount separately from the estimated cost of facilities. In subsequent years, as tax depreciation deductions are taken by the Company on its tax returns for the constructed assets with tax bases that have been grossed-up, a refund will be made to the Applicant in an amount equal to the related tax benefit. Such refunds will be in addition to any required refunds of actual construction costs required by the extension agreement. In lieu of scheduling such refunds over the remaining tax life of the constructed assets, a reduced lump sum refund may be made at the time when actual construction costs are refunded in full. This lump sum payment shall reflect the net present value of remaining tax depreciation deductions discounted at the Company's authorized rate of return.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 908
Superseding: _____

**SECTION NO. 8
PROVISION OF SERVICE**

A. Company Responsibility

1. The Company shall be responsible for the safe transmission and distribution of gas until it passes the point of delivery to the Customer.
2. The Company shall be responsible for maintaining in safe operating condition all meters, regulators, service pipe or other fixtures installed on the Customer's premises by the Company for the purpose of delivering gas to the Customer.
3. The Company may, at its option, refuse service until the Customer's pipes and appliances have been tested and found to be safe, free from leaks, and in good operating condition. Proof of such testing shall be in the form of a certificate executed by a licensed plumber or local inspector certifying that the Customer's facilities have been tested and are in safe operating condition.
4. The Company shall be required to test the Customer's piping for leaks when the gas is turned on. If such tests indicate leakage in the Customer's piping, the Company shall refuse to provide service until such time as the Customer has had the leakage corrected.
5. The Company shall be responsible for the operation and maintenance of all facilities up to the outlet of the meter installed by the Company or its authorized agent.

B. Customer Responsibility

1. Each Customer shall be responsible for maintaining in safe operating condition all Customer piping fixtures and appliances on the Customer's side of the point of delivery.
2. Each Customer shall be responsible for safeguarding all Company property installed in or on the Customer's premises for the purpose of supplying gas service.
3. Each Customer shall exercise all reasonable care to prevent loss or damage to Company property, excluding ordinary wear and tear. The Customer shall be responsible for loss of or damage to, Company property on the Customer's premises arising from neglect, carelessness, or misuse and shall reimburse the Company for the cost of necessary repairs and replacements that arise from neglect, carelessness, or misuse.
4. Each Customer shall be responsible for payment for any equipment damage and/or estimated unmetered usage resulting from unauthorized breaking of seals, interfering, tampering, or by-passing the Company's meters. This remedy is cumulative to any other remedy available to Company under law or ACC rules.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 908-1
Superseding: _____

**SECTION NO. 8
PROVISION OF SERVICE
(continued)**

5. Each Customer shall be responsible for promptly notifying the Company of any gas leakage identified in the Customer's or the Company's equipment.
6. The Customer will be responsible for the loss of gas or damage caused by gas in piping beyond the Company's meter.
7. No rent or other charge whatsoever will be made by the Customer against the Company for placing or maintaining meters, regulators, service lines, fixtures, etc. upon the Customer's premises.

C. Continuity of Service

The Company shall make reasonable efforts to supply a satisfactory and continuous level of service.

D. Liability

1. The Company shall not be responsible for any damage or claim of damage attributable to any interruption or discontinuation of service resulting from the following:
 - a. Any cause against which the Company could not have reasonably foreseen or made provision for;
 - b. Intentional service interruptions to make repairs or perform routine maintenance; or
 - c. Curtailment.
1. Neither the Company nor the Customer shall be liable to the other for any act, omission or circumstances (including, with respect to the Company, but not limited to, inability to provide service) occasioned by or in consequence of flood, rain, wind, storm, lightning, earthquake, fire, landslide, washout or other acts of the elements, or accident or explosion, or war, rebellion, civil disturbance, mobs, riot, blockade, terrorist actions, or other acts of the public enemy, or acts of God, or interference of civil and/or military authorities, or strikes, lockouts or other labor difficulties, or vandalism, sabotage or malicious mischief, or usurpation of power, or the laws, rules, regulations or orders made or adopted by any regulatory or other governmental agency or body (federal, state or local) having jurisdiction of any of the business or affairs of the Company or the Customer, direct or indirect, or breakage or accidents to equipment or facilities, or lack, limitation or loss of electrical or gas supply, or any other casualty or cause beyond the reasonable control of the Company or the Customer, whether or not specifically provided herein and without limitation to the types enumerated, and which by the exercise of due diligence such party is unable to prevent or overcome; provided, however, that nothing contained herein shall excuse the Customer from the obligation of paying for gas delivered or services rendered.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 908-2
Superseding: _____

**SECTION NO. 8
PROVISION OF SERVICE
(continued)**

2. A failure to settle or prevent any strike or controversy with employees or with anyone purporting or seeking to represent employees shall not be considered to be a matter within the control of the Company.
3. Company will not be responsible for any third-party claims against Company that arise from Customer's use of Company's gas.
4. Customer will indemnify, defend and hold harmless the Company (including the costs of reasonable attorney's fees) against all claims (including, without limitation, claims for damages to any business or property, or injury to, or death of, any person) arising out of any act or omission of the Customer, or the Customer's agents, in connection with the Company's service or facilities.
5. The liability of the Company for damages of any nature arising from errors, mistakes, omissions, interruptions, or delays of the Company, its agents, servants, or employees, in the course of establishing, furnishing, rearranging, moving, terminating, or changing the service or facilities or equipment shall not exceed an amount equal to the charges applicable under the Company's Rate (calculated on a proportionate basis where appropriate) to the period during which such error, mistake, omission, interruption or delay occurs.
6. In no event shall the Company be liable for any incidental, indirect, special, or consequential damages (including lost revenue or profits) of any kind whatsoever regardless of the cause or foreseeability thereof.
7. The Company shall not be responsible for any loss or damage occasion or caused by the negligence or wrongful act of the Customer or any of his agents, employees or licensees in installing, maintaining, using, operating or interfering with any regulators, gas piping, appliances, fixtures or apparatus.

E. Change in Character of Service

1. When a change is made by the Company in the type of service rendered which would adversely affect the efficiency of operation or require the adjustment of the equipment of Customers, all Customers who may be affected shall be notified by the Company at least thirty (30) days in advance of the change or, if such notice is not possible, as early as feasible. Where adjustments or replacements of the Company's standard equipment must be made to permit use under such changed condition, adjustments shall be made by the Company without charge to the Customers.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 908-3
Superseding: _____

**SECTION NO. 8
PROVISION OF SERVICE
(continued)**

F. Service Interruptions

1. The Company shall make reasonable efforts to reestablish service within the shortest possible time when service interruptions occur.
2. The Company shall make reasonable provisions to meet emergencies resulting from failure of service and shall issue instructions to its employees covering procedures to be followed in the event of emergencies in order to prevent or mitigate interruption or impairment of service.
3. In the event of a national emergency or local disaster resulting in disruption of normal service, the Company may, in the public interest, interrupt service to other Customers to provide necessary service to civil defense or other emergency service agencies on a temporary basis until normal service to these agencies can be restored.
4. When the Company plans to interrupt service for more than four (4) hours to perform necessary repairs or maintenance, the Company shall attempt to inform affected Customers of the scheduled date and estimated duration of the service interruption at least twenty-four (24) hours in advance. Such repairs shall be completed in the shortest possible time to minimize the inconvenience to the Customers.
5. *The ACC shall be notified of interruptions in service affecting the entire system or any major division of the entire system. The interruption of service and the cause shall be reported by telephone to the ACC within one (1) hour after the responsible representative of the Company becomes aware of said interruption, and shall be followed by a written report to the ACC.*

G. Heat Value Standard for Natural Gas

The Company shall supply gas to its Customers with an average total heating value of not less than nine hundred (900) BTUs per cubic foot. The number of BTUs per cubic foot actually delivered through the Customer's meter will vary according to the altitude and elevation of the location where the Customer is being provided service.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 908-4
Superseding: _____

**SECTION NO. 8
PROVISION OF SERVICE
(continued)**

H. Standard Delivery Pressure

1. The Company shall maintain the Standard Delivery Pressure at the outlet of the Customer's meter, subject to variation under load conditions.
2. In cases where a Customer desires service at greater than Standard Delivery Pressure, the Company may supply, at its option, such greater pressure if and only as long as the furnishing of gas to such Customer at higher than standard delivery pressure will not be detrimental to the service of other Customers of the Company. The Company reserves the right to lower the delivery pressure or discontinue the delivery of gas at higher pressure at any time upon reasonable notice to the Customer. Where service is provided at pressure higher than Standard Delivery Pressure, the meter volumes shall be corrected to that higher pressure.

I. Determination of Therms for Billing

1. Heating Value – The heating value (BTU per cubic foot) of the natural gas delivered will vary depending on the source of supplies received by the Company. The average heating values will be determined from the volumetric weighted average heating values of the supplies received by the Company.
2. Metered Volumes – The number of therms to be billed will be determined by multiplying the difference in meter readings by an appropriate billing factor.

a. Therms are determined from the volumes measured by the following:

$$\frac{\text{A}}{14.73 \text{ Atmospheric Pressure at Sea Level}} \times \frac{\text{B}}{100,000 \text{ BTU per Therm}} \times \text{C} \text{ Super Compressibility Factor}$$

Where:

A = Correction for atmospheric pressure at elevation and applicable delivery pressure

B = Applicable heating value of natural gas received

C = Correction for super compressibility ratio

- b. Atmospheric Pressures at Elevations within the Company's service territory are outlined in the following table. At such time additional elevation bands are needed within the various areas served by the Company, new bands will be added.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 908-5
Superseding: _____

**SECTION NO. 8
PROVISION OF SERVICE
(continued)**

Elevation Range	Atmospheric Pressure Base
201 - 400	14.57206
401 - 600	14.46665
601 - 800	14.36200
801 - 1000	14.25810
1001 - 1200	14.15495
1201 - 1400	14.05253
1401 - 1600	13.95084
1601 - 1800	13.84987
1801 - 2000	13.74962
2001 - 2200	13.65007
2201 - 2400	13.55122
2401 - 2600	13.45306
2601 - 2800	13.35558
2801 - 3000	13.25878
3001 - 3200	13.16265
3201 - 3400	13.06718
3401 - 3600	12.97237
3601 - 3800	12.87820
3801 - 4000	12.78468
4001 - 4200	12.69179
4201 - 4400	12.59954
4401 - 4600	12.50791
4601 - 4800	12.41689
4801 - 5000	12.32648
5001 - 5200	12.23668
5201 - 5400	12.14748
5401 - 5600	12.05887
5601 - 5800	11.97084
5801 - 6000	11.88340
6001 - 6200	11.79653
6201 - 6400	11.71023
6401 - 6600	11.62449

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 908-6
Superseding: _____

**SECTION NO. 8
PROVISION OF SERVICE
(continued)**

Elevation Range	Atmospheric Pressure Base
6601 - 6800	11.53932
6801 - 7000	11.45469
7001 - 7200	11.37061
7201 - 7400	11.28708
7401 - 7600	11.20408

J. Construction Standards and Safety

The Company's pipelines and pipeline facilities for the transportation of gas within the State of Arizona shall conform with and be subject to the Federal Safety Standards as adopted by the United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration. The Company maintains and updates an Operation and Maintenance plan and an Emergency plan. Upon discovery of occurrence, the Company will report all incidents as required under the Arizona Administrative Code, R14-5-203.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 909

Superseding: _____

SECTION NO. 9
METER READING

A. Company or Customer Meter Reading

1. The Company may, at its discretion, allow for Customer reading of meters.
2. It shall be the responsibility of the Company to inform the Customer how to properly read the Customer's meter.
3. Where a Customer reads the meter, the Company will read the Customer's meter at least once every six (6) months.
4. The Company shall specify the timing requirements for the Customer to submit the monthly meter reading to conform to the Company's billing cycle.
5. In the event the Customer fails to submit the meter reading on time, the Company may issue the Customer an estimated bill.
6. Meters shall be read monthly on as close to the same day each month as practical.

B. Measuring of Service

1. All gas sold by the Company shall be metered, except in the case of gas sold according to a fixed charge schedule, or when otherwise authorized by the ACC.
2. When there is more than one (1) meter at a location, the metering equipment shall be so tagged or plainly marked as to indicate the facilities being metered.
3. If and when the Company installs multiple meters or service lines to serve a single Customer for the Company's convenience, meter readings may be combined for billing purposes.

C. Customer-Requested Meter Rereads

1. At the request of a Customer, the Company will reread that Customer's meter within ten (10) business days after such request by the Customer.
2. Any reread will be charged to the Customer at a rate set forth in the Statement of Additional Charges, provided that the original reading was not in error
3. When a reading is found to be in error, the re-read shall be at no charge to the Customer.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 909-1
Superseding: _____

SECTION NO. 9
METER READING
(continued)

D. Access to Customer Premises

The Company shall have the right of safe ingress to and egress from the Customer's premises at all reasonable hours for any purpose reasonably connected with the furnishing of service and the exercise of any and all rights secured to the Company by law or the ACC's rules or the Company's Rates.

E. Customer-Requested Meter Tests

The Company shall test a meter upon Customer request and shall be authorized to charge the Customer for such meter test. The charge for the meter test is set forth in the Statement of Additional Charges. However, if the meter is found to be in error by more than three percent (3%), no fee will be charged to the Customer.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 910
Superseding: _____

**SECTION NO. 10
BILLING AND COLLECTION**

A. Frequency and Estimated Bills

1. The Company shall bill monthly for services rendered. Meter readings shall be scheduled for periods of not less than twenty-five (25) days or more than thirty-five (35) days.
2. If the Company is unable to read a meter on the scheduled meter read date, the Company will estimate the consumption for the billing period, giving consideration to the following factors where applicable:
 - a. The Customer's usage history in the previous twelve (12) months; and
 - b. The amount of usage during the preceding month.
3. After the second consecutive month of estimating the Customer's bill for reasons other than severe weather, the Company will attempt to secure an accurate reading of the meter.
4. Failure on the part of the Customer to comply with a reasonable request by the Company for access to the Customer's meter may lead to the discontinuance of service.
5. Estimated bills will be issued only under the following conditions:
 - a. Failure of a Customer who reads his or her own meter to deliver the meter reading card to the Company in accordance with the requirements of the Company's billing cycle;
 - b. Severe weather conditions which prevent the Company from reading the meter; or
 - c. Circumstances that make it impossible to read the meter, such as locked gates, blocked meters, and vicious or dangerous animals, etc.
6. Each bill based on estimated usage will indicate that it is an estimated bill.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 910-1
Superseding: _____

**SECTION NO. 10
BILLING AND COLLECTION
(continued)**

B. Combining Meters - Minimum Bill Information

1. Each meter at a Customer's premises will be considered separately for billing purposes; and the readings of two (2) or more meters will not be combined unless approved by the Company.
2. Each bill for sales service will contain the following minimum information:
 - a. Date and meter reading at the start of billing period or number of days in the billing period;
 - b. Date and meter reading at the end of the billing period;
 - c. Billed usage;
 - d. Rate schedule number;
 - e. Company's telephone number;
 - f. Customer's name;
 - g. Service account number;
 - h. Amount due and due date;
 - i. Past due amount;
 - j. Adjustment factor, where applicable;
 - k. Taxes; and
 - l. The Arizona Corporation Commission's address.

C. Billing Terms

1. All bills for gas service are due and payable no later than ten (10) days from the date the bill is rendered. Any payment not received within this time-frame shall be considered past due and may be subject to a late payment finance charge as set forth in the Statement of Additional Charges. If the tenth (10th) day falls on a weekend or holiday, then the past due date is extended to the next business day.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 910-2
Superseding: _____

**SECTION NO. 10
BILLING AND COLLECTION
(continued)**

2. For purposes of this rule, the date the bill is rendered shall be the latest of the following:
 - a. The postmark date;
 - b. The mailing date; or
 - c. The billing date shown on the bill (however, the billing date shall not differ from the postmark or mailing date by more than two (2) days.
3. All past due bills for gas service are due and payable within fifteen (15) days. Any payment not received within this time-frame shall be considered delinquent and will be issued a suspension of service notice. For Customers under the jurisdiction of a bankruptcy court, a more stringent payment or prepayment schedule may be required, if allowed by that court.
 - a. The amount of the late payment penalty shall not exceed one and one-half percent (1.5%) of the delinquent bill, applied on a monthly basis.
4. All delinquent bills for which payment has not been received within five (5) days shall be subject to the provisions of the Company's suspension of service procedures.
5. All payments shall be made at or mailed to the office of the Company or to the Company's duly authorized representative.
6. A past due payment may be collected by a Company representative at the Customer's premises for a fee as set forth in the Statement of Additional Charges.

D. Applicable Rates, Prepayments, Failure to Receive, Commencement Date

1. Each Customer shall be billed under the Rate indicated in the Customer's application for service.
2. The Company shall make provisions for advance payment for Company services.
3. Failure to receive bills or notices which have been properly placed in the United States mail or posted electronically shall not prevent such bills from becoming delinquent and does not relieve the Customer of the Customer's obligations therein.
4. Charges for service commence when the service is installed and connection made, whether used or not.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 910-3
Superseding: _____

**SECTION NO. 10
BILLING AND COLLECTION
(continued)**

E. Meter Error Corrections

1. If, after testing, any meter is found to be more than three percent (3%) in error, either fast or slow, proper correction between three percent (3%) and the amount of the error shall be made on previous readings, and adjusted bills shall be rendered according to the following terms:
 - a. For the period of three (3) months immediately preceding the removal of such meter from service for testing or from the time the meter was in service since last tested, but not exceeding three (3) months since the meter shall have been shown to be in error by such test.
 - b. From the date the error occurred, if the date of the cause can be definitely fixed.
2. No adjustment shall be made by the Company except to the Customer last served by the meter tested.

F. Nonsufficient Funds ("NSF") Checks and Denied Electronic Funds Transfers

1. The Company shall be allowed to recover a fee set forth in the Statement of Additional Charges, for each instance where a Customer tenders payment for a Company service with an NSF check. This fee shall also apply when an electronic funds transfer ("EFT") is denied for any reason, including for lack of sufficient funds.
2. When the Company is notified by the Customer's bank that there are insufficient funds to cover the check tendered for service, or an EFT has been denied for any reason, the Company may require the Customer to make payment in cash, by money order or certified check, or by other means which guarantee the Customer's payment to the Company.
3. A Customer who tenders an NSF check or for whom an EFT is denied, shall in no way be relieved of the obligation to render payment to the Company under the original terms of the bill, nor defer the Company's provision for termination of service for nonpayment of bills.
4. No personal checks will be accepted if two (2) NSF checks have been received by the Company within a twelve (12) month period in payment of any billing.

G. Elevation/Pressure Adjustment

The Company shall adjust for pressure according to the procedures in Section 8.H of these Rules and Regulations.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 910-4
Superseding: _____

**SECTION NO. 10
BILLING AND COLLECTION
(continued)**

H. Deferred Payment Plan

1. The Company may, prior to termination of service, offer a deferred payment plan to qualifying residential Customers for the payment of unpaid bills for gas service.
2. Each deferred payment agreement entered into by the Company and the Customer, due to the Customer's inability to pay an outstanding bill in full, shall provide that service will not be discontinued if:
 - a. The Customer agrees to pay a reasonable amount of the outstanding bill at the time the parties enter into the deferred payment agreement;
 - b. The Customer agrees to pay all future bills for gas service in accordance with the Company's Rates; and
 - c. The Customer agrees to pay a reasonable portion of the remaining outstanding balance in installments.
3. For the purposes of determining a reasonable installment payment schedule under these Rules, the Company and the Customer shall give consideration to the following conditions:
 - a. The size of the delinquent account;
 - b. The Customer's ability to pay;
 - c. The Customer's payment history;
 - d. The length of time that the debt has been outstanding;
 - e. The circumstances which resulted in the debt being outstanding; and
 - f. Any other relevant factors related to the circumstances of the Customer.
4. Any Customer who desires to enter into a deferred payment agreement shall establish such agreement prior to the Company's scheduled service termination date for nonpayment of bills. The Customer's failure to execute a deferred payment agreement prior to the scheduled service termination date shall not prevent the Company from terminating service for nonpayment.
5. Deferred payment agreements may be in writing and may be signed by the Customer and an authorized Company representative.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 910-5
Superseding: _____

**SECTION NO. 10
BILLING AND COLLECTION
(continued)**

6. A deferred payment agreement may include a finance charge of one and one-half percent (1.5%) per month.
7. If a Customer does not fulfill the terms of a deferred payment agreement, the Company shall have the right to disconnect service pursuant to the Company's termination of service rules (Section 11 of these Rules) and, under such circumstances, it shall not be required to offer subsequent negotiation of a deferred payment agreement prior to disconnection.

I. Change of Occupancy

1. Not less than three (3) business days advance notice must be given in person at the Company's office, in writing, or by telephone to discontinue service or to change occupancy.
2. The outgoing party shall be responsible for all Company services provided and/or consumed up to the scheduled turn-off date.

J. Electronic Billing

Electronic Billing is an optional billing service whereby Customers may elect to receive, view, and pay their bills electronically. Electronic Billing includes the "UES e-bill" service and the "Sure No Hassle Automatic Payment ("SNAP") service. The Company may modify its electronic billing services from time to time. A Customer electing an electronic billing service may receive an electronic bill in lieu of a paper bill. Customers electing an electronic billing service may be required to complete additional forms and agreements. Electronic billing may be discontinued at any time by the Company or the Customer. An electronic bill will be considered rendered at the time it is electronically sent to the Customer. Failure to receive bills or notices which have been properly sent by an electronic billing system does not prevent such bills from becoming delinquent and does not relieve the Customer of the Customer's obligations therein. Any notices which Company is required to send to a Customer who has elected an electronic billing service may be sent by electronic means at the option of the Company. Except as otherwise provided in this subsection, all other provisions of the Company's Rules and Regulations and other applicable Rates are applicable to electronic billing.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 911
Superseding: _____

**SECTION NO. 11
TERMINATION OF SERVICE**

A. Non-Permissible Reasons to Disconnect Service

1. The Company may not disconnect service for any of the reasons stated below:

- a. Delinquency in payment for services rendered to a prior Customer at the premises where service is being provided, except in the instance where the prior Customer continues to reside on the premises.
- b. Failure of the Customer to pay for services or equipment that are not regulated by the ACC.
- c. Nonpayment of a bill related to another class of service.
- d. Failure to pay a bill to correct a previous under-billing due to an inaccurate meter or meter failure, if the Customer agrees to pay over a reasonable period of time.
- e. The Company may not terminate residential service where the Customer has an inability to pay and:
 - i. The Customer can establish through medical documentation that, in the opinion of a licensed medical physician, termination of service would be especially dangerous to the health of the Customer or to the health of a permanent resident residing on the Customer's premises;
 - ii. Where weather will be especially dangerous to health as defined herein or as determined by the ACC.
- f. Residential service to persons who have an inability to pay and who have an illness, are elderly, or who are handicapped will not be terminated until all of the following have been attempted:
 - i. The Customer has been informed of the availability of funds from various government and social assistance agencies; and
 - ii. A third party previously designated by the Customer has been notified and has not made arrangement to pay the outstanding Company bill.

A Customer utilizing the provisions of Subsection A.1.e or A.1.f above may be required to enter into a deferred payment agreement with the Company within ten (10) days after the scheduled service termination date.
- g. Failure to pay the bill of another Customer as guarantor thereof.
 - h. Disputed bills where the Customer has complied with the ACC's rules on Customer bill disputes.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 911-1
Superseding: _____

**SECTION NO. 11
TERMINATION OF SERVICE
(continued)**

B. Termination of Service Without Notice

1. The Company may disconnect service without advance written notice under the following conditions:
 - a. The existence of an obvious hazard to the safety or health of the Customer, the general population or which imperils service to other Customers;
 - b. The Company has evidence of tampering or fraud;
 - c. There is an unauthorized resale or use of gas services that is not in accordance with the ACC's rules and/or these Rules and Regulations or other Company Rates; or
 - d. The Customer has failed to comply with the curtailment procedures imposed by the Company in accordance with the Company's Rates.
2. The Company shall not be required to restore service until the conditions which resulted in the termination have been corrected to the satisfaction of the Company.
3. The Company shall maintain a record of all terminations of service without notice. This record shall be maintained for a minimum of one (1) year and shall be available for inspection by the ACC.

C. Termination of Service With Notice

1. The Company may disconnect service to any Customer for any reason stated below, provided that the Company has met the notice requirements described in Section 11.D below:
 - a. Customer violation of any of the Company's Rates;
 - b. Failure of the Customer to pay a delinquent bill for gas service;
 - c. Failure of the Customer to meet agreed upon deferred payment arrangements;
 - d. Failure to meet or maintain the Company's deposit requirements;
 - e. Failure of the Customer to provide the Company reasonable access to its equipment and property;
 - f. Customer breach of a written contract for service between the Company and Customer; or
 - g. When necessary for the Company to comply with an order of any governmental agency having such jurisdiction.
2. The Company shall maintain a record of all terminations of service with notice. This record shall be maintained for one (1) year and shall be available for ACC inspection.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 911-2
Superseding: _____

**SECTION NO. 11
TERMINATION OF SERVICE
(continued)**

D. Termination Notice Requirements

1. The Company may not terminate service to any of its Customers without providing advance written notice to the Customer of the Company's intent to disconnect service, except under those conditions specified where advance written notice is not required.
2. Such advance written notice shall contain, at a minimum the following information:
 - a. The name of the person whose service is to be terminated and the address where service is being rendered;
 - b. The Rate that was violated and explanation of the violation or the amount of the bill, which the Customer has failed to pay in accordance with the payment policy of the Company, if applicable;
 - c. The date on or after which service may be terminated; and
 - d. A statement advising the Customer that the Company's stated reason for the termination of services may be disputed by contacting the Company at a specific address or phone number, advising the Company of the dispute and making arrangements to discuss the cause for termination with a responsible employee of the Company in advance of the scheduled date of termination. The responsible employee shall be empowered to resolve the dispute and the Company shall retain the option to terminate service after affording this opportunity for a meeting, concluding that the reason of terminating is just, and advising the Customer of his right to file a complaint with the ACC.
3. Where applicable, a copy of the termination notice will be simultaneously forwarded to designated third parties.

E. Timing of Terminations With Notice

1. The Company shall be required to give at least five (5) days advance written notice prior to the termination date. For Customers under the jurisdiction of a bankruptcy court, a shorter notice may be provided, if permitted by that court.
2. Such notice shall be considered to be given to the Customer when a copy of the notice is left with the Customer or posted first class in the United States mail, and addressed to the Customer's last known address.
3. If, after the period of time allowed by the notice has elapsed, the delinquent account has not been paid nor arrangements made with the Company for the payment of the bill, or in the case of a violation of the Company's rules the Customer has not satisfied the Company that such violation has ceased, the Company may terminate service on or after the day specified in the notice without giving further notice.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 911-3
Superseding: _____

**SECTION NO. 11
TERMINATION OF SERVICE
(continued)**

4. Service may only be disconnected in conjunction with a personal visit to the premises by an authorized representative of the Company.
5. The Company shall have the right, but not the obligation, to remove any or all of its property installed on the Customer's premises upon the termination of service.

F. Landlord/Tenant Rule

1. In situations where service is rendered at an address different from the mailing address of the bill or where the Company knows that a landlord/tenant relationship exists and that the landlord is the Customer of the Company, and where the landlord as Customer would otherwise be subject to disconnection of service, the Company may not disconnect service until the following actions have been taken:
 - a. Where it is feasible to provide service, the Company, after providing notice as required in these rules, shall offer the occupant the opportunity to subscribe for service in the occupant's own name. If the occupant then declines to subscribe, the Company may disconnect service pursuant to the rules.
 - b. The Company shall not attempt to recover payment of any outstanding bills or other charges due on the outstanding account of the landlord from a tenant. The Company shall not condition service to a tenant based on the payment of any outstanding bills or other charges due upon the outstanding account of the landlord.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 912
Superseding: _____

SECTION NO. 12
ADMINISTRATIVE AND HEARING REQUIREMENTS

A. Customer Service Complaints

1. The Company shall make a full and prompt investigation of all service complaints made by its Customers, either directly to the Company or through the ACC.
2. The Company shall respond to the complainant and/or the ACC representative within five (5) business days as to the status of the Company's investigation of the complaint.
3. The Company shall notify the complainant and/or the ACC representative of the final disposition of each complaint. Upon request of the complainant or the ACC representative, the Company shall report the findings of its investigation in writing.
4. The Company shall inform the Customer of the right of appeal to the ACC.
5. The Company shall keep a record of all written service complaints received and which shall contain, at a minimum, the following data:
 - a. Name and address of complainant;
 - b. Date and nature of complaint;
 - c. Disposition of the complaint; and
 - d. A copy of any correspondence between the Company, the Customer, and/or the ACC.

This record shall be maintained for a minimum period of one (1) year and shall be available for inspection by the ACC.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 912-1
Superseding: _____

SECTION NO. 12
ADMINISTRATIVE AND HEARING REQUIREMENTS
(continued)

B. Customer Bill Disputes

1. Any Customer who disputes a portion of a bill rendered for gas service shall pay the undisputed portion of the bill prior to the delinquent date of the bill, and notify the Company's designated representative that any unpaid amount is in dispute.
2. Upon receipt of the Customer's notice of dispute, the Company shall:
 - a. Notify the Customer within five (5) business days of the receipt of a written dispute notice.
 - b. Initiate a prompt investigation as to the source of the dispute.
 - c. Withhold disconnection of service until the investigation is completed and the Customer is informed of the results. Upon request of the Customer, the Company shall report the results of the investigation in writing.
 - d. Inform the Customer of the right of appeal to the ACC.
3. Once the Customer has received the results of the Company's investigation, the Customer shall submit payment within five (5) business days to the Company for any disputed amounts. Failure to make full payment shall be grounds for termination of service.

C. ACC Resolution of Service and/or Bill Disputes

1. In the event a Customer and the Company cannot resolve a service and/or bill dispute, the Customer shall file a written statement with the ACC. By submitting such written notice to the ACC, the Customer shall be deemed to have filed an informal complaint against the Company.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 912-2
Superseding: _____

SECTION NO. 12
ADMINISTRATIVE AND HEARING REQUIREMENTS
(continued)

2. Within thirty (30) days of the receipt of a written statement of Customer dissatisfaction related to a service or bill dispute, a designated representative of the ACC shall endeavor to resolve the dispute by correspondence and/or by telephone with the Company and the Customer. If resolution of the dispute is not achieved within twenty (20) days of the ACC representative's initial effort, the ACC shall hold an informal hearing to arbitrate the resolution of the dispute. The informal hearing shall be governed by the following rules:
- a. Each party may be represented by legal counsel, if desired;
 - b. All such informal hearings may be recorded or held in the presence of a stenographer;
 - c. All parties will have the opportunity to present written or oral evidentiary material to support the positions of the individual parties; and
 - d. All parties and the ACC's representative shall be given an opportunity for cross-examination of the various parties.

The ACC's representative will render a written decision to all parties within five (5) business days after the date of the informal hearing. Such written decision of the ACC's representative is not binding on any of the parties and the parties will still have the right to make a formal complaint to the ACC.

- 3. The Company may implement normal termination procedures if the Customer fails to pay all bills rendered during the resolution of the dispute by the ACC.
- 4. The Company shall maintain a record of written statements of dissatisfaction and their resolution for a minimum of one (1) year and make such records available for ACC inspection.

D. Notice by Company of Responsible Officer or Agent

- 1. The Company shall file with the ACC a written statement containing the name, business address and telephone numbers (office and mobile) of at least one officer, agent or employee responsible for the general management of its operations as a Company in Arizona.
- 2. The Company shall give notice, by filing a written statement with the ACC, of any change in the information required herein within five (5) days from the date of any such change.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 913
Superseding: _____

SECTION NO. 13
BUDGET BILLING PAYMENT PLAN

- A. The Company may, at its option, offer its Customers Budget Billing Payment Plan ("Plan") for payment of charges for gas service.
- B. The Company will develop, upon Customer request, an estimate of the Customer's levelized billing for a twelve (12) month period based on:
1. The Customer's actual consumption history at the service location, which may be adjusted for weather or other known variations. If sufficient history is not available, then an estimate will be prepared based on other similar service locations and Customer's anticipated load requirements; and
 2. The applicable Rate, the estimated gas costs for the Plan year, and applicable taxes.
- C. The Company shall provide the Customer with a concise explanation of how the levelized billing estimate was developed, the impact of levelized billing on a Customer's monthly bill, and the Company's right to adjust the Customer's billing for any variation between the Company's estimated billing and actual billing.
- D. The Plan's monthly payment shall be determined as follows: Settlement month will be the Customer's anniversary date, twelve (12) months from the time the Customer is set up on the Budget Billing Payment Plan. The Company reserves the right to adjust the remaining monthly Plan semi-annually to reduce the likelihood of an excessive debt or credit balance in rates due to dramatic PGA increases or PGA surcharges.
1. The Company reserves the right to adjust the remaining monthly Plan payments of any Customer at any time if the Company's estimate of the Customer's usage and/or cost varies significantly from the Customer's actual usage and/or cost. Such review may also be initiated by the Customer. Any change resulting from such a review will be effective on a subsequent bill and no further notice is required.
 2. The Customer shall continue to pay the monthly Plan payment amount each month, notwithstanding the current gas service charge shown on the bill.
 3. Any other charges incurred by the Customer shall be paid monthly when due in addition to the monthly Plan payment.
 4. Interest will not be charged to the Customer on accrued debit balances nor paid by the Company on accrued credit balances.
 5. Any amount due the Company will be settled and paid at the time a Customer, for any reason, ceases to be a participant in the Plan. If an amount due to the Customer exceeds fifty dollars (\$50.00), the Customer has the option to receive a bill credit or a refund; otherwise the credit will remain as a bill credit.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 913-1
Superseding: _____

**SECTION NO. 13
BUDGET BILLING PAYMENT PLAN
(continued)**

6. Any Customer's participation in the Plan may be discontinued by the Company if the monthly Plan payment has not been paid on or before the billing date of the next monthly Plan payment.
7. If a Customer in the Plan shall cease, for any reason, to participate in the Plan, then the Company may refuse that Customer's re-entry in the Plan for six (6) months.
8. For those Customers being billed under the Plan, the Company shall show, at a minimum, the following information on the Customer's monthly bill:
 - a. Actual consumption;
 - b. Amount due for actual consumption;
 - c. Levelized billing amount due; and
 - d. Accumulated variation in actual versus levelized billing amount.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 914
Superseding: _____

**SECTION NO. 14
CURTAILMENT PLAN**

- A. The Company shall use reasonable diligence in its operations to render continuous service to all its Customers other than those Customers served under Rates expressly permitting interruptions of service for peak shaving purposes. If for any reason, however, the Company is unable to supply the demand for gas in any one or more of its systems, interruptions or curtailments of service shall be made in accordance with the provisions of this section. The Company shall not be liable for damages because of the operation of this section.
- B. Applicability
1. The order of curtailment shall be in inverse order of the curtailment priorities set forth in Subsection C below.
 2. Curtailment priorities shall apply to both sales and transportation Customers.
 3. Customers being served under a discounted transportation or sales rate schedule shall be curtailed first. Customers paying the least will be curtailed first within an affected priority.
 4. Each priority shall be curtailed in full before the next priority in order is curtailed.
 5. When Priority 1 Customers would be curtailed due to system supply failure (either upstream capacity or supply failure), the Company is authorized to "preempt" deliveries of lower priority transportation Customers' gas and divert such supplies to the otherwise affected Priority 1 Customers. Affected transportation Customers will be curtailed to the same extent as sales Customers of the same priority. Such transportation Customers will be compensated for the preemption of their gas supply by either crediting the Customer's account with a like quantity of gas for use on a subsequent gas day, or by providing a cash payment or credit to the Customer's bill at the cost of gas per unit paid by the Customer. If the gas supply of an alternate fuel-capable transportation Customer is preempted according to this provision, the Company shall provide additional compensation to such Customer for the incremental cost of using the alternate fuel, (the difference between the actual cost of using the alternate fuel and the actual cost of gas paid by the Customer for the preempted gas). Such credit shall be applied to the Company's next scheduled billing after the Customer has furnished adequate proof to the Company concerning alternate fuel costs, replacement volumes, and gas costs.
 6. The installation of a cogeneration facility shall not affect the underlying end-use priority of the establishment.
 7. Natural gas utilized as compressed natural gas for vehicle fuel shall be classified as a commercial end-use.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 914-1
Superseding: _____

**SECTION NO. 14
CURTAILMENT PLAN
(continued)**

8. Application of curtailment priorities will normally be done on a scheduled basis as part of the daily gas requirement nomination and confirmation routine. Operational emergency curtailment will conform to these priorities to the extent possible and practical.
9. A transportation Customer may be curtailed to the level of actual supply scheduled for that Customer, regardless of end-use priority.

C. Priorities

- Priority 1: Residential, small commercial (less than five hundred (500) therms on a peak day), schools, hospitals, police protection, fire protection, sanitation facility, correctional facility, and emergency situation uses.
- Priority 2A: Essential agricultural uses as certified by the Secretary of Agriculture.
- Priority 2B: Essential industrial process and feedstock uses.
- Priority 2C: Large Commercial (five hundred (500) therms or more on a peak day) and storage injection requirements, industrial requirements for plant protection, feedstock, process, ignition and flame stabilization needs not specified in Priority 2B.
- Priority 3A: Industrial requirements not specified in Priorities 2, 4, and 5, of less than one thousand (1,000) therms on a peak day.
- Priority 3B: All industrial requirements not specified in Priorities 2, 3A, 4, and 5.
- Priority 4: Industrial requirements for boiler fuel use at less than thirty thousand (30,000) therms per peak day, but more than fifteen thousand (15,000) therms per peak day, where alternate fuel capabilities can meet such requirements.
- Priority 5: Industrial requirements for large volume (thirty thousand (30,000) therms per peak day or more) boiler fuel use where alternate fuel capabilities can meet such requirements.

- D. In the event of isolated incidents in order to avoid hazards and protect the public, the Company may temporarily interrupt service to certain Customers without regard to priority or any other Customer classification.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 914-2
Superseding: _____

**SECTION NO. 14
CURTAILMENT PLAN
(continued)**

E. Definitions

1. "Alternate Fuel Capability" – A situation where an alternate fuel can be utilized whether or not the facilities for such use have actually been installed.
2. "Correctional Facility Uses" – A facility, the primary function of which is to house, confine, or otherwise limit the activities of a person who has been assigned to such facilities as punishment by a court of law.
3. "Essential Agricultural Use" – Any use of natural gas which is certified by the Secretary of Agriculture as an "essential agricultural use."
4. "Essential Industrial Process and Feedstock Uses" – Any use of natural gas by an industrial Customer as process gas, or as a feedstock, or gas used for human comfort to protect health and hygiene in an industrial installation.
5. "Feedstock Gas" – Natural gas use for which alternate fuels are not technically feasible, such as in applications requiring precise temperature controls and precise flame characteristics. For the purposes of this definition, propane and other gaseous fuels shall not be considered alternate fuels.
6. "Fire Protection Uses" – Natural gas used by and for the benefit of fire fighting agencies in the performance of their duties.
7. "Flame Stabilization Gas" – Natural gas which is burned by igniters, main gas burners, or warm-up burners for the purpose of maintaining stable combustion of an alternate fuel.
8. "Hospital" – A facility, the primary function of which is delivering medical care to patients who remain at the facility (facility includes nursing and convalescent homes). Outpatient clinics or doctors' offices are not included in this definition.
9. "Ignition Gas" – Natural gas supplied to gas igniters in boilers to light main burners, whether the main burners are operated by gas, oil, or coal.
10. "Industrial Boiler Fuel" – Natural gas used in a boiler as a fuel for the generation of steam or electricity.
11. "Industrial Use" – Natural gas used primarily in a process which creates or changes raw or unfinished materials into another form or product, including electric power generation.
12. "Peak Day" – Maximum daily Customer use as determined by the best practical method available.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 914-3
Superseding: _____

**SECTION NO. 14
CURTAILMENT PLAN
(continued)**

13. "Plant Protection Gas" – Minimum natural gas volumes required to prevent physical harm to the plant facilities or danger to plant personnel when such protection cannot be afforded through the use of an alternate fuel. This includes the protection of such material in process as would otherwise be destroyed, but shall not include deliveries required to maintain plant production. For the purposes of this definition, propane and other gaseous fuels shall not be considered alternate fuels.
14. "Police Protection Uses" – Natural gas used by law enforcement agencies in the performance of their duties.
15. "Process Gas" – Natural gas use for which alternate fuels are not technically feasible, such as in applications requiring precise temperature controls and precise flame characteristics. For the purposes of this definition, propane and other gaseous fuels shall not be considered alternate fuels.
16. "Sanitation Facility Uses" – Natural gas use in a facility where natural gas is used to a) dispose of refuse, or b) protect and maintain the general sanitation requirements of the community at large.
17. "School" – A facility, the primary function of which is to provide instruction to regularly enrolled students in attendance at such facility. Facilities used for both educational and non-educational activities are not included under this definition unless the latter activities are merely incidental to the provision of instruction.
18. "Small Commercial Establishment" – Any establishment (including institutions and local, state, and federal government agencies) engaged primarily in the sale of goods or services where natural gas is used:
 - a. in amounts of less than fifty (50) MCF on a peak day; and
 - b. for purposes other than those involving manufacturing or electric power generation.
19. "Storage Injection Gas" – Natural gas injected by a distributor into storage for later use.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 915
Superseding: _____

**SECTION NO. 15
RATES AND UNIT MEASUREMENT**

- A. The rates and charges for gas service shall be those of the Company legally in effect and on file with the ACC.
- B. All Rates set forth in the Company's Tariffs are stated in therms. Unless otherwise provided by special contract, the number of therms delivered to any Customer shall be determined by measuring the volume of gas passing through that Customer's meter during the month to the nearest one hundred (100) cubic feet and applying the procedures of Section 8.H of these Rules and Regulations.
- C. The unit of volume for measurement of gas sold shall be one (1) Cubic Foot of gas, as defined in Subsection 2.A.13 of these Rules and Regulations. The volume of gas measured shall be rounded to the nearest one hundred (100) cubic feet for any given period.
- D. The atmospheric pressure will be the standard atmospheric pressure for the location.
- E. The standard serving pressure shall be seven (7) inches of water pressure (four (4) ounces per square inch gauge) above the atmospheric pressure.
- F. The standard temperature of sixty (60) degrees Fahrenheit will be used for volume determination unless stated otherwise under special contract. The Company shall retain the right, but shall not be obligated, to install temperature recording or compensating equipment as part of the measuring facilities. When such temperature recording equipment is used, the arithmetic average temperature of the gas each day, during periods of flow only, shall be used in computing the quantity of gas delivered by that day.
- G. The Company, at its own option, may elect to serve a Customer at a pressure higher than the standard serving pressure. The Company shall correct such volume to Standard Conditions by the use of compensating equipment or the use of a factor. The Company retains the right to determine the method used for applying such correction. The factor used to correct the measured volume shall be in accordance with American Gas Association Report 3.
- H. The therm conversion factor shall be determined each month and shall be the product of the conversion factor and the most recent heating value content available using the weighted average delivered pressure by office. The weighted average delivered pressure is derived monthly using the delivered pressure for each town code served which is reflective of each town code's elevation, weighted by the sales distribution among assigned gas distribution systems within each respective office. Further explained in Section 8.H. of these Rules and Regulations.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 916
Superseding: _____

SECTION NO. 16
GAS METER TESTING AND MAINTENANCE PLAN

A. General Plan

The Company will annually sample groups of meters to determine the continuing accuracy and performance of the group. Certain safe and proper standards are defined, and meters will remain in service as long as they meet these standards.

This program will allow the Company to obtain all the useful service available from a meter until the meter no longer meets prescribed standards. At that time, then it is proper for the meter to be removed, tested, repaired, or retired.

This procedure is for the purpose of testing and controlling the performance of small gas meters that are two hundred fifty (250) CFH or less. The program will identify and remove meters that do not meet the standards of performance described in Subsection D below, and identify and retain in service meters that do meet or exceed the stated standards. Meters are classified into groups, samples of each group are tested annually, and groups are removed from service when they do not meet performance standards.

B. Meter Groups

1. Meters are segregated into groups on the following basis:

- a. Year last repaired or purchased;
- b. Manufacturer;
- c. Diaphragm type (leather or synthetic), when available; and
- d. Geographic district.

2. For meters repaired or purchased in a given year, the groups are established at the beginning of the next year. When a new group being established is found to contain less than one thousand (1,000) meters, this group may be combined with another group having meters of the same or similar operating characteristics. An existing group may be divided into two or more groups, if experience characteristics of part of the group are sufficiently different from the remainder of the group to warrant separate sampling of the parts.

C. Sampling

A representative random sample is selected from each group of meters. The samples are used in determining the performance of each group of meters each year. If the initial order for meter removals does not produce an adequate sample, additional meters are drawn on a random basis. These meters are combined with the original sample for determining acceptability of the group. Samples are taken annually from all groups that have been in service for ten (10) years or longer.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 916-1
Superseding: _____

**SECTION NO. 16
GAS METER TESTING AND MAINTENANCE PLAN
(continued)**

D. Performance Standard

The criteria for acceptability for a group to remain in service are:

1. No more than ten percent (10%) of the meters tested in the group are more than three percent (3%) fast.
2. At least eighty percent (80%) of the meters tested in the group are within +/- three percent (3%) of zero error. This results in a condition wherein a minimum of ninety percent (90%) of the meters remaining in service are either within +/- three percent (3%) or are more than three percent (3%) slow and in the Customer's favor.

E. Records

The test results for each group are kept in appropriate records that indicate the number of meters in the sample versus the test results, expressed as a percent.

F. Removal of Groups

1. A test result falling on or above the prescribed standards is satisfactory and the groups will remain in service.
2. A test falling below the prescribed standards is not satisfactory and the group will be removed from service.
3. The Company, for its convenience, may remove a group (or part of a group) even though the group meets the requirements for remaining in service.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 916-2
Superseding: _____

**SECTION NO. 16
GAS METER TESTING AND MAINTENANCE PLAN
(continued)**

G. Annual Reports

A report of the meter performance control program will be filed annually with the ACC, which will contain the following:

1. A description of each group, showing its identification, size and composition;
2. A list of the total number of meters tested, at Company initiative or upon Customer request;
3. A detailed list of the performance results of each group, showing the number of meters in the group, the number of meters removed during the year, the number of meters not tested (dead, non-registering, damaged, etc.), the number of meters tested, the number of meters slow - minus three percent (-3%), the number of meters accurate, the percent of meters accurate, the number of meters fast - plus three percent (+3%), and the percent of meters fast;
4. A summary of results for each year of service; and
5. A summary of the overall results.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:



**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 917
Superseding: _____

**SECTION 17
STATEMENT OF ADDITIONAL CHARGES**

A.	Trip Charge:	
	1. Service Transfer	\$20.00
	2. Collection Fee (Collection at Customer Premise, Door Hanging Fee)	\$20.00
	3. Customer-Requested Meter Reread	\$20.00
	4. Multiple Attempts to Connect	\$20.00
B.	Service Establishment, Re-establishment, or Reconnection	
	During Regular Business Hours	\$35.00
	After Regular Business Hours (same day request scheduled)	\$70.00
C.	Special Call Out (Minimum one (1) hour)	
	Per hour	\$70.00
D.	Customer-Requested Meter Test	\$90.00
E.	NSF Check	\$10.00
F.	Late Payment Finance Charge	1.5%
G.	Interest on Customer Deposits	One-year Treasury Constant Maturities rate

Regular Business Hours are defined as non-holiday weekdays from 8:30 a.m. to 4:30 p.m.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Effective: Pending
Decision No.:
Rules and Regulations:

EXHIBIT

CAJ-6



~~UNS Gas, Inc.~~
Rules & Regulations

UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 900
Superseding: _____

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
1	APPLICABILITY OF RULES AND REGULATIONS AND DESCRIPTION OF SERVICE	<u>2901</u>
2	DEFINITIONS	<u>3902</u>
3	ESTABLISHMENT OF SERVICE	<u>9903</u>
4	MINIMUM CUSTOMER INFORMATION REQUIREMENTS	<u>14904</u>
5	MASTER METERING	<u>16905</u>
6	SERVICE LINES AND ESTABLISHMENTS	<u>17906</u>
7	EXTENSION OF LINES	<u>22907</u>
8	PROVISION OF SERVICE	<u>31908</u>
9	METER READING	<u>38909</u>
10	BILLING AND COLLECTION	<u>40910</u>
11	TERMINATION OF SERVICE	<u>46911</u>
12	ADMINISTRATIVE AND HEARING REQUIREMENTS	<u>50912</u>
13	BUDGET BILLING PAYMENT PLAN	<u>53913</u>
14	CURTAILMENT PLAN	<u>55914</u>
15	RATES AND UNIT MEASUREMENT	<u>59915</u>
16	GAS METER TESTING AND MAINTENANCE PLAN	<u>60916</u>
17	STATEMENT OF ADDITIONAL CHARGES	<u>63917</u>

Filed By: Raymond S. Heyman Kentton C. Grant
Title: Senior Vice President and General Counsel of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Effective: Rules & Regulations Pending
Effective: Decision No.: April 1, 2010 Pending
Page No.: Rules and Rec 4 of 64

SECTION NO. 1
APPLICABILITY OF RULES AND REGULATIONS AND DESCRIPTION OF SERVICE

- A. Company is a gas utility operating within portions of the state of Arizona. The Company will provide service to any person, institution or business located within its service area in accordance with the provisions of its ~~Pricing Plans~~ Rates and the terms and conditions of these Rules and Regulations.
- B. All gas delivered to any Customer is for the sole use of such Customer on that Customer's premises only. Gas delivered by the Company shall not be redelivered or resold, or the use thereof by others permitted unless otherwise expressly agreed to in writing by the Company. However, those Customers purchasing gas for redistribution to the Customer's own tenants (only on the Customer's premises) may separately meter each tenant distribution point for the purpose of prorating the Customer's actual purchase price of gas delivered among the various tenants on a per unit basis.
- C. These Rules and Regulations shall apply to all gas service furnished by the Company to its Customers.
- D. These Rules and Regulations are part of the Company's ~~Pricing Plans~~ Rates on file with and duly approved by, the Arizona Corporation Commission. These Rules and Regulations shall remain in effect until modified, amended, or deleted by order of the ACC. No employee, agent or representative of the Company is authorized to modify the Company rules.
- E. These Rules and Regulations shall be applied uniformly to all similarly situated Customers.
- F. In case of any conflict between these Rules and Regulations and the ACC's rules, these Rules and Regulations shall apply.
- G. Whenever the Company and an Applicant or a Customer are unable to agree on the terms and conditions under which such Applicant or Customer is to be served, or are unable to agree on the proper interpretation of the these Rules and Regulations, either party may request assistance from the Consumer Services Section of the Utilities Division of the ACC. The Applicant or Customer also has the option to file an application with the ACC for a proper order, after notice and hearing.
- H. The Company's supplying gas service to the Customer and the acceptance thereof by the Customer shall be deemed to constitute an agreement by and between the Company and the Customer for delivery, acceptance of and payment for gas service under the Company's Rules and Regulations and applicable ~~Pricing Plans~~ Rates.



SECTION NO. 2
DEFINITIONS

- A. In these Rules and Regulations, the following definitions shall apply unless the context requires otherwise:
1. "Advance in Aid of Construction" or "Advance" – Funds provided to the Company by an Applicant under the terms of a main extension agreement, the value of which may be refundable.
 2. "Applicant" – A person requesting the Company to supply gas service.
 3. "Application" – A request to the Company for gas service, as distinguished from any inquiry as to the availability or charges for such service.
 4. "Arizona Corporation Commission" ("ACC") – The regulatory body established by Article XV of the Arizona Constitution.
 5. "Billing Month" – The time interval between any two (2) regular readings of the Company's meters at approximately thirty (30) day intervals.
 6. "Billing Period" – The time period between two (2) consecutive meter readings that are taken for billing purposes.
 7. "British Thermal Unit" ("BTU") – The amount of heat required to raise the temperature of one (1) pound of water one (1) degree Fahrenheit, at Standard Conditions.
 8. "CCF" – One hundred (100) cubic feet.
 9. "CFH" – Cubic feet per hour.
 10. "Commodity Charge" – The unit cost for billed usage as set forth in the Company's Pricing Plans Rates.
 11. "Company" – UNS Gas, Inc.
 12. "Contributions in Aid of Construction" or "Contribution" – Funds provided to the Company by the Applicant under the terms of a main extension agreement and/or service connection tariff, the value of which are not refundable.

SECTION NO. 2
DEFINITIONS
(continued)

13. "Cubic Foot" –
- a. In cases where gas is supplied and metered to Customers at Standard Delivery Pressure, a cubic foot of gas is the volume of gas, which at the temperature and pressure existing in the meter occupies one (1) cubic foot.
 - b. Regardless of the pressure supplied to the Customer, the volume of gas metered will be converted to the volume which the gas would occupy at Standard Conditions.
 - c. The standard cubic foot of gas used for testing the gas for heating value shall be that volume of gas which, when saturated with water vapor and at a temperature of sixty (60) degrees Fahrenheit and under a pressure equivalent to that of thirty (30) inches of mercury (mercury at thirty-two (32) degrees Fahrenheit and under standard gravity), occupies one (1) cubic foot.
14. "Curtailed Priority" – The order in which gas service is to be curtailed to various classifications of Customers, as set forth in the Company's Pricing Plans Rates.
15. "Customer" – The person in whose name service is rendered, as evidenced by the signature on the application or contract for that service, or by the receipt and/or payment of bills regularly issued in the person's name regardless of the identity of the actual user of the service.
16. "Customer Charge" – The amount the Customer must pay the Company for the availability of gas service, excluding any gas used, as specified, in the Company's Pricing Plans Rates.
17. "Customer Service Complaint" - Written complaint received from a Customer, or through the ACC on behalf of a Customer.
18. "Day" – Calendar day.
19. "Decatherm" – Ten (10) therms or one million (1,000,000) BTUs.
20. "Distribution Main" – A gas line of the Company from which service lines may be extended to Customers.
21. "Elderly" – A person who is sixty-two (62) years of age or older.
22. "Excess Flow Valve" ("EFV") – A device that is designed to restrict the flow of gas in a single family residence natural gas service line by automatically closing in the event that it is broken downstream of the EFV, completely cut, torn apart or otherwise separated, usually caused by some type of excavation or digging activity.



SECTION NO. 2
DEFINITIONS
(continued)

23. "Handicapped" – A person with a physical or mental condition which substantially contributes to the person's inability to manage his or her own resources, carry out activities of daily living, or protect themselves from neglect or hazardous situations without assistance from others.
24. "Illness" – A medical ailment or sickness for which a residential Customer obtains a verifiable document from a licensed medical physician stating the nature of the illness and that discontinuance of service would be especially dangerous to the Customer's health.
25. "Inability to Pay" – Circumstances where a residential Customer:
 - a. Is not gainfully employed and is unable to pay; or
 - b. Qualifies for government welfare assistance, but has not begun to receive assistance on the date that the bill is received and can obtain verification from the government welfare agency; or
 - c. Has an annual income below the published federal poverty level and can produce evidence of this; and
 - d. Signs a declaration verifying that the Customer meets one of the above criteria and is either elderly, handicapped, or suffers from an illness.
26. "Incremental Contribution Study" ("ICS") – The study described in Section 7.B.4 of these Rules and Regulations.
27. "Interruptible Gas Service" – Gas service that is subject to interruption or curtailment as specified in the Company's Pricing Plans Rates.
28. "Law" – Any rule or requirement established and enforced by government authorities.
29. "Main Extension" – The lines and equipment necessary to extend the existing gas distribution system to provide service to additional Customers.
30. "Master Meter" – An instrument for measuring or recording the flow of gas at a single location from which said gas is transported through a piping system to tenants or occupants for their individual consumption.
31. "MCF" – One thousand (1,000) cubic feet.
32. "Meter" – The instrument for measuring and indicating or recording the volume of gas that has passed through it.
33. "Meter Set Assembly" ("MSA") – All gas components downstream of the Customer's inlet service valve to the Customer's point of delivery.

SECTION NO. 2
DEFINITIONS
(continued)

34. "Minimum Charge" – The amount the Customer must pay for the availability of gas service and may include an amount of usage, as specified in the Company's Pricing Plans Rates.
35. "Permanent Customer" – A Customer who is a tenant or owner of a service location who applies for and receives gas service.
36. "Permanent Service" – Service which, in the opinion of the Company, is of a permanent and established character. The use of gas may be continuous, intermittent, or seasonal in nature.
37. "Person" – Any individual, partnership, corporation, governmental agency, or other organization operating as a single entity.
38. "Point of Delivery" – The point of delivery for all gas delivered to any Customer shall be at the point of interconnection between the facilities of the Company and those of such Customer.
39. "Premises" – All of the real property and apparatus employed in a single enterprise or residence on an integral parcel of land undivided by public streets, alleys or railways.
40. "Pricing Plan Rate" – ~~A part of the Company's Tariffs which sets forth the rates and charges related to specific categories of Customers, and related terms and conditions. The charge(s), related term(s) and conditions of the Company's tariffs.~~
41. "Residential Subdivision" – Any tract of land which has been divided into four or more contiguous lots for use in the construction of residential buildings or permanent mobile homes for either single or multiple occupancy.
42. "Residential Use" – Service to Customers using gas for domestic purposes such as space heating, air conditioning, water heating, cooking, clothes drying, and other residential uses and includes use in apartment buildings, mobile home parks, and other multi-unit residential buildings.
43. "Restricted Apparatus" – An apparatus prohibited by the ACC, another governmental agency, or the Company.
44. "Rules and Regulations" or "Company Rules" – These Rules and Regulations, which are part of the Company's Tariffs and Pricing Plans Rates.

SECTION NO. 2
DEFINITIONS
(continued)

45. "Service Areas" – The territory in which the Company has been granted a certificate of convenience and necessity and is authorized by the ACC to provide gas service.
46. "Service Establishment Charge" – A charge as specified in the Company's Pricing Plans Rates which covers the cost of establishing a new account.
47. "Service Line" – A gas pipe that transports gas from a common source or supply (normally a distribution main) to the Customer's point of delivery.
48. "Service Reconnection Charge" – A charge specified in the Company's Pricing Plans Rates that must be paid by the Customer prior to re-establishment of gas service each time the gas is disconnected for nonpayment, or for failure to comply with the Company's Pricing Plans Rates. In addition to the Service Reconnection Charge, such returning Customer shall pay the sum of the applicable monthly Customer Charges which would have accrued had the Customer not been disconnected for non-payment or for failure to comply with the Company's Pricing Plans Rates within the preceding twelve (12) month period.
49. "Service Reestablishment Charge" – A charge specified in the Company's Pricing Plans Rates for the re-establishment of service at the same location where the same Customer had ordered a service disconnect within the preceding twelve (12) month period. In addition to the Service Re-establishment Charge, such returning Customer shall pay the sum of the applicable monthly Customer Charges which would have accrued had the Customer not ordered the disconnect.
50. "Service Transfer" – Transfer of service from one Customer to another, when the meter is not turned off.
51. "Single Family Dwelling" – A house, an apartment, or a mobile home permanently affixed to a lot, or any other permanent residential unit which is used as permanent home.
52. "Special Call-Out" – When Company personal is on-call and is called in from home at the request of the Customer in order to provide service.
53. "Standard Conditions" – 14.73 pounds per square inch absolute at sixty (60) degrees Fahrenheit.
54. "Standard Delivery Pressure" – 0.25 pounds per square inch gauge at the meter or point of delivery.
55. "Tampering" – A situation where a meter has been illegally altered. Common examples are meter bypassing and other unauthorized connections. Tampering also includes any action defined as "tampering" under A.R.S. § 40-491(4).

SECTION NO. 2
DEFINITIONS
(continued)

56. "Tariffs" – ~~The documents filed with the ACC that list the services offered by the Company and set forth the terms and conditions and a schedule of the rates and charges for those services and products. These Rules and Regulations are part of the Company's Tariffs. The Company's Pricing Plans are also part of the Company's Tariffs. The terms and conditions of the services offered by the Company, including a schedule of the rates and charges for those services.~~
57. "Temporary Service" – Service to premises or enterprises that are temporary in character, or where it is known in advance that the service will be of limited duration. Service that, in the opinion of the Company, is for operations of speculative character is also considered temporary service.
58. "Therm" – A unit of heating value, equivalent to one hundred thousand (100,000) BTUs.
59. "Third Party Notice" – A notice sent to a person willing to receive notification of the pending discontinuance of service to a Customer of record, in order to make arrangements on behalf of said Customer that are satisfactory to the Company.
60. "Transmission Line" - A gas line for delivering natural gas that operates at a hoop stress of twenty percent (20%) or more of Specified Minimum Yield Strength ("SMYS"), as defined in CFR 49, Part 192 or that transports gas to a single large volume Customer such as a distribution center, factory, power plant or institutional user.
61. "Trip Charge" – Charges set forth in the Company's Statement of Additional Charges for services such as a Service Transfer, Collection Fee, Customer-Requested Meter Re-read, or Multiple Attempts to Connect.
62. "Unauthorized" – Use of gas services that is not in accordance with ACC rules, the Company's Rules and Regulations, or the Company's Pricing Plans Rates.
63. "Weather Especially Dangerous to Health" – That period of time, commencing with the scheduled termination date, when *the local weather forecast as predicted by the National Oceanic and Atmospheric Administration, indicates that the temperature will not exceed thirty-two (32) degrees Fahrenheit for the next day's forecast.* The ACC may determine that other weather conditions are especially dangerous to health as the need arises.
64. "Yardline" – A gas pipe that transports gas from the Customer's point of delivery to the point of entry into the Customer's residence or other place of consumption.

SECTION NO. 3
ESTABLISHMENT OF SERVICE

A. Information From Applicants

1. The Company may obtain the following minimum information from each Applicant:

- a. Name or names of Applicant(s);
- a-b. Applicant's social security number or driver's license number;
- b-c. Service address or location and telephone number;
- e-d. Billing address or location and telephone number, if different than service address;
- d-e. Address where service was provided previously;
- e-f. Date Applicant will be ready for service;
- f-g. Indication of whether premises have been supplied with gas service previously;
- g-h. Purpose for which service is to be used;
- h-i. Indication of whether Applicant is owner or tenant of or agent for, the premises;
- i-j. Information concerning the gas usage and demand requirements of the Customer; and
- j. ~~Type and kind of life support equipment, if any, used by the Customer.~~

2. The Company may require a new Applicant for service to appear at the Company's designated place of business to produce proof of identity and sign the Company's application form.

3. Where service is requested by two or more individuals, the Company shall have the right to collect the full amount owed to the Company from any one of the Applicants.

4. An Applicant for gas service to new construction or a new extension shall complete the following Company form:

- a. New Service Application Form

The Customer is responsible for completing and returning the Application form. Failure on the part of the Customer to provide a completed form shall be grounds for the Company to delay or refuse service. For the purpose of this Rule, the definition of new construction/extension is where there is a need to run a new service line or install new gas facilities to a property that has never had prior natural gas service.

SECTION NO. 3
ESTABLISHMENT OF SERVICE
(continued)

B. Deposits

1. The Company may require from any present or prospective Customer a security deposit to guarantee payment of all bills. This deposit may be retained by the Company until service is discontinued and all bills have been paid; except as provided in Subsection B.4 below. Upon proper application by the Customer, the Company shall then return said deposit, together with any unpaid interest accrued thereon from the date of commencement of service or the date of making the deposit, whichever is later. The Company shall be entitled to apply said deposit together with any unpaid interest accrued thereon, to any indebtedness for the same class of service owed to the Company for gas service furnished to the Customer making the deposit. When said deposit has been applied to any such indebtedness, the Customer's gas service may be discontinued until all such indebtedness of the Customer is paid and a like deposit is again made with the Company by the Customer. No interest shall accrue on any deposit after discontinuance of the service to which the deposit relates.

The Company shall not require a deposit from a new Applicant for residential service if the Applicant is able to meet any of the following requirements:

- a. The Applicant has had service of a comparable nature with the Company at another service location within the past two (2) years and was not delinquent in payment more than twice during the last twelve (12) consecutive months, or was not disconnected for nonpayment; or
 - b. The Applicant can produce a letter regarding credit or verification from a gas or electric utility which states that the Applicant has had service of a comparable nature with that utility at another service location within the past two (2) years and was not delinquent in payment more than twice during the last twelve (12) consecutive months, or was not disconnected for nonpayment; or
 - c. In lieu of a cash deposit, a new Applicant may provide a ~~Letter of Guarantee from an existing Customer of the Company who is acceptable to the Company,~~ letter of credit, a surety bond, or similar alternative acceptable to the Company, such as a Certificate of Deposit, as security for Company in the sum equal to the required deposit; or
 - d. ~~If a credit check is offered by the Company,~~ The Applicant authorizes a credit check and meets the standards established by the Company.
2. The Company may issue a non-assignable, non-negotiable receipt to the Applicant for the deposit. The inability of the Customer to produce such a receipt shall in no way impair the Customer's right to receive a refund of the deposit which is reflected on the Company's records.



SECTION NO. 3
ESTABLISHMENT OF SERVICE
(continued)

3. Cash deposits held by the Company twelve (12) months or longer shall earn interest at the established one-year Treasury Constant Maturities rate, effective on the first business day of each year, as published in the Federal Reserve website. No interest will be paid on deposits for which Customers have turned service on and off within the same calendar month. Such payment of interest shall be made during January of each year for Customers served by the Company for at least six (6) months and will cover all interest accrued up to the end of the preceding calendar year or on the date the deposit is returned to the Customer, pursuant to Subsection B.4 below. At the Company's option, the above payments may be made either by check or by credit on the monthly bill.
- a. Residential Customers – Deposits or other instruments of credit will automatically expire or be refunded or credited to the Customer's account, after twelve (12) consecutive months of service during which time the Customer has not been delinquent more than two (2) times in a twelve month period.
- b. All Customers – Upon final discontinuance of the use of the service and full settlement of all bills by the Customer, any deposit, not previously refunded, with accrued interest, if any, in accordance with provisions of these Rules and Regulations will be returned to the Customer or, at the Company election, it may be applied to the payment of any unpaid accounts of the Customer and the balance, if any, returned to the Customer.
- ~~4. All deposits of residential or commercial Customers received and held by the Company shall be returned to the Customer by the Company (with interest, as provided by Subsection B.3 above), at such time as the affected Customers shall have maintained for a period of twelve (12) consecutive months (from and after the date when the deposit was made), their accounts with the Company. The Customer's accounts shall have been maintained in such a manner that they shall not have been delinquent in the payment of more than two (2) bills during such twelve (12) month period, whether at the same address or at a different address, nor have had their gas service, whether at the same address or at a different address, discontinued, in accordance with these Rules and Regulations, for failure to pay for gas service previously rendered.~~
- 5.4. The Company may require a Customer to establish or reestablish a deposit if the Customer became delinquent in the payment of three (3) or more bills within a twelve (12) consecutive month period, or has been disconnected from service during the last twelve (12) months.
- 6.5. The Company may review the Customer's usage after service has been connected and adjust the deposit amount based upon the Customer's actual usage. A separate deposit may be required for each meter installed.
- 7.6. Residential Customer deposits shall not exceed two (2) times that Customer's estimated average monthly bill. Non-residential Customer deposits shall not exceed two and one-half (2.5) times that Customer's maximum estimated monthly bill. If actual usage history is available, then that usage, adjusted for normal weather, will be the basis for the estimate.
- 8.7. The posting of a deposit shall not preclude the Company from terminating service when the termination is due to the Customer's failure to perform any obligation under the agreement for service or any of these Rules and Regulations.

SECTION NO. 3
ESTABLISHMENT OF SERVICE
(continued)

C. Grounds For Refusal Of Service

The Company may refuse to establish service if any of the following conditions exist:

1. The Applicant has an outstanding amount due for the same class of gas service with the Company and the Applicant is unwilling to make arrangements with the Company for payment; or
2. A condition exists which, in the Company's judgment, is unsafe or hazardous to the Applicant, the general population, or the Company's personnel or facilities; or
3. The Applicant refuses to provide the Company with a deposit when the Customer has failed to meet the credit criteria for waiver of deposit requirements; or
4. Customer is known to be in violation of the Company's ~~Pricing Plans~~ Rates; or
5. Customer fails to furnish such funds, service, equipment, and/or rights-of-way necessary to serve the Customer and which have been specified by the Company as a condition for providing service; or
6. Customer fails to provide access to the meter that would be serving the Customer.
6. Applicant falsifies his or her identity for the purpose of obtaining service.

D. Service Establishment, Re-establishment or Reconnection Charge

1. For the purpose of this Rule, the definition of service establishment is where the Customer's facilities are ready and acceptable to the Company, the Applicant has obtained all required permits and/or inspections indicating that the Applicant's facilities comply with local construction safety and governmental standards and regulations, and the Company needs only to install a meter, read a meter, or turn the service on.
2. The Company will charge for service establishment, re-establishment, or reconnection other than service transfers under usual operating procedures, during regular business hours as set forth in the Statement of Additional Charges.
3. Should service be established re-established, or reconnected during a period after the Company's regular business hours, at the Customer's request, the Customer will be required to pay an after-hour charge for the service connection as set forth in the Statement of Additional Charges. Where the Company's scheduling will not permit service establishment on the same day as requested, the Customer can elect to pay the after-hour charge for establishment that day, or his service will be established on the next available business day. Even so, a Customer's request to have the Company establish



~~UNS Gas, Inc.~~
~~Rules & Regulations~~

UNS Gas, Inc.
Rules & Regulations

Original Sheet No.: 900
Superseding: _____

service after-hours is subject to the Company having staff available; there is no guarantee that the Company will have the staffing available for service establishment, re-establishment or reconnection after business hours.
3.

Filed By: ~~Raymond S. Heyman~~ Kentton C. Grant
Title: ~~Senior Vice President and General Counsel of Finance and Rates~~
District: Entire UNS Gas Service Area

~~Tariff No.:~~ Effective: ~~Rules & Regulations~~ Pending
~~Effective:~~ Decision No.: ~~April 1, 2010~~ Pending
~~Page No.:~~ Rules and Rec ~~1 of 64~~

SECTION NO. 3
ESTABLISHMENT OF SERVICE
(continued)

4. For service re-establishments at the same location where the same Customer has ordered a service disconnect within the preceding twelve (12) month period, such returning Customer, in addition to the service reestablishment charge, shall pay the sum of the applicable monthly Customer Charges that would have accrued had the Customer not ordered the disconnect.
5. For service reconnections when due to the behavior of the Customer (i.e., nonpayment, failure to comply with the Company's Pricing Plans/Rates) it has been necessary for the Company to discontinue service utilizing other than usual operating procedures prior to reconnection of gas service each time the gas is disconnected, in addition to the service reconnection charge set forth in the Statement of Additional Charges, the Customer shall pay the sum of the applicable monthly Customer Charges that would have accrued had the Customer not been disconnected within the preceding twelve (12) month period.
6. The Company will charge for the establishment or re-establishment for service transfers only, as set forth in the Statement of Additional Charges.
7. ~~When~~After the Company has made ~~more than one~~ failed attempt to establish service due to the Customer's absence from home, facilities not being ready, or lack of access to the point of delivery, for the second attempt and each attempt thereafter, the Customer will be required to pay ~~thea multiple attempts to connect~~ charge as set forth in the Statement of Additional Charges, in addition to the service establishment charge.

E. Temporary Service

1. Applicants for temporary service may be required to pay to the Company, in advance of service establishment, the estimated cost of installing and removing the facilities necessary for furnishing the desired service.
2. Where the duration of service is to be less than one (1) month, the Applicant may also be required to advance a sum of money equal to the estimated bill for service.
3. Where the duration of service is to exceed one (1) month, the Applicant may also be required to meet the deposit requirements of the Company, as outlined in Subsection B.1 above.
4. If at any time during the term of the agreement for service the character of a temporary Customer's operations changes so that, in the opinion of the Company, the Customer is classified as permanent, the terms of the Company's main extension rules shall apply.

SECTION NO. 4
MINIMUM CUSTOMER INFORMATION REQUIREMENTS

A. Information for Residential Customers

1. The Company shall make available upon Customer request, no later than sixty (60) days from the date of request, a concise summary of the rate schedule applied for by such Customer. The summary shall include the following:
 - a. Monthly minimum or Customer charge, identifying the amount of the charge and the specific amount of usage included in the minimum charge, where applicable;
 - b. Rate blocks, where applicable; and
 - c. Any adjustment factor(s) and method of calculation.

2. Upon application or upon request, the Applicant or the Customer shall elect the applicable Pricing PlanRate best suited to their requirements. The Company may assist in making such election, but shall not be held responsible for notifying the Customer of the most favorable Pricing PlanRate and shall not be required to refund the difference in charges under different Pricing PlansRates.

However, new non-residential Customers whose projected consumption is near the threshold between "large" and "small" Pricing PlansRates, may elect the "small" rate, subject to refund, if their usage qualifies them as a "large" Customer. An existing non-residential Customer will be moved to the "large" rate, or once moved, back to the "small" rate, only if their consumption history or a clear permanent change in consumption makes it clear the Customer will meet the volume requirements of one Pricing PlanRate.

A review may be initiated by either the Company or the Customer. Any change of Pricing PlanRate, if appropriate, will be effective with the first bill issued seven (7) days after the initiation of the review. No adjustment of past billings due to Pricing PlanRate selection will be made to either the Company or the Customer, except for a new Customer who qualifies for the "large" Pricing PlanRate based on twelve (12) months of usage as set forth in this Rule.

3. Upon Customer request, the Company shall make available to the Customer, a copy of the ACC's Rules and Regulations (Arizona Administrative Code, Title 14, Article 3 - Gas Utilities) concerning:
 - a. Deposits;
 - b. Termination of Service;
 - c. Billing and Collection; and
 - d. Complaint Handling.

4. The Company, upon Customer request, shall transmit a written statement of actual consumption by the Customer for each billing period during the prior twelve (12) months unless such data is not reasonably ascertainable.

Filed By: Raymond S. Heyman~~Kentton C. Grant~~
Title: Senior Vice President and General Counsel of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Effective: Rules & Regulations~~Pendin~~
Effective:Decision No.: April 1, 2010~~Pending~~
Page No.: Rules and Reg 1 of 64

SECTION NO. 4
MINIMUM CUSTOMER INFORMATION REQUIREMENTS
(continued)

5. The Company shall inform all new Customers of their rights to obtain the information specified above.
6. The Company shall notify each Customer of the following information, in writing, within ninety (90) days after the Customer first receives gas service at a particular location:
 - a. The Company does not maintain the Customer's buried piping;
 - b. If the Customer's buried piping is not maintained, it may be subject to the potential hazards of corrosion and leakage;
 - c. Buried gas piping should be periodically inspected for leaks, periodically inspected for corrosion if the piping is metallic, and repaired if any unsafe condition is discovered;
 - d. When excavating near buried gas piping, the piping must be located in advance, and the excavation done by hand;
 - e. Plumbing contractors and heating contractors may assist in locating, inspecting, and repairing the Customer's buried piping; and
 - f. In order to reduce damage by outside forces, the Company is a member of the statewide one call system in all areas in which the Company has underground natural gas piping.

B. Information Required Due to Changes in Rates and Charges

1. The Company shall send affected Customers a concise summary of any changes in the Company's rates and charges significantly impacting those Customers.
2. This information shall be sent to the affected Customer(s) within sixty (60) days of the effective date of the change in the Company's rates and charges.



SECTION NO. 5
MASTER METERING

A. Mobile Home Parks – New Construction/Expansion

1. The Company shall refuse service to all new construction and/or expansion of existing permanent residential mobile home parks unless the construction and/or expansion are individually metered by the Company. Main extensions and service line connections to serve such new construction or expansion shall be governed by the main extension and/or service line connection policies of these rules and regulations.
2. Permanent residential mobile home parks for the purpose of this rule shall mean mobile home parks where the average length of stay for an occupant is a minimum of six (6) months.
3. For the purpose of this rule, expansion means construction which has been started for additional permanent residential spaces after the effective date of this rule.



SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS

A. Priority and Timing of Service Establishments

1. After an Applicant has complied with the Company's application and deposit requirements and has been accepted for service by the Company, the Company shall schedule that Customer for service establishment.
2. Service establishment shall be scheduled for completion within five (5) business days of the date the Customer has been accepted for service, except in those instances when the Customer requests service establishment beyond the five (5) business day limitation.
3. When the Company has made arrangements to meet with a Customer for service establishment purposes and the Company or the Customer cannot make the appointment during the prearranged time, the Company shall reschedule the service establishment appointment to the satisfaction of both parties.
4. The Company shall schedule service establishment appointments within a maximum range of four (4) hours during normal business hours, unless another time frame is mutually acceptable to the Company and the Customer. For any scheduled appointment an adult 18 years or older must be present.
5. Service establishments shall be made only by qualified service personnel of the Company or its authorized representatives.
6. For the purpose of this rule, service establishments can occur only when the Customer's facilities are ready and acceptable to the Company and the Company needs only to install, read the meter, or turn the service on.
7. Whenever an Applicant requests after-hours handling of his request, the Company shall charge a fee set forth in the Statement of Additional Charges unless a special call out is required. If a special call out is required, the charge shall be for a minimum of one (1) hour at a rate set forth in the Statement of Additional Charges for the service work on the Customer's premises. Special handling of calls and the related charges shall be made only upon request of the Applicant. Even so, a Customer's request to have the Company establish service after-hours is subject to the Company having staff available; there is no guarantee that the Company will have the staffing available for service establishment, re-establishment or reconnection after regular business hours.



SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS
(continued)

B. Facilities

1. Customer Provided Facilities

- a. An Applicant for service shall be responsible for the safety and maintenance of all Customer piping from the point of delivery to the point of consumption.
- b. Meters shall be installed in a location suitable to the Company where the meters will be safe from street traffic, readily and safely accessible for reading, testing and inspection, and where such activities will cause the least interference and inconvenience to the Customer. The Customer shall provide, without cost to the Company and at a suitable and easily accessible location, sufficient and proper space for the installation of meters.
- c. Where the meter or service line location on the Customer's premises is changed at the request of the Customer or due to alterations on the Customer's premises, the Customer shall provide, and have installed at his expense, all Customer piping necessary for relocating the meter and the Company may make a charge for moving the meter and/or service line.
- d. On all newly-constructed Customer piping at the meter interconnection, the Customer will be required to install necessary piping and equipment before the meter is installed.

2. Company Provided Facilities

- a. The Company will install, at its own expense, the meter set assembly ("MSA") at a suitable location near the side wall of the Customer's building approximately three (3) feet or more from that front corner of the building nearest to the street in which the Company's distribution main is located. However, the Company, at its option, has the right to locate the meter at any location meeting the criteria of Subsection B.1.b of this section.

The three (3) feet as noted above refers to the approximate location of the meter from the corner of the building that is nearest to the street in which the distribution main servicing that Customer is located. The gas service riser, service cock, regulator and meter are all above ground. The service from the Company's distribution main to the building is below ground.

SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS
(continued)

- b. The Company or authorized representative will install the gas service line and make all connections of the gas service line from the distribution main to the service riser. The Company will in all cases be responsible for the cost of construction of the service line from the Company's distribution main to the Customer's property line for an amount not to exceed the allowable investment as calculated by the Incremental Contribution Study (see Section No. 7, Subsection B), with the Customer reimbursing the Company for the difference. The Customer will reimburse the Company for the gas service line on the Customer's property at a rate of twenty-two dollars and fifty cents (\$22.50) per foot. The Customer is responsible for removal of landscaping prior to installation or be subject to applicable charges. For Customers who provide the trench for the service line on the Customer's property, Section No. 7, Subsection B.4.d will apply and the Customer will reimburse the Company at a rate of sixteen dollars and fifty cents (\$16.50) per foot. The Customer, at the Customer's own expense, shall furnish, install, and be responsible for all other pipe, fittings, connections, and appurtenances between the point of delivery and each point of consumption. The cost of installation, paid by the Applicant, shall be the average actual cost of installation, calculated and averaged annually by the Company.
- c. No Customer-owned pipe shall be directly connected with the Company's distribution mains or services. No connection shall be made by the Customer between the facilities of the Company, including the meter, service cock and regulator and those of the Customer, nor shall any facilities of the Company be set, connected, disconnected, removed, repaired or altered except by the Company's representatives.
- d. A single meter and a single point of delivery may be used to supply a group of buildings, such as those of a hospital or industrial establishment under single ownership or control. Such applications may fall under the Master Meter rule as defined in the Arizona Administrative Code.
- e. The Company may decline service to mobile residences or portable or other temporary structures if the conditions do not afford adequate protection for the occupant(s) thereof, or the persons or property of others. In no event will gas service be permitted, if to the Company's knowledge, the Customer or the Customer's facilities fail to meet applicable requirements of law, of the State, or of any local code.

SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS
(continued)

3. Easements and Right-of-Way

Each Customer shall grant, at no cost to the Company, an adequate easement and right-of-way, satisfactory to the Company to ensure proper service connection. Failure on the part of the Customer to grant an adequate easement and right-of-way shall be grounds for the Company to refuse service.

4. Unauthorized work or facilities

When the Company discovers that a Customer or the Customer's Agent has performed work or has constructed facilities that has altered the installation of the Company's facilities to the point that work is necessary to restore the previously installed Company facilities to meet regulatory or Company requirements, the Company shall notify the Customer or the Customer's Agent and the Company shall take whatever actions are necessary to eliminate the hazard or violation at the Customer's expense.

5. Point of Delivery

The point of delivery for all gas delivered to any Customer shall be at the point of interconnection between the facilities of the Company and those of the Customer.

6. Excess Flow Valve Installation

In accordance with Title 49, Section 192.381 of the Code of Federal Regulations and requirements set forth in HR5782, the installation of an Excess Flow Valve ("EFV") shall be performed by the Company on each single family residence service line connected to its distribution system whether the service line is installed or entirely replaced.

- a. The Applicant shall provide the Company information concerning the gas usage and demand requirements. The EFV will be designed and constructed so that suitable gas capacity is available and satisfactory to the Company.
- b. The Company will construct, own, operate, and maintain the EFV in connection with the service line installation.
- c. Costs associated with the mandated installation of the EFV shall be paid by the Applicant as a nonrefundable Contribution in Aid of Construction ("CIAC").
 - i. The cost of installation, paid by the Applicant, shall be the average actual cost of installation, calculated and averaged annually by the Company.

SECTION NO. 6
SERVICE LINES AND ESTABLISHMENTS
(continued)

- d. Where it is necessary to change or alter the EFV, due to a request or alteration of the Customer's premise by the Customer, the Customer shall reimburse the Company for all expenses in connection with upgrading or removing the EFV.
- e. The Company shall pay for all costs associated with replacement or maintenance of the EFV in connection with a line replacement or maintenance project.

SECTION NO. 7
EXTENSION OF LINES

Extensions of gas distribution services and mains necessary to furnish permanent service to Applicants will be made in accordance with this rule.

A. General

The Company will construct, own, operate and maintain service line and distribution main extensions.

1. Gas service lines will be designed and installed so that suitable capacity from the Company's distribution main to a meter location on the property of the Applicant is satisfactory to the Company. If downstream usage changes or is altered by the Customer, the Customer may be responsible for costs to upgrade or enlarge the service line to accommodate additional capacity requirements.
2. Gas distribution main extensions will be only along public streets, roads, and highways, which the Company has legal right to occupy, and on public lands and private property across which rights-of-way, satisfactory to the Company, may be obtained.
3. All Company distribution mains and service lines shall be installed in accordance with all applicable Company standards.

B. Service and Main Extensions to Applicants for Service

General Policy – All service line and main line extension agreements are made on the basis of economic feasibility.

1. Facility Charge – If any Applicant fails to use natural gas for equipment stated in the application and used as the basis for estimating the allowable investment within four (4) months of the completion of the main, the Company may bill the Applicant for the incremental cost allowed towards the extension of service. The Applicant shall pay within forty-five (45) days the charge as a non-refundable contribution towards the cost of extending service.
2. At its option, the Company may require a performance bond or other surety guaranteeing bona fide operation of the facility for which the extension is requested, in accordance with Applicant's representation in the contract.



SECTION NO. 7
EXTENSION OF LINES
(continued)

3. Master Meter Extensions – If the residential Customers are tenants in a fully improved master-metered mobile home park ("MMP") and the MMP is currently or was formerly served as a master-metered mobile home park, the allowable investment for the MMP will be calculated by the following Incremental Contribution Method and formula:

$$AI = (FR - CR) \times 5$$

where: AI = Allowable Investment

FR = The MMP's estimated future total annual revenue, assuming conversion to individual residential service, using the MMP's average park occupancy for the past two (2) years, less the Company's current average cost of purchased gas.

CR = The MMP's current total annual revenue, under the applicable schedule, averaged for the past two (2) years, less the Company's current average cost of purchased gas. If the MMP is not a current Customer of the Company, the CR will be determined on the basis of engineering estimates of occupancy and usage.

The Company will install that portion of each service in excess of the allowed investment subject to a nonrefundable contribution to be paid by the Applicant MMP prior to construction. In no event shall costs above the allowable investment be borne by the Company.

4. Incremental Contribution Method – Gas service line and main line extensions will be made by the Company at its expense for an amount not to exceed the allowable investment as calculated by an Incremental Contribution Study ("ICS").
- a. Allowable investment shall mean a determination by the Company that the revenues less the incremental gas cost to serve the Applicant provides a rate of return on the Company's investment no greater than the weighed average cost of capital authorized by the ACC in the Company's most recent general rate case.
 - b. If the ICS has an allowable investment that is more than the cost of the main extension, then the excess amount may be applied to reduce the cost of service line installation up to the Customer's property line, except that it shall not be used to reduce the cost of excess flow valve installation which shall be paid by the Customer.
 - c. The Company, after conducting an ICS, may at its option, extend its facilities to Customers whose usage does not satisfy the definition of economic feasibility, but who otherwise are permanent Customers, provided the Customer pays a nonrefundable contribution, necessary to make the extension economically feasible.
 - d. Applicants may provide trenching for service lines and/or distribution mains to the Company's specifications and the Applicant's costs will be reduced accordingly.

SECTION NO. 7
EXTENSION OF LINES
(continued)

- e. Customers provided with line extensions using the ICS shall be reviewed annually for a period of five (5) years to determine the amount of any refund, as described in Subsection B.5 below.
- f. For the purposes of this rule, "economic feasibility" means that the estimated incremental revenues derived from serving the Applicant, less the incremental gas cost to serve the Applicant, meets the estimated costs of serving the Applicant, including meeting capital costs as determined by the weighted average cost of capital authorized by the ACC in the Company's most recent general rate case. An extension will not be considered economically feasible if the Applicant does not install a functioning water heater and furnace within four (4) months of the completion of the main.

5. Method of Refund

Amounts advanced by the Customer(s) in accordance with this rule, less any unpaid Facility Charges, shall be refunded, without interest, in the following manner:

- a. Refunds of an advance shall be made for each additional separately metered permanent service connected to the main extension for which an advance was collected using an ICS that includes the additional Customer(s).
- b. No refunds will be made for additional Customers connecting to a further extension or series of extensions constructed beyond the original extension.
- c. The Customer may request an annual survey to determine if additional Customers have been connected to and are using service from the extension. In no case shall the amount of the refund exceed the amount originally advanced.
- d. The refund period shall be five (5) years from the date of the completion of the extension. No refunds will be made by the Company after the termination of the refund period. Any portion of the advance that remains unrefunded at the end of the refund period shall be considered an unrefundable contribution.
- e. Any assignment by a Customer of their interest in any part of an advance, which at the time remains unrefunded, must be made in writing and approved by the Company.
- f. Amounts advanced under a gas main extension rule previously in effect will be refunded in accordance with the provisions of that rule.

SECTION NO. 7
EXTENSION OF LINES
(continued)

C. Service and Main Extensions to Service Individually Metered Subdivisions, Tracts, Housing Projects, Multi-Family Dwellings and Mobile Home Parks or Estates

1. Advances

- a. Gas distribution service and main extensions to and within individually metered subdivisions, tracts, housing projects, multi-family dwellings and mobile home parks or estates will be constructed, owned and maintained by the Company in advance of applications for service by bona fide Customers only when the entire estimated cost of such extensions as determined by the Company, is advanced to the Company, and a main extension agreement is executed. This advance may include the cost of any gas facilities installed at the Company's expense in conjunction with a previous service or main extension in anticipation of the current extension.
- b. The Company may require a subdivider, builder or developer to provide trenching for service lines and/or distribution mains and may also require the subdivider, builder or developer to provide bedding & shading material to Company specifications.
- c. For developers who have entered into a main extension agreement and facilities have been installed and then they or some other party request subsequent reconfiguring of facilities or other changes requiring additional expenditures by the Company, these new costs will be entirely paid for with a non-refundable contribution and any refunds will be made in accordance with the original agreement. No additional agreement or extension of the time for refunds will be made to cover the area piped under the original extension agreement.
- d. Upon completion of installation, the Company will perform a reconciliation of the estimate to actual costs incurred and may bill the Customer for any variance with the new amount included in the refundable balance, or at the Company's option withhold refunds until the underpayment is satisfied.
- e. See Subsection B.3 above for requests to serve MMP through individual residential meters if the MMP is currently or was formerly served under an MMP schedule.
- f. Refunds will be made to developers as described in Subsection B.5 above.

D. General Conditions

1. Postponement of Advance

The Company, at its option, may postpone, for a period not to exceed five (5) years that portion of an advance which it estimates would be refunded under the provisions of this rule. At the end of such refund period, the Company shall collect all such amounts not previously advanced. When advances are postponed, the Applicant may be required to furnish to the Company, a Company-approved surety, to assure payment of any postponed amounts throughout the term of the facilities extension agreement up until the end of the postponement period.

SECTION NO. 7
EXTENSION OF LINES
(continued)

2. The Applicants or developer will provide property location, tax identification numbers, lot numbers, street names and other property information helpful to planning an extension.
3. **Contracts**
 - a. Each Applicant requesting an extension in advance of applications for service will be required to execute a main extension agreement covering the terms under which the Company will install distribution mains in accordance with the provisions of the Company's Pricing Plans Rates.
 - b. At the time service is requested, the Applicant will submit a list of natural gas equipment to be used including the BTU input.
4. **One Service for a Single Premise**
 - a. The Company will not install more than one service line to supply a single premise, unless it is for the convenience of the Company or an Applicant requests an additional service, and in the opinion of the Company, an unreasonable burden would be placed on the Applicant if the additional service were denied. When an additional service is installed at the Applicant's request, the Applicant shall make a nonrefundable contribution for the additional service based on the Company's estimated cost.
 - b. When a service extension is made to a meter location upon private property which is subsequently subdivided into separate premises, with the ownership portions thereof divested to other than the Applicant or the Customers, the Company shall have the right, upon written notice, to discontinue service without obligation or liability. Gas service, as required by the Applicant or Customer, will be reestablished in accordance with the applicable provisions of the Company's rules.
5. **Branch Services**

The Company, at its option, may install a branch service for units on adjoining premises.

SECTION NO. 7
EXTENSION OF LINES
(continued)

6. Main Extension Agreement Requirements

- a. Upon request by an Applicant for a main extension, the Company shall prepare, without charge, a preliminary sketch and rough estimate of the cost of the installation to be advanced by the Applicant.
- b. Any Applicant for a main extension requesting the Company to prepare detailed plans, specifications, or cost estimates may be required to deposit with the Company an amount equal to the estimated cost of preparation. The Company shall, upon request, make available within ninety (90) days after receipt of the deposit referred to above, such plans, specifications, or cost estimates of the proposed main extension. Where the Applicant authorizes the Company to proceed with the construction of the extension, the deposit shall be credited to the cost of construction; otherwise, the deposit shall be nonrefundable. If the extension is to include oversizing of facilities to be done at the Company's expense, appropriate details shall be set forth in the plans, specifications and cost estimates. Subdividers providing the Company with approved subdivision plats shall be provided with plans, specifications or cost estimates within forty-five (45) days after receipt of the deposit referred to above.
- c. The estimated cost of main extension and any resulting Main Extension Agreement is valid for ninety (90) days from the date of Company issue. Any signed agreement with appropriate payment where construction does not commence within ninety (90) days may be subject to review, recalculation and adjustment of advance requirements.
- d. Where the Company requires an Applicant to advance funds for a main extension, the Company will furnish the Applicant, upon request, with a copy of this rule prior to the Applicant's acceptance of the Company's extension agreement.

SECTION NO. 7
EXTENSION OF LINES
(continued)

- e. All main extension agreements requiring payment by the Applicant shall be in writing, signed by each party and shall include the following:
- i. Name and address of Applicant(s);
 - ii. Proposed service address(es) or location(s);
 - iii. Description and sketch of the requested main extension;
 - iv. Description of requested service differentiated by Customer class;
 - v. Number of Customers served;
 - vi. Estimated cost to construct facilities;
 - vii. The Company's estimated start date and completion date for construction of the main extension;
 - viii. Each Applicant shall be provided a copy of the approved main extension agreements;
 - ix. Payment terms; and
 - x. A concise explanation of any refunding provisions, if applicable.

7. Relocation of Service Lines and Distribution Mains

- a. When, in the judgment of the Company, the relocation of a distribution main or service line is necessary and is due either to maintenance of adequate service or the operating convenience of the Company, the Company shall perform such work at its own expense.
- b. If relocation of a distribution main or service line is due solely to meet the convenience or the requirements of the Applicant or the Customer, such relocation, including metering and regulating facilities, shall be performed by the Company at the expense of the Applicant or the Customer.
- c. Relocation of facilities will be mandatory and at the Customer's expense when actions of the Customer restrict the Company's access to or the safety of the facility.

8. Standby Service or Residential Pool Heating

No allowance will be made for equipment used for standby or emergency purposes only or for equipment used for residential pool heating under Section No. 7, Subsection B.4.

SECTION NO. 7
EXTENSION OF LINES
(continued)

9. Temporary Service

Extensions for temporary service or for operations, which in the opinion of the Company are of a speculative character or are of questionable permanency, will require an advance for the entire cost of the facilities needed, with provision for a refund using an ICS calculated annually, or at the termination of the temporary service.

10. Length and Location

The length of distribution mains or service lines required for an extension will be considered as the distance along the shortest practical and available route, as determined by the Company, from the Company's nearest permanent distribution main.

11. Service Impairment to Other Customers

When, in the judgment of the Company, providing service to an Applicant would impair service to other Customers, the cost of necessary reinforcement to eliminate such impairment may be included in the cost calculation for the extension.

12. Service From Transmission Lines

The Company will not tap a gas transmission main except when, in its sole opinion, conditions justify such a tap. Where such taps are made, the Applicant will pay the Company the cost of the tap, and extensions from the tap will be made in accordance with the provisions of this rule.

13. Other Types of Connections

Where an Applicant or Customer requests a type of service connection other than standard such as curb meters and vaults, etc., the Company will consider each such request and will grant such reasonable allowance as it may determine. The Company shall install only those facilities that it determines are necessary to provide standard natural gas service in accordance with the Company's Pricing Plans Rates. Where the Applicant requests the Company to install special facilities which are in addition to, or in substitution for, or which result in higher costs than the standard facilities which the Company would normally install, the extra cost thereof shall be borne by the Applicant.

SECTION NO. 7
EXTENSION OF LINES
(continued)

14. Exceptional Cases

In unusual circumstances, when the application of this rule appears impractical or unjust to either party, the Company or the Applicant may refer the matter to the ACC for special ruling or for the approval of special conditions which may be mutually agreed upon, prior to commencing construction.

15. Taxes Associated with Nonrefundable Contributions and Advances

Any federal, state or local income taxes resulting from a nonrefundable contribution or advance by the Customer in compliance with this rule will be recorded as a deferred tax and appropriately reflected in the Company's rate base. However, if the estimated cost of facilities for any service line or distribution main extension exceeds \$500,000, the Company may require the Applicant to include in the contribution or advance an amount (the "gross up amount") equal to the estimated federal, state or local income tax liability of the Company resulting from the contribution or advance, computed as follows:

$$\text{Gross Up Amount} = \frac{\text{Estimated Construction Cost}}{(1 - \text{Combined Federal-State-Local Income Tax Rate})}$$

After the Company's tax returns are completed, and actual tax liability is known, to the extent that the computed gross up amount exceeds the actual tax liability resulting from the contribution or advance, the Company shall refund to the Applicant an amount equal to such excess. When a gross-up amount is to be obtained in connection with an extension agreement, the contract will state the tax rate used to compute the gross up amount, and will also disclose the gross-up amount separately from the estimated cost of facilities. In subsequent years, as tax depreciation deductions are taken by the Company on its tax returns for the constructed assets with tax bases that have been grossed-up, a refund will be made to the Applicant in an amount equal to the related tax benefit. Such refunds will be in addition to any required refunds of actual construction costs required by the extension agreement. In lieu of scheduling such refunds over the remaining tax life of the constructed assets, a reduced lump sum refund may be made at the time when actual construction costs are refunded in full. This lump sum payment shall reflect the net present value of remaining tax depreciation deductions discounted at the Company's authorized rate of return.

SECTION NO. 8
PROVISION OF SERVICE

A. Company Responsibility

1. The Company shall be responsible for the safe transmission and distribution of gas until it passes the point of delivery to the Customer.
2. The Company shall be responsible for maintaining in safe operating condition all meters, regulators, service pipe or other fixtures installed on the Customer's premises by the Company for the purpose of delivering gas to the Customer.
3. The Company may, at its option, refuse service until the Customer's pipes and appliances have been tested and found to be safe, free from leaks, and in good operating condition. Proof of such testing shall be in the form of a certificate executed by a licensed plumber or local inspector certifying that the Customer's facilities have been tested and are in safe operating condition.
4. The Company shall be required to test the Customer's piping for leaks when the gas is turned on. If such tests indicate leakage in the Customer's piping, the Company shall refuse to provide service until such time as the Customer has had the leakage corrected.
5. The Company shall be responsible for the operation and maintenance of all facilities up to the outlet of the meter installed by the Company or its authorized agent.

B. Customer Responsibility

1. Each Customer shall be responsible for maintaining in safe operating condition all Customer piping fixtures and appliances on the Customer's side of the point of delivery.
2. Each Customer shall be responsible for safeguarding all Company property installed in or on the Customer's premises for the purpose of supplying gas service.
3. Each Customer shall exercise all reasonable care to prevent loss or damage to Company property, excluding ordinary wear and tear. The Customer shall be responsible for loss of or damage to, Company property on the Customer's premises arising from neglect, carelessness, or misuse and shall reimburse the Company for the cost of necessary repairs and replacements that arise from neglect, carelessness, or misuse.
4. Each Customer shall be responsible for payment for any equipment damage and/or estimated unmetered usage resulting from unauthorized breaking of seals, interfering, tampering, or by-passing the Company's meters. This remedy is cumulative to any other remedy available to Company under law or ACC rules.



SECTION NO. 8
PROVISION OF SERVICE
(continued)

- 5. Each Customer shall be responsible for promptly notifying the Company of any gas leakage identified in the Customer's or the Company's equipment.
- 6. The Customer will be responsible for the loss of gas or damage caused by gas in piping beyond the Company's meter.
- 7. No rent or other charge whatsoever will be made by the Customer against the Company for placing or maintaining meters, regulators, service lines, fixtures, etc. upon the Customer's premises.

C. Continuity of Service

The Company shall make reasonable efforts to supply a satisfactory and continuous level of service.

D. Liability

- 1. The Company shall not be responsible for any damage or claim of damage attributable to any interruption or discontinuation of service resulting from the following:
 - a. Any cause against which the Company could not have reasonably foreseen or made provision for;
 - b. Intentional service interruptions to make repairs or perform routine maintenance; or
 - c. Curtailment.
- 2. Neither the Company nor the Customer shall be liable to the other for any act, omission or circumstances (including, with respect to the Company, but not limited to, inability to provide service) occasioned by or in consequence of flood, rain, wind, storm, lightning, earthquake, fire, landslide, washout or other acts of the elements, or accident or explosion, or war, rebellion, civil disturbance, mobs, riot, blockade, terrorist actions, or other acts of the public enemy, or acts of God, or interference of civil and/or military authorities, or strikes, lockouts or other labor difficulties, or vandalism, sabotage or malicious mischief, or usurpation of power, or the laws, rules, regulations or orders made or adopted by any regulatory or other governmental agency or body (federal, state or local) having jurisdiction of any of the business or affairs of the Company or the Customer, direct or indirect, or breakage or accidents to equipment or facilities, or lack, limitation or loss of electrical or gas supply, or any other casualty or cause beyond the reasonable control of the Company or the Customer, whether or not specifically provided herein and without limitation to the types enumerated, and which by the exercise of due diligence such party is unable to prevent or overcome; provided, however, that nothing contained herein shall excuse the Customer from the obligation of paying for gas delivered or services rendered.



SECTION NO. 8
PROVISION OF SERVICE
(continued)

3. A failure to settle or prevent any strike or controversy with employees or with anyone purporting or seeking to represent employees shall not be considered to be a matter within the control of the Company.
4. Company will not be responsible for any third-party claims against Company that arise from Customer's use of Company's gas.
5. Customer will indemnify, defend and hold harmless the Company (including the costs of reasonable attorney's fees) against all claims (including, without limitation, claims for damages to any business or property, or injury to, or death of, any person) arising out of any act or omission of the Customer, or the Customer's agents, in connection with the Company's service or facilities.
6. The liability of the Company for damages of any nature arising from errors, mistakes, omissions, interruptions, or delays of the Company, its agents, servants, or employees, in the course of establishing, furnishing, rearranging, moving, terminating, or changing the service or facilities or equipment shall not exceed an amount equal to the charges applicable under the Company's ~~Pricing Plan~~ Rate (calculated on a proportionate basis where appropriate) to the period during which such error, mistake, omission, interruption or delay occurs.
7. In no event shall the Company be liable for any incidental, indirect, special, or consequential damages (including lost revenue or profits) of any kind whatsoever regardless of the cause or foreseeability thereof.
8. The Company shall not be responsible for any loss or damage occasion or caused by the negligence or wrongful act of the Customer or any of his agents, employees or licensees in installing, maintaining, using, operating or interfering with any regulators, gas piping, appliances, fixtures or apparatus.

E. Change in Character of Service

1. When a change is made by the Company in the type of service rendered which would adversely affect the efficiency of operation or require the adjustment of the equipment of Customers, all Customers who may be affected shall be notified by the Company at least thirty (30) days in advance of the change or, if such notice is not possible, as early as feasible. Where adjustments or replacements of the Company's standard equipment must be made to permit use under such changed condition, adjustments shall be made by the Company without charge to the Customers.

SECTION NO. 8
PROVISION OF SERVICE
(continued)

F. Service Interruptions

1. The Company shall make reasonable efforts to reestablish service within the shortest possible time when service interruptions occur.
2. The Company shall make reasonable provisions to meet emergencies resulting from failure of service and shall issue instructions to its employees covering procedures to be followed in the event of emergencies in order to prevent or mitigate interruption or impairment of service.
3. In the event of a national emergency or local disaster resulting in disruption of normal service, the Company may, in the public interest, interrupt service to other Customers to provide necessary service to civil defense or other emergency service agencies on a temporary basis until normal service to these agencies can be restored.
4. When the Company plans to interrupt service for more than four (4) hours to perform necessary repairs or maintenance, the Company shall attempt to inform affected Customers of the scheduled date and estimated duration of the service interruption at least twenty-four (24) hours in advance. Such repairs shall be completed in the shortest possible time to minimize the inconvenience to the Customers.
5. The ACC shall be notified of interruptions in service affecting the entire system or any major division of the entire system. The interruption of service and the cause shall be reported by telephone to the ACC within one (1) hour after the responsible representative of the Company becomes aware of said interruption, and shall be followed by a written report to the ACC.

G. Heat Value Standard for Natural Gas

The Company shall supply gas to its Customers with an average total heating value of not less than nine hundred (900) BTUs per cubic foot. The number of BTUs per cubic foot actually delivered through the Customer's meter will vary according to the altitude and elevation of the location where the Customer is being provided service.

SECTION NO. 8
PROVISION OF SERVICE
(continued)

H. Standard Delivery Pressure

1. The Company shall maintain the Standard Delivery Pressure at the outlet of the Customer's meter, subject to variation under load conditions.
2. In cases where a Customer desires service at greater than Standard Delivery Pressure, the Company may supply, at its option, such greater pressure if and only as long as the furnishing of gas to such Customer at higher than standard delivery pressure will not be detrimental to the service of other Customers of the Company. The Company reserves the right to lower the delivery pressure or discontinue the delivery of gas at higher pressure at any time upon reasonable notice to the Customer. Where service is provided at pressure higher than Standard Delivery Pressure, the meter volumes shall be corrected to that higher pressure.

I. Determination of Therms for Billing

1. Heating Value – The heating value (BTU per cubic foot) of the natural gas delivered will vary depending on the source of supplies received by the Company. The average heating values will be determined from the volumetric weighted average heating values of the supplies received by the Company.
2. Metered Volumes – The number of therms to be billed will be determined by multiplying the difference in meter readings by an appropriate billing factor.
 - a. Therms are determined from the volumes measured by the following:

$$\frac{\text{A}}{14.73 \text{ Atmospheric Pressure at Sea Level}} \times \frac{\text{B}}{100,000 \text{ BTU per Therm}} \times \text{C} \text{ Super Compressibility Factor}$$

Where:

- A = Correction for atmospheric pressure at elevation and applicable delivery pressure
- B = Applicable heating value of natural gas received
- C = Correction for super compressibility ratio

- b. Atmospheric Pressures at Elevations within the Company's service territory are outlined in the following table. At such time additional elevation bands are needed within the various areas served by the Company, new bands will be added.



**UNSGas, Inc.
Rules & Regulations**

**UNSGas, Inc.
Rules & Regulations**

Original Sheet No.: 900
Superseding: _____

**SECTION NO. 8
PROVISION OF SERVICE
(continued)**

Elevation Range	Atmospheric Pressure Base
201 - 400	14.57206
401 - 600	14.46665
601 - 800	14.36200
801 - 1000	14.25810
1001 - 1200	14.15495
1201 - 1400	14.05253
1401 - 1600	13.95084
1601 - 1800	13.84987
1801 - 2000	13.74962
2001 - 2200	13.65007
2201 - 2400	13.55122
2401 - 2600	13.45306
2601 - 2800	13.35558
2801 - 3000	13.25878
3001 - 3200	13.16265
3201 - 3400	13.06718
3401 - 3600	12.97237
3601 - 3800	12.87820
3801 - 4000	12.78468
4001 - 4200	12.69179
4201 - 4400	12.59954
4401 - 4600	12.50791
4601 - 4800	12.41689
4801 - 5000	12.32648
5001 - 5200	12.23668
5201 - 5400	12.14748
5401 - 5600	12.05887
5601 - 5800	11.97084
5801 - 6000	11.88340
6001 - 6200	11.79653
6201 - 6400	11.71023
6401 - 6600	11.62449

Filed By: Raymond S. Heyman Kentton C. Grant
 Title: Senior Vice President and General Counsel of Finance and Rates
 District: Entire UNS Gas Service Area

Tariff No.: Effective: Rules & Regulations Pending
Effective: Decision No.: April 1, 2010 Pending
 Page No.: Rules and Reg 1 of 64



**UNS Gas, Inc.
Rules & Regulations**

**UNS Gas, Inc.
Rules & Regulations**

Original Sheet No.: 900
Superseding: _____

**SECTION NO. 8
PROVISION OF SERVICE
(continued)**

Elevation Range	Atmospheric Pressure Base
6601 - 6800	11.53932
6801 - 7000	11.45469
7001 - 7200	11.37061
7201 - 7400	11.28708
7401 - 7600	11.20408

J. Construction Standards and Safety

The Company's pipelines and pipeline facilities for the transportation of gas within the State of Arizona shall conform with and be subject to the Federal Safety Standards as adopted by the United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration. The Company maintains and updates an Operation and Maintenance plan and an Emergency plan. Upon discovery of occurrence, the Company will report all incidents as required under the Arizona Administrative Code, R14-5-203.

Filed By: Raymond S. Heyman Kentton C. Grant
Title: Senior Vice President and General Counsel of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Effective: Rules & Regulations Pending
Effective: Decision No.: April 1, 2010 Pending
Page No.: Rules and Reg 1 of 64

SECTION NO. 9
METER READING

- A. Company or Customer Meter Reading
1. The Company may, at its discretion, allow for Customer reading of meters.
 2. It shall be the responsibility of the Company to inform the Customer how to properly read the Customer's meter.
 3. Where a Customer reads the meter, the Company will read the Customer's meter at least once every six (6) months.
 4. The Company shall specify the timing requirements for the Customer to submit the monthly meter reading to conform to the Company's billing cycle.
 5. In the event the Customer fails to submit the meter reading on time, the Company may issue the Customer an estimated bill.
 6. Meters shall be read monthly on as close to the same day each month as practical.
- B. Measuring of Service
1. All gas sold by the Company shall be metered, except in the case of gas sold according to a fixed charge schedule, or when otherwise authorized by the ACC.
 2. When there is more than one (1) meter at a location, the metering equipment shall be so tagged or plainly marked as to indicate the facilities being metered.
 3. If and when the Company installs multiple meters or service lines to serve a single Customer for the Company's convenience, meter readings may be combined for billing purposes.
- C. Customer-Requested Meter Rereads
1. At the request of a Customer, the Company will reread that Customer's meter within ten (10) business days after such request by the Customer.
 2. Any reread will be charged to the Customer at a rate set forth in the Statement of Additional Charges, provided that the original reading was not in error
 3. When a reading is found to be in error, the re-read shall be at no charge to the Customer.



UNSGas, Inc.
Rules & Regulations

UNSGas, Inc.
Rules & Regulations

Original Sheet No.: 900
Superseding:

SECTION NO. 9
METER READING
(continued)

D. Access to Customer Premises

The Company shall have the right of safe ingress to and egress from the Customer's premises at all reasonable hours for any purpose reasonably connected with the furnishing of service and the exercise of any and all rights secured to the Company by law or the ACC's rules or the Company's Pricing Plans Rates.

E. Customer-Requested Meter Tests

The Company shall test a meter upon Customer request and shall be authorized to charge the Customer for such meter test. The charge for the meter test is set forth in the Statement of Additional Charges. However, if the meter is found to be in error by more than three percent (3%), no fee will be charged to the Customer.

Filed By: ~~Raymond S. Heyman~~ Kentton C. Grant
Title: ~~Senior Vice President and General Counsel~~ of Finance and Rates
District: Entire UNSGas Service Area

Tariff No.: Effective: Rules & Regulations Pending
Effective: Decision No.: April 1, 2010 Pending
Page No.: Rules and Reg 1 of 64

SECTION NO. 10
BILLING AND COLLECTION

A. Frequency and Estimated Bills

1. The Company shall bill monthly for services rendered. Meter readings shall be scheduled for periods of not less than twenty-five (25) days or more than thirty-five (35) days.
2. If the Company is unable to read a meter on the scheduled meter read date, the Company will estimate the consumption for the billing period, giving consideration to the following factors where applicable:
 - a. The Customer's usage history in the previous twelve (12) months; and
 - b. The amount of usage during the preceding month.
3. After the second consecutive month of estimating the Customer's bill for reasons other than severe weather, the Company will attempt to secure an accurate reading of the meter.
4. Failure on the part of the Customer to comply with a reasonable request by the Company for access to the Customer's meter may lead to the discontinuance of service.
5. Estimated bills will be issued only under the following conditions:
 - a. Failure of a Customer who reads his or her own meter to deliver the meter reading card to the Company in accordance with the requirements of the Company's billing cycle;
 - b. Severe weather conditions which prevent the Company from reading the meter; or
 - c. Circumstances that make it impossible to read the meter, such as locked gates, blocked meters, and vicious or dangerous animals, etc.
6. Each bill based on estimated usage will indicate that it is an estimated bill.

**SECTION NO. 10
BILLING AND COLLECTION
(continued)**

B. Combining Meters - Minimum Bill Information

1. Each meter at a Customer's premises will be considered separately for billing purposes; and the readings of two (2) or more meters will not be combined unless approved by the Company.
2. Each bill for sales service will contain the following minimum information:
 - a. Date and meter reading at the start of billing period or number of days in the billing period;
 - b. Date and meter reading at the end of the billing period;
 - c. Billed usage;
 - d. Rate schedule number;
 - e. Company's telephone number;
 - f. Customer's name;
 - g. Service account number;
 - h. Amount due and due date;
 - i. Past due amount;
 - j. Adjustment factor, where applicable;
 - k. Taxes; and
 - l. The Arizona Corporation Commission's address.

C. Billing Terms

1. All bills for gas service are due and payable no later than ten (10) days from the date the bill is rendered. Any payment not received within this time-frame shall be considered past due and may be subject to a late payment finance charge as set forth in the Statement of Additional Charges. If the tenth (10th) day falls on a weekend or holiday, then the past due date is extended to the next business day.

SECTION NO. 10
BILLING AND COLLECTION
(continued)

2. For purposes of this rule, the date the bill is rendered shall be the latest of the following:
 - a. The postmark date;
 - b. The mailing date; or
 - c. The billing date shown on the bill (however, the billing date shall not differ from the postmark or mailing date by more than two (2) days.
3. All past due bills for gas service are due and payable within fifteen (15) days. Any payment not received within this time-frame shall be considered delinquent and will be issued a suspension of service notice. For Customers under the jurisdiction of a bankruptcy court, a more stringent payment or prepayment schedule may be required, if allowed by that court.
 - a. The amount of the late payment penalty shall not exceed one and one-half percent (1.5%) of the delinquent bill, applied on a monthly basis.
4. All delinquent bills for which payment has not been received within five (5) days shall be subject to the provisions of the Company's suspension of service procedures.
5. All payments shall be made at or mailed to the office of the Company or to the Company's duly authorized representative.
6. A past due payment may be collected by a Company representative at the Customer's premises for a fee as set forth in the Statement of Additional Charges.

D. Applicable ~~Pricing Plans~~ Rates, Prepayments, Failure to Receive, Commencement Date

1. Each Customer shall be billed under the ~~Pricing Plan~~ Rate indicated in the Customer's application for service.
2. The Company shall make provisions for advance payment for Company services.
3. Failure to receive bills or notices which have been properly placed in the United States mail or posted electronically shall not prevent such bills from becoming delinquent and does not relieve the Customer of the Customer's obligations therein.
4. Charges for service commence when the service is installed and connection made, whether used or not.



SECTION NO. 10
BILLING AND COLLECTION
(continued)

E. Meter Error Corrections

1. If, after testing, any meter is found to be more than three percent (3%) in error, either fast or slow, proper correction between three percent (3%) and the amount of the error shall be made on previous readings, and adjusted bills shall be rendered according to the following terms:
 - a. For the period of three (3) months immediately preceding the removal of such meter from service for testing or from the time the meter was in service since last tested, but not exceeding three (3) months since the meter shall have been shown to be in error by such test.
 - b. From the date the error occurred, if the date of the cause can be definitely fixed.
2. No adjustment shall be made by the Company except to the Customer last served by the meter tested.

F. Nonsufficient Funds ("NSF") Checks and Denied Electronic Funds Transfers

1. The Company shall be allowed to recover a fee set forth in the Statement of Additional Charges, for each instance where a Customer tenders payment for a Company service with an NSF check. This fee shall also apply when an electronic funds transfer ("EFT") is denied for any reason, including for lack of sufficient funds.
2. When the Company is notified by the Customer's bank that there are insufficient funds to cover the check tendered for service, or an EFT has been denied for any reason, the Company may require the Customer to make payment in cash, by money order or certified check, or by other means which guarantee the Customer's payment to the Company.
3. A Customer who tenders an NSF check or for whom an EFT is denied, shall in no way be relieved of the obligation to render payment to the Company under the original terms of the bill, nor defer the Company's provision for termination of service for nonpayment of bills.
4. No personal checks will be accepted if two (2) NSF checks have been received by the Company within a twelve (12) month period in payment of any billing.

G. Elevation/Pressure Adjustment

The Company shall adjust for pressure according to the procedures in Section 8.H of these Rules and Regulations.

SECTION NO. 10
BILLING AND COLLECTION
(continued)

H. Deferred Payment Plan

1. The Company may, prior to termination of service, offer a deferred payment plan to qualifying residential Customers for the payment of unpaid bills for gas service.
2. Each deferred payment agreement entered into by the Company and the Customer, due to the Customer's inability to pay an outstanding bill in full, shall provide that service will not be discontinued if:
 - a. The Customer agrees to pay a reasonable amount of the outstanding bill at the time the parties enter into the deferred payment agreement;
 - b. The Customer agrees to pay all future bills for gas service in accordance with the Company's Pricing Plans Rates; and
 - c. The Customer agrees to pay a reasonable portion of the remaining outstanding balance in installments.
3. For the purposes of determining a reasonable installment payment schedule under these Rules, the Company and the Customer shall give consideration to the following conditions:
 - a. The size of the delinquent account;
 - b. The Customer's ability to pay;
 - c. The Customer's payment history;
 - d. The length of time that the debt has been outstanding;
 - e. The circumstances which resulted in the debt being outstanding; and
 - f. Any other relevant factors related to the circumstances of the Customer.
4. Any Customer who desires to enter into a deferred payment agreement shall establish such agreement prior to the Company's scheduled service termination date for nonpayment of bills. The Customer's failure to execute a deferred payment agreement prior to the scheduled service termination date shall not prevent the Company from terminating service for nonpayment.
5. Deferred payment agreements may be in writing and may be signed by the Customer and an authorized Company representative.



SECTION NO. 10
BILLING AND COLLECTION
(continued)

- 6. A deferred payment agreement may include a finance charge of one and one-half percent (1.5%) per month.
 - 7. If a Customer does not fulfill the terms of a deferred payment agreement, the Company shall have the right to disconnect service pursuant to the Company's termination of service rules (Section 11 of these Rules) and, under such circumstances, it shall not be required to offer subsequent negotiation of a deferred payment agreement prior to disconnection.
- I. Change of Occupancy
- 1. Not less than three (3) business days advance notice must be given in person at the Company's office, in writing, or by telephone to discontinue service or to change occupancy.
 - 2. The outgoing party shall be responsible for all Company services provided and/or consumed up to the scheduled turn-off date.
- J. Electronic Billing

Electronic Billing is an optional billing service whereby Customers may elect to receive, view, and pay their bills electronically. Electronic Billing includes the "UES e-bill" service and the "Sure No Hassle Automatic Payment ("SNAP") service. The Company may modify its electronic billing services from time to time. A Customer electing an electronic billing service may receive an electronic bill in lieu of a paper bill. Customers electing an electronic billing service may be required to complete additional forms and agreements. Electronic billing may be discontinued at any time by the Company or the Customer. An electronic bill will be considered rendered at the time it is electronically sent to the Customer. Failure to receive bills or notices which have been properly sent by an electronic billing system does not prevent such bills from becoming delinquent and does not relieve the Customer of the Customer's obligations therein. Any notices which Company is required to send to a Customer who has elected an electronic billing service may be sent by electronic means at the option of the Company. Except as otherwise provided in this subsection, all other provisions of the Company's Rules and Regulations and other applicable Pricing Plans Rates are applicable to electronic billing.

SECTION NO. 11
TERMINATION OF SERVICE

A. Non-Permissible Reasons to Disconnect Service

1. The Company may not disconnect service for any of the reasons stated below:

- a. Delinquency in payment for services rendered to a prior Customer at the premises where service is being provided, except in the instance where the prior Customer continues to reside on the premises.
- b. Failure of the Customer to pay for services or equipment that are not regulated by the ACC.
- c. Nonpayment of a bill related to another class of service.
- d. Failure to pay a bill to correct a previous under-billing due to an inaccurate meter or meter failure, if the Customer agrees to pay over a reasonable period of time.
- e. The Company may not terminate residential service where the Customer has an inability to pay and:
 - i. The Customer can establish through medical documentation that, in the opinion of a licensed medical physician, termination of service would be especially dangerous to the health of the Customer or to the health of a permanent resident residing on the Customer's premises;
 - ii. ~~Life supporting equipment is used in the home that is dependent on Company service for operation of such apparatus; or~~
 - iii. ~~ii.~~ Where weather will be especially dangerous to health as defined herein or as determined by the ACC.
- f. Residential service to persons who have an inability to pay and who have an illness, are elderly, or who are handicapped will not be terminated until all of the following have been attempted:
 - i. The Customer has been informed of the availability of funds from various government and social assistance agencies; and
 - ii. A third party previously designated by the Customer has been notified and has not made arrangement to pay the outstanding Company bill.

A Customer utilizing the provisions of Subsection A.1.e or A.1.f above may be required to enter into a deferred payment agreement with the Company within ten (10) days after the scheduled service termination date.
- g. Failure to pay the bill of another Customer as guarantor thereof.
- h. Disputed bills where the Customer has complied with the ACC's rules on Customer bill disputes.

SECTION NO. 11
TERMINATION OF SERVICE
(continued)

B. Termination of Service Without Notice

1. The Company may disconnect service without advance written notice under the following conditions:
 - a. The existence of an obvious hazard to the safety or health of the Customer, the general population or which imperils service to other Customers;
 - b. The Company has evidence of tampering or fraud;
 - c. There is an unauthorized resale or use of gas services that is not in accordance with the ACC's rules and/or these Rules and Regulations or other Company Pricing Plans Rates; or
 - d. The Customer has failed to comply with the curtailment procedures imposed by the Company in accordance with the Company's Pricing Plans Rates.
2. The Company shall not be required to restore service until the conditions which resulted in the termination have been corrected to the satisfaction of the Company.
3. The Company shall maintain a record of all terminations of service without notice. This record shall be maintained for a minimum of one (1) year and shall be available for inspection by the ACC.

C. Termination of Service With Notice

1. The Company may disconnect service to any Customer for any reason stated below, provided that the Company has met the notice requirements described in Section 11.D below:
 - a. Customer violation of any of the Company's Pricing Plans Rates;
 - b. Failure of the Customer to pay a delinquent bill for gas service;
 - c. Failure of the Customer to meet agreed upon deferred payment arrangements;
 - d. Failure to meet or maintain the Company's deposit requirements;
 - e. Failure of the Customer to provide the Company reasonable access to its equipment and property;
 - f. Customer breach of a written contract for service between the Company and Customer; or
 - g. When necessary for the Company to comply with an order of any governmental agency having such jurisdiction.
2. The Company shall maintain a record of all terminations of service with notice. This record shall be maintained for one (1) year and shall be available for ACC inspection.

SECTION NO. 11
TERMINATION OF SERVICE
(continued)

D. Termination Notice Requirements

1. The Company may not terminate service to any of its Customers without providing advance written notice to the Customer of the Company's intent to disconnect service, except under those conditions specified where advance written notice is not required.
2. Such advance written notice shall contain, at a minimum the following information:
 - a. The name of the person whose service is to be terminated and the address where service is being rendered;
 - b. The ~~Pricing Plan~~Rate that was violated and explanation of the violation or the amount of the bill, which the Customer has failed to pay in accordance with the payment policy of the Company, if applicable;
 - c. The date on or after which service may be terminated; and
 - d. A statement advising the Customer that the Company's stated reason for the termination of services may be disputed by contacting the Company at a specific address or phone number, advising the Company of the dispute and making arrangements to discuss the cause for termination with a responsible employee of the Company in advance of the scheduled date of termination. The responsible employee shall be empowered to resolve the dispute and the Company shall retain the option to terminate service after affording this opportunity for a meeting, concluding that the reason of terminating is just, and advising the Customer of his right to file a complaint with the ACC.
3. Where applicable, a copy of the termination notice will be simultaneously forwarded to designated third parties.

E. Timing of Terminations With Notice

1. The Company shall be required to give at least five (5) days advance written notice prior to the termination date. For Customers under the jurisdiction of a bankruptcy court, a shorter notice may be provided, if permitted by that court.
2. Such notice shall be considered to be given to the Customer when a copy of the notice is left with the Customer or posted first class in the United States mail, and addressed to the Customer's last known address.
3. If, after the period of time allowed by the notice has elapsed, the delinquent account has not been paid nor arrangements made with the Company for the payment of the bill, or in the case of a violation of the Company's rules the Customer has not satisfied the Company that such violation has ceased, the Company may terminate service on or after the day specified in the notice without giving further notice.

SECTION NO. 11
TERMINATION OF SERVICE
(continued)

4. Service may only be disconnected in conjunction with a personal visit to the premises by an authorized representative of the Company.
5. The Company shall have the right, but not the obligation, to remove any or all of its property installed on the Customer's premises upon the termination of service.

F. Landlord/Tenant Rule

1. In situations where service is rendered at an address different from the mailing address of the bill or where the Company knows that a landlord/tenant relationship exists and that the landlord is the Customer of the Company, and where the landlord as Customer would otherwise be subject to disconnection of service, the Company may not disconnect service until the following actions have been taken:
 - a. Where it is feasible to provide service, the Company, after providing notice as required in these rules, shall offer the occupant the opportunity to subscribe for service in the occupant's own name. If the occupant then declines to subscribe, the Company may disconnect service pursuant to the rules.
 - b. The Company shall not attempt to recover payment of any outstanding bills or other charges due on the outstanding account of the landlord from a tenant. The Company shall not condition service to a tenant based on the payment of any outstanding bills or other charges due upon the outstanding account of the landlord.



SECTION NO. 12
ADMINISTRATIVE AND HEARING REQUIREMENTS

A. Customer Service Complaints

1. The Company shall make a full and prompt investigation of all service complaints made by its Customers, either directly to the Company or through the ACC.
2. The Company shall respond to the complainant and/or the ACC representative within five (5) business days as to the status of the Company's investigation of the complaint.
3. The Company shall notify the complainant and/or the ACC representative of the final disposition of each complaint. Upon request of the complainant or the ACC representative, the Company shall report the findings of its investigation in writing.
4. The Company shall inform the Customer of the right of appeal to the ACC.
5. The Company shall keep a record of all written service complaints received and which shall contain, at a minimum, the following data:
 - a. Name and address of complainant;
 - b. Date and nature of complaint;
 - c. Disposition of the complaint; and
 - d. A copy of any correspondence between the Company, the Customer, and/or the ACC.

This record shall be maintained for a minimum period of one (1) year and shall be available for inspection by the ACC.

SECTION NO. 12
ADMINISTRATIVE AND HEARING REQUIREMENTS
(continued)

B. Customer Bill Disputes

1. Any Customer who disputes a portion of a bill rendered for gas service shall pay the undisputed portion of the bill prior to the delinquent date of the bill, and notify the Company's designated representative that any unpaid amount is in dispute.
2. Upon receipt of the Customer's notice of dispute, the Company shall:
 - a. Notify the Customer within five (5) business days of the receipt of a written dispute notice.
 - b. Initiate a prompt investigation as to the source of the dispute.
 - c. Withhold disconnection of service until the investigation is completed and the Customer is informed of the results. Upon request of the Customer, the Company shall report the results of the investigation in writing.
 - d. Inform the Customer of the right of appeal to the ACC.
3. Once the Customer has received the results of the Company's investigation, the Customer shall submit payment within five (5) business days to the Company for any disputed amounts. Failure to make full payment shall be grounds for termination of service.

C. ACC Resolution of Service and/or Bill Disputes

1. In the event a Customer and the Company cannot resolve a service and/or bill dispute, the Customer shall file a written statement with the ACC. By submitting such written notice to the ACC, the Customer shall be deemed to have filed an informal complaint against the Company.

SECTION NO. 12
ADMINISTRATIVE AND HEARING REQUIREMENTS
(continued)

2. Within thirty (30) days of the receipt of a written statement of Customer dissatisfaction related to a service or bill dispute, a designated representative of the ACC shall endeavor to resolve the dispute by correspondence and/or by telephone with the Company and the Customer. If resolution of the dispute is not achieved within twenty (20) days of the ACC representative's initial effort, the ACC shall hold an informal hearing to arbitrate the resolution of the dispute. The informal hearing shall be governed by the following rules:
- Each party may be represented by legal counsel, if desired;
 - All such informal hearings may be recorded or held in the presence of a stenographer;
 - All parties will have the opportunity to present written or oral evidentiary material to support the positions of the individual parties; and
 - All parties and the ACC's representative shall be given an opportunity for cross-examination of the various parties.

The ACC's representative will render a written decision to all parties within five (5) business days after the date of the informal hearing. Such written decision of the ACC's representative is not binding on any of the parties and the parties will still have the right to make a formal complaint to the ACC.

3. The Company may implement normal termination procedures if the Customer fails to pay all bills rendered during the resolution of the dispute by the ACC.
4. The Company shall maintain a record of written statements of dissatisfaction and their resolution for a minimum of one (1) year and make such records available for ACC inspection.
- D. Notice by Company of Responsible Officer or Agent
- The Company shall file with the ACC a written statement containing the name, business address and telephone numbers (office and mobile) of at least one officer, agent or employee responsible for the general management of its operations as a Company in Arizona.
 - The Company shall give notice, by filing a written statement with the ACC, of any change in the information required herein within five (5) days from the date of any such change.

SECTION NO. 13
BUDGET BILLING PAYMENT PLAN

- A. The Company may, at its option, offer its Customers Budget Billing Payment Plan ("Plan") for payment of charges for gas service.
- B. The Company will develop, upon Customer request, an estimate of the Customer's levelized billing for a twelve (12) month period based on:
1. The Customer's actual consumption history at the service location, which may be adjusted for weather or other known variations. If sufficient history is not available, then an estimate will be prepared based on other similar service locations and Customer's anticipated load requirements; and
 2. The applicable Pricing PlanRate, the estimated gas costs for the Plan year, and applicable taxes.
- C. The Company shall provide the Customer with a concise explanation of how the levelized billing estimate was developed, the impact of levelized billing on a Customer's monthly bill, and the Company's right to adjust the Customer's billing for any variation between the Company's estimated billing and actual billing.
- D. The Plan's monthly payment shall be determined as follows: Settlement month will be the Customer's anniversary date, twelve (12) months from the time the Customer is set up on the Budget Billing Payment Plan. The Company reserves the right to adjust the remaining monthly Plan semi-annually to reduce the likelihood of an excessive debt or credit balance in rates due to dramatic PGA increases or PGA surcharges.
1. The Company reserves the right to adjust the remaining monthly Plan payments of any Customer at any time if the Company's estimate of the Customer's usage and/or cost varies significantly from the Customer's actual usage and/or cost. Such review may also be initiated by the Customer. Any change resulting from such a review will be effective on a subsequent bill and no further notice is required.
 2. The Customer shall continue to pay the monthly Plan payment amount each month, notwithstanding the current gas service charge shown on the bill.
 3. Any other charges incurred by the Customer shall be paid monthly when due in addition to the monthly Plan payment.
 4. Interest will not be charged to the Customer on accrued debit balances nor paid by the Company on accrued credit balances.
 5. Any amount due the Company will be settled and paid at the time a Customer, for any reason, ceases to be a participant in the Plan. If an amount due to the Customer exceeds fifty dollars (\$50.00), the Customer has the option to receive a bill credit or a refund; otherwise the credit will remain as a bill credit.

SECTION NO. 13
BUDGET BILLING PAYMENT PLAN
(continued)

6. Any Customer's participation in the Plan may be discontinued by the Company if the monthly Plan payment has not been paid on or before the billing date of the next monthly Plan payment.
7. If a Customer in the Plan shall cease, for any reason, to participate in the Plan, then the Company may refuse that Customer's re-entry in the Plan for six (6) months.
8. For those Customers being billed under the Plan, the Company shall show, at a minimum, the following information on the Customer's monthly bill:
 - a. Actual consumption;
 - b. Amount due for actual consumption;
 - c. Levelized billing amount due; and
 - d. Accumulated variation in actual versus levelized billing amount.

SECTION NO. 14
CURTAILMENT PLAN

- A. The Company shall use reasonable diligence in its operations to render continuous service to all its Customers other than those Customers served under ~~Pricing Plans~~ Rates expressly permitting interruptions of service for peak shaving purposes. If for any reason, however, the Company is unable to supply the demand for gas in any one or more of its systems, interruptions or curtailments of service shall be made in accordance with the provisions of this section. The Company shall not be liable for damages because of the operation of this section.
- B. Applicability
1. The order of curtailment shall be in inverse order of the curtailment priorities set forth in Subsection C below.
 2. Curtailment priorities shall apply to both sales and transportation Customers.
 3. Customers being served under a discounted transportation or sales rate schedule shall be curtailed first. Customers paying the least will be curtailed first within an affected priority.
 4. Each priority shall be curtailed in full before the next priority in order is curtailed.
 5. When Priority 1 Customers would be curtailed due to system supply failure (either upstream capacity or supply failure), the Company is authorized to "preempt" deliveries of lower priority transportation Customers' gas and divert such supplies to the otherwise affected Priority 1 Customers. Affected transportation Customers will be curtailed to the same extent as sales Customers of the same priority. Such transportation Customers will be compensated for the preemption of their gas supply by either crediting the Customer's account with a like quantity of gas for use on a subsequent gas day, or by providing a cash payment or credit to the Customer's bill at the cost of gas per unit paid by the Customer. If the gas supply of an alternate fuel-capable transportation Customer is preempted according to this provision, the Company shall provide additional compensation to such Customer for the incremental cost of using the alternate fuel, (the difference between the actual cost of using the alternate fuel and the actual cost of gas paid by the Customer for the preempted gas). Such credit shall be applied to the Company's next scheduled billing after the Customer has furnished adequate proof to the Company concerning alternate fuel costs, replacement volumes, and gas costs.
 6. The installation of a cogeneration facility shall not affect the underlying end-use priority of the establishment.
 7. Natural gas utilized as compressed natural gas for vehicle fuel shall be classified as a commercial end-use.



SECTION NO. 14
CURTAILMENT PLAN
(continued)

- 8. Application of curtailment priorities will normally be done on a scheduled basis as part of the daily gas requirement nomination and confirmation routine. Operational emergency curtailment will conform to these priorities to the extent possible and practical.
- 9. A transportation Customer may be curtailed to the level of actual supply scheduled for that Customer, regardless of end-use priority.

C. Priorities

- Priority 1: Residential, small commercial (less than five hundred (500) therms on a peak day), schools, hospitals, police protection, fire protection, sanitation facility, correctional facility, and emergency situation uses.
- Priority 2A: Essential agricultural uses as certified by the Secretary of Agriculture.
- Priority 2B: Essential industrial process and feedstock uses.
- Priority 2C: Large Commercial (five hundred (500) therms or more on a peak day) and storage injection requirements, industrial requirements for plant protection, feedstock, process, ignition and flame stabilization needs not specified in Priority 2B.
- Priority 3A: Industrial requirements not specified in Priorities 2, 4, and 5, of less than one thousand (1,000) therms on a peak day.
- Priority 3B: All industrial requirements not specified in Priorities 2, 3A, 4, and 5.
- Priority 4: Industrial requirements for boiler fuel use at less than thirty thousand (30,000) therms per peak day, but more than fifteen thousand (15,000) therms per peak day, where alternate fuel capabilities can meet such requirements.
- Priority 5: Industrial requirements for large volume (thirty thousand (30,000) therms per peak day or more) boiler fuel use where alternate fuel capabilities can meet such requirements.

- D. In the event of isolated incidents in order to avoid hazards and protect the public, the Company may temporarily interrupt service to certain Customers without regard to priority or any other Customer classification.

SECTION NO. 14
CURTAILMENT PLAN
(continued)

E. Definitions

1. "Alternate Fuel Capability" – A situation where an alternate fuel can be utilized whether or not the facilities for such use have actually been installed.
2. "Correctional Facility Uses" – A facility, the primary function of which is to house, confine, or otherwise limit the activities of a person who has been assigned to such facilities as punishment by a court of law.
3. "Essential Agricultural Use" – Any use of natural gas which is certified by the Secretary of Agriculture as an "essential agricultural use."
4. "Essential Industrial Process and Feedstock Uses" – Any use of natural gas by an industrial Customer as process gas, or as a feedstock, or gas used for human comfort to protect health and hygiene in an industrial installation.
5. "Feedstock Gas" – Natural gas use for which alternate fuels are not technically feasible, such as in applications requiring precise temperature controls and precise flame characteristics. For the purposes of this definition, propane and other gaseous fuels shall not be considered alternate fuels.
6. "Fire Protection Uses" – Natural gas used by and for the benefit of fire fighting agencies in the performance of their duties.
7. "Flame Stabilization Gas" – Natural gas which is burned by igniters, main gas burners, or warm-up burners for the purpose of maintaining stable combustion of an alternate fuel.
8. "Hospital" – A facility, the primary function of which is delivering medical care to patients who remain at the facility (facility includes nursing and convalescent homes). Outpatient clinics or doctors' offices are not included in this definition.
9. "Ignition Gas" – Natural gas supplied to gas igniters in boilers to light main burners, whether the main burners are operated by gas, oil, or coal.
10. "Industrial Boiler Fuel" – Natural gas used in a boiler as a fuel for the generation of steam or electricity.
11. "Industrial Use" – Natural gas used primarily in a process which creates or changes raw or unfinished materials into another form or product, including electric power generation.
12. "Peak Day" – Maximum daily Customer use as determined by the best practical method available.



SECTION NO. 14
CURTAILMENT PLAN
(continued)

13. "Plant Protection Gas" – Minimum natural gas volumes required to prevent physical harm to the plant facilities or danger to plant personnel when such protection cannot be afforded through the use of an alternate fuel. This includes the protection of such material in process as would otherwise be destroyed, but shall not include deliveries required to maintain plant production. For the purposes of this definition, propane and other gaseous fuels shall not be considered alternate fuels.
14. "Police Protection Uses" – Natural gas used by law enforcement agencies in the performance of their duties.
15. "Process Gas" – Natural gas use for which alternate fuels are not technically feasible, such as in applications requiring precise temperature controls and precise flame characteristics. For the purposes of this definition, propane and other gaseous fuels shall not be considered alternate fuels.
16. "Sanitation Facility Uses" – Natural gas use in a facility where natural gas is used to a) dispose of refuse, or b) protect and maintain the general sanitation requirements of the community at large.
17. "School" – A facility, the primary function of which is to provide instruction to regularly enrolled students in attendance at such facility. Facilities used for both educational and non-educational activities are not included under this definition unless the latter activities are merely incidental to the provision of instruction.
18. "Small Commercial Establishment" – Any establishment (including institutions and local, state, and federal government agencies) engaged primarily in the sale of goods or services where natural gas is used:
 - a. in amounts of less than fifty (50) MCF on a peak day; and
 - b. for purposes other than those involving manufacturing or electric power generation.
19. "Storage Injection Gas" – Natural gas injected by a distributor into storage for later use.

SECTION NO. 15
RATES AND UNIT MEASUREMENT

- A. The rates and charges for gas service shall be those of the Company legally in effect and on file with the ACC.
- B. All Rates set forth in the Company's Pricing Plans Tariffs are stated in therms. Unless otherwise provided by special contract, the number of therms delivered to any Customer shall be determined by measuring the volume of gas passing through that Customer's meter during the month to the nearest one hundred (100) cubic feet and applying the procedures of Section 8.H of these Rules and Regulations.
- C. The unit of volume for measurement of gas sold shall be one (1) Cubic Foot of gas, as defined in Subsection 2.A.13 of these Rules and Regulations. The volume of gas measured shall be rounded to the nearest one hundred (100) cubic feet for any given period.
- D. The atmospheric pressure will be the standard atmospheric pressure for the location.
- E. The standard serving pressure shall be seven (7) inches of water pressure (four (4) ounces per square inch gauge) above the atmospheric pressure.
- F. The standard temperature of sixty (60) degrees Fahrenheit will be used for volume determination unless stated otherwise under special contract. The Company shall retain the right, but shall not be obligated, to install temperature recording or compensating equipment as part of the measuring facilities. When such temperature recording equipment is used, the arithmetic average temperature of the gas each day, during periods of flow only, shall be used in computing the quantity of gas delivered by that day.
- G. The Company, at its own option, may elect to serve a Customer at a pressure higher than the standard serving pressure. The Company shall correct such volume to Standard Conditions by the use of compensating equipment or the use of a factor. The Company retains the right to determine the method used for applying such correction. The factor used to correct the measured volume shall be in accordance with American Gas Association Report 3.
- H. The therm conversion factor shall be determined each month and shall be the product of the conversion factor and the most recent heating value content available using the weighted average delivered pressure by office. The weighted average delivered pressure is derived monthly using the delivered pressure for each town code served which is reflective of each town code's elevation, weighted by the sales distribution among assigned gas distribution systems within each respective office. Further explained in Section 8.H. of these Rules and Regulations.



**SECTION NO. 16
GAS METER TESTING AND MAINTENANCE PLAN**

A. General Plan

The Company will annually sample groups of meters to determine the continuing accuracy and performance of the group. Certain safe and proper standards are defined, and meters will remain in service as long as they meet these standards. This program will allow the Company to obtain all the useful service available from a meter until the meter no longer meets prescribed standards. At that time, then it is proper for the meter to be removed, tested, repaired, or retired.

This procedure is for the purpose of testing and controlling the performance of small gas meters that are two hundred fifty (250) CFH or less. The program will identify and remove meters that do not meet the standards of performance described in Subsection D below, and identify and retain in service meters that do meet or exceed the stated standards. Meters are classified into groups, samples of each group are tested annually, and groups are removed from service when they do not meet performance standards.

B. Meter Groups

1. Meters are segregated into groups on the following basis:

- a. Year last repaired or purchased;
- b. Manufacturer;
- c. Diaphragm type (leather or synthetic), when available; and
- d. Geographic district.

2. For meters repaired or purchased in a given year, the groups are established at the beginning of the next year. When a new group being established is found to contain less than one thousand (1,000) meters, this group may be combined with another group having meters of the same or similar operating characteristics. An existing group may be divided into two or more groups, if experience characteristics of part of the group are sufficiently different from the remainder of the group to warrant separate sampling of the parts.

C. Sampling

A representative random sample is selected from each group of meters. The samples are used in determining the performance of each group of meters each year. If the initial order for meter removals does not produce an adequate sample, additional meters are drawn on a random basis. These meters are combined with the original sample for determining acceptability of the group. Samples are taken annually from all groups that have been in service for ten (10) years or longer.



SECTION NO. 16
GAS METER TESTING AND MAINTENANCE PLAN
(continued)

D. Performance Standard

The criteria for acceptability for a group to remain in service are:

1. No more than ten percent (10%) of the meters tested in the group are more than three percent (3%) fast.
2. At least eighty percent (80%) of the meters tested in the group are within +/- three percent (3%) of zero error. This results in a condition wherein a minimum of ninety percent (90%) of the meters remaining in service are either within +/- three percent (3%) or are more than three percent (3%) slow and in the Customer's favor.

E. Records

The test results for each group are kept in appropriate records that indicate the number of meters in the sample versus the test results, expressed as a percent.

F. Removal of Groups

1. A test result falling on or above the prescribed standards is satisfactory and the groups will remain in service.
2. A test falling below the prescribed standards is not satisfactory and the group will be removed from service.
3. The Company, for its convenience, may remove a group (or part of a group) even though the group meets the requirements for remaining in service.



SECTION NO. 16
GAS METER TESTING AND MAINTENANCE PLAN
(continued)

G. Annual Reports

A report of the meter performance control program will be filed annually with the ACC, which will contain the following:

1. A description of each group, showing its identification, size and composition;
2. A list of the total number of meters tested, at Company initiative or upon Customer request;
3. A detailed list of the performance results of each group, showing the number of meters in the group, the number of meters removed during the year, the number of meters not tested (dead, non-registering, damaged, etc.), the number of meters tested, the number of meters slow - minus three percent (-3%), the number of meters accurate, the percent of meters accurate, the number of meters fast - plus three percent (+3%), and the percent of meters fast;
4. A summary of results for each year of service; and
5. A summary of the overall results.



SECTION 17
STATEMENT OF ADDITIONAL CHARGES

A.	Trip Charge:	
	1. Service Transfer	\$20.00
	2. Collection Fee (<u>Collection at Customer Premise, Door Hanging Fee</u>)	\$20.00
	3. Customer-Requested Meter Reread	\$20.00
	4. Multiple Attempts to Connect	\$20.00
B.	Service Establishment, Re-establishment, or Reconnection	
	During Regular Business Hours	\$35.00
	After Regular Business Hours (same day request scheduled)	\$570.00
C.	Special Call Out (Minimum one (1) hour)	
	Per hour	\$70.00
D.	Customer-Requested Meter Test	\$90.00
E.	NSF Check	\$10.00
F.	Late Payment Finance Charge	1.5%
G.	Interest on Customer Deposits	One-year Treasury Constant Maturities rate

Regular Business Hours are defined as non-holiday weekdays from 8:30 a.m. to 4:30 p.m.

EXHIBIT

CAJ-7



UNS Gas, Inc.

Tariff Summary

Sheet No.	Rate Title	Therm Limits	Customer Charge	Charge per Therm (Excluding CNG)	ACC Decision	Effective Date
101	Residential Gas Service - R-10		\$11.00	\$0.3324		Pending
102	C.A.R.E.S. (\$0.15 discount applicable for billing months of November - April) - R-12		\$11.00	\$0.3324		Pending
201	Small Volume Commercial Service - C-20	≤ 120,000 therms	\$20.00	\$0.2888		Pending
202	Large Volume Commercial Service - C-22	> 120,000 therms	\$225.00	\$0.2501		Pending
301	Small Volume Industrial Service - I-30	≤ 120,000 therms	\$20.00	\$0.3900		Pending
302	Large Volume Industrial Service - I-32	> 120,000 therms	\$225.00	\$0.1600		Pending
401	Small Volume Public Authority Service - PA-40	≤ 120,000 therms	\$20.00	\$0.2593		Pending
402	Large Volume Public Authority Service - PA-42	> 120,000 therms	\$225.00	\$0.1900		Pending
403	Special Gas Light Service - PA-44		N/A	Single \$20.00		Pending
500	Blank					
600	Blank					
701	Purchased Gas Adjustment (PGA) Rider R-1	Applies to all therms	N/A	N/A		Pending
702	Demand Side Management Surcharge (DSMS) Rider R-2	Applies to all therms	N/A	XXX		Pending
703	Negotiated Sales Program (NSP-1) Rider R-3		Negotiated			Pending
704	Electric Cogeneration Service (EC-1) Rider R-4		\$225.00	\$0.1600		Pending
705	Compressed Natural Gas Service (CNG-1) Rider R-5		Various			Pending
70X	Competitive Gas Service (CGS-1)		Cancel			Cancel
801	Irrigation Service - IR-60		\$20.00	\$0.3677		Pending
802	Transportation of Customer-Secured Natural Gas - T-1	> 120,000 therms	Otherwise applicable base rates less embedded gas costs			Pending
803	Transportation Service Using Dedicated Transmission Facilities-T-2	> 120,000 therms	See tariff for detail of applicable charges			Pending
	Miscellaneous Service Fees	See Statement of Additional Charges in Rules & Regulations				

NOTE

All sales pricing plans above include a Cost of Natural Gas Charge (CNGC) which recovers the cost of natural gas purchased by UNSG on behalf of its customers.

The CNGC rate shall be subject to increases or decreases by the amount of the Purchased Gas Adjustment in accordance with the provisions of Rider R-1.



UNS Gas, Inc.

Original Sheet No.: 70X
Superseding: _____

Intentionally left blank.

Filed By: **Kentton C. Grant**
Title: **Vice President of Finance and Rates**
District: **Entire UNS Gas Service Area**

Rate: **XXX**
Effective: **Pending**
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 101
Superseding: _____

Residential Gas Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Subject to availability, at point of delivery, to residential gas service in individual residences and individually metered apartments when all service is metered through one meter.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$11.00
Delivery Charge per therm @	\$0.3324

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-10
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 102
Superseding: _____

**Customer Assistance Residential Energy Support
(CARES)**

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Subject to availability, at point of delivery, to residential gas service in individual residences and individually metered apartments when all service is metered through one meter.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$11.00
Delivery Charge per therm @	\$0.3324

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

DISCOUNT

When the CNGC is more than thirty cents per therm all CARES customers will receive a discount up to the amount of thirty cents applied to the Cost of Natural Gas (but shall never have a discount applied that reduces the CNGC below thirty cents per therm) in accordance with the provisions of Rider R-1.

SPECIAL CONDITIONS

1. Eligibility requirements for CARES. are set forth on the Company's Application and Declaration of Eligibility for Low Income Ratepayer Assistance form. Customers who desire to qualify for this rate must initially make application to the Company for qualification and must provide verification to the Company that the customer's household gross income does not exceed one hundred fifty percent (150%) of the federal poverty level. Qualified customers must have an approved application form on file with the Company. Subsequent to the initial certification, the residential customer seeking to retain eligibility for the CARES. must provide a personal certification that the household gross income of the residential dwelling unit involved does not exceed one hundred fifty percent (150%) of the federal poverty level.
2. Participants will be re-certified every year and when a customer changes residence.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-12
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 102-1
Superseding: _____

-
3. Eligibility information provided by the customer on the application form may be subject to verification by the Company. Refusal or failure of a customer to provide documentation of eligibility acceptable to the Company, upon request of the Company, shall result in removal from or ineligibility for this rate.
 4. Customers who wrongfully declare eligibility or fail to notify the Company when they no longer meet the eligibility requirements may be rebilled for the period of ineligibility under their otherwise applicable residential rate.
 5. It is the responsibility of the customer to notify the Company within thirty (30) days of any changes in the customer's eligibility status.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-12
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 201
Superseding: _____

Small Volume Commercial Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all commercial customers whose primary business activity at the location served is not provided for under any other rate, whose usage does not exceed 120,000 therms per year when all service is supplied at one point of delivery, and whose gas is metered through one meter.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$20.00
Delivery Charge per therm @	\$0.2888

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: C-20
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 202
Superseding: _____

Large Volume Commercial Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all commercial customers whose primary business activity at the location served is not provided for under any other rate and whose preceding twelve (12) month usage exceeded 120,000 therms. Service is supplied at one point of delivery and gas is metered through one meter unless the Company, at its sole discretion, chooses to provide service through multiple meters.

For new customers, their expected usage must exceed 120,000 therms per year.

Any customer transferring from this schedule may not return for a period of twelve (12) billing periods.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$225.00
Delivery Charge per therm @	\$0.2501

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: C-22
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 301
Superseding: _____

Small Volume Industrial Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all customers whose gas usage does not exceed 120,000 therms per year, who are served through a single meter, and whose primary business activity at the location served is included in one of the following classifications of the North American Classification System, United States:

- Sector 11. Agriculture, Forestry, Fishing and Hunting: Subsector 111. Crop Production only;
- Sector 21. Mining: All Subsectors;
- Sector 22. Utilities: Power Generation Subsectors only; and
- Sectors 31-33. Manufacturing: All Subsectors.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$20.00
Delivery Charge per therm @	\$0.3900

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: I-30
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 302
Superseding: _____

Large Volume Industrial Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all customers whose gas usage over the preceding twelve (12) months exceeded 120,000 therms, and whose primary business activity at the location served is included in one of the following classifications of the North American Classification System, United States:

- Sector 11. Agriculture, Forestry, Fishing and Hunting: Subsector 111. Crop Production only;
- Sector 21. Mining: All Subsectors;
- Sector 22. Utilities: Power Generation Subsectors only; and
- Sectors 31-33. Manufacturing: All Subsectors.

Service is supplied at one point of delivery and gas is metered through one meter unless the Company, at its sole discretion, chooses to provide service through multiple meters.

For new customers, their expected usage must exceed 120,000 therms per year.
Any customer transferring from this rate may not return for a period of twelve (12) billing months.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$225.00
Delivery Charge per therm @	\$0.1600

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: I-32
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 401
Superseding: _____

Small Volume Public Authority Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all facilities owned or operated by governmental agencies whose primary business activity at the location served is not provided for under any other rate or special contract, whose usage does not exceed 120,000 therms per year when all service is supplied at one point of delivery and gas is metered through one meter.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$20.00
Delivery Charge per therm @	\$0.2935

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: PA-40
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 402

Superseding: _____

Large Volume Public Authority Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all facilities owned or operated by governmental agencies whose primary business activity at the location served is not provided for under any other rate or special contract. Under this rate, usage over the preceding twelve (12) months must exceed 120,000 therms when all service is supplied at one point of delivery and gas is metered through one meter unless the Company, at its sole discretion, chooses to provide service through multiple meters.

For new customers, their expected usage must exceed 120,000 therms per year.

Any customer transferring from this rate may not return for a period of twelve (12) billing months.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$225.00
Delivery Charge per therm @	\$0.1900

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: PA-42
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 403

Superseding: _____

Special Gas Light Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the facilities served.

APPLICABILITY

To all public authority customers for the operation by the Company of gas lights for streets in which gas distribution facilities are located.

RATE

A monthly net bill at the following rates plus any adjustments incorporated herein:

Single Orifice @	\$20.00
Double Orifice @	\$40.00
Triple Orifice @	\$60.00
Quadruple Orifice @	\$80.00

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

CONDITIONS

1. Contracts for gas lighting service under this rate must be for a minimum term of five (5) years.
2. The cost of relocation of any gas light that is requested by the customer will be reimbursed to the Company by the customer.
3. The customer is not authorized to make any connections to gas lines serving individual gas lights or make any alteration of such lights.
4. The Company will use diligence in maintaining gas lighting service and monthly bills will not be reduced because of any gas light outage.
5. Any special contracts for public authority lighting will be based on an analysis of costs of operation, maintenance, and investment. Any contracts pursuant to this rate, which provide for higher rates than set forth herein, will be filed with the Arizona Corporation Commission for approval.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
 Title: Vice President of Finance and Rates
 District: Entire UNS Gas Service Area

Rate: PA-44
 Effective: Pending
 Decision No.:



UNS Gas, Inc.

Original Sheet No.: 500

Superseding: _____

Intentionally left blank.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: XX-X
Effective:
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 600
Superseding: _____

Intentionally left blank.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: XX-X
Effective:
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 701
Superseding: _____

**Rider R-1
Purchased Gas Adjustment (PGA)**

APPLICABILITY

To all Company rates, unless otherwise specified.

CHANGE IN RATE

UNS GAS Rates shall include a Cost of Natural Gas Charge ("CNGC") which recovers the cost of gas (natural, manufactured or in any approved form) purchased by UNS Gas on behalf of its customer. The cost of natural gas shall include all costs (demand, energy, customer-related and other) of the physical gas commodity and all costs assessed to facilitate transportation and delivery of gas on a firm basis and at an appropriate pressure (unless otherwise specified by tariff or contract) to UNS Gas, including but not limited to carrying and other costs not elsewhere recovered. The CNGC consists of the Purchased Gas Adjustment ("PGA") rate and any surcharge or credit authorized by the Arizona Corporation Commission ("ACC") for recovery or refund of previous gas costs. The CNGC shall be subject to increases or decreases by the amount of the PGA which is based on the rolling twelve (12) month average of actual purchased gas costs and sales. The ACC has banded the PGA change so that the new PGA calculated for the month cannot be more than \$0.15 per therm different than the PGA rate in effect during any of the preceding twelve (12) months, unless authorized by the ACC.

As the CNGC rate increases above thirty cents per therm all CARES customers will receive a discount up to the amount of thirty cents applied to the Cost of Natural Gas (but shall never have a discount applied that reduces the CNGC below thirty cents per therm) in accordance with the rate herein per Decision No. XXXXX.

BANK BALANCE

The Company shall maintain an account to assure that it will neither over nor under collect, except to the extent authorized, as a result of adjustment in rates determined under the operation of this rate. Entries shall be made monthly to reflect the amounts paid to suppliers for gas as recorded in the Federal Energy Regulatory Commission series of accounts numbered 800 through 806, less the cost of such gas (adjusted volumes multiplied by the CNGC). Interest will be applied to over and under collected bank balances based on the three (3) month commercial financial paper rate for each month, contained in the Federal Reserve Statistical Release, H-15, or its successor publication.

MONTHLY INFORMATION FILINGS

Each month, the Company shall make a cost of gas information filing that shall include gas volumes and costs by supply source, supplier refunds, credits, billing adjustments, and lost and unaccounted for gas. Each filing shall include monthly sales revenues, volumes, and number of customers by class. The filing should also include historical summaries of actual twelve (12) month purchase gas volumes, costs and sales activity to support the computation of the monthly PGA rate, in the format required by Decision Nos. 61225 and 62994.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 701-1

Superseding: _____

RIDER R-1 (continued)

ADDITIONAL REQUIREMENTS

Notification to the ACC is required if the PGA bank balance exceeds an over collection of \$10,000,000. The Company must file an application for an adjustment within forty-five (45) days of completing the monthly informational filing that illustrates the threshold has been exceeded or contact the ACC to discuss why a credit is not necessary at this time. If the PGA bank balance is under collected, the Company has the right to file an application with the ACC requesting a surcharge. The ACC, upon review, may authorize the balance to be amortized through the surcharge/credit as part of the CNGC for a specified period. Lost and unaccounted for gas recovery is limited to the lesser of the actual costs incurred or up to five percent (5.00%) of total annual throughput.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the ACC shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 702

Superseding: _____

Demand Side Management Surcharge (DSMS)

APPLICABILITY

The Demand Side Management Surcharge (DSMS) applies to all customers, except customers who take service under the Customer Assistance Residential Energy Support (CARES) rate, in all territory served by UNS Gas, Inc as mandated by the Arizona Corporation Commission, unless otherwise specified. CARES customers taking service under rate R-12 are exempt from any DSM surcharges effective June 1, 2009.

RATE

The DSMS shall be applied to all monthly net bills at the following rate:

All therms @ XXX per therm

REQUIREMENTS

The UNS Gas, Inc. DSMS will be calculated and filed with the Arizona Corporation Commission ("ACC") for approval on or before April 1st. The ACC will approve the surcharge to be billed to all applicable rates for twelve (12) months beginning each June 1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company, and/or the price of, or revenue from, gas sales or service sold and/or the volume of gas sales generated or purchased for sale and/or sold hereunder.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the ACC shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-2
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 703

Superseding: _____

Negotiated Sales Program

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Available to all customers who receive service under the Company's T-1 tariff (Transportation of Customer-Secured Natural Gas), T-2 tariff (Transportation Service Using Dedicated Transmission Facilities), or special gas supply agreements approved by the Arizona Corporation Commission ("ACC") that meet the minimum transportation requirements under the T-1 or T-2 tariffs.

Service under the Negotiated Sales Program ("NSP") will be the sale of natural gas to a transportation customer who has negotiated with the Company for the delivery of natural gas to the interconnection of the Company's distribution system and an upstream pipeline at the City Gate. NSP service will be interruptible service at the election of the Customer.

RATE

The rates to be charged for this service shall be those negotiated between the Company and each Customer.

CONDITIONS

NSP service shall be provided subject to the provision of this tariff, the T-1 tariff, the T-2 tariff, or special gas supply agreements approved by the ACC, as applicable.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the ACC shall apply where not inconsistent with this tariff.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-3
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 704
Superseding: _____

Electrical Cogeneration Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Service under this rate is available to any customer who enters into a contract with the Company to use natural gas for the purpose of cogeneration. Cogeneration is defined as the use of thermal energy to produce electricity with recapture of by-product heat in the form of steam, exhaust heat, etc. for industrial process use, space heating, food processing, or other purposes.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$225.00
Delivery Charge per therm @	\$0.1600

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UES on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

CONDITIONS

1. Gas taken under this rate shall be used exclusively for the purpose of cogeneration as defined in the Applicability section of this rate and not for other purposes. The gas taken under this rate will be separately metered.
2. This rate will not be available for standby use.
3. For the purpose of this rate, the annual load factor must be sixty percent (60%) or greater. The annual load factor is defined as the customer's total annual consumption divided by the customer's peak month consumption times twelve (12). If less than a sixty percent (60%) load factor occurs for a twelve (12) month period, the rate charged will be the rate that the customer would otherwise be served under for the months in which the annual load factor did not equal sixty percent (60%).

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-4
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 705
Superseding: _____

Compressed Natural Gas Service (Separately Metered)

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Service under this rate is available to any customer where the customer purchases natural gas to be used as a motor fuel. Service will be separately metered. This rate may include compression by the Company beyond normal meter sales pressure.

RATE

Customer Charge: For customers using Compressed Natural Gas for only their own vehicle(s), the customer charge is that from the otherwise applicable rate.

Basic Cost of Service Rates: The rate will be determined by a contract between the Company and the customer. In no case will the rate be lower than the Company's cost of gas, as determined by the most recent Purchased Gas Adjustment proceeding, nor will it be higher than one hundred fifty percent (150%) of the equivalent cost of premium gasoline.

Purchased Gas Adjustment: The basic cost of service rate set forth above shall be increased or decreased by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1. The purchased gas adjustment enables the Company to increase or decrease the basic cost of service rate in order to pass on increases or decreases in the base cost of gas to customers.

CONDITIONS

1. This rate does not include any road use fees or permits.
2. Customer must provide an affidavit to the Company certifying that the gas delivered will be used as motor fuel.
3. Compressor stations are subject to inspection by qualified Company personnel.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: R-5
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 801
Superseding: _____

Irrigation Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all irrigation customers whose primary business activity at the location served is not provided for under any other rate, who operates one or more gas-fueled engines, and gas is metered through one meter.

The Company may require that gas for engine use be separately metered and billed if necessary to prevent abuse or inequity in the application of this rate.

RATE

A monthly net bill at the following rate plus any adjustments incorporated herein:

Minimum Customer Charge per month @	\$20.00
Delivery Charge per therm @	\$0.3677

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this rate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: IR-60
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 802
Superseding: _____

**Rate T-1
Transportation of Customer-Secured Natural Gas**

AVAILABILITY

This tariff is available to any qualifying Customer for transportation of natural gas by the Company from existing interconnects between the Company and upstream pipelines (herein called Receipt Point) to the Delivery Point(s) on the Company's system throughout its certificated Arizona Gas Service Area under the following conditions:

1. The Company has available capacity to render the requested service without construction of any additional facilities, except as provided by this tariff under Facility Additions.
2. The Customer has demonstrated to the Company's satisfaction the assurance of natural gas supplies and third-party transportation agreements with quantities, and for a term compatible with the service being requested from the Company.
3. The Customer and the Company have executed a Transportation Agreement, and the Customer is to be the End-User.
4. The Customer's gas to be transported is greater than 120,000 therms per year. A Customer receiving service from the Company at multiple locations may aggregate meters with annual consumption of no less than 50,000 therms per meter to qualify for this service provided that all meter locations are served under a single entity. In addition, the annual consumption of customers that are aggregated must be greater than 120,000 therms per year.

APPLICABILITY

This tariff shall apply to gas transported by the Company for Customer pursuant to the executed service agreement.

1. The basic transportation service rendered under this tariff shall consist of:
 - (a) The receipt by the Company for the account of the Customer of the Customer's gas at the Receipt Point;
 - (b) The transportation of gas through the Company's gas system for the account of the Customer; and
 - (c) The delivery of gas after transportation by the Company for the account of the Customer at the Delivery Point(s).
2. Transportation: Service is firm and uninterrupted except for the following:
 - (a) Curtailment in accordance with the Company's curtailment priority procedures;

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate.: T-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 802-1
Superseding: _____

- (b) When the Company determines it has insufficient capacity on its system or from its upstream pipeline; or
 - (c) Customer's gas supply to the Company is insufficient to meet its requirement.
3. Any Customer served under this tariff that requests service under a sales tariff is ineligible to return to transportation service for a period of not less than twelve (12) months.

RATES

A discount from the following rates may be offered at the sole discretion of the Company if such discount is in the best interest of the Company and its ratepayers. The maximum amount that the Customer shall pay the Company monthly will be the sum of the following charges:

Customer Charge per Month: \$225.00 per meter

Volume Charge: An amount equal to the applicable unit transportation rate for each therm of Customer-secured gas metered and delivered to the Customer. The unit rates shall be as set forth in the currently effective Tariff Summary. The volume charge will consist of the following:

- (a) An amount equal to the applicable unit sales margin for each therm as set forth in the Customer's otherwise applicable sales tariff for each meter. This volume charge will cover the Company's Delivery Charge as specified in the currently effective gas sales tariff but not including the base cost of gas specified therein.
- (b) An amount to reflect lost and unaccounted for gas as determined by the differential between the gas costs on a sales basis and gas costs on a purchase basis determined in the development of the currently effective, Purchased Gas Adjustment ("PGA"), Rate Rider No. R-1. The Company, at its sole option, may allow lost and unaccounted for gas to be paid in kind.
- (c) Any applicable imbalance charges as specified in Payment For Excess Quantities of this tariff.
- (d) Any charges from upstream pipeline transporters or suppliers which have been incurred by the Company in excess of those specified in section (c) above and are deemed by the Company to be applicable to the transportation service rendered for the Customer under these tariffs.

Minimum Charge: The minimum charge will be the Basic Customer Charge per Month plus \$0.005 per therm.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate.: T-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 802-2
Superseding: _____

ADMINISTRATIVE PROCEDURES

1. Processing Requests for Transportation Service: Requests for transportation hereunder shall be made by, and shall be deemed to be complete upon, the Customer providing the following information to the Company:
 - (a) Gas Quantities: The Maximum Daily Quantity applicable to the receipt point and the Maximum Daily Quantity applicable to each delivery point and estimated total quantities to be received and transported monthly over the delivery period should be stated individually in therms for each receipt point.
 - (b) Delivery Point(s): Point(s) of delivery by the Company to the Customer.
 - (c) Term of Service:
 - i. Date of service requested to commence;
 - ii. Date service requested to terminate, if known; and
 - iii. Minimum term for transportation service shall be twelve (12) months.
 - (d) Performance: A statement from the Customer certifying that the Customer has or will have title to the gas to be delivered to the Company for transportation and has entered into or will enter into those arrangements necessary to assure all upstream transportation will be in place prior to the commencement of service under a Transportation Agreement. The Customer's Agent, if any, must be named.

Upon receipt of all of the information specified above, the Company shall prepare and tender to the Customer for execution a Transportation Agreement. If the Customer fails to execute the Transportation Agreement within thirty (30) days of the date tendered, the Customer's request shall be deemed null and void.

OPERATING PROCEDURES

1. Nominating and Scheduling of Gas Receipts and Deliveries: The Customer shall be responsible for contacting the upstream pipelines to arrange for the nominating and scheduling of receipts and deliveries hereunder, provided, that the Customer may designate one (1) other party to serve as his agent for such purpose.

The Customer or Customer's Agent shall be responsible for submitting nominations to the upstream pipeline and notifying the Company's designated representative in writing no later than one (1) hour prior to the upstream pipeline's nomination deadlines set forth in their FERC approved tariff. Such communication shall occur prior to the first of the month and within the month if there are changes to the nominations. The Customer is responsible for confirming the timely receipt of this information by the Company. The Company will confirm whether it has sufficient operational capacity to deliver all or a portion of the Customer's gas.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate.: T-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 802-3
Superseding: _____

2. Operating Information and Estimates: Upon request of the Company, the Customer shall from time to time submit its best estimates of the daily, monthly and annual volumes of gas to be transported; including peak day requirements, together with such other operating data as the Company may require in order to schedule its operations.

The Company may require large Customers whose contractually allowed maximum daily quantity exceeds 10,000 therms per day, whose usage is not predictable based on weather, and whose ratio of high to low daily usage exceeds ten (10) to inform the Company within 2 hours of any initiation or termination of gas usage exceeding an hourly rate of 1,000 therms per hour.

3. Quantities: All quantities referred to under Operating Procedures of this tariff shall be provided as dekatherms ("DTH") (one million British Thermal Units).
4. Deliverability: The Company shall not be liable for its failure to deliver gas when such failure is due to unavailability of gas supply or interruption of third party transportation services.
5. Other Operating Procedures: The Company may require additional information or enforce other operating procedures as deemed necessary in the Company's sole judgment, in order to coordinate gas volumes and the movement of gas through the upstream pipeline system to the Company's Arizona Gas Service Area. These additional operating procedures may be enforced upon verbal notice to each Customer or the Customer's Agent with twenty-four (24) hour notice of implementation.
6. Balancing: Balancing of thermally equivalent volumes of gas received and delivered shall be achieved as nearly as feasible on a daily basis, taking into account the Customer's right, subject to prior Company approval, to vary receipts and deliveries across the Company Distribution System. Customer monthly imbalances are defined as the difference between the Customer's total monthly metered quantities and the Customer's total scheduled transportation quantity. Customers are provided a monthly operating window, under which the Customer's cumulative imbalances must be within plus or minus 5 percent (+/- 5%) of the month's total of daily scheduled transportation quantities, plus any Company-approved imbalance adjustment quantity, or 1,500 therms, whichever is greater. Imbalances established in excess of the applicable monthly operating window will be subject to imbalance charges as specified in Payment for Excess Quantities of this tariff. However, if the Customer has an imbalance outside this limit and contacts the Company before the end of the last business day of the month, the Customer will have a "cure period" of an additional 30 days to bring its imbalance within the limits before any imbalance charges specified in Payment for Excess Quantities are applied. Customer is then ineligible for a "cure period" for the following month. If in the Company's sole good faith judgment and operating conditions permit, the Company will increase the monthly operating window. Any imbalance (plus or minus) carried forward shall be considered first through the meter during the next daily or monthly period, as applicable.

Upon Customer request, the Company will permit electronic read-only access to the telemetering facilities described in Facility Additions of this tariff or provide daily meter reads each calendar day.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate.: T-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 802-4

Superseding: _____

-
7. Adjustments: Periodically, volume adjustments may be made by the upstream pipelines or the Customer's agent. Therefore, actual daily volumes invoiced will be compared with daily nominated volumes. Should adjustments to the nominated volumes become necessary, such adjustments will be applied to the nomination for the month in which the volumes were delivered to the Customer for the purposes of determining the applicability of the provisions of this tariff.

 8. Customer Default: The Company shall not be required to perform or continue service on behalf of any Customer that fails to comply with the terms contained in this tariff and the terms of the Customer's Transportation Service Agreement with the Company. The Company shall have the right to waive any one or more specific defaults by any Customer under any provision of this tariff or the service agreement, provided, however, that no such waiver shall operate or be construed as a waiver of any other existing or future default or defaults, whether of a like or different character.

 9. Operational Curtailment: The Company reserves the right to impose, at any time, any reasonable operating conditions upon the transportation of the Customer's gas which the Company, in its sole good faith judgment, deems necessary to maintain safe and efficient operation of its distribution system, or to make the operating terms and conditions of service hereunder compatible with those of its upstream pipelines. Under such circumstances, the following conditions shall apply:
 - (a) Any Customer that does not comply with a notice of operational curtailment shall be subject to, in addition to any otherwise applicable charges, a penalty of \$10.00 per DTH for all unauthorized quantities during the curtailment period.
 - (b) The Company shall endeavor to provide notice of such operational curtailment forty-eight (48) hours prior to the commencement of the delivery of gas.
 - (c) Notwithstanding condition (b), the Company may impose an operational curtailment on the current gas day. In the event an operational curtailment is imposed on the current gas day, a minimum one-hour grace period will be allowed before penalties begin to apply.

PAYMENT FOR EXCESS QUANTITIES

1. Customers will be assessed imbalance charges if an imbalance exists in excess of the applicable monthly operating window under the conditions set forth in Balancing described as part of Operating Procedures herein. The portion of any imbalance quantity established by a Customer in excess of the applicable monthly operating window is defined as an excess imbalance quantity. The imbalance charge will be based on the Company's short term purchases, where short term purchases are defined as gas for which the price is determined in the calendar month of use. In addition to the charges payable under this tariff, any monthly excess quantity shall be billed as follows:

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 802-5
Superseding: _____

(a) Positive Excess Imbalance

A positive excess imbalance exists when the Customer's scheduled transportation quantity exceeds the Customer's metered quantity by more than the applicable monthly operating window. The excess imbalance shall be retained by the Company and eliminated after the Customer's bill is credited as follows:

- (i) The price of the positive imbalance gas for the applicable month shall be calculated as the weighted average cost per therm of the Company's least expensive short term purchases (including all upstream pipeline fuel and variable costs) for the aggregate positive imbalance volume associated with all T-1 customers. This weighted average cost per therm will be multiplied by the Customer's positive imbalance volume and the percentage associated with the Customer's "Percentage Excess Imbalance" in the "Positive" column in Table 1 below.

(b) Negative Excess Imbalance

A negative excess imbalance exists when the sum of the Customer's scheduled transportation quantity is less than the metered quantity by more than the applicable monthly operating window. The excess imbalance shall be eliminated after the Customer is billed as follows:

- (i) The price of the negative imbalance gas for the applicable month shall be calculated as the weighted average cost per therm of the Company's most expensive short term purchases (including all upstream pipeline fuel, variable and capacity costs, at a 100% load factor) for the aggregate negative imbalance volume associated with all T-1 customers. This weighted average cost per therm will be multiplied by the Customer's negative imbalance volume and the percentage associated with the Customer's "Percentage Excess Imbalance" in the "Negative" column in Table 1 below.

Table 1

Percentage Excess Imbalance	Positive	Negative
Equal to or less than 5%	100%	100%
Over 5% and less than or equal to 15%	90%	110%
Over 15% and less than or equal to 20%	80%	120%
Over 20% and less than or equal to 30%	70%	130%
Over 30%	60%	140%

- 2. Should the Customer cease to utilize transportation service under this tariff, the entire remaining imbalance shall be settled pursuant to section Payment For Excess Quantities herein. For purposes of this settlement, no operating window applies.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate.: T-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 802-6
Superseding: _____

-
3. Under no circumstances shall the section Payment For Excess Quantities above be considered as giving the Customer any right to take excess quantity gas, other than as provided in Operating Procedures hereof, nor shall the section Payment For Excess Quantities or payment thereunder be considered as a substitute for any other remedy available to the Company against the offending Customer for failure to respect its obligation to stay within its authorized quantities.

FACILITY ADDITIONS

Any facilities which must be installed by the Company to serve the Customer will be constructed in accordance with the Rules and Regulations as approved from time to time by the Arizona Corporation Commission. Telemetering facilities on each meter will be installed at the Customer's expense. Customers requiring telemetering facilities shall provide, at the Customer's expense, a dedicated telephone line for the Company's use in communicating with the telemetering facilities and will pay any and all costs associated with that phone line. Further, any existing special surcharges or minimum bill provisions designed to recover the cost of facilities for any Customer shall remain in effect and may serve to increase maximum allowable transportation rate levels pursuant to this tariff.

THIRD PARTY CHARGES

The Customer shall reimburse the Company for any charges rendered or billed to the Company by its upstream pipelines and by any other upstream transporter and gas gatherers, either before or after termination of the Transportation Agreement, which the Company, in its sole good faith judgment, determines have been incurred because of the transportation of Customer's gas hereunder and should, therefore, appropriately be borne by the Customer. Such charges, whether levied in dollars or gas, may include, but shall not be limited to, standby charges or reservation fees, prepayments, applicable taxes, applicable fuel reimbursement, shrinkage, lost and unaccounted for volumes, Gas Research Institute surcharges, penalty charges and filing fees.

The Customer will reimburse the Company for all such charges incurred by the Company as rendered, irrespective of the actual quantities of natural gas delivered to the Customer.

CONDITIONS FOR CONVERTING TO T-1 SERVICE

Any qualified Customer converting from gas sales service to service under this tariff is subject to the following conditions and requirements:

1. T-1 service will commence at the beginning of the first calendar month following the end of five (5) days after receipt of the customer service change request.
2. Customer will be billed or credited the Customer's pro rata share of the balance in the Company's PGA bank, calculated as follows:

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate.: T-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 802-7

Superseding: _____

- (a) Starting from the later of the month of initiation of gas sales service by the Customer, or the date of initiation of the current PGA bank, through the last month of sales service, the Customer's actual therm usage will be multiplied, on a month-by-month basis, by the difference between the Company's actual commodity cost per therm and the Gas Cost component of the Basic Cost of Service Rate adjusted for any PGA and PGA Surcharge that may be in effect from time to time;
 - (b) The sum of these monthly calculated values equals the Customer's charge or credit due for conversion to service under this tariff;
 - (c) Customer charge or credit will be paid in twelve (12) equal monthly payments, including interest equal to the carrying charge rate applicable to the PGA bank at the time of conversion to service under this tariff.
3. If a Customer converts back to a tariff for gas sales service while the PGA Surcharge existing at the time of the switch to T-1 service is still in effect, such Surcharge will not be applicable to the Customer's billed usage for the period it remains in effect. However, any future PGA Surcharge that may be put into effect will be applicable to the Customer's billed usage.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this tariff.

CONDITIONS

1. Transportation of Customer-owned natural gas hereunder shall be limited to natural gas of equal or higher quality than natural gas currently available from the Company's supplier(s). All gas delivered by the Company to the Customer shall be deemed to be the same quality as that gas received by the Company for transportation.
2. With respect to the Company's capacity to deliver gas at any particular time, the curtailment priority of any Customer served under this tariff shall be the same as the curtailment priority established for other Customers served pursuant to the Company's tariff which would otherwise be available to such Customer.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate.: T-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 802-8
Superseding: _____

Supplementary Information Transportation of Customer-Secured Natural Gas

Transportation customers procure their own gas and UNS Gas, Inc. ("Company") transports it from the connection with the interstate pipeline (at the city gate) over the Company's pipeline system to the customer's facility. To qualify, customers must use a minimum of 120,000 therms per year.

The rates per therm for transportation service from the city gate to the customer's facility are as follows:

Large Volume Commercial	\$0.2501 per therm
Large Volume Industrial	\$0.1600 per therm
Large Volume Public Authority	\$0.1900 per therm

Customers must also pay for the following items:

1. Charges for lost and unaccounted for gas in accordance with Tariff T-1 (Transportation of Customer-Secured Natural Gas);
2. A minimum Customer Charge of \$225.00 per month;
3. Telemetering equipment and a telephone line; and
4. The costs for delivery of gas to the city gate.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate.: T-1
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 803

Superseding: _____

Transportation Service Using Dedicated Transmission Facilities

AVAILABILITY

This tariff is only available to any qualifying Customer for transportation of natural gas by the Company from dedicated interconnects between the Company and upstream pipelines (herein called Receipt Point) to the Delivery Point(s) on the Company's transmission system throughout its certificated Arizona Gas Service Area under the following conditions:

1. The Company has or will have available capacity to render the requested service utilizing facilities dedicated to the requirements of the Customer, except as provided under Facility Additions hereof;
2. The Customer has demonstrated to the Company's satisfaction the assurance of natural gas supplies and third-party transportation agreements with quantities and for a term compatible with the service being requested from the Company;
3. The Customer and the Company have executed a Transportation Agreement, and the Customer is to be the End-User;
4. The Customer's requirement for gas to be transported is greater than 1,000 therms per day or 120,000 therms per year; and
5. The Customer is not taking service through dedicated facilities under the provisions of a special contract approved by the Arizona Corporation Commission ("ACC").
6. The Customer is classified as a utility that produces electricity.

APPLICABILITY

This tariff shall apply to gas transported by the Company for Customer pursuant to the executed service agreement.

1. The basic transportation service rendered under this tariff shall consist of:
 - (a) The receipt by the Company for the account of the Customer of the Customer's gas at the Receipt Point;
 - (b) The transportation of gas through the Company's gas system for the account of the Customer; and
 - (c) The delivery of gas after transportation by the Company for the account of the Customer at the Delivery Point(s).
2. Transportation: Service is firm and uninterrupted except for the following:

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-2
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 803-1

Superseding: _____

- (a) Curtailment in accordance with the Company's curtailment priority procedures;
 - (b) When the Company determines it has insufficient capacity on its system or from its upstream pipeline; or
 - (c) Customer's gas supply to the Company is insufficient to meet its requirement.
3. Any Customer served under this tariff is ineligible to obtain sales service without executing a special contract approved by the ACC.

RATES

A monthly net bill at the following rates plus any adjustments incorporated herein:

Customer Charge per month: \$225.00 per meter

Volume Charge: An amount equal to the applicable unit transportation rate for each therm of Customer-secured gas metered and delivered to the Customer. The unit rates shall be as set forth in the currently effective Tariff Summary. The volume charge will consist of the following:

- (a) An amount to fund the Company's low income rate program equal to the portion of the applicable unit sales margin for each therm included in rates as set forth in the Customer's otherwise applicable sales tariff for each meter.
- (b) An amount to reflect lost and unaccounted for gas as determined by the differential between the gas cost on a sales basis and gas cost on a purchase basis determined in the development of the currently effective Purchased Gas Adjustment ("PGA"), Rate Rider No. R-1. The Company at its sole option may allow lost and unaccounted for gas to be paid in kind.
- (c) Any applicable imbalance charges as specified in Payment For Excess Quantities of this tariff.
- (d) Any charges from upstream pipeline transporters or suppliers which have been incurred by the Company in excess of those specified in section (c) above and are deemed by the Company to be applicable to the transportation service rendered for the Customer under this tariff.

Reservation Charge: An annual charge to be billed in twelve (12) equal monthly installments equal to the fully allocated costs to provide the dedicated facilities necessary to serve the Customer as described more fully in Rates herein.

Determined on the basis of a fully allocated cost study filed with and approved by the ACC in the context of a general rate case except when the request for service is non-coincident with a rate filing. In the latter case, the Reservation Charge will be computed by the Company including the following elements:

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-2
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 803-2

Superseding: _____

- (a) Return and income taxes at the rate of return approved by the ACC in the Company's last general rate case computed on the basis of the installed costs of the dedicated facilities plus an allocation of other rate base items including, as appropriate: intangible, general and common plant investment, less any applicable accumulated depreciation and deferred taxes, an allowance for working capital and materials and supplies;
- (b) Operations expense including all operating and maintenance expenses, depreciation and amortization expense, taxes other than income related to the dedicated facilities and allocated rate base;
- (c) Allocated indirect expense including an appropriate portion of customer accounting, sales and information, and administrative and general expenses; and
- (d) Any other allocated costs incurred either directly or indirectly to provide the requested service.

Special Surcharge: An annual charge to be computed on the basis of the twelve (12) months ending September of the prior year and billed beginning in January in equal monthly installments, computed as the sum of the following charges:

- (a) The revenue requirements for any additional investments required to provide the service requested by Customer subsequent to the establishment of the currently effective Reservation Charge,
- (b) Any non-recurring operating and maintenance expenses associated with the facilities dedicated to the Customer in the previous year, and
- (c) Any extraordinary expenses incurred by the Company on behalf of the Customer not included in (a) or (b) above.

Minimum Charge: The minimum charge will be the sum of the Basic Customer Charge per Month, the monthly Reservation Charge and any monthly Special Surcharge.

ADMINISTRATIVE PROCEDURES

1. Processing Requests for Transportation Service: Requests for transportation hereunder shall be made by, and shall be deemed to be complete upon, the Customer providing the following information to the Company:
 - (a) Gas Quantities: The Maximum Daily Quantity applicable to the receipt point and the Maximum Daily Quantity applicable to each delivery point, and estimated total quantities to be received and transported monthly over the delivery period should be stated individually in therms for each receipt point.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-2
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 803-3

Superseding: _____

- (b) Delivery Point(s): Point(s) of delivery by the Company to the Customer.
- (c) Term of Service:
 - i. Date service requested to commence;
 - ii. Date service requested to terminate, if known; and
 - iii. Minimum term for transportation service shall be twelve (12) months.
- (d) Performance: A statement from the Customer certifying that the Customer has or will have title to the gas to be delivered to the Company for transportation and has entered into or will enter into those arrangements necessary to assure all upstream transportation will be in place prior to the commencement of service under a Transportation Agreement. The Customer's Agent, if any, must be named.

Upon receipt of all of the information specified above, the Company shall prepare and tender to the Customer for execution a Transportation Agreement. If the Customer fails to execute the Transportation Agreement within thirty (30) days of the date tendered, the Customer's request shall be deemed null and void.

2. Construction Requirements: In the event that the Customer's request for service requires the construction of additional transmission facilities not otherwise addressed in section Payment For Excess Quantities herof, Extension of Lines, in the Company's current Rules and Regulations, the following additional provisions may apply:
- (a) The Company may request an advance for engineering and design services based on the Company's estimate of the anticipated costs related to the requested dedicated facilities;
 - (b) Any advance for engineering and design will be refunded to the Customer on commencement of service;
 - (c) Actual engineering and design costs will be included in the dedicated facilities' costs and recovered as a part of the Reservation Charge;
 - (d) If the dedicated facilities are not placed in service for any reason, the Company may retain the advance;
 - (e) Prior to the initiation of construction of the dedicated facilities, the Company will provide an estimate of the total costs and resulting annual costs to Customer;
 - (f) The Company shall not be liable for any differences between actual construction costs and estimated costs;
 - (g) Customer may withdraw the request for service prior to initiation of construction; and
 - (h) The Customer may request that construction cease prior to completion. However, if the dedicated facilities are not completed or placed in service, the Customer is liable for service under the terms of this

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-2
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 803-4

Superseding: _____

tariff as if the facilities had been completed, based on the total construction costs expended on behalf of the Customer.

OPERATING PROCEDURES

1. Nominating and Scheduling of Gas Receipts and Deliveries: The Customer shall be responsible for contacting the upstream pipelines to arrange for the nominating and scheduling of receipts and deliveries hereunder, provided, that the Customer may designate one (1) other party to serve as his agent for such purpose.

The Customer or Customer's Agent shall be responsible for submitting nominations to the upstream pipeline and notifying the Company's designated representative in writing no later than one (1) hour prior to the upstream pipeline's nomination deadlines set forth in their FERC approved tariff. Such communication shall occur prior to the first of the month and within the month if there are changes to the nominations. The Customer is responsible for confirming the timely receipt of this information by the Company. The Company will confirm whether it has sufficient operational capacity to deliver all or a portion of the Customer's gas.

2. Operating Information and Estimates: Upon request of the Company, the Customer shall from time to time submit its best estimates of the daily, monthly and annual volumes of gas to be transported; including peak day requirements, together with such other operating data as the Company may require in order to schedule its operations.
3. The Company may require large Customers whose contractually allowed maximum daily quantity exceeds 10,000 therms per day, whose usage is not predictable based on weather, and whose ratio of high to low daily usage exceeds ten (10) to inform the Company within 2 hours of any initiation or termination of gas usage exceeding an hourly rate of 1,000 therms per hour.
4. Quantities: All quantities referred to under Operating Procedures shall be provided as dekatherms ("DTH") (one million British Thermal Units).
5. Deliverability: The Company shall not be liable for its failure to deliver gas when such failure is due to unavailability of gas supply or interruption of third party transportation services.
6. Other Operating Procedures: The Company may require additional information or enforce other operating procedures as deemed necessary in the Company's sole judgment, in order to coordinate gas volumes and the movement of gas through the upstream pipeline system to the Company's Arizona Gas Service Area. These additional operating procedures may be enforced upon verbal notice to each Customer or the Customer's Agent with twenty-four (24) hour notice of implementation.
7. Balancing: Balancing of thermally equivalent volumes of gas received and delivered shall be achieved as nearly as feasible on a daily basis, taking into account the Customer's right, subject to prior Company approval, to vary receipts and deliveries across the Company Distribution System. Customer monthly imbalances are defined as the difference between the Customer's total monthly metered quantities and the Customer's total scheduled transportation quantity. Customers are provided a monthly operating window, under which the Customer's

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-2
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 803-5

Superseding: _____

cumulative imbalances must be within plus or minus 5 percent (+/- 5%) of the month's total of daily scheduled transportation quantities, plus any Company-approved imbalance adjustment quantity, or 1,500 therms, whichever is greater. Imbalances established in excess of the applicable monthly operating window will be subject to imbalance charges as specified under Payment For Excess Quantities of this tariff. However, if the Customer has an imbalance outside this limit and contacts the Company before the end of the last business day of the month, the Customer will have a "cure period" of an additional 30 days to bring its imbalance within the limits before any imbalance charges specified under Payment For Excess Quantities are applied. Customer is then ineligible for a "cure period" for the following month. If in the Company's sole good faith judgment and operating conditions permit, the Company will increase the monthly operating window. Any imbalance (plus or minus) carried forward shall be considered first through the meter during the next daily or monthly period, as applicable.

8. Upon Customer request, the Company will permit electronic read-only access to the telemetering facilities described under Facility Additions or provide daily meter reads each calendar day.
9. Adjustments: Periodically, volume adjustments may be made by the upstream pipelines or the Customer's agent. Therefore, actual daily volumes invoiced will be compared with daily nominated volumes. Should adjustments to the nominated volumes become necessary, such adjustments will be applied to the nomination for the month in which the volumes were delivered to the Customer for the purposes of determining the applicability of the provisions of this tariff.
10. Customer Default: The Company shall not be required to perform or continue service on behalf of any Customer that fails to comply with the terms contained in this tariff and the terms of the Customer's Transportation Service Agreement with the Company. The Company shall have the right to waive any one or more specific defaults by any Customer under any provision of this tariff or the service agreement, provided, however, that no such waiver shall operate or be construed as a waiver of any other existing or future default or defaults, whether of a like or different character.
11. Operational Curtailment: The Company reserves the right to impose, at any time, any reasonable operating conditions upon the transportation of the Customer's gas which the Company, in its sole good faith judgment, deems necessary to maintain safe and efficient operation of its distribution system, or to make the operating terms and conditions of service hereunder compatible with those of its upstream pipelines. Under such circumstances, the following conditions shall apply:
 12. Any Customer that does not comply with a notice of operational curtailment shall be subject to, in addition to any otherwise applicable charges, a penalty of \$10.00 per DTH for all unauthorized quantities during the curtailment period.
 13. The Company shall endeavor to provide notice of such operational curtailment forty-eight (48) hours prior to the commencement of the delivery of gas.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-2
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 803-6

Superseding: _____

14. Notwithstanding condition (b), the Company may impose an operational curtailment on the current gas day. In the event an operational curtailment is imposed on the current gas day, a minimum one-hour grace period will be allowed before penalties begin to apply.

PAYMENT FOR EXCESS QUANTITIES

1. Customers will be assessed imbalance charges if an imbalance exists in excess of the applicable monthly operating window under the conditions set forth under Balancing described as part of Operating Procedures herein. The portion of any imbalance quantity established by a Customer in excess of the applicable monthly operating window is defined as an excess imbalance quantity. The imbalance charge will be based on the Company's short term purchases, where short term purchases are defined as gas for which the price is determined in the calendar month of use. In addition to the charges payable under this tariff, any monthly excess quantity shall be billed as follows:

(a) Positive Excess Imbalance

A positive excess imbalance exists when the Customer's scheduled transportation quantity exceeds the Customer's metered quantity by more than the applicable monthly operating window. The excess imbalance shall be retained by the Company and eliminated after the Customer's bill is credited as follows:

- (i) The price of the positive imbalance gas for the applicable month shall be calculated as the weighted average cost per therm of the Company's least expensive short term purchases (including all upstream pipeline fuel and variable costs) for the aggregate positive imbalance volume associated with all T-2 customers. This weighted average cost per therm will be multiplied by the Customer's positive imbalance volume and the percentage associated with the Customer's "Percentage Excess Imbalance" in the "Positive" column in Table 1 below.

(b) Negative Excess Imbalance

A negative excess imbalance exists when the sum of the Customer's scheduled transportation quantity is less than the metered quantity by more than the applicable monthly operating window. The excess imbalance shall be eliminated after the Customer is billed as follows:

- (i) The price of the negative imbalance gas for the applicable month shall be calculated as the weighted average cost per therm of the Company's most expensive short term purchases (including all upstream pipeline fuel, variable and capacity costs, at a 100% load factor) for the aggregate negative imbalance volume associated with all T-2 customers. This weighted average cost per therm will be multiplied by the Customer's negative imbalance volume and the percentage associated with the Customer's "Percentage Excess Imbalance" in the "Negative" column in Table 1 below.

Table 1

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-2
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 803-7

Superseding: _____

Percentage Excess Imbalance	Positive	Negative
Equal to or less than 5%	100%	100%
Over 5% and less than or equal to 15%	90%	110%
Over 15% and less than or equal to 20%	80%	120%
Over 20% and less than or equal to 30%	70%	130%
Over 30%	60%	140%

- Should the Customer cease to utilize transportation service under this tariff, the entire remaining imbalance shall be settled pursuant to section Payment For Excess Quantities herein. For purposes of this settlement, no operating window applies.
- Under no circumstances shall the section Payment For Excess Quantities above be considered as giving the Customer any right to take excess quantity gas, other than as provided in Operating Procedures hereof, nor shall the section Payment For Excess Quantities or payment thereunder be considered as a substitute for any other remedy available to the Company against the offending Customer for failure to respect its obligation to stay within its authorized quantities.

FACILITY ADDITIONS

Any facilities which must be installed by the Company to serve the Customer will be constructed in accordance with the Rules of Service as approved from time to time by the ACC. Telemetering facilities on each meter will be installed at the Customer's expense. Customers requiring telemetering facilities shall provide, at the Customer's expense, a dedicated telephone line for the Company's use in communicating with the telemetering facilities and will pay any and all costs associated with that phone line. Further, any existing special surcharges or minimum bill provisions designed to recover the cost of facilities for any Customer shall remain in effect and may serve to increase maximum allowable transportation rate levels pursuant to this tariff.

THIRD PARTY CHARGES

The Customer shall reimburse the Company for any charges rendered or billed to the Company by its upstream pipelines and by any other upstream transporter and gas gatherers, either before or after termination of the Transportation Agreement, which the Company, in its sole good faith judgment, determines have been incurred because of the transportation of Customer's gas hereunder and should, therefore, appropriately be borne by the Customer. Such charges, whether levied in dollars or gas, may include, but shall not be limited to, standby charges or reservation fees, prepayments, applicable taxes, applicable fuel reimbursement, shrinkage, lost and unaccounted for volumes, Gas Research Institute surcharges, penalty charges, and filing fees.

The Customer will reimburse the Company for all such charges incurred by the Company as rendered, irrespective of the actual quantities of natural gas delivered to the Customer.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-2
Effective: Pending
Decision No.:



UNS Gas, Inc.

Original Sheet No.: 803-8

Superseding: _____

CONDITIONS FOR CONVERTING TO T-2 SERVICE

Any qualified Customer converting from gas sales service to service under this tariff is subject to the following conditions and requirements:

1. T-2 service will commence at the beginning of the first calendar month following the end of five (5) days after receipt of the customer service change request or completion of any required facilities, whichever is later.
2. Customer will be billed or credited the Customer's pro rata share of the balance in the PGA bank accumulated while served under the Company's sales tariff, calculated as follows:
 - (a) Starting from the later of the month of initiation of gas sales service by the Customer, or the date of initiation of the current PGA bank, through the Customer's last month of sales service, the Customer's actual therm usage will be multiplied, on a month-by-month basis, by the difference between the Company's actual commodity cost per therm and the Gas Cost component of the Base Cost of Service Rate adjusted for any PGA and PGA Surcharge that may be in effect from time-to-time;
 - (b) The sum of these monthly calculated values equals the Customer's charge or credit due for conversion to service under this tariff;
 - (c) Customer charge or credit will be paid in twelve (12) equal monthly payments, including interest equal to the carrying charge rate applicable to the PGA bank at the time of conversion to service under this tariff.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the ACC shall apply where not inconsistent with this tariff.

CONDITIONS

1. Transportation of Customer owned natural gas hereunder shall be limited to natural gas of equal or higher quality than natural gas currently available from the Company's supplier(s). All gas delivered by the Company to the Customer shall be deemed to be the same quality as that gas received by the Company for transportation.
2. With respect to the Company's capacity to deliver gas at any particular time, the curtailment priority of any Customer served under this tariff shall be the same as the curtailment priority established for other Customers served pursuant to the Company's tariff, which would otherwise be applicable to such Customer.

Filed By: Kentton C. Grant
Title: Vice President of Finance and Rates
District: Entire UNS Gas Service Area

Rate: T-2
Effective: Pending
Decision No.:

EXHIBIT

CAJ-8



UNS Gas, Inc.
Pricing Plan CGS-1
Competitive Gas
Service

UNS Gas, Inc.

Original Sheet No.: _____ Cancel
Superseding: _____

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Applicable to natural gas use by customers that qualify for service under this pricing plan according to either applicability Provision 1. or 2. below:

1. ~~Customers whose annual requirements are greater than 10,000 therms and who in the Company's sole judgment have facilities capable of installing or using alternative fuels or energy to adequately serve their needs.~~
2. ~~Customers whose requirements may be served by other natural gas suppliers at rates lower than the customer's otherwise applicable gas sales pricing plan. As a condition precedent to qualifying for service under this applicability provision, the customer must establish to the satisfaction of the Company, that bypass is economically, operationally, and physically feasible.~~

Any gas service rendered to customers not in conformance with the provisions of this pricing plan shall be billed at a rate equivalent to the otherwise applicable gas sales pricing plan.

RATE

The maximum service charge is the charge under the customer's otherwise applicable gas sales pricing plan.

~~Unless otherwise provided, the commodity charge per therm shall be determined in accordance with Condition No. 2 defined below. In no event shall the commodity charge per therm be less than the "floor" cost of gas, which is defined as the sum of (1) the weighted average commodity cost of gas purchased by the Company for system supply during the month, (2) the applicable upstream pipeline capacity charge, and (3) an amount to reflect distribution system shrinkage.~~

~~For customers qualifying for service, and if the Company is unable to serve such customer utilizing the "floor" cost of gas as set forth above, a Special Gas Procurement Agreement shall be executed and filed with the Arizona Corporation Commission ("ACC"), and the commodity charge per therm shall be determined in accordance with Condition No. 3 defined below.~~

~~With the exception of gas sales provided for under Condition No. 3, the Company shall account for sales under this pricing plan using the "floor" cost of purchased gas.~~

Filed By: Raymond S. HeymanKent Grant
Title: Senior Vice President, General Counsel of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Rate CGS-1
Effective: April 1, 2010Pending
Page No.: Deci 1 of 3



~~UNS Gas, Inc.
Pricing Plan CGS-1
Competitive Gas
Service~~

UNS Gas, Inc.

Original Sheet No.: _____ Cancel _____
Superseding: _____

PRICING PLAN CGS-1 (continued)

SUPPLIER REFUNDS

~~If, as a result of any final Order of the Federal Energy Regulatory Commission or the AGC that is no longer subject to judicial review, the Company receives a refund from any of its upstream pipeline transporters or suppliers which is applicable to gas sales made under this Competitive Gas Service Pricing Plan, the Company shall allocate such refund to its customers based on the terms billed during the refund period. The amount allocated to the customers served under this pricing plan shall be used to reduce such customer's gas costs.~~

CONDITIONS

- ~~1. Any qualified customer taking service under this pricing plan shall do so by agreement.~~
- ~~2. The commodity charge per therm may vary from customer to customer based on value of the service and on the customer's ability to change from one energy source to another, and may be revised from time to time as costs and conditions change. In no event shall the commodity charge per therm charged to the customer, excluding gross revenue taxes, exceed the commodity charge per therm that would have been charged under the customer's otherwise applicable gas sales pricing plan, adjusted to exclude any surcharge to amortize the balance in the Gas Cost Balancing Account.~~
- ~~3. A Special Gas Procurement Agreement under this pricing plan is defined herein as an agreement between the Company and an applicable customer, which enumerates the provisions whereby the Company will procure specific supplies of gas for the customer. The commodity charge per therm for Special Gas Procurement Agreement customers may vary depending on the terms and conditions of the Agreement, but in no event shall be less than the variable cost of gas procured from suppliers on behalf of the customer. A sole and separate accounting of gas purchases and sales made under Special Gas Procurement Agreements shall be maintained by the Company. The cost of gas purchases made for such customers will be excluded from the Purchased Gas Adjustment in Rider RR-1. However, the Company shall credit to Account No. 191, Unrecovered Purchased Gas Costs, all upstream pipeline capacity charges collected from the customer. (Note: Upstream pipeline capacity charges will be priced at market-based rates.)~~
- ~~4. All customers that qualify for service under this pricing plan because of alternate energy capability must be capable of installing adequate alternate energy facilities of equivalent capacity to those natural gas facilities served hereunder. These facilities are subject to Company inspection and verification of operating capacity and capability.~~

Filed By:	<u>Raymond S. Heyman</u> <u>Kent Grant</u>	Tariff No.:	<u>Rate</u> CGS-1
Title:	<u>Senior Vice President, General Counsel of Finance and Rates</u>	Effective:	<u>April 1, 2010</u> <u>Pending</u>
District:	Entire <u>UNS</u> Gas Service Area	Page No.:	<u>Deci</u> 1 of 3



~~UNS Gas, Inc.
Pricing Plan CGS-1
Competitive Gas
Service~~

UNS Gas, Inc.

Original Sheet No.: Cancel
Superseding:

5. ~~Any customer served under this pricing plan who returns to an otherwise applicable gas sales pricing plan shall be billed at the then currently effective pricing plan.~~

PRICING PLAN CGS-1 (continued)

TAX CLAUSE

~~To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.~~

RULES AND REGULATIONS

~~The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan.~~

Filed By: Raymond S. HeymanKent Grant
Title: Senior Vice President, General Counsel of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Rate CGS-1
Effective: April 1, 2010Pending
Page No.: Deci 1 of 3



~~UNS Gas, Inc.~~
~~Pricing Plan R-10~~
~~Residential Gas Service~~

UNS Gas, Inc.

Original Sheet No.: 101
Superseding: _____

Residential Gas Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Subject to availability, at point of delivery, to residential gas service in individual residences and individually metered apartments when all service is metered through one meter.

RATE

A monthly net bill at the following rate plus any adjustments incorporated in ~~this pricing plan~~ herein:

Minimum Customer Charge per month @ \$110.00

Delivery Charge per therm @ \$0.3270324

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by ~~UNS Gas~~ ES on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with ~~this pricing plan~~ rate.

Filed By:	Raymond S. Heyman <u>Kentton C. Grant</u>	Tariff No.:	<u>Rat</u> R-10R-10
Title:	Senior Vice President, General Counsel <u>of Finance and Rates</u>	Effective:	April 1, 2010 <u>Pending</u>
District:	Entire <u>UNS</u> Gas Service Area	Page No.:	<u>Dec</u> 1 of 1



UNS Gas, Inc.
Pricing Plan R-12
Customer Assistance
Residential Energy
Support
(C.A.R.E.S.)

UNS Gas, Inc.

Original Sheet No.: 102
 Superseding: _____

Customer Assistance Residential Energy Support
(CARES)

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Subject to availability, at point of delivery, to residential gas service in individual residences and individually metered apartments when all service is metered through one meter.

RATE

A monthly net bill at the following rate plus any adjustments incorporated in this pricing plan herein:

Minimum Customer Charge per month @	\$1107.00
Delivery Charge per therm @	\$0.32703324

~~Delivery Charge: first 100 therms or less per month will be discounted by \$0.1500 per therm for the billing months of November through April.~~

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS GasES on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider-Rider R-1.

DISCOUNT

When the CNGC is more than thirty cents per therm aAll CARES customers will receive a discount up to the amount of thirty cents applied to the Cost of Natural Gas (but shall never have a discount applied that reduces the CNGC below thirty cents per therm) in accordance with the provisions of RiderRider R-1.

SPECIAL CONDITIONS

1. Eligibility requirements for C-A-R-E-S. are set forth on the Company's Application and Declaration of Eligibility for Low Income Ratepayer Assistance form. Customers who desire to qualify for this ~~pricing plan~~ rate must initially make application to the Company for qualification and must provide verification to the Company that the customer's household gross income does not exceed one hundred fifty percent (150%) of the federal poverty level. Qualified customers must have an approved application form on file with the Company. Subsequent to the initial certification, the residential customer seeking to retain eligibility for the C-A-R-E-S. must provide a personal certification that the household gross income of the residential dwelling unit involved does not exceed one hundred fifty percent (150%) of the federal poverty level.

Filed By:	Raymond S. Heyman Kentton C. Grant	Tariff No.:	Rate R-12
Title:	Senior-Vice President, General Counsel of Finance and Rates	Effective:	April 1, 2010 Pending
District:	Entire <u>UNS Gas Service Area</u>	Page No.:	Deci 1 of 2



UNS Gas, Inc.
Pricing Plan R-12
Customer Assistance
Residential Energy
Support
(C.A.R.E.S.)

UNS Gas, Inc.

Original Sheet No.: 102
Superseding: _____

2. ~~Samples of the existing C.A.R.E.S. p~~Participants will be re-certified every ~~two-year s~~ prior to ~~October 1~~ and when a customer changes residence.

Filed By: Raymond S. HeymanKentton C. Grant Tariff No./Rate R-12
Title: Senior Vice President, General Counsel of Finance and Rates Effective: April 1, 2010Pending
District: Entire UNS Gas Service Area Page No./Deci 1 of 2



UNS Gas, Inc.
Pricing Plan R-12
Customer Assistance
Residential Energy
Support
(C.A.R.E.S.)

UNS Gas, Inc.

Original Sheet No.: 102-1
Superseding: _____

- ~~3. Eligible customers shall be billed under this pricing plan during the winter season, commencing with the next regularly scheduled billing period after the Company has received the customer's properly completed application form or recertification.~~
- 4.3 Eligibility information provided by the customer on the application form may be subject to verification by the Company. Refusal or failure of a customer to provide documentation of eligibility acceptable to the Company, upon request of the Company, shall result in removal from or ineligibility for this pricing plan rate.
- 5.4 Customers who wrongfully declare eligibility or fail to notify the Company when they no longer meet the eligibility requirements may be rebilled for the period of ineligibility under their otherwise applicable residential pricing plan rate.
- 6.5 It is the responsibility of the customer to notify the Company within thirty (30) days of any changes in the customer's eligibility status.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan rate.

Filed By:	Raymond S. Heyman Kentton C. Grant	Tariff No./Rate	R-12
Title:	Senior Vice President, General Counsel of Finance and Rates	Effective:	April 1, 2010 Pending
District:	Entire <u>UNS</u> Gas Service Area	Page No./Deci	1 of 2



UNS Gas, Inc.
Pricing Plan C-20
Small Volume
Commercial Service

UNS Gas, Inc.

Original Sheet No.: 201
 Superseding: _____

Small Volume Commercial Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all commercial customers whose primary business activity at the location served is not provided for under any other pricing plan rate, whose usage does not exceed 120,000 therms per year when all service is supplied at one point of delivery, and whose gas is metered through one meter.

RATE

A monthly net bill at the following rate plus any adjustments incorporated in this pricing plan herein:

Minimum Customer Charge per month @	\$15.5020.00
-------------------------------------	--------------

Delivery Charge per therm @	\$0.280688
-----------------------------	------------

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas ES on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan rate.

Filed By: <u>Raymond S. Heyman</u>	<u>Kentton C. Grant</u>	Tariff No.: <u>Rate</u> C-20
Title: <u>Senior Vice President, General Counsel of Finance and Rates</u>		Effective: <u>April 1, 2010</u> Pending
District: <u>Entire UNS Gas Service Area</u>		Page No.: <u>Dec</u> 1 of 1



~~UNS Gas, Inc.~~
Pricing Plan C-22
Large Volume
Commercial Service

UNS Gas, Inc.

Original Sheet No.: 202
 Superseding: _____

Large Volume Commercial Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all commercial customers whose primary business activity at the location served is not provided for under any other pricing plan and whose preceding twelve (12) month usage exceeded 120,000 therms. Service is supplied at one point of delivery and gas is metered through one meter unless the Company, at its sole discretion, chooses to provide service through multiple meters.

For new customers, their expected usage must exceed 120,000 therms per year.

Any customer transferring from this schedule may not return for a period of twelve (12) billing periods.

RATE

A monthly net bill at the following rate plus any adjustments incorporated in this pricing plan herein:

Minimum Customer Charge per month @ \$105225.00

Delivery Charge per therm @ \$0.18672501

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas ES on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RRider R-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan rate.

Filed By:	Raymond S. Heyman <u>Kentton C. Grant</u>	Tariff No.:	<u>Rat</u> C-22
Title:	Senior Vice President, <u>General Counsel of Finance and Rates</u>	Effective:	April 1, 2010 <u>Pending</u>
District:	Entire <u>UNS</u> Gas Service Area	Page No.:	<u>Dec</u> 1 of 1



UNS Gas, Inc.
Pricing Plan I-30
Small Volume Industrial
Service

UNS Gas, Inc.

Original Sheet No.: 301
 Superseding: _____

Small Volume Industrial Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all customers whose gas usage does not exceed 120,000 therms per year, who are served through a single meter, and whose primary business activity at the location served is included in one of the following classifications of the North American Classification System, United States:

- Sector 11. Agriculture, Forestry, Fishing and Hunting: Subsector 111. Crop Production only;
- Sector 21. Mining: All Subsectors;
- Sector 22. Utilities: Power Generation Subsectors only; and
- Sectors 31-33. Manufacturing: All Subsectors.

RATE

A monthly net bill at the following rate plus any adjustments incorporated in ~~this pricing plan~~ herein:

Minimum Customer Charge per month @ \$15.50 20.00

Delivery Charge per therm @ \$0.2540 3900

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas ES on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this ~~pricing plan~~ rate.

Filed By:	<u>Raymond S. Heyman</u> <u>Kentton C. Grant</u>	Tariff No.:	<u>Rate</u> <u>I-30</u>
Title:	<u>Senior Vice President, General Counsel of Finance and Rates</u>	Effective:	<u>April 1, 2010</u> <u>Pending</u>
District:	<u>Entire UNS Gas Service Area</u>	Page No.:	<u>Dec</u> <u>1 of 1</u>



UNS Gas, Inc.
Pricing Plan I-32
Large Volume Industrial
Service

UNS Gas, Inc.

Original Sheet No.: 302
 Superseding: _____

Large Volume Industrial Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all customers whose gas usage over the preceding twelve (12) months exceeded 120,000 therms, and whose primary business activity at the location served is included in one of the following classifications of the North American Classification System, United States:

- Sector 11. Agriculture, Forestry, Fishing and Hunting: Subsector 111. Crop Production only;
- Sector 21. Mining: All Subsectors;
- Sector 22. Utilities: Power Generation Subsectors only; and
- Sectors 31-33. Manufacturing: All Subsectors.

Service is supplied at one point of delivery and gas is metered through one meter unless the Company, at its sole discretion, chooses to provide service through multiple meters.

For new customers, their expected usage must exceed 120,000 therms per year.

Any customer transferring from this ~~pricing plan~~ rate may not return for a period of twelve (12) billing months.

RATE

A monthly net bill at the following rate plus any adjustments incorporated in ~~this pricing plan~~ herein:

Minimum Customer Charge per month @	\$ 105 <u>225</u> .00
Delivery Charge per therm @	\$0.10 <u>29</u> 60

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas ~~ES~~ on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

Filed By:	Raymond S. Heyman <u>Kentton C. Grant</u>	Tariff No.:	Rate <u>I-32</u>
Title:	Senior Vice President, General Counsel <u>of Finance and Rates</u>	Effective:	April 1, 2010 <u>Pending</u>
District:	Entire <u>UNS Gas</u> Service Area	Page No.:	Dec <u>1 of 2</u>



~~UNS Gas, Inc.~~
~~Pricing Plan I-32~~
~~Large Volume Industrial~~
~~Service~~

UNS Gas, Inc.

Original Sheet No.: 302
Superseding: _____

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan.

Filed By: ~~Raymond S. Heyman~~ Kentton C. Grant ~~Tariff No.:~~ Rat ~~I-32~~
Title: ~~Senior Vice President, General Counsel of Finance and Rates~~ Effective: April 1, 2010 ~~Pending~~
District: Entire UNS Gas Service Area ~~Page No.:~~ Dec ~~1 of 2~~



~~UNS Gas, Inc.~~
Pricing Plan PA-40
Small Volume Public
Authority Service

UNS Gas, Inc.

Original Sheet No.: 401
 Superseding: _____

Small Volume Public Authority Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all facilities owned or operated by governmental agencies whose primary business activity at the location served is not provided for under any other ~~pricing plan~~ rate or special contract, whose usage does not exceed 120,000 therms per year when all service is supplied at one point of delivery and gas is metered through one meter.

RATE

A monthly net bill at the following rate plus any adjustments incorporated in this ~~pricing plan~~ herein:

Minimum Customer Charge per month @ \$15.50 ~~20.00~~

Delivery Charge per therm @ \$0.278 ~~2935~~

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by ~~UNS Gas~~ ES on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this ~~pricing plan~~ rate.

Filed By:	Raymond S. Heyman Kentton C. Grant	Tariff No.:	Rate PA-40
Title:	Senior Vice President, General Counsel of Finance and Rates	Effective:	April 1, 2010 Pending
District:	Entire <u>UNS</u> Gas Service Area	Page No.:	Dec 1 of 1



~~UNS Gas, Inc.~~
~~Pricing Plan PA-42~~
~~Large Volume Public~~
~~Authority Service~~

UNS Gas, Inc.

Original Sheet No.: 402
 Superseding: _____

Large Volume Public Authority Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all facilities owned or operated by governmental agencies whose primary business activity at the location served is not provided for under any other ~~pricing plan~~ or special contract. Under this ~~pricing plan~~, usage over the preceding twelve (12) months must exceed 120,000 therms when all service is supplied at one point of delivery and gas is metered through one meter unless the Company, at its sole discretion, chooses to provide service through multiple meters.

For new customers, their expected usage must exceed 120,000 therms per year.

Any customer transferring from this ~~pricing plan~~ may not return for a period of twelve (12) billing months.

RATE

A monthly net bill at the following rate plus any adjustments incorporated ~~in this pricing plan~~ herein:

Minimum Customer Charge per month @ \$~~105~~225.00

Delivery Charge per therm @ \$~~0.129~~6900

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this ~~pricing plan~~.

Filed By:	Raymond S. Heyman <u>Kentton C. Grant</u>	Tariff No.:	Rate PA-42
Title:	Senior Vice President, General Counsel <u>of Finance and Rate</u>	Effective:	April 1, 2010 <u>Pending</u>
District:	Entire <u>UNS Gas</u> Service Area	Page No.:	Dec 1 of 1



UNS Gas, Inc.
Pricing Plan PA-44
Special Gas Light
Service

UNS Gas, Inc.

Original Sheet No.: 403
 Superseding: _____

Special Gas Light Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the facilities served.

APPLICABILITY

To all public authority customers for the operation by the Company of gas lights for streets in which gas distribution facilities are located.

RATE

A monthly net bill at the following rates plus any adjustments incorporated in this pricing plan ~~herein~~:

Single Orifice @	<u>\$19.5620.00</u>
Double Orifice @	<u>\$39.1240.00</u>
Triple Orifice @	<u>\$58.6860.00</u>
Quadruple Orifice @	<u>\$78.2480.00</u>

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1.

CONDITIONS

1. Contracts for gas lighting service under this pricing plan ~~rate~~ must be for a minimum term of five (5) years.
2. The cost of relocation of any gas light that is requested by the customer will be reimbursed to the Company by the customer.
3. The customer is not authorized to make any connections to gas lines serving individual gas lights or make any alteration of such lights.
4. The Company will use diligence in maintaining gas lighting service and monthly bills will not be reduced because of any gas light outage.
5. Any special contracts for public authority lighting will be based on an analysis of costs of operation, maintenance, and investment. Any contracts pursuant to this pricing plan ~~rate~~, which provide for higher rates than set forth ~~herein in this pricing plan~~, will be filed with the Arizona Corporation Commission for approval.

TAX CLAUSE

Filed By: <u>Kentton C. Grant</u> Raymond S. Heyman	Tariff No.: <u>Rate</u> PA-44
Title: <u>Senior Vice President, General Counsel of Finance and Rates</u>	Effective: <u>April 1, 2010</u> Pending
District: <u>Entire UNS Gas Service Area</u>	Page No.: <u>Dec</u> 1 of 2



~~UNS Gas, Inc.~~
~~Pricing Plan PA-44~~
~~Special Gas Light~~
~~Service~~

UNS Gas, Inc.

Original Sheet No.: 403
Superseding: _____

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan rate.

Filed By: Kentton C. Grant~~Raymond S. Heyman~~ ~~Tariff No.:~~Rate PA-44
Title: Senior Vice President, General Counsel of Finance and Rates Effective: April 1, 2010~~Pending~~
District: Entire UNS Gas Service Area ~~Page No.:~~Dec 1 of 2



~~UNS Gas, Inc.~~
~~Rider RR-1~~
~~Purchased Gas~~
~~Adjustment (PGA)~~

UNS Gas, Inc.

Original Sheet No.: 701
Superseding: _____

Rider R-1
Purchased Gas Adjustment (PGA)

APPLICABILITY

To all Company ~~pricing plans~~rates, unless otherwise specified.

CHANGE IN RATE

UNS GAS ~~Pricing Plans~~Rates shall include a Cost of Natural Gas Charge ("CNGC") which recovers the cost of gas (natural, manufactured or in any approved form) purchased by UNS GasES on behalf of its customer. The cost of natural gas shall include all costs (demand, energy, customer-related and other) of the physical gas commodity and all costs assessed to facilitate transportation and delivery of gas on a firm basis and at an appropriate pressure (unless otherwise specified by tariff or contract) to UNS GasES, including but not limited to carrying and other costs not elsewhere recovered. The CNGC consists of the Purchased Gas Adjustment ("PGA") rate and any surcharge or credit authorized by the ~~The~~ Arizona Corporation Commission ("ACC") for recovery or refund of previous gas costs. The CNGC shall be subject to increases or decreases by the amount of the PGA which is based on the rolling twelve (12) month average of actual purchased gas costs and sales. The ACC has banded the PGA change so that the new PGA calculated for the month cannot be more than \$0.15 per therm different than the PGA rate in effect during any of the preceding twelve (12) months, unless authorized by the ACC.

As the CNGC rate increases above thirty cents per therm aAll CARES customers will receive a discount up to the amount of thirty cents applied to the Cost of Natural Gas (but shall never have a discount applied that reduces the CNGC below thirty cents per therm) in accordance with the rate herin per Decision No. XXXXX.

BANK BALANCE

The Company shall maintain an account to assure that it will neither over nor under collect, except to the extent authorized, as a result of adjustment in rates determined under the operation of this ~~pricing plan~~rate. Entries shall be made monthly to reflect the amounts paid to suppliers for gas as recorded in the Federal Energy Regulatory Commission series of accounts numbered 800 through 806, less the cost of such gas (adjusted volumes multiplied by the CNGC). Interest will be applied to over and under collected bank balances based on the three (3) month commercial financial paper rate for each month, contained in the Federal Reserve Statistical Release, H-15, or its successor publication.

MONTHLY INFORMATION FILINGS

Each month, the Company shall make a cost of gas information filing that shall include gas volumes and costs by supply source, supplier refunds, credits, billing adjustments, and lost and unaccounted for gas. Each filing shall include monthly sales revenues, volumes, and number of customers by class. The filing should also include historical summaries of actual

Filed By: ~~Raymond S. Heyman~~Kentton C. Grant
Title: ~~Senior Vice President, General Counsel~~of Finance and Rates
District: ~~Entire~~ UNS Gas Service Area

Tariff No./Rate: ~~RR-1~~
Effective: ~~December 1, 2007~~Pending
Page No./Decision: ~~1 of 2~~



~~UNS Gas, Inc.
Rider RR-1
Purchased Gas
Adjustment (PGA)~~

UNS Gas, Inc.

Original Sheet No.: 701
Superseding: _____

twelve (12) month purchase gas volumes, costs and sales activity to support the computation of the monthly PGA rate, in the format required by Decision Nos. 61225 and 62994.

Filed By: ~~Raymond S. Heyman~~Kentton C. Grant
Title: ~~Senior Vice President, General Counsel of Finance and Rates~~
District: Entire UNS Gas Service Area

~~Tariff No. Rate: RR-1~~
~~Effective: December 1, 2007~~Pending
~~Page No. Decision~~ 1 of 2



~~UNS Gas, Inc.~~
~~Rider RR-1~~
~~Purchased Gas~~
~~Adjustment (PGA)~~

UNS Gas, Inc.

Original Sheet No.: 701-1
Superseding: _____

RIDER RR-1 (continued)

ADDITIONAL REQUIREMENTS

Notification to the ACC is required if the PGA bank balance exceeds an over collection of \$10,000,000. The Company must file an application for an adjustment within forty-five (45) days of completing the monthly informational filing that illustrates the threshold has been exceeded or contact the ACC to discuss why a credit is not necessary at this time. If the PGA bank balance is under collected, the Company has the right to file an application with the ACC requesting a surcharge. The ACC, upon review, may authorize the balance to be amortized through the surcharge/credit as part of the CNGC for a specified period. Lost and unaccounted for gas recovery is limited to the lesser of the actual costs incurred or up to five percent (5.00%) of total annual throughput.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this ~~pricing plan~~ rate.

Filed By: ~~Raymond S. Heyman~~ Kentton C. Grant
Title: ~~Senior Vice President, General Counsel~~ of Finance and Rates
District: ~~Entire UNS Gas Service Area~~

Tariff No./Rate: ~~RR-1~~
Effective: ~~December 1, 2007~~ Pending
Page No./Decision: ~~1 of 2~~



~~UNS Gas, Inc.
Rider R-2
Demand Side
Management Surcharge
(DSMS)~~

UNS Gas, Inc.

Original Sheet No.: 702
Superseding: _____

Demand Side Management Surcharge (DSMS)

APPLICABILITY

The Demand Side Management Surcharge (DSMS) applies to all customers, except customers who take service under the Customer Assistance Residential Energy Support (C.A.R.E.S) pricing plan rate, in all territory served by UNS Gas, Inc as mandated by the Arizona Corporation Commission, unless otherwise specified. C.A.R.E.S. customers taking service under pricing plan rate R-12 are exempt from any DSM surcharges effective June 1, 2009.

RATE

The DSMS shall be applied to all monthly net bills at the following rate:

All therms @ \$0.008400XXX per therm

REQUIREMENTS

The UNS Gas, Inc. DSMS will be calculated and filed with the Arizona Corporation Commission ("ACC") for approval on or before April 1st. The ACC will approve the surcharge to be billed to all applicable pricing plan rates for twelve (12) months beginning each June 1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company, and/or the price of, or revenue from, gas sales or service sold and/or the volume of gas sales generated or purchased for sale and/or sold hereunder.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan rate.

Filed By: Raymond S. Heyman Kentton C. Grant
Title: Senior Vice President, General Counsel of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Rate: R-2-DSMS
Effective: June 1, 2010 Pending
Page No.: Decisio 1 of 1



UNS Gas, Inc.
Pricing Plan NSP-1
Negotiated Sales
Program

UNS Gas, Inc.

Original Sheet No.: 703
Superseding: _____

Negotiated Sales Program

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Available to all customers who receive service under the Company's T-1 ~~pricing plan~~tariff (Transportation of Customer-Secured Natural Gas), T-2 ~~pricing plan~~tariff (Transportation Service Using Dedicated Transmission Facilities), or special gas supply agreements approved by the Arizona Corporation Commission ("ACC") that meet the minimum transportation requirements under the T-1 or T-2 ~~pricing plan~~tariffs.

Service under the Negotiated Sales Program ("NSP") will be the sale of natural gas to a transportation customer who has negotiated with the Company for the delivery of natural gas to the interconnection of the Company's distribution system and an upstream pipeline at the City Gate. NSP service will be interruptible service at the election of the Customer.

RATE

The rates to be charged for this service shall be those negotiated between the Company and each Customer.

CONDITIONS

NSP service shall be provided subject to the provision of this ~~pricing plan~~tariff, the T-1 ~~pricing plan~~tariff, the T-2 ~~pricing plan~~tariff, or special gas supply agreements approved by the ACC, as applicable.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this ~~pricing plan~~tariff.

Filed By: Raymond S. Hoyman~~Kentton C. Grant~~ Title: Senior Vice President, General Counsel of Finance and Rates
District: Entire UNS Gas Service Area Tariff No.: Rate NSP-1R-3 Effective: April 1, 2010 Pending
Page No.: Dec 1 of 1



UNS Gas, Inc.
Pricing Plan EC-1
Electrical Cogeneration
Service

UNS Gas, Inc.

Original Sheet No.: 704
 Superseding: _____

Electrical Cogeneration Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Service under this pricing plan rate is available to any customer who enters into a contract with the Company to use natural gas for the purpose of cogeneration. Cogeneration is defined as the use of thermal energy to produce electricity with recapture of by-product heat in the form of steam, exhaust heat, etc. for industrial process use, space heating, food processing, or other purposes.

RATE

A monthly net bill at the following rate plus any adjustments incorporated in this pricing plan herein:

Minimum Customer Charge per month @	\$405225.00
Delivery Charge per therm @	\$0.44881600

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UES on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider R-1.

CONDITIONS

1. Gas taken under this pricing plan rate shall be used exclusively for the purpose of cogeneration as defined in the Applicability section of this pricing plan rate and not for other purposes. The gas taken under this pricing plan rate will be separately metered.
2. This pricing plan rate will not be available for standby use.
3. For the purpose of this pricing plan rate, the annual load factor must be sixty percent (60%) or greater. The annual load factor is defined as the customer's total annual consumption divided by the customer's peak month consumption times twelve (12). If less than a sixty percent (60%) load factor occurs for a twelve (12) month period, the rate charged will be the rate that the customer would otherwise be served under for the months in which the annual load factor did not equal sixty percent (60%).

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan rate.

Filed By:	Raymond S. Heyman/Kentton C. Grant	Tariff No.:	Rate EC-1R-4
Title:	Senior Vice President, General Counsel of Finance and Rates	Effective:	April 1, 2010 Pending
District:	Entire UNS Gas Service Area	Page No.:	Dec 1 of 2



UNS Gas, Inc.
~~Pricing Plan CNG-1~~
Compressed Natural
Gas Service
(Separately Metered)

UNS Gas, Inc.

Original Sheet No.: 705
Superseding: _____

Compressed Natural Gas Service (Separately Metered)

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

Service under this ~~pricing plan~~ rate is available to any customer where the customer purchases natural gas to be used as a motor fuel. Service will be separately metered. This rate may include compression by the Company beyond normal meter sales pressure.

RATE

Customer Charge: For customers using Compressed Natural Gas for only their own vehicle(s), the customer charge is that from the otherwise applicable ~~pricing plan~~ rate.

Basic Cost of Service Rates: The rate will be determined by a contract between the Company and the customer. In no case will the rate be lower than the Company's cost of gas, as determined by the most recent Purchased Gas Adjustment proceeding, nor will it be higher than one hundred fifty percent (150%) of the equivalent cost of premium gasoline.

Purchased Gas Adjustment: The basic cost of service rate set forth above shall be increased or decreased by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1. The purchased gas adjustment enables the Company to increase or decrease the basic cost of service rate in order to pass on increases or decreases in the base cost of gas to customers.

CONDITIONS

1. This ~~pricing plan~~ rate does not include any road use fees or permits.
2. Customer must provide an affidavit to the Company certifying that the gas delivered will be used as motor fuel.
3. Compressor stations are subject to inspection by qualified Company personnel.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

Filed By: ~~Raymond S. Heyman~~ Kentton C. Grant Tariff No.: ~~Rate~~ CNG-1R-5
Title: ~~Senior Vice President, General Counsel~~ of Finance and Rates Effective: ~~April 1, 2010~~ Pending
District: ~~Entire UNS Gas Service Area~~ Page No.: ~~Dec~~ 1 of 2



**UNS Gas, Inc.
Pricing Plan CNG-1
Compressed Natural
Gas Service
(Separately Metered)**

UNS Gas, Inc.

Original Sheet No.: 705
Superseding: _____

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan rate.

Filed By: ~~Raymond S. Heyman~~ Kentton C. Grant Tariff No.: ~~Rate~~ CNG-1R-5
Title: ~~Senior Vice President, General Counsel of Finance and Rates~~ Effective: April 1, 2010 Pending
District: Entire UNS Gas Service Area Page No.: Dec 1 of 2



UNS Gas, Inc.
Pricing Plan IR-60
Irrigation Service

UNS Gas, Inc.

Original Sheet No.: 801
Superseding:

Irrigation Service

AVAILABILITY

In all territories served by Company at all points where facilities for gas service are available to the premise served.

APPLICABILITY

To all irrigation customers whose primary business activity at the location served is not provided for under any other pricing plan rate, who operates one or more gas-fueled engines, and gas is metered through one meter.

The Company may require that gas for engine use be separately metered and billed if necessary to prevent abuse or inequity in the application of this rate.

RATE

A monthly net bill at the following rate plus any adjustments incorporated in this pricing plan herein:

Minimum Customer Charge per month @ \$15.50 ~~20.00~~

Delivery Charge per therm @ \$0.344 ~~2677~~

Cost of Natural Gas Charge ("CNGC"): This charge recovers the cost of natural gas purchased by UNS Gas ES on behalf of its customer. The CNGC shall be subject to increases or decreases by the amount of the purchased gas adjustment for the billing month computed in accordance with the provisions of Rider RR-1.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this pricing plan rate.

Filed By: Raymond S. Heyman ~~Kentton C. Grant~~ Title: Senior Vice President, General Counsel of Finance and Rates
District: Entire UNS Gas Service Area
Tariff No.: IR-60 Effective: April 1, 2010
Page No.: Dec 1 of 1



~~UNS Gas, Inc.~~
~~Pricing Plan T-1~~
~~Transportation of~~
~~Customer-Secured~~
~~Natural Gas~~

UNS Gas, Inc.

Original Sheet No.: 802
Superseding: _____

Rate T-1
Transportation of Customer-Secured Natural Gas

AVAILABILITY

This ~~pricing plan~~ tariff is available to any qualifying Customer for transportation of natural gas by the Company from existing interconnects between the Company and upstream pipelines (herein called Receipt Point) to the Delivery Point(s) on the Company's system throughout its certificated Arizona Gas Service Area under the following conditions:

1. The Company has available capacity to render the requested service without construction of any additional facilities, except as provided by this ~~pricing plan~~ tariff under Facility Additions.
2. The Customer has demonstrated to the Company's satisfaction the assurance of natural gas supplies and third-party transportation agreements with quantities, and for a term compatible with the service being requested from the Company.
3. The Customer and the Company have executed a Transportation Agreement, and the Customer is to be the End-User.
4. The Customer's gas to be transported is greater than 120,000 therms per year. A Customer receiving service from the Company at multiple locations may aggregate meters with annual consumption of no less than 50,000 therms per meter to qualify for this service provided that all meter locations are served under a single entity. In addition, the annual consumption of customers that are aggregated must be greater than 120,000 therms per year.

APPLICABILITY

This ~~pricing plan~~ tariff shall apply to gas transported by the Company for Customer pursuant to the executed service agreement.

1. The basic transportation service rendered under this ~~pricing plan~~ tariff shall consist of:
 - (a) The receipt by the Company for the account of the Customer of the Customer's gas at the Receipt Point;
 - (b) The transportation of gas through the Company's gas system for the account of the Customer; and
 - (c) The delivery of gas after transportation by the Company for the account of the Customer at the Delivery Point(s).
2. Transportation: Service is firm and uninterrupted except for the following:
 - (a) Curtailment in accordance with the Company's curtailment priority procedures;

Filed By:	Raymond S. Heyman Kentton C. Grant	Tariff No/Rate:	T-1
Title:	Senior Vice President, General Counsel of Finance and Rates	Effective:	April 1, 2010 Pending
District:	Entire <u>UNS</u> Gas Service Area	Page No/Deci	1 of 8



~~UNS Gas, Inc.~~
~~Pricing Plan T-1~~
~~Transportation of~~
~~Customer-Secured~~
~~Natural Gas~~

UNS Gas, Inc.

Original Sheet No.: 802-1
Superseding: _____

- (b) When the Company determines it has insufficient capacity on its system or from its upstream pipeline; or
 - (c) Customer's gas supply to the Company is insufficient to meet its requirement.
3. Any Customer served under this ~~pricing plan~~tariff that requests service under a sales ~~pricing plan~~tariff is ineligible to return to transportation service for a period of not less than twelve (12) months.

RATES

A discount from the following rates may be offered at the sole discretion of the Company if such discount is in the best interest of the Company and its ratepayers. The maximum amount that the Customer shall pay the Company monthly will be the sum of the following charges:

Customer Charge per Month: \$~~106~~225.00 per meter

Volume Charge: An amount equal to the applicable unit transportation rate for each therm of Customer-secured gas metered and delivered to the Customer. The unit rates shall be as set forth in the currently effective Pricing PlanTariff Summary. The volume charge will consist of the following:

- (a) An amount equal to the applicable unit sales margin for each therm as set forth in the Customer's otherwise applicable sales ~~pricing plan~~tariff for each meter. This volume charge will cover the Company's Delivery Charge as specified in the currently effective gas sales ~~pricing plan~~tariff but not including the base cost of gas specified therein.
- (b) An amount to reflect lost and unaccounted for gas as determined by the differential between the gas costs on a sales basis and gas costs on a purchase basis determined in the development of the currently effective, Purchased Gas Adjustment ("PGA"), Rate Rider No. RR-1. The Company, at its sole option, may allow lost and unaccounted for gas to be paid in kind.
- (c) Any applicable imbalance charges as specified in Payment For Excess Quantities of this ~~pricing plan~~tariff.
- (d) Any charges from upstream pipeline transporters or suppliers which have been incurred by the Company in excess of those specified in section (c) above and are deemed by the Company to be applicable to the transportation service rendered for the Customer under these ~~pricing plan~~tariffs.

Minimum Charge: The minimum charge will be the Basic Customer Charge per Month plus \$0.005 per therm.



**UNS Gas, Inc.
Pricing Plan T-1
Transportation of
Customer-Secured
Natural Gas**

UNS Gas, Inc.

Original Sheet No.: 802-2
Superseding: _____

ADMINISTRATIVE PROCEDURES

1. Processing Requests for Transportation Service: Requests for transportation hereunder shall be made by, and shall be deemed to be complete upon, the Customer providing the following information to the Company:
 - (a) Gas Quantities: The Maximum Daily Quantity applicable to the receipt point and the Maximum Daily Quantity applicable to each delivery point and estimated total quantities to be received and transported monthly over the delivery period should be stated individually in terms for each receipt point.
 - (b) Delivery Point(s): Point(s) of delivery by the Company to the Customer.
 - (c) Term of Service:
 - i. Date of service requested to commence;
 - ii. Date service requested to terminate, if known; and
 - iii. Minimum term for transportation service shall be twelve (12) months.
 - (d) Performance: A statement from the Customer certifying that the Customer has or will have title to the gas to be delivered to the Company for transportation and has entered into or will enter into those arrangements necessary to assure all upstream transportation will be in place prior to the commencement of service under a Transportation Agreement. The Customer's Agent, if any, must be named.

Upon receipt of all of the information specified above, the Company shall prepare and tender to the Customer for execution a Transportation Agreement. If the Customer fails to execute the Transportation Agreement within thirty (30) days of the date tendered, the Customer's request shall be deemed null and void.

OPERATING PROCEDURES

1. Nominating and Scheduling of Gas Receipts and Deliveries: The Customer shall be responsible for contacting the upstream pipelines to arrange for the nominating and scheduling of receipts and deliveries hereunder, provided, that the Customer may designate one (1) other party to serve as his agent for such purpose.

The Customer or Customer's Agent shall be responsible for submitting nominations to the upstream pipeline and notifying the Company's designated representative in writing no later than one (1) hour prior to the upstream pipeline's nomination deadlines set forth in their FERC approved tariff. Such communication shall occur prior to the first of the month and within the month if there are changes to the nominations. The Customer is responsible for confirming the timely receipt of this information by the Company. The Company will confirm whether it has sufficient operational capacity to deliver all or a portion of the Customer's gas.

Filed By:	Raymond S. Heyman <u>Kentton C. Grant</u>	Tariff No/Rate:	T-1
Title:	Senior Vice President, General Counsel <u>of Finance and Rates</u>	Effective:	April 1, 2010 <u>Pending</u>
District:	Entire <u>UNS Gas Service Area</u>	Page No./Deci	<u>1 of 8</u>



**UNS Gas, Inc.
Pricing Plan T-1
Transportation of
Customer-Secured
Natural Gas**

UNS Gas, Inc.

Original Sheet No.: 802-3
Superseding: _____

2. Operating Information and Estimates: Upon request of the Company, the Customer shall from time to time submit its best estimates of the daily, monthly and annual volumes of gas to be transported; including peak day requirements, together with such other operating data as the Company may require in order to schedule its operations.

The Company may require large Customers whose contractually allowed maximum daily quantity exceeds 10,000 therms per day, whose usage is not predictable based on weather, and whose ratio of high to low daily usage exceeds ten (10) to inform the Company within 2 hours of any initiation or termination of gas usage exceeding an hourly rate of 1,000 therms per hour.

3. Quantities: All quantities referred to under Operating Procedures of this ~~pricing plan~~ tariff shall be provided as dekatherms ("DTH") (one million British Thermal Units).

4. Deliverability: The Company shall not be liable for its failure to deliver gas when such failure is due to unavailability of gas supply or interruption of third party transportation services.

5. Other Operating Procedures: The Company may require additional information or enforce other operating procedures as deemed necessary in the Company's sole judgment, in order to coordinate gas volumes and the movement of gas through the upstream pipeline system to the Company's Arizona Gas Service Area. These additional operating procedures may be enforced upon verbal notice to each Customer or the Customer's Agent with twenty-four (24) hour notice of implementation.

6. Balancing: Balancing of thermally equivalent volumes of gas received and delivered shall be achieved as nearly as feasible on a daily basis, taking into account the Customer's right, subject to prior Company approval, to vary receipts and deliveries across the Company Distribution System. Customer monthly imbalances are defined as the difference between the Customer's total monthly metered quantities and the Customer's total scheduled transportation quantity. Customers are provided a monthly operating window, under which the Customer's cumulative imbalances must be within plus or minus 5 percent (+/- 5%) of the month's total of daily scheduled transportation quantities, plus any Company-approved imbalance adjustment quantity, or 1,500 therms, whichever is greater. Imbalances established in excess of the applicable monthly operating window will be subject to imbalance charges as specified in Payment for Excess Quantities of this ~~pricing plan~~ tariff. However, if the Customer has an imbalance outside this limit and contacts the Company before the end of the last business day of the month, the Customer will have a "cure period" of an additional 30 days to bring its imbalance within the limits before any imbalance charges specified in Payment for Excess Quantities are applied. Customer is then ineligible for a "cure period" for the following month. If in the Company's sole good faith judgment and operating conditions permit, the Company will increase the monthly operating window. Any imbalance (plus or minus) carried forward shall be considered first through the meter during the next daily or monthly period, as applicable.

Upon Customer request, the Company will permit electronic read-only access to the telemetering facilities described in Facility Additions of this ~~pricing plan~~ tariff or provide daily meter reads each calendar day.

Filed By: Raymond S. Heyman Kentton C. Grant Tariff No. Rate T-1
Title: Senior Vice President, General Counsel of Finance and Rates Effective: April 1, 2010 Pending
District: Entire UNS Gas Service Area Page No. Deci 1 of 8



**UNS Gas, Inc.
Pricing Plan T-1
Transportation of
Customer-Secured
Natural Gas**

UNS Gas, Inc.

Original Sheet No.: 802-4

Superseding: _____

7. Adjustments: Periodically, volume adjustments may be made by the upstream pipelines or the Customer's agent. Therefore, actual daily volumes invoiced will be compared with daily nominated volumes. Should adjustments to the nominated volumes become necessary, such adjustments will be applied to the nomination for the month in which the volumes were delivered to the Customer for the purposes of determining the applicability of the provisions of this ~~pricing plan~~tariff.
8. Customer Default: The Company shall not be required to perform or continue service on behalf of any Customer that fails to comply with the terms contained in this ~~pricing plan~~tariff and the terms of the Customer's Transportation Service Agreement with the Company. The Company shall have the right to waive any one or more specific defaults by any Customer under any provision of this ~~pricing plan~~tariff or the service agreement, provided, however, that no such waiver shall operate or be construed as a waiver of any other existing or future default or defaults, whether of a like or different character.
9. Operational Curtailment: The Company reserves the right to impose, at any time, any reasonable operating conditions upon the transportation of the Customer's gas which the Company, in its sole good faith judgment, deems necessary to maintain safe and efficient operation of its distribution system, or to make the operating terms and conditions of service hereunder compatible with those of its upstream pipelines. Under such circumstances, the following conditions shall apply:
- (a) Any Customer that does not comply with a notice of operational curtailment shall be subject to, in addition to any otherwise applicable charges, a penalty of \$10.00 per DTH for all unauthorized quantities during the curtailment period.
 - (b) The Company shall endeavor to provide notice of such operational curtailment forty-eight (48) hours prior to the commencement of the delivery of gas.
 - (c) Notwithstanding condition (b), the Company may impose an operational curtailment on the current gas day. In the event an operational curtailment is imposed on the current gas day, a minimum one-hour grace period will be allowed before penalties begin to apply.

PAYMENT FOR EXCESS QUANTITIES

1. Customers will be assessed imbalance charges if an imbalance exists in excess of the applicable monthly operating window under the conditions set forth in Balancing described as part of Operating Procedures herein. The portion of any imbalance quantity established by a Customer in excess of the applicable monthly operating window is defined as an excess imbalance quantity. The imbalance charge will be based on the Company's short term purchases, where short term purchases are defined as gas for which the price is determined in the calendar month of use. In addition to the charges payable under this ~~pricing plan~~tariff, any monthly excess quantity shall be billed as follows:

Filed By:	Raymond S. Hoyman <u>Kentton C. Grant</u>	Tariff No/Rate:	T-1
Title:	Senior Vice President, General Counsel <u>of Finance and Rates</u>	Effective:	April 1, 2010 <u>Pending</u>
District:	Entire <u>UNS</u> Gas Service Area	Page No/Deci	1 of 8



~~UNS Gas, Inc.~~
~~Pricing Plan T-1~~
~~Transportation of~~
~~Customer-Secured~~
~~Natural Gas~~

UNS Gas, Inc.

Original Sheet No.: 802-5

Superseding: _____

(a) Positive Excess Imbalance

A positive excess imbalance exists when the Customer's scheduled transportation quantity exceeds the Customer's metered quantity by more than the applicable monthly operating window. The excess imbalance shall be retained by the Company and eliminated after the Customer's bill is credited as follows:

- (i) The price of the positive imbalance gas for the applicable month shall be calculated as the weighted average cost per therm of the Company's least expensive short term purchases (including all upstream pipeline fuel and variable costs) for the aggregate positive imbalance volume associated with all T-1 customers. This weighted average cost per therm will be multiplied by the Customer's positive imbalance volume and the percentage associated with the Customer's "Percentage Excess Imbalance" in the "Positive" column in Table 1 below.

(b) Negative Excess Imbalance

A negative excess imbalance exists when the sum of the Customer's scheduled transportation quantity is less than the metered quantity by more than the applicable monthly operating window. The excess imbalance shall be eliminated after the Customer is billed as follows:

- (i) The price of the negative imbalance gas for the applicable month shall be calculated as the weighted average cost per therm of the Company's most expensive short term purchases (including all upstream pipeline fuel, variable and capacity costs, at a 100% load factor) for the aggregate negative imbalance volume associated with all T-1 customers. This weighted average cost per therm will be multiplied by the Customer's negative imbalance volume and the percentage associated with the Customer's "Percentage Excess Imbalance" in the "Negative" column in Table 1 below.

Table 1

Percentage Excess Imbalance	Positive	Negative
Equal to or less than 5%	100%	100%
Over 5% and less than or equal to 15%	90%	110%
Over 15% and less than or equal to 20%	80%	120%
Over 20% and less than or equal to 30%	70%	130%
Over 30%	60%	140%

- 2. Should the Customer cease to utilize transportation service under this ~~pricing plan~~ tariff, the entire remaining imbalance shall be settled pursuant to section Payment For Excess Quantities herein. For purposes of this settlement, no operating window applies.



**UNS Gas, Inc.
Pricing Plan T-1
Transportation of
Customer-Secured
Natural Gas**

UNS Gas, Inc.

Original Sheet No.: 802-6

Superseding: _____

3. Under no circumstances shall the section Payment For Excess Quantities above be considered as giving the Customer any right to take excess quantity gas, other than as provided in Operating Procedures hereof, nor shall the section Payment For Excess Quantities or payment thereunder be considered as a substitute for any other remedy available to the Company against the offending Customer for failure to respect its obligation to stay within its authorized quantities.

FACILITY ADDITIONS

Any facilities which must be installed by the Company to serve the Customer will be constructed in accordance with the Rules and Regulations as approved from time to time by the Arizona Corporation Commission. Telemetering facilities on each meter will be installed at the Customer's expense. Customers requiring telemetering facilities shall provide, at the Customer's expense, a dedicated telephone line for the Company's use in communicating with the telemetering facilities and will pay any and all costs associated with that phone line. Further, any existing special surcharges or minimum bill provisions designed to recover the cost of facilities for any Customer shall remain in effect and may serve to increase maximum allowable transportation rate levels pursuant to this ~~pricing plan~~ tariff.

THIRD PARTY CHARGES

The Customer shall reimburse the Company for any charges rendered or billed to the Company by its upstream pipelines and by any other upstream transporter and gas gatherers, either before or after termination of the Transportation Agreement, which the Company, in its sole good faith judgment, determines have been incurred because of the transportation of Customer's gas hereunder and should, therefore, appropriately be borne by the Customer. Such charges, whether levied in dollars or gas, may include, but shall not be limited to, standby charges or reservation fees, prepayments, applicable taxes, applicable fuel reimbursement, shrinkage, lost and unaccounted for volumes, Gas Research Institute surcharges, penalty charges and filing fees.

The Customer will reimburse the Company for all such charges incurred by the Company as rendered, irrespective of the actual quantities of natural gas delivered to the Customer.

CONDITIONS FOR CONVERTING TO T-1 SERVICE

Any qualified Customer converting from gas sales service to service under this ~~pricing plan~~ tariff is subject to the following conditions and requirements:

1. T-1 service will commence at the beginning of the first calendar month following the end of five (5) days after receipt of the customer service change request.
2. Customer will be billed or credited the Customer's pro rata share of the balance in the Company's PGA bank, calculated as follows:

Filed By:	<u>Raymond S. Hoyman</u> <u>Kentton C. Grant</u>	Tariff No/Rate:	T-1
Title:	<u>Senior Vice President, General Counsel of Finance and Rates</u>	Effective:	<u>April 1, 2010</u> <u>Pending</u>
District:	Entire <u>UNS</u> Gas Service Area	Page No/Deci	<u>1 of 8</u>



**UNS Gas, Inc.
Pricing Plan T-1
Transportation of
Customer-Secured
Natural Gas**

UNS Gas, Inc.

Original Sheet No.: 802-7

Superseding: _____

- (a) Starting from the later of the month of initiation of gas sales service by the Customer, or the date of initiation of the current PGA bank, through the last month of sales service, the Customer's actual therm usage will be multiplied, on a month-by-month basis, by the difference between the Company's actual commodity cost per therm and the Gas Cost component of the Basic Cost of Service Rate adjusted for any PGA and PGA Surcharge that may be in effect from time to time;
 - (b) The sum of these monthly calculated values equals the Customer's charge or credit due for conversion to service under this ~~pricing plan~~tariff;
 - (c) Customer charge or credit will be paid in twelve (12) equal monthly payments, including interest equal to the carrying charge rate applicable to the PGA bank at the time of conversion to service under this ~~pricing plan~~tariff.
3. If a Customer converts back to a ~~pricing plan~~tariff for gas sales service while the PGA Surcharge existing at the time of the switch to T-1 service is still in effect, such Surcharge will not be applicable to the Customer's billed usage for the period it remains in effect. However, any future PGA Surcharge that may be put into effect will be applicable to the Customer's billed usage.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this ~~pricing plan~~tariff.

CONDITIONS

1. Transportation of Customer-owned natural gas hereunder shall be limited to natural gas of equal or higher quality than natural gas currently available from the Company's supplier(s). All gas delivered by the Company to the Customer shall be deemed to be the same quality as that gas received by the Company for transportation.
2. With respect to the Company's capacity to deliver gas at any particular time, the curtailment priority of any Customer served under this ~~pricing plan~~tariff shall be the same as the curtailment priority established for other Customers served pursuant to the Company's ~~pricing plan~~tariff which would otherwise be available to such Customer.

Filed By: ~~Raymond S. Heyman~~Kentton C. Grant ~~Tariff No.~~Rate T-1
Title: ~~Senior Vice President, General Counsel of Finance and Rates~~ Effective: ~~April 1, 2010~~Pending
District: Entire UNS Gas Service Area ~~Page No.~~Deci 1 of 8



~~UNS Gas, Inc.~~
Pricing Plan T-1
Transportation of
Customer-Secured
Natural Gas

UNS Gas, Inc.

Original Sheet No.: 802-8
 Superseding: _____

Supplementary Information Transportation of Customer-Secured Natural Gas

Transportation customers procure their own gas and UNS Gas, Inc. ("Company") transports it from the connection with the interstate pipeline (at the city gate) over the Company's pipeline system to the customer's facility. To qualify, customers must use a minimum of 120,000 therms per year.

The rates per therm for transportation service from the city gate to the customer's facility are as follows:

Large Volume Commercial	\$ 0.4867 <u>2501</u> per therm
Large Volume Industrial	\$ 0.4029 <u>1600</u> per therm
Large Volume Public Authority	\$ 0.4295 <u>1900</u> per therm

Customers must also pay for the following items:

1. Charges for lost and unaccounted for gas in accordance with Tariff T-1 (Transportation of Customer-Secured Natural Gas);
2. A minimum Customer Charge of \$~~105~~225.00 per month;
3. Telemetering equipment and a telephone line; and
4. The costs for delivery of gas to the city gate.



~~UNS Gas, Inc.
Pricing Plan T-2
Transportation Service
Using Dedicated
Transmission Facilities~~

UNS Gas, Inc.

Original Sheet No.: 803
Superseding: _____

Transportation Service Using Dedicated Transmission Facilities

AVAILABILITY

This ~~pricing plan~~tariff is only available to any qualifying Customer for transportation of natural gas by the Company from dedicated interconnects between the Company and upstream pipelines (herein called Receipt Point) to the Delivery Point(s) on the Company's transmission system throughout its certificated Arizona Gas Service Area under the following conditions:

1. The Company has or will have available capacity to render the requested service utilizing facilities dedicated to the requirements of the Customer, except as provided under Facility Additions hereof;
2. The Customer has demonstrated to the Company's satisfaction the assurance of natural gas supplies and third-party transportation agreements with quantities and for a term compatible with the service being requested from the Company;
3. The Customer and the Company have executed a Transportation Agreement, and the Customer is to be the End-User;
4. The Customer's requirement for gas to be transported is greater than 1,000 therms per day or 120,000 therms per year; and
5. The Customer is not taking service through dedicated facilities under the provisions of a special contract approved by the Arizona Corporation Commission ("ACC").
6. The Customer is classified as a utility that produces electricity.

APPLICABILITY

This ~~pricing plan~~tariff shall apply to gas transported by the Company for Customer pursuant to the executed service agreement.

1. The basic transportation service rendered under this ~~pricing plan~~tariff shall consist of:
 - (a) The receipt by the Company for the account of the Customer of the Customer's gas at the Receipt Point;
 - (b) The transportation of gas through the Company's gas system for the account of the Customer; and
 - (c) The delivery of gas after transportation by the Company for the account of the Customer at the Delivery Point(s).
2. Transportation: Service is firm and uninterrupted except for the following:

Filed By: ~~Raymond S. Heyman~~Kentton C. Grant
Title: ~~Senior Vice President, General Counsel~~of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.:Rate: T-2
Effective: April 1, 2010Pending
Page No.:Decis 1 of 10



~~UNS Gas, Inc.~~
~~Pricing Plan T-2~~
~~Transportation Service~~
~~Using Dedicated~~
~~Transmission Facilities~~

UNS Gas, Inc.

Original Sheet No.: 803--1
 Superseding: _____

- (a) Curtailment in accordance with the Company's curtailment priority procedures;
- (b) When the Company determines it has insufficient capacity on its system or from its upstream pipeline; or
- (c) Customer's gas supply to the Company is insufficient to meet its requirement.

3. Any Customer served under this ~~pricing plan~~tariff is ineligible to obtain sales service without executing a special contract approved by the ACC.

RATES

A monthly net bill at the following rates plus any adjustments incorporated in ~~this pricing plan~~herein:

Customer Charge per month: \$~~105~~225.00 per meter

Volume Charge: An amount equal to the applicable unit transportation rate for each therm of Customer-secured gas metered and delivered to the Customer. The unit rates shall be as set forth in the currently effective ~~Pricing Plan~~Tariff Summary. The volume charge will consist of the following:

- (a) An amount to fund the Company's low income rate program equal to the portion of the applicable unit sales margin for each therm included in rates as set forth in the Customer's otherwise applicable sales ~~pricing plan~~tariff for each meter.
- (b) An amount to reflect lost and unaccounted for gas as determined by the differential between the gas cost on a sales basis and gas cost on a purchase basis determined in the development of the currently effective Purchased Gas Adjustment ("PGA"), Rate Rider No. RR-1. The Company at its sole option may allow lost and unaccounted for gas to be paid in kind.
- (c) Any applicable imbalance charges as specified in Payment For Excess Quantities of this ~~pricing plan~~tariff.
- (d) Any charges from upstream pipeline transporters or suppliers which have been incurred by the Company in excess of those specified in section (c) above and are deemed by the Company to be applicable to the transportation service rendered for the Customer under this ~~pricing plan~~tariff.

Reservation Charge: An annual charge to be billed in twelve (12) equal monthly installments equal to the fully allocated costs to provide the dedicated facilities necessary to serve the Customer as described more fully in Rates ~~herein~~of this pricing plan.

Filed By: ~~Raymond S. Heyman~~Kentton C. Grant
 Title: ~~Senior Vice President, General Counsel~~of Finance and Rates
 District: ~~Entire UNS Gas Service Area~~

~~Tariff No.:~~Rate: T-2
 Effective: ~~April 1, 2010~~Pending
 Page No.:~~Decis~~1 of 10



**UNS Gas, Inc.
Pricing Plan T-2
Transportation Service
Using Dedicated
Transmission Facilities**

UNS Gas, Inc.

Original Sheet No.: 803-2

Superseding: _____

Determined on the basis of a fully allocated cost study filed with and approved by the ACC in the context of a general rate case except when the request for service is non-coincident with a rate filing. In the latter case, the Reservation Charge will be computed by the Company including the following elements:

- (a) Return and income taxes at the rate of return approved by the ACC in the Company's last general rate case computed on the basis of the installed costs of the dedicated facilities plus an allocation of other rate base items including, as appropriate: intangible, general and common plant investment, less any applicable accumulated depreciation and deferred taxes, an allowance for working capital and materials and supplies;
- (b) Operations expense including all operating and maintenance expenses, depreciation and amortization expense, taxes other than income related to the dedicated facilities and allocated rate base;
- (c) Allocated indirect expense including an appropriate portion of customer accounting, sales and information, and administrative and general expenses; and
- (d) Any other allocated costs incurred either directly or indirectly to provide the requested service.

Special Surcharge: An annual charge to be computed on the basis of the twelve (12) months ending September of the prior year and billed beginning in January in equal monthly installments, computed as the sum of the following charges:

- (a) The revenue requirements for any additional investments required to provide the service requested by Customer subsequent to the establishment of the currently effective Reservation Charge,
- (b) Any non-recurring operating and maintenance expenses associated with the facilities dedicated to the Customer in the previous year, and
- (c) Any extraordinary expenses incurred by the Company on behalf of the Customer not included in (a) or (b) above.

Minimum Charge: The minimum charge will be the sum of the Basic Customer Charge per Month, the monthly Reservation Charge and any monthly Special Surcharge.

ADMINISTRATIVE PROCEDURES

1. Processing Requests for Transportation Service: Requests for transportation hereunder shall be made by, and shall be deemed to be complete upon, the Customer providing the following information to the Company:

Filed By: ~~Raymond S. Heyman~~ Kentton C. Grant
Title: ~~Senior Vice President, General Counsel~~ of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Rate: T-2
Effective: April 1, 2010 Pending
Page No.: Decis 1 of 10



**UNS Gas, Inc.
Pricing Plan T-2
Transportation Service
Using Dedicated
Transmission Facilities**

UNS Gas, Inc.

Original Sheet No.: 803-3
Superseding: _____

- (a) Gas Quantities: The Maximum Daily Quantity applicable to the receipt point and the Maximum Daily Quantity applicable to each delivery point, and estimated total quantities to be received and transported monthly over the delivery period should be stated individually in terms for each receipt point.
- (b) Delivery Point(s): Point(s) of delivery by the Company to the Customer.
- (c) Term of Service:
 - i. Date service requested to commence;
 - ii. Date service requested to terminate, if known; and
 - iii. Minimum term for transportation service shall be twelve (12) months.
- (d) Performance: A statement from the Customer certifying that the Customer has or will have title to the gas to be delivered to the Company for transportation and has entered into or will enter into those arrangements necessary to assure all upstream transportation will be in place prior to the commencement of service under a Transportation Agreement. The Customer's Agent, if any, must be named.

Upon receipt of all of the information specified above, the Company shall prepare and tender to the Customer for execution a Transportation Agreement. If the Customer fails to execute the Transportation Agreement within thirty (30) days of the date tendered, the Customer's request shall be deemed null and void.

2. Construction Requirements: In the event that the Customer's request for service requires the construction of additional transmission facilities not otherwise addressed in section Payment For Excess Quantities herof, Extension of Lines, in the Company's current Rules and Regulations, the following additional provisions may apply:
- (a) The Company may request an advance for engineering and design services based on the Company's estimate of the anticipated costs related to the requested dedicated facilities;
 - (b) Any advance for engineering and design will be refunded to the Customer on commencement of service;
 - (c) Actual engineering and design costs will be included in the dedicated facilities' costs and recovered as a part of the Reservation Charge;
 - (d) If the dedicated facilities are not placed in service for any reason, the Company may retain the advance;
 - (e) Prior to the initiation of construction of the dedicated facilities, the Company will provide an estimate of the total costs and resulting annual costs to Customer;
 - (f) The Company shall not be liable for any differences between actual construction costs and estimated costs;
 - (g) Customer may withdraw the request for service prior to initiation of construction; and

Filed By: Raymond S. HeymanKentton C. Grant
Title: Senior Vice President, General Counsel of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Rate: T-2
Effective: April 1, 2010Pending
Page No.: Decis 1 of 10



~~UNS Gas, Inc.~~
~~Pricing Plan T-2~~
~~Transportation Service~~
~~Using Dedicated~~
~~Transmission Facilities~~

UNS Gas, Inc.

Original Sheet No.: 803--4
Superseding: _____

- (h) The Customer may request that construction cease prior to completion. However, if the dedicated facilities are not completed or placed in service, the Customer is liable for service under the terms of this ~~pricing plan tariff~~ as if the facilities had been completed, based on the total construction costs expended on behalf of the Customer.

OPERATING PROCEDURES

1. Nominating and Scheduling of Gas Receipts and Deliveries: The Customer shall be responsible for contacting the upstream pipelines to arrange for the nominating and scheduling of receipts and deliveries hereunder, provided, that the Customer may designate one (1) other party to serve as his agent for such purpose.

The Customer or Customer's Agent shall be responsible for submitting nominations to the upstream pipeline and notifying the Company's designated representative in writing no later than one (1) hour prior to the upstream pipeline's nomination deadlines set forth in their FERC approved tariff. Such communication shall occur prior to the first of the month and within the month if there are changes to the nominations. The Customer is responsible for confirming the timely receipt of this information by the Company. The Company will confirm whether it has sufficient operational capacity to deliver all or a portion of the Customer's gas.

2. Operating Information and Estimates: Upon request of the Company, the Customer shall from time to time submit its best estimates of the daily, monthly and annual volumes of gas to be transported; including peak day requirements, together with such other operating data as the Company may require in order to schedule its operations.
3. The Company may require large Customers whose contractually allowed maximum daily quantity exceeds 10,000 therms per day, whose usage is not predictable based on weather, and whose ratio of high to low daily usage exceeds ten (10) to inform the Company within 2 hours of any initiation or termination of gas usage exceeding an hourly rate of 1,000 therms per hour.
4. Quantities: All quantities referred to under Operating Procedures shall be provided as dekatherms ("DTH") (one million British Thermal Units).
5. Deliverability: The Company shall not be liable for its failure to deliver gas when such failure is due to unavailability of gas supply or interruption of third party transportation services.
6. Other Operating Procedures: The Company may require additional information or enforce other operating procedures as deemed necessary in the Company's sole judgment, in order to coordinate gas volumes and the movement of gas through the upstream pipeline system to the Company's Arizona Gas Service Area. These additional operating procedures may be enforced upon verbal notice to each Customer or the Customer's Agent with twenty-four (24) hour notice of implementation.
7. Balancing: Balancing of thermally equivalent volumes of gas received and delivered shall be achieved as nearly as feasible on a daily basis, taking into account the Customer's right, subject to prior Company approval, to vary receipts and deliveries across the Company Distribution System. Customer monthly imbalances are defined as the

Filed By: ~~Raymond S. Heyman~~ Kentton C. Grant
Title: ~~Senior Vice President, General Counsel~~ of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Rate: T-2
Effective: April 1, 2010 Pending
Page No.: Decis 1 of 10



**UNS Gas, Inc.
Pricing Plan T-2
Transportation Service
Using Dedicated
Transmission Facilities**

UNS Gas, Inc.

Original Sheet No.: 803-5

Superseding: _____

difference between the Customer's total monthly metered quantities and the Customer's total scheduled transportation quantity. Customers are provided a monthly operating window, under which the Customer's cumulative imbalances must be within plus or minus 5 percent (+/- 5%) of the month's total of daily scheduled transportation quantities, plus any Company-approved imbalance adjustment quantity, or 1,500 therms, whichever is greater. Imbalances established in excess of the applicable monthly operating window will be subject to imbalance charges as specified under Payment For Excess Quantities of this ~~pricing plan~~ tariff. However, if the Customer has an imbalance outside this limit and contacts the Company before the end of the last business day of the month, the Customer will have a "cure period" of an additional 30 days to bring its imbalance within the limits before any imbalance charges specified under Payment For Excess Quantities are applied. Customer is then ineligible for a "cure period" for the following month. If in the Company's sole good faith judgment and operating conditions permit, the Company will increase the monthly operating window. Any imbalance (plus or minus) carried forward shall be considered first through the meter during the next daily or monthly period, as applicable.

8. Upon Customer request, the Company will permit electronic read-only access to the telemetering facilities described under Facility Additions or provide daily meter reads each calendar day.
9. Adjustments: Periodically, volume adjustments may be made by the upstream pipelines or the Customer's agent. Therefore, actual daily volumes invoiced will be compared with daily nominated volumes. Should adjustments to the nominated volumes become necessary, such adjustments will be applied to the nomination for the month in which the volumes were delivered to the Customer for the purposes of determining the applicability of the provisions of this ~~pricing plan~~ tariff.
10. Customer Default: The Company shall not be required to perform or continue service on behalf of any Customer that fails to comply with the terms contained in this ~~pricing plan~~ tariff and the terms of the Customer's Transportation Service Agreement with the Company. The Company shall have the right to waive any one or more specific defaults by any Customer under any provision of this ~~pricing plan~~ tariff or the service agreement, provided, however, that no such waiver shall operate or be construed as a waiver of any other existing or future default or defaults, whether of a like or different character.
11. Operational Curtailment: The Company reserves the right to impose, at any time, any reasonable operating conditions upon the transportation of the Customer's gas which the Company, in its sole good faith judgment, deems necessary to maintain safe and efficient operation of its distribution system, or to make the operating terms and conditions of service hereunder compatible with those of its upstream pipelines. Under such circumstances, the following conditions shall apply:
 12. Any Customer that does not comply with a notice of operational curtailment shall be subject to, in addition to any otherwise applicable charges, a penalty of \$10.00 per DTH for all unauthorized quantities during the curtailment period.
 13. The Company shall endeavor to provide notice of such operational curtailment forty-eight (48) hours prior to the commencement of the delivery of gas.

Filed By: ~~Raymond S. Hoyman~~ Kentton C. Grant
Title: ~~Senior Vice President, General Counsel~~ of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Rate: T-2
Effective: April 1, 2010 Pending
Page No.: Decis 1 of 10



**UNS Gas, Inc.
Pricing Plan T-2
Transportation Service
Using Dedicated
Transmission Facilities**

UNS Gas, Inc.

Original Sheet No.: 803-6
Superseding: _____

14. Notwithstanding condition (b), the Company may impose an operational curtailment on the current gas day. In the event an operational curtailment is imposed on the current gas day, a minimum one-hour grace period will be allowed before penalties begin to apply.

PAYMENT FOR EXCESS QUANTITIES

1. Customers will be assessed imbalance charges if an imbalance exists in excess of the applicable monthly operating window under the conditions set forth under Balancing described as part of Operating Procedures herein. The portion of any imbalance quantity established by a Customer in excess of the applicable monthly operating window is defined as an excess imbalance quantity. The imbalance charge will be based on the Company's short term purchases, where short term purchases are defined as gas for which the price is determined in the calendar month of use. In addition to the charges payable under this ~~pricing plan~~ tariff, any monthly excess quantity shall be billed as follows:

(a) Positive Excess Imbalance

A positive excess imbalance exists when the Customer's scheduled transportation quantity exceeds the Customer's metered quantity by more than the applicable monthly operating window. The excess imbalance shall be retained by the Company and eliminated after the Customer's bill is credited as follows:

- (i) The price of the positive imbalance gas for the applicable month shall be calculated as the weighted average cost per therm of the Company's least expensive short term purchases (including all upstream pipeline fuel and variable costs) for the aggregate positive imbalance volume associated with all T-2 customers. This weighted average cost per therm will be multiplied by the Customer's positive imbalance volume and the percentage associated with the Customer's "Percentage Excess Imbalance" in the "Positive" column in Table 1 below.

(b) Negative Excess Imbalance

A negative excess imbalance exists when the sum of the Customer's scheduled transportation quantity is less than the metered quantity by more than the applicable monthly operating window. The excess imbalance shall be eliminated after the Customer is billed as follows:

- (i) The price of the negative imbalance gas for the applicable month shall be calculated as the weighted average cost per therm of the Company's most expensive short term purchases (including all upstream pipeline fuel, variable and capacity costs, at a 100% load factor) for the aggregate negative imbalance volume associated with all T-2 customers. This weighted average cost per therm will be multiplied by the Customer's negative imbalance volume and the percentage associated with the Customer's "Percentage Excess Imbalance" in the "Negative" column in Table 1 below.

Filed By: Raymond S. Heyman Kentton C. Grant
Title: Senior Vice President, General Counsel of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Rate: T-2
Effective: April 1, 2010 Pending
Page No.: Decis 1 of 10



~~UNS Gas, Inc.
Pricing Plan T-2
Transportation Service
Using Dedicated
Transmission Facilities~~

UNS Gas, Inc.

Original Sheet No.: 803--7
Superseding: _____

(i)

Table 1

Percentage Excess Imbalance	Positive	Negative
Equal to or less than 5%	100%	100%
Over 5% and less than or equal to 15%	90%	110%
Over 15% and less than or equal to 20%	80%	120%
Over 20% and less than or equal to 30%	70%	130%
Over 30%	60%	140%

2. Should the Customer cease to utilize transportation service under this ~~pricing plan~~tariff, the entire remaining imbalance shall be settled pursuant to section Payment For Excess Quantities herein. For purposes of this settlement, no operating window applies.
3. Under no circumstances shall the section Payment For Excess Quantities above be considered as giving the Customer any right to take excess quantity gas, other than as provided in Operating Procedures hereof, nor shall the section Payment For Excess Quantities or payment thereunder be considered as a substitute for any other remedy available to the Company against the offending Customer for failure to respect its obligation to stay within its authorized quantities.

FACILITY ADDITIONS

Any facilities which must be installed by the Company to serve the Customer will be constructed in accordance with the Rules of Service as approved from time to time by the ACC. Telemetering facilities on each meter will be installed at the Customer's expense. Customers requiring telemetering facilities shall provide, at the Customer's expense, a dedicated telephone line for the Company's use in communicating with the telemetering facilities and will pay any and all costs associated with that phone line. Further, any existing special surcharges or minimum bill provisions designed to recover the cost of facilities for any Customer shall remain in effect and may serve to increase maximum allowable transportation rate levels pursuant to this ~~pricing plan~~tariff.

THIRD PARTY CHARGES

The Customer shall reimburse the Company for any charges rendered or billed to the Company by its upstream pipelines and by any other upstream transporter and gas gatherers, either before or after termination of the Transportation Agreement, which the Company, in its sole good faith judgment, determines have been incurred because of the transportation of Customer's gas hereunder and should, therefore, appropriately be borne by the Customer. Such charges, whether levied in dollars or gas, may include, but shall not be limited to, standby charges or reservation fees, prepayments, applicable taxes, applicable fuel reimbursement, shrinkage, lost and unaccounted for volumes, Gas Research Institute surcharges, penalty charges, and filing fees.

Filed By: ~~Raymond S. Heyman~~Kentton C. Grant
 Title: ~~Senior Vice President, General Counsel~~of Finance and Rates
 District: Entire UNS Gas Service Area

Tariff No.:Rate: T-2
 Effective: April 1, 2010Pending
 Page No.:Decis 1 of 10



~~UNS Gas, Inc.
Pricing Plan T-2
Transportation Service
Using Dedicated
Transmission Facilities~~

UNS Gas, Inc.

Original Sheet No.: 803--8
Superseding: _____

The Customer will reimburse the Company for all such charges incurred by the Company as rendered, irrespective of the actual quantities of natural gas delivered to the Customer.

CONDITIONS FOR CONVERTING TO T-2 SERVICE

Any qualified Customer converting from gas sales service to service under this ~~pricing plan~~tariff is subject to the following conditions and requirements:

1. T-2 service will commence at the beginning of the first calendar month following the end of five (5) days after receipt of the customer service change request or completion of any required facilities, whichever is later.
2. Customer will be billed or credited the Customer's pro rata share of the balance in the PGA bank accumulated while served under the Company's sales ~~pricing plan~~tariff, calculated as follows:
 - (a) Starting from the later of the month of initiation of gas sales service by the Customer, or the date of initiation of the current PGA bank, through the Customer's last month of sales service, the Customer's actual therm usage will be multiplied, on a month-by-month basis, by the difference between the Company's actual commodity cost per therm and the Gas Cost component of the Base Cost of Service Rate adjusted for any PGA and PGA Surcharge that may be in effect from time-to-time;
 - (b) The sum of these monthly calculated values equals the Customer's charge or credit due for conversion to service under this ~~pricing plan~~tariff;
 - (c) Customer charge or credit will be paid in twelve (12) equal monthly payments, including interest equal to the carrying charge rate applicable to the PGA bank at the time of conversion to service under this ~~pricing plan~~tariff.

TAX CLAUSE

To the charges computed under the above rate, including any adjustments, shall be added the applicable proportionate part of any taxes or governmental impositions which are or may in the future be assessed on the basis of gross revenues of the Company.

RULES AND REGULATIONS

The standard Rules and Regulations of the Company as on file from time to time with the Arizona Corporation Commission shall apply where not inconsistent with this ~~pricing plan~~tariff.

CONDITIONS

1. Transportation of Customer owned natural gas hereunder shall be limited to natural gas of equal or higher quality than natural gas currently available from the Company's supplier(s). All gas delivered by the Company to the Customer shall be deemed to be the same quality as that gas received by the Company for transportation.

Filed By: ~~Raymond S. Heyman~~Kentton C. Grant
Title: ~~Senior Vice President, General Counsel~~of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.:Rate: T-2
Effective: April 1, 2010Pending
Page No.:Decis 1 of 10



**UNS Gas, Inc.
Pricing Plan T-2
Transportation Service
Using Dedicated
Transmission Facilities**

UNS Gas, Inc.

Original Sheet No.: 803--9
Superseding: _____

2. With respect to the Company's capacity to deliver gas at any particular time, the curtailment priority of any Customer served under this ~~pricing plan~~tariff shall be the same as the curtailment priority established for other Customers served pursuant to the Company's ~~pricing plan~~tariff, which would otherwise be applicable to such Customer.

Filed By: ~~Raymond S. Heyman~~Kentton C. Grant
Title: ~~Senior Vice President, General Counsel~~ of Finance and Rates
District: Entire UNS Gas Service Area

Tariff No.: Rate: T-2
Effective: April 1, 2010Pending
Page No.: Decis 1 of 10

BEFORE THE ARIZONA CORPORATION COMMISSION

COMMISSIONERS

GARY PIERCE - CHAIRMAN
BOB STUMP
SANDRA K. KENNEDY
PAUL NEWMAN
BRENDA BURNS

G-04204A-11-0158

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. G-04204A-11-_____
UNS GAS, INC. FOR THE ESTABLISHMENT)
OF JUST AND REASONABLE RATES AND)
CHARGES DESIGNED TO REALIZE A)
REASONABLE RATE OF RETURN ON THE)
FAIR VALUE OF THE PROPERTIES OF UNS)
GAS, INC. DEVOTED TO ITS OPERATIONS)
THROUGHOUT THE STATE OF ARIZONA.)

UNS GAS, INC.

SCHEDULES

“A” THROUGH “H”

VOLUME 3 of 3

April 8, 2011

UNS Gas, Inc.
Index to Schedules
Test Year Ended December 31, 2010

Schedule	Title of Schedule	Description
	<u>Summary Information</u>	
A-1	Computation of Increase in Gross Revenue Requirements	Increase in revenue requirements
A-2	Summary Results of Operations	Operating results for the test year, two prior years and two projected years
A-3	Summary of Capital Structure	Capital structure for the test year, two prior years and two projected years
A-4	Construction Expenditures and Gross Utility Plant in Service	Construction expenditures, gross and net utility plant in service for the test year, two prior years and two projected years
A-5	Summary Changes in Financial Position	Cash flows for the test year, two prior years and two projected years
	<u>Rate Base Schedules</u>	
B-1	Summary of Original Cost and RCND Rate Base	Elements of original cost and RCND rate base
B-2	Pro Forma Adjustments to Original Cost Rate Base	Pro forma adjustments to original cost rate base
B-3	Pro Forma Adjustments to RCND Rate Base	Pro forma adjustments to RCND rate base
B-4	RCND by Major Plant Accounts	Computation of RCND net utility plant
B-5	Computation of Working Capital	Computation of working capital allowance
	<u>Test Year Income Statements</u>	
C-1	Adjusted Test Year Income Statement	Test year income statement with pro forma adjustments
C-2	Income Statement Pro Forma Adjustments	Detail of pro forma income statement adjustments
C-3	Computation of Gross Revenue Conversion Factor	Gross revenue conversion factor
	<u>Cost of Capital</u>	
D-1	Summary Cost of Capital	Elements of capital structure for the test year and projected year
D-2	Cost of Long-Term Debt and Short-Term Debt	Cost of long-term and short-term debt for the test year and projected year
D-3	Cost of Preferred Stock	Not applicable - noted on schedule
D-4	Cost of Common Equity	Summary of conclusions for the required rate of return on common equity as of the end of the test year and projected year

UNS Gas, Inc.
Index to Schedules
Test Year Ended December 31, 2010

Schedule	Title of Schedule	Description
	<u>Financial Statements and Statistical Schedules</u>	
E-1	Comparative Balance Sheets	Balance sheets at the end of the test year and two prior years
E-2	Comparative Income Statements	Income statements for the test year and two prior years
E-3	Comparative Statement of Cash Flows	Cash flow statements for the test year and two prior years
E-4	Comparative Statements of Changes in Stockholders' Equity (Deficit)	Changes in stockholders' equity for the test year and two prior years
E-5	Detail of Gas Utility Plant	Gas utility plant balances by detailed account, at the end of the test year and at the end of the prior year
E-6	Comparative Departmental Operating Income Statements	Comparative departmental statements of operating income for the test year and two prior years
E-7	Gas Operating Statistics	Operating statistics (sales, revenues, customers and expenses) for the test year and two prior years
E-8	Taxes Charged to Operations	Significant taxes charged to operations for the test year and two prior years
E-9	Notes to Financial Statements	Reference to see 2010 Audited Financial Statements
	<u>Projections and Forecasts</u>	
F-1	Projected Income Statements - Present and Proposed Rates	Income statements for the test year and two projected years, at present and proposed rates (test year also presented)
F-2	Projected Statement of Cash Flows - Present and Proposed Rates	Cash flow statements for the test year and two projected years, at present and proposed rates (test year also presented)
F-3	Projected Construction Requirements	Construction requirements by property classification for the test year and three projected years
F-4	Key Assumptions Used in Preparing Forecasts	Important assumptions used in preparing forecasts and projections

UNSGas, Inc.
Index to Schedules
Test Year Ended December 31, 2010

Schedule	Title of Schedule	Description
	<u>Cost of Service Analyses</u>	
G-1	Cost of Service Summary - Present Rates	Rates of return by customer classification at present rates
G-2	Cost of Service Summary - Equalized and Proposed Rates	Rates of return by customer classification at proposed rates
G-3	Rate Base Allocation to Classes of Service	Allocation of rate base and net utility plant to classes of service
G-4	Expense Allocation to Classes of Service	Allocation of operating expenses to classes of service
G-5	Distribution of Rate Base by Function	Classification of rate base by function
G-6	Distribution of Expenses by Function	Classification of expenses by function
G-7	Development of Allocation Factors	Allocation factors used in the cost of service study (indicating how demand, commodity and customer allocation factors were developed), and including explanation of the demand method used
	<u>Effect of Proposed Rate Schedules</u>	
H-1	Summary of Revenues by Customer Classification - Adjusted Present and Proposed Rates	Revenues by customer classification at present and proposed rates
H-2	Comparisons of Revenues by Rate Schedules - Present and Proposed Rates	Revenues by detailed class of service at present and proposed rates
H-3	Comparison of Present & Proposed Rates	Comparison of present and proposed rates by rate schedule
H-4	Typical Bill Comparison - Present & Proposed Rates	Comparison of typical customer bills at varying consumption levels at present and proposed rates
H-5	Bill Count	Billing activity by block for the summer and winter periods for residential, commercial and industrial rate groups.

Schedule

A

UNSGas, Inc.
Computation of Increase in Gross Revenue Requirements
Test Year Ended December 31, 2010

Line No.	Description	ACC-Jurisdiction		Line No.
		Original Cost	ROND	
1	Adjusted Rate Base	\$183,540,211 (a)	\$323,814,323 (a)	\$253,677,266 (e) 1
2	Adjusted Operating Income	\$13,840,203 (b)	\$13,840,203 (b)	\$13,840,203 2
3	Current Rate of Return (2/1)	7.54%	4.27%	5.46% 3
4	Required Operating Income	\$17,275,422	\$17,275,422	\$17,275,422 4
5	Weighted Average Cost of Capital	8.65% (c)	8.65%	8.65% 5
6	Fair Value Adjustment	0.76%	-3.32%	-1.84% 6
7	Required Rate of Return	9.41%	5.33%	6.81% (e) 7
8	Operating Income Deficiency	\$3,435,219	\$3,435,219	\$3,435,219 8
9	Gross Revenue Conversion Factor	1.6365 (d)	1.6365 (d)	1.6365 (d) 9
10	Increase in Gross Revenue Requirement	\$5,621,736	\$5,621,736	\$5,621,736 10
	Customer Classification	Projected Revenue Increase (f)	% Dollar Increase (f)	
11	Residential Service	\$2,870,435	7.44%	11
12	Small Commercial Service	829,880	8.35%	12
13	Large Commercial Service	333,574	39.47%	13
14	Small Industrial Service	63,688	52.90%	14
15	Large Industrial Service	969,772	56.28%	15
16	Small Public Authority Service	138,613	8.40%	16
17	Large Public Authority Service	410,859	48.06%	17
18	Special Gas Light Service	37	2.25%	18
19	Irrigation Service	861	8.41%	19
20	Transport T-2 Service	4,018	5.13%	20
21	Total	\$5,621,736	10.45%	21

Supporting Schedules

- (a) B-1
- (b) C-1
- (c) D-1
- (d) C-3
- (e) Rev Req Model
- (f) H-1

UNIS Gas, Inc.
Summary Results of Operations
Prior Years Ended December 31, 2008 and 2009, Test Year Ended December 31, 2010
and Projected Year Ended December 31, 2011
(Thousands of Dollars)

Line No.	Description	Prior Years Ended December 31,		Test Year Ended December 31, 2010		Projected Year Ended December 31, 2011		Line No.
		2008 (a)	2009 (a)	Actuals (b)	Adjusted (b)	Present Rates (c)	Proposed Rates (c)	
1	Operating Revenues	\$174,241	\$152,987	\$149,588	\$55,181	\$149,937	\$155,364	1
2	Operating Expenses (includes income taxes)	159,058	139,276	134,364 (2)	41,341	133,960	136,055	2
3	Operating Income	15,183	13,711	15,224	13,840	15,977	19,309	3
4	Other Income and Deductions	(4)	59	(80)	(80)	(31)	(30)	4
5	Income Before Interest Expense	15,179	13,770	15,144	13,760	15,946	19,279	5
6	Interest Expense	6,640	6,404	6,506	6,506	6,640	6,640	6
7	Net Income	\$8,539	\$7,366	\$8,639	\$7,254	\$9,306	\$12,639	7
8	Earnings Per Average Common Share	N/A (1)	N/A	N/A	N/A	N/A	N/A	8
9	Dividends Per Common Share	N/A (1)	N/A	N/A	N/A	N/A	N/A	9
10	Payout Ratio	0% (1)	0%	0%	0%	0%	0%	10
11	Return on Year-End Invested Capital	7.74%	6.77%	7.50%	6.86%	7.94%	9.44%	11
12	Return on Average Invested Capital	7.92%	6.89%	7.50%	6.81%	7.92%	9.49%	12
13	Return on Year-End Common Equity	8.83%	7.08%	8.42%	7.17%	9.13%	12.01%	13
14	Return on Average Common Equity	9.24%	7.34%	8.42%	7.07%	9.10%	12.16%	14
15	Times Total Interest Earned - Before Income Taxes	3.11	2.89	3.20	2.87	3.28	4.10	15
16	Times Total Interest Earned - After Income Taxes	2.29	2.15	2.33	2.11	2.40	2.90	16

(1) UNIS Gas, Inc. is a subsidiary of UniSource Energy Corporation and has no publicly traded stock; thus, such information is not meaningful.
(2) Includes reclassification of \$14,400 for Customer Deposit Interest Expense From Other Interest Expense to Other O&M Expense.

Supporting Schedules
(a) E-2
(b) C-1
(c) F-1

UNs Gas, Inc.
Summary of Capital Structure
Prior Years Ended December 31, 2008 and 2009, Test Year Ended December 31, 2010
and Projected Year Ended December 31, 2011
(Thousands of Dollars)

Line No.	Description	Prior Years Ended December 31,		Test Year Ended December 31, 2010 Actuals (b)	Projected Year December 31, 2011		Line No.
		2008 (a)	2009 (a)		Present Rates (b)	Proposed Rates (b)	
Capitalization							
1	Short-Term Debt	\$0	\$0	\$0	\$0	\$0	1
2	Long-Term Debt (Net of Issuance Costs)	99,380	99,533	99,310	99,029	99,029	2
	Total Debt	99,380	99,533	99,310	99,029	99,029	
3	Common Stock Equity	96,684	103,981	102,620	101,926	105,259	3
4	Total Capital	\$196,064	\$203,514	\$201,930	\$200,955	\$204,288	4
Capitalization Ratios							
5	Short-Term Debt	0.00%	0.00%	0.00%	0.00%	0.00%	5
6	Long-Term Debt (Net of Issuance Costs)	50.69%	48.91%	49.18%	49.28%	48.48%	6
7	Common Stock Equity	49.31%	51.09%	50.82%	50.72%	51.52%	7
8	Total Capital	100.00%	100.00%	100.00%	100.00%	100.00%	8
9	Weighted Cost of Short-Term Debt	N/A	N/A	N/A	0.00%	N/A	9
10	Weighted Cost of Long-Term Debt	3.30%	3.19%	3.21%	3.32%	3.27%	10
11	Weighted Cost of Common Equity	5.18%	5.36%	5.34%	5.33%	5.41%	11

Supporting Schedules
(a) E-1
(b) D-1

UNS Gas, Inc.
Construction Expenditures and Gross Utility Plant in Service
Prior Years Ended December 31, 2008 and 2009, Test Year Ended December 31, 2010
and Projected Years Ended December 31, 2011, 2012 and 2013
(Thousands of Dollars)

Line No.	Year	Construction Expenditures	Net Plant Placed in Service	Net Plant In Service (1)	Gross Utility Plant in Service (1)	Line No.
1	Prior Year Ended December 31, 2008	(a) \$16,517	\$18,634	\$205,738	\$294,959	1
2	Prior Year Ended December 31, 2009	(a) \$13,244	\$15,905	\$214,337	\$310,864	2
3	Test Year Ended December 31, 2010	(a) \$10,027	\$9,373	\$215,662	\$320,290	3
4	Projected Year Ended December 31, 2011	(b) \$12,461	\$12,204	\$219,124	\$333,195	4
5	Projected Year Ended December 31, 2012	(b) \$10,828	\$10,880	\$220,964	\$344,775	5
6	Projected Year Ended December 31, 2013	(b) \$13,631	\$12,845	\$224,338	\$358,320	6

(1) Net Plant in Service and Gross Utility Plant in Service exclude CWIP and Plant Held For Future Use.

Supporting Schedules

- (a) E-1 & E-3
- (b) F-3

UNS Gas, Inc.
Summary Changes in Financial Position
Prior Years Ended December 31, 2008 and 2009, Test Year Ended December 31, 2010
and Projected Year Ended December 31, 2011
(Thousands of Dollars)

Line No.	Description	Prior Years Ended December 31,		Test Year Ended December 31,	Projected Year Ended December 31, 2011		Line No.
		2008 (a)	2009 (a)		2010 (a)	Present Rates (b)	
1	Net Cash Flows from Operating Activities	\$2,876	\$36,821	\$18,105	\$25,081	\$28,069	1
2	Net Cash Flows From Investing Activities	(16,517)	(13,244)	(8,773)	(12,461)	(12,461)	2
3	Net Cash Flows from Financing Activities	1,484	175	(10,776)	(11,249)	(11,249)	3
4	Net Increase (Decrease) in Cash	<u>(\$12,157)</u>	<u>\$23,752</u>	<u>(\$1,444)</u>	<u>\$1,371</u>	<u>\$4,359</u>	4

Supporting Schedules
(a) E-3
(b) F-2

UNS Gas, Inc.
Summary Results of Operations
Prior Years Ended December 31, 2008 and 2009, Test Year Ended December 31, 2010
and Projected Year Ended December 31, 2011
(Thousands of Dollars)

Line No.	Description	Prior Years Ended December 31,		Test Year Ended December 31, 2010		Projected Year Ended December 31, 2011		Line No.
		2008 (a)	2009 (a)	Actuals (b)	Adjusted (b)	Present Rates (c)	Proposed Rates (c)	
1	Operating Revenues	\$174,241	\$152,987	\$149,588	\$55,181	\$149,937	\$155,364	1
2	Operating Expenses (includes income taxes)	159,058	139,276	134,364 (2)	41,341	133,960	136,055	2
3	Operating Income	15,183	13,711	15,224	13,840	15,977	19,309	3
4	Other Income and Deductions	(4)	59	(80)	(80)	(31)	(30)	4
5	Income Before Interest Expense	15,179	13,770	15,144	13,760	15,946	19,279	5
6	Interest Expense	6,640	6,404	6,506	6,506	6,640	6,640	6
7	Net Income	\$8,539	\$7,366	\$8,639	\$7,254	\$9,306	\$12,639	7
8	Earnings Per Average Common Share	N/A (1)	N/A	N/A	N/A	N/A	N/A	8
9	Dividends Per Common Share	N/A (1)	N/A	N/A	N/A	N/A	N/A	9
10	Payout Ratio	0% (1)	0%	0%	0%	0%	0%	10
11	Return on Year-End Invested Capital	7.74%	6.77%	7.50%	6.86%	7.94%	9.44%	11
12	Return on Average Invested Capital	7.92%	6.89%	7.50%	6.81%	7.92%	9.49%	12
13	Return on Year-End Common Equity	8.83%	7.08%	8.42%	7.17%	9.13%	12.01%	13
14	Return on Average Common Equity	9.24%	7.34%	8.42%	7.07%	9.10%	12.16%	14
15	Times Total Interest Earned - Before Income Taxes	3.11	2.89	3.20	2.87	3.28	4.10	15
16	Times Total Interest Earned - After Income Taxes	2.29	2.15	2.33	2.11	2.40	2.90	16

(1) UNS Gas, Inc. is a subsidiary of UniSource Energy Corporation and has no publicly traded stock; thus, such information is not meaningful.
(2) Includes reclassification of \$14,400 for Customer Deposit Interest Expense From Other Interest Expense to Other O&M Expense.

Supporting Schedules

- (a) E-2
- (b) C-1
- (c) F-1

Schedule

B

UNS Gas, Inc.
Summary of Original Cost and RCND Rate Base
Test Year Ended December 31, 2010

Line No.	Description	Total		ACC Jurisdiction		Line No.
		Adjusted Original Cost Rate Base (a)	Adjusted RCND Rate Base (b)	Adjusted Original Cost Rate Base (a)	Adjusted RCND Rate Base (b)	
1	Gross Utility Plant in Service	\$346,907,070	\$596,460,038	\$346,907,070	\$596,460,038	1
2	Less: Accumulated Depreciation	106,845,477	180,465,763	106,845,477	180,465,763	2
3	Net Utility Plant in Service	240,061,593	415,994,275	240,061,593	415,994,274	3
4	Southern Union Acquisition Premium	0	0	0	0	4
5	Less: Accum. Amort. - So. Union Acq. Premium	0	18,781	0	18,781	5
6	Net Southern Union Acquisition Premium	0	(18,781)	0	(18,781)	6
7	Citizens Acquisition Discount	(30,709,737)	(52,486,897)	(30,709,737)	(52,486,897)	7
8	Less: Accum. Amort. - Citizens Acq. Discount	(5,796,619)	(9,399,553)	(5,796,619)	(9,399,553)	8
9	Net Citizens Acquisition Discount	(24,913,118)	(43,087,344)	(24,913,118)	(43,087,344)	9
10	Total Net Utility Plant	215,148,475	372,888,150	215,148,475	372,888,150	10
11	Customer Advances for Construction	(10,182,960)	(12,119,422)	(10,182,960)	(12,119,422)	11
12	Customer Deposits	(3,129,709)	(3,129,709)	(3,129,709)	(3,129,709)	12
13	Accumulated Deferred Income Taxes	(22,405,547)	(37,934,647)	(22,405,547)	(37,934,647)	13
14	Total Deductions	(35,718,216)	(53,183,778)	(35,718,216)	(53,183,780)	14
15	Allowance for Working Capital	3,754,792	3,754,792	3,754,792	3,754,792	15
16	Regulatory Assets	369,442	369,442	369,442	369,442	16
17	Regulatory Liabilities	(14,283)	(14,283)	(14,283)	(14,283)	17
18	Total Rate Base	\$183,540,211	\$323,814,324	\$183,540,211	\$323,814,324	18

Supporting Schedules
(a) B-2
(b) B-3

Recap Schedules
A-1

UNS Gas, Inc.
Pro Forma Adjustments to Original Cost Rate Base
Test Year Ended December 31, 2010

Line No.	Description	Actual at End of Test Period	Total Adjustments (a)	Adjusted at End of Test Period	ACC Jurisdiction	Line No.
1	Gross Utility Plant in Service	\$370,410,150	(\$23,503,080)	\$346,907,070	\$346,907,070	1
2	Less: Accumulated Depreciation	114,383,160	(7,537,683)	106,845,477	106,845,477	2
3	Net Utility Plant in Service	256,026,990	(15,965,397)	240,061,593	240,061,593	3
4	Southern Union Acquisition Premium	18,271,349	(18,271,349)	0	0	4
5	Less: Accum. Amort. - So. Union Acq. Premium	3,154,024	(3,154,024)	0	0	5
6	Net Southern Union Acquisition Premium	15,117,325	(15,117,325)	0	0	6
7	Citizens Acquisition Discount	(68,391,292)	37,681,555	(30,709,737)	(30,709,737)	7
8	Less: Accum. Amort. - Citizens Acq. Discount	(12,909,203)	7,112,584	(5,796,619)	(5,796,619)	8
9	Net Citizens Acquisition Discount	(55,482,089)	30,568,971	(24,913,118)	(24,913,118)	9
10	Total Net Utility Plant	215,662,226	(513,751)	215,148,475	215,148,475	10
11	Customer Advances for Construction	(10,182,960)	0	(10,182,960)	(10,182,960)	11
12	Customer Deposits	(3,129,709)	0	(3,129,709)	(3,129,709)	12
13	Accumulated Deferred Income Taxes	(22,786,887)	381,340	(22,405,547)	(22,405,547)	13
14	Total Deductions	(36,099,556)	381,340	(35,718,216)	(35,718,216)	14
15	Working Capital (b)	2,386,278	1,366,514	3,754,792	3,754,792	15
16	Regulatory Assets	369,442	0	369,442	369,442	16
17	Regulatory Liabilities	(14,283)	0	(14,283)	(14,283)	17
18	Total Original Cost Rate Base	\$182,306,107	\$1,234,103	\$183,540,211	\$183,540,211	18

Supporting Schedules
(a) B-2 (P2-3)
(b) B-5

Recap Schedules
B-1

UNS Gas, Inc.
Pro Forma Adjustments to Original Cost Rate Base
Test Year Ended December 31, 2010

Line No.	Description	Pro Forma Adjustments							Line No.
		Acquisition Discount	So. Union Acq. Premium	Griffith Plant	Build-Out Plant Write-Down	Golden Valley Pipeline	Total Page Adjustments		
1	Gross Utility Plant in Service	\$0	\$0	(\$6,184,402)	(\$12,841,091)	(\$4,477,587)	(\$23,503,080)	1	
2	Less: Accumulated Depreciation	0	0	(1,483,850)	(5,807,383)	(246,450)	(7,537,683)	2	
3	Net Utility Plant in Service	0	0	(4,700,552)	(7,033,708)	(4,231,137)	(15,965,397)	3	
4	Southern Union Acquisition Premium	0	(18,271,349)	0	0	0	(18,271,349)	4	
5	Less: Accum. Amort. - So. Union Acq. Premium	0	(3,154,024)	0	0	0	(3,154,024)	5	
6	Net Southern Union Acquisition Premium	0	(15,117,325)	0	0	0	(15,117,325)	6	
7	Citizens Acquisition Discount	37,681,555	0	0	0	0	37,681,555	7	
8	Less: Accum. Amort. - Citizens Acq. Discount	7,112,584	0	0	0	0	7,112,584	8	
9	Net Citizens Acquisition Discount	30,568,971	0	0	0	0	30,568,971	9	
10	Total Net Utility Plant	30,568,971	(15,117,325)	(4,700,552)	(7,033,708)	(4,231,137)	(513,751)	10	
11	Customer Advances for Construction	0	0	0	0	0	0	11	
12	Customer Deposits	0	0	0	0	0	0	12	
13	Accumulated Deferred Income Taxes	0	0	0	0	0	0	13	
14	Total Deductions	0	0	0	0	0	0	14	
15	Allowance for Working Capital	0	0	0	0	0	0	15	
16	Regulatory Assets	0	0	0	0	0	0	16	
17	Regulatory Liabilities	0	0	0	0	0	0	17	
18	Total Original Cost Rate Base	\$30,568,971	(\$15,117,325)	(\$4,700,552)	(\$7,033,708)	(\$4,231,137)	(\$513,751)	18	

Supporting Schedules
N/A

Recap Schedules
B-1

UNS Gas, Inc.
Pro Forma Adjustments to Original Cost Rate Base
Test Year Ended December 31, 2010

Line No.	Description	Pro Forma Adjustments				Total Page Adjustments	Total Original Cost Adjustments	Line No.
		Accumulated Deferred Income Taxes	Working Capital	(a)				
1	Gross Utility Plant in Service	\$0	\$0	\$0	\$0	(\$23,503,080)	1	
2	Less: Accumulated Depreciation	0	0	0	0	(7,537,683)	2	
3	Net Utility Plant in Service	0	0	0	0	(15,965,397)	3	
4	Southern Union Acquisition Premium	0	0	0	0	(18,271,349)	4	
5	Less: Accum. Amort. - So. Union Acq. Premium	0	0	0	0	(3,154,024)	5	
6	Net Southern Union Acquisition Premium	0	0	0	0	(15,117,325)	6	
7	Citizens Acquisition Discount	0	0	0	0	37,681,555	7	
8	Less: Accum. Amort. - Citizens Acq. Discount	0	0	0	0	7,112,584	8	
9	Net Citizens Acquisition Discount	0	0	0	0	30,568,971	9	
10	Total Net Utility Plant	0	0	0	0	(513,751)	10	
11	Customer Advances for Construction	0	0	0	0	0	11	
12	Customer Deposits	0	0	0	0	0	12	
13	Accumulated Deferred Income Taxes	381,340	0	0	381,340	381,340	13	
14	Total Deductions	381,340	0	0	381,340	381,340	14	
15	Allowance for Working Capital	0	1,366,514	0	1,366,514	1,366,514	15	
16	Regulatory Assets	0	0	0	0	0	16	
17	Regulatory Liabilities	0	0	0	0	0	17	
18	Total Original Cost Rate Base	\$381,340	\$1,366,514	\$0	\$1,747,854	\$1,234,103	18	

Supporting Schedules
(a) B-5

Recap Schedules
B-1

UNS Gas, Inc.
Pro Forma Adjustments to RCND Rate Base
Test Year Ended December 31, 2010

Line No.	Description	Actual at End of Test Period (a), (b)	Total Adjustments (c)	Adjusted at End of Test Period	ACC Jurisdiction	Line No.
1	Gross Utility Plant in Service	\$618,209,920	(\$21,749,882)	\$596,460,038	\$596,460,038	1
2	Less: Accumulated Depreciation	185,169,563	(4,703,800)	180,465,763	180,465,763	2
3	Net Utility Plant in Service	433,040,357	(17,046,083)	415,994,274	415,994,274	3
4	Southern Union Acquisition Premium	32,084,667	(32,084,667)	(0)	(0)	4
5	Less: Accum. Amort. - So. Union Acq. Premium	5,410,615	(5,391,834)	18,781	18,781	5
6	Net Southern Union Acquisition Premium	26,674,052	(26,692,833)	(18,781)	(18,781)	6
7	Citizens Acquisition Discount	(116,889,528)	64,402,631	(52,486,897)	(52,486,897)	7
8	Less: Accum. Amort. - Citizens Acq. Discount	(20,910,489)	11,510,936	(9,399,553)	(9,399,553)	8
9	Net Citizens Acquisition Discount	(95,979,039)	52,891,695	(43,087,344)	(43,087,344)	9
10	Total Net Utility Plant	363,735,370	9,152,779	372,888,149	372,888,149	10
11	Customer Advances for Construction	(12,119,422)	0	(12,119,422)	(12,119,422)	11
12	Customer Deposits	(3,129,709)	0	(3,129,709)	(3,129,709)	12
13	Accumulated Deferred Income Taxes	(38,580,291)	645,644	(37,934,647)	(37,934,647)	13
14	Total Deductions	(53,829,422)	645,644	(53,183,778)	(53,183,778)	14
15	Allowance for Working Capital	2,388,278	1,366,514	3,754,792	3,754,792	15
16	Regulatory Assets	369,442	0	369,442	369,442	16
17	Regulatory Liabilities	(14,283)	0	(14,283)	(14,283)	17
18	Total RCND Rate Base	\$312,649,385	\$11,164,937	\$323,814,323	\$323,814,323	18

Supporting Schedules
(a) B-4
(b) B-2
(c) B-3 (P2-3)

Recap Schedules
B-1

UNS Gas, Inc.
Pro Forma Adjustments to RCND Rate Base
Test Year Ended December 31, 2010

Line No.	Description	Pro Forma Adjustments							Total Page Adjustments	Line No.
		Acquisition Adjustment RCN	So. Union Acq. Premium RCN	Griffith Power Plant RCN	Build-Out Plant RCN	Golden Valley Plant RCN				
1	Gross Utility Plant in Service	\$0	\$0	(\$8,671,477)	(\$4,970,504)	(\$8,107,901)			(\$21,749,882)	1
2	Less: Accumulated Depreciation	0	0	(2,082,941)	(2,182,466)	(438,394)			(4,703,801)	2
3	Net Utility Plant in Service	0	0	(6,588,536)	(2,788,038)	(7,669,507)			(17,046,082)	3
4	Southern Union Acquisition Premium	0	(32,084,667)	0	0	0			(32,084,667)	4
5	Less: Accum. Amort. - So. Union Acq. Premium	0	(5,391,834)	0	0	0			(5,391,834)	5
6	Net Southern Union Acquisition Premium	0	(26,692,833)	0	0	0			(26,692,833)	6
7	Citizens Acquisition Discount	64,402,631	0	0	0	0			64,402,631	7
8	Less: Accum. Amort. - Citizens Acq. Discount	11,510,936	0	0	0	0			11,510,936	8
9	Net Citizens Acquisition Discount	52,891,695	0	0	0	0			52,891,695	9
10	Total Net Utility Plant	52,891,695	(26,692,833)	(6,588,536)	(2,788,038)	(7,669,507)			9,152,780	10
11	Customer Advances for Construction	0	0	0	0	0			0	11
12	Customer Deposits	0	0	0	0	0			0	12
13	Accumulated Deferred Income Taxes	0	0	0	0	0			0	13
14	Total Deductions	0	0	0	0	0			0	14
15	Allowance for Working Capital	0	0	0	0	0			0	15
16	Regulatory Assets	0	0	0	0	0			0	16
17	Regulatory Liabilities	0	0	0	0	0			0	17
18	Total RCND Rate Base	\$52,891,695	(\$26,692,833)	(\$6,588,536)	(\$2,788,038)	(\$7,669,507)			\$9,152,780	18

Supporting Schedules
N/A

Recap Schedules
B-1

UNS Gas, Inc.
Pro Forma Adjustments to RCND Rate Base
Test Year Ended December 31, 2010

Line No.	Description	Pro Forma Adjustments			Total Page Adjustments	Total Original Cost Adjustments	Line No.
		Accumulated Deferred Income Taxes RCN	Working Capital RCN	(a)			
1	Gross Utility Plant in Service	\$0	\$0	\$0		1	
2	Less: Accumulated Depreciation	0	0	0	(4,703,801)	2	
3	Net Utility Plant in Service	0	0	0	(17,046,082)	3	
4	Southern Union Acquisition Premium	0	0	0	(32,084,667)	4	
5	Less: Accum. Amort. - So. Union Acq. Premium	0	0	0	(5,391,834)	5	
6	Net Southern Union Acquisition Premium	0	0	0	(26,692,833)	6	
7	Citizens Acquisition Discount	0	0	0	64,402,631	7	
8	Less: Accum. Amort. - Citizens Acq. Discount	0	0	0	11,510,936	8	
9	Net Citizens Acquisition Discount	0	0	0	52,891,695	9	
10	Total Net Utility Plant	0	0	0	9,152,780	10	
11	Customer Advances for Construction	0	0	0	0	11	
12	Customer Deposits	0	0	0	0	12	
13	Accumulated Deferred Income Taxes	645,644	0	0	645,644	13	
14	Total Deductions	645,644	0	0	645,644	14	
15	Allowance for Working Capital	0	1,366,514	1,366,514	1,366,514	15	
16	Regulatory Assets	0	0	0	0	16	
17	Regulatory Liabilities	0	0	0	0	17	
18	Total RCND Rate Base	\$645,644	\$1,366,514	\$2,012,158	\$11,164,938	18	

Supporting Schedules
(a) B-5

Recap Schedules
B-1

UNS Gas, Inc.
RCND By Major Plant Accounts
Test Year Ended December 31, 2010

Line No.	Function	Plant Account	Description	RCN	Percent	RCND	Line No.
1	INTANGIBLE	302	Franchises & Consents	350,750	40.4%	141,770	1
2		303	Misc. Intangible Plant	1,005,969	45.2%	455,038	2
3			Total Intangible Plant	1,356,718		596,808	3
4	TRANSMISSION	365	Land & Rights	102,606	78.0%	80,028	4
5		366	Structures & Improvements	21,552	68.9%	14,847	5
6		367	Mains	29,832,698	75.1%	22,413,977	6
7		369	Measuring and Req. Equipment	5,291,675	70.2%	3,716,408	7
8		371	Other Equipment	254,285	43.8%	111,348	8
9			Total Transmission Plant	35,502,816		26,336,608	9
10	DISTRIBUTION	374	Land & Rights	311,536	87.0%	270,983	10
11		375	Structures & Improvements	24,216	23.8%	5,775	11
12		376	Mains	361,769,419	73.2%	264,908,349	12
13		378	Meas. And Req. Equipment - General	6,184,192	76.5%	4,732,282	13
14		379	Meas. And Req. Equipment - City Gate	5,673,285	81.7%	4,636,717	14
15		380	Services	133,383,409	64.8%	86,430,535	15
16		381	Meters	17,765,844	56.1%	9,958,221	16
17		382	Meter Installation	15,588,704	80.0%	12,464,034	17
18		383	Regulators	4,264,671	60.0%	2,557,166	18
19		384	Regulator Installations	2,832,547	81.3%	2,303,237	19
20		385	Industrial Measuring Equipment	4,132,129	63.3%	2,613,655	20
21		387	Other Equipment	2,310,285	62.1%	1,434,795	21
22			Total Distribution Plant	554,240,237		392,315,749	22
23	GENERAL	389	Land & Rights	394,121	95.6%	376,688	23
24		390	Structures & Improvements	7,326,712	84.5%	6,190,672	24
25		391	Office Furniture & Equipment	2,589,366	25.2%	652,457	25
26		392	Transportation Equipment	9,406,664	24.7%	2,320,386	26
27		393	Stores Equipment	283,816	76.1%	215,887	27
28		394	Tools, Shop, & Garage Equipment	3,198,587	62.3%	1,992,826	28
29		395	Laboratory Equipment	569,247	53.4%	304,140	29
30		396	Power Operated Equipment	1,864,949	52.9%	986,380	30
31		397	Communication Equipment	1,104,041	49.4%	545,206	31
32		398	Misc. Equipment	372,646	55.4%	206,550	32
33			Total General Plant	27,110,149		13,791,192	33
34			Total Plant	\$618,209,921	70.0%	\$433,040,357	34

Supporting Schedules
N/A

Recap Schedules
B-3

UNS Gas, Inc.
RCND By Major Plant Accounts
Test Year Ended December 31, 2010

Line No.	Function	Plant Account	Description	RCN	Percent	RCND	Line No.
<u>Southern Union Acquisition Premium</u>							
1	INTANGIBLE	302	Franchises & Consents	20,652	70.5%	14,551	1
2		303	Misc. Intangible Plant	188,771	62.3%	117,642	2
3			Total Intangible Plant	209,423		132,193	3
4	DISTRIBUTION	376	Mains	23,353,598	84.6%	19,751,625	4
5		378	Meas. And Req. Equipment - General	296,565	78.1%	231,491	5
6		379	Meas. And Req. Equipment - City Gate	370,232	82.3%	304,683	6
7		380	Services	5,159,829	79.5%	4,100,746	7
8		381	Meters	1,086,508	84.8%	921,588	8
9		382	Meter Installation	10,642	82.2%	8,744	9
10		383	Regulators	(151,656)	80.5%	(122,137)	10
11		385	Industrial Measuring Equipment	533,535	81.1%	432,659	11
12		387	Other Equipment	270,756	77.5%	209,807	12
13			Total Distribution Plant	30,930,009		25,839,206	13
14	GENERAL	389	Land & Rights	133,238	85.9%	114,457	14
15		390	Structures & Improvements	217,879	68.9%	150,097	15
16		391	Office Furniture & Equipment	24,584	67.4%	16,574	16
17		393	Stores Equipment	32,759	78.3%	25,642	17
18		394	Tools, Shop, & Garage Equipment	553,858	72.8%	403,242	18
19		396	Power Operated Equipment	(16,104)	41.4%	(6,669)	19
20		398	Misc. Equipment	(980)	70.5%	(691)	20
21			Total General Plant	945,234		702,652	21
22			Total Plant	\$32,084,666	83.1%	\$26,674,051	22

Supporting Schedules
N/A

Recap Schedules
B-3

UNS Gas, Inc.
RCND By Major Plant Accounts
Test Year Ended December 31, 2010

Line No.	Function	Plant Account	Description	RCN	Percent	RCND	Line No.
Citizens Acquisition Discount							
1	INTANGIBLE	302	Franchises & Consents	(81,207)	70.7%	(57,429)	1
2		303	Misc. Intangible Plant	(99,737)	62.9%	(62,784)	2
3			Total Intangible Plant	(180,944)		(120,213)	3
TRANSMISSION							
4		365	Land & Rights	(34,352)	95.7%	(32,890)	4
5		366	Structures & Improvements	(6,699)	63.9%	(4,279)	5
6		367	Mains	(4,801,433)	88.5%	(4,251,245)	6
7		369	Measuring and Req. Equipment	(1,399,494)	88.4%	(1,236,768)	7
8		371	Other Equipment	(74,612)	70.8%	(52,802)	8
9			Total Transmission Plant	(6,316,590)		(5,577,984)	9
DISTRIBUTION							
10		374	Land & Rights	(86,374)	97.5%	(84,226)	10
11		375	Structures & Improvements	(1,217)	79.6%	(968)	11
12		376	Mains	(76,447,752)	84.7%	(64,721,509)	12
13		378	Meas. And Req. Equipment - General	(611,972)	78.2%	(478,528)	13
14		379	Meas. And Req. Equipment - City Gate	(740,264)	82.3%	(609,550)	14
15		380	Services	(20,924,527)	79.5%	(16,639,010)	15
16		381	Meters	(3,318,854)	84.9%	(2,818,198)	16
17		382	Meter Installation	(2,892,703)	82.3%	(2,379,770)	17
18		383	Regulators	(549,548)	80.8%	(443,771)	18
19		384	Regulator Installations	(259,411)	79.2%	(205,366)	19
20		385	Industrial Measuring Equipment	(464,376)	81.1%	(376,447)	20
21		387	Other Equipment	(433,394)	77.3%	(335,064)	21
22			Total Distribution Plant	(106,730,392)		(89,092,407)	22
GENERAL							
23		389	Land & Rights	(109,571)	86.5%	(94,814)	23
24		390	Structures & Improvements	(344,110)	68.8%	(236,672)	24
25		391	Office Furniture & Equipment	(1,673,834)	8.9%	(149,000)	25
26		392	Transportation Equipment	(219,464)	0.0%	0	26
27		393	Stores Equipment	(49,593)	78.2%	(38,777)	27
28		394	Tools, Shop, & Garage Equipment	(654,939)	72.5%	(474,795)	28
29		395	Laboratory Equipment	(173,977)	25.4%	(44,199)	29
30		396	Power Operated Equipment	(15,320)	46.7%	(7,161)	30
31		397	Communication Equipment	(332,050)	24.3%	(80,557)	31
32		398	Misc. Equipment	(88,745)	70.4%	(62,457)	32
33			Total General Plant	(3,661,603)		(1,188,432)	33
34			Total Plant	(\$116,889,529)	82.1%	(\$95,979,036)	34

UNS Gas, Inc.
Computation of Working Capital
Test Year Ended December 31, 2010

Line No.	Description	Total		Original & RCND		Line No.
		Original Cost	RCND Cost	ACC Jurisdiction		
1	Cash Working Capital	\$1,409,345	\$1,409,345	\$1,409,345		1
2	Materials & Supplies (Accounts 154 and 163)	2,045,505	2,045,505	2,045,505		2
3	Prepayments	299,941	299,941	299,941		3
4	Total Working Capital Allowance	<u>\$3,754,791</u>	<u>\$3,754,791</u>	<u>\$3,754,791</u>		4

Supporting Schedules
B-5 (P2)

Recap Schedules
B-1

UNS Gas, Inc.
Detail of Adjustments to Working Capital
Test Year Ended December 31, 2010

Line No.	Description	Actual	Adjustments		Total Adjusted	Line No.
			Thirteen Month Average	Cash Working Capital		
1	Cash Working Capital	\$0	N/A	\$1,409,345	\$1,409,345	1
2	Materials & Supplies (Accounts 154 and 163)	2,083,013	(37,508)	N/A	2,045,505	2
3	Prepayments	305,265	(5,324)	N/A	299,941	3
4	Total	<u>\$2,388,278</u>	<u>(\$42,832)</u>	<u>\$1,409,345</u>	<u>\$3,754,791</u>	4

Supporting Schedules
B-5 (F3)

Recap Schedules
B-5 (F1)

UNS Gas, Inc.
Cash Working Capital - Lead/Lag Study
Test Year Ended December 31, 2010

Line No.	Description	(B) Pro Forma Test Year Amount	(C) Revenue Lag Days	(D) Expense Lag Days	(E) Net Lag Days (Col. C - Col. D)	(F) Lead/Lag Factor (Col. E/365)	(G) Cash Working Capital Required (Col. F x Col. B)	Line No.
	(A)							
	Operating Expenses							
	Non-Cash Expenses							
1	Bad Debts Expense	\$634,182						1
2	Depreciation	8,517,710						2
3	Amortization	(800,876)						3
4	Deferred Income Taxes	4,081,221						4
	Other Operating Expenses							
5	Salaries and Wages	7,716,590	49.67	17.97	31.70	0.0868	\$669,800	5
6	Incentive Compensation	351,048	49.67	267.00	(217.33)	(0.5954)	(209,014)	6
7	Purchased Gas Costs	69,577,719	49.67	38.28	11.39	0.0312	2,170,825	7
8	Office Supplies and Expenses	689,534	49.67	9.60	40.07	0.1098	75,711	8
9	Injuries and Damages	576,880	49.67	64.12	(14.45)	(0.0396)	(22,837)	9
10	Pensions and Benefits	2,570,966	49.67	28.00	21.67	0.0594	152,715	10
11	Support Services - TEP	4,237,424	49.67	41.16	8.51	0.0233	98,732	11
12	Property Taxes	2,919,768	49.67	213.00	(163.33)	(0.4475)	(1,306,596)	12
13	Payroll Taxes	556,978	49.67	18.96	30.71	0.0841	46,842	13
14	Current Income Taxes	812,996	49.67	41.42	8.25	0.0226	18,374	14
15	Interest on Customer Deposits	78,775	49.67	182.50	(132.83)	(0.3639)	(28,666)	15
16	Other Operations and Maintenance	8,397,896	49.67	38.08	11.59	0.0318	267,053	16
17	Total Operating Expenses	<u>\$110,918,611</u>						17
	Other Cash Working Capital Elements:							
18	Interest On Long-Term Debt	\$6,075,181	49.67	89.50	(89.83)	(0.1091)	(662,802)	18
19	Revenue Taxes and Assessments	<u>\$14,204,932</u>	49.67	46.09	3.58	0.0098	139,208	19
20	Total Cash Working Capital						<u>\$1,409,345</u>	20

Supporting Schedules
N/A

Recap Schedules
B-2, B-3

Schedule C

UNS Gas, Inc.
Adjusted Test Year Income Statement
Test Year Ended December 31, 2010

Line No.	Description	Unadjusted (a)	Pro Forma Adjustments (b)	Adjusted	ACC Jurisdiction	Line No.
1	Operating Revenues					1
2	Gas Retail Revenues	\$147,128,390	(\$93,338,775)	\$53,789,615	\$53,789,615	2
3	Other Operating Revenue	2,459,665	(1,088,184)	1,391,491	1,391,431	3
	Total Operating Revenues	<u>149,588,055</u>	<u>(94,406,959)</u>	<u>55,181,036</u>	<u>55,181,036</u>	
4	Operating Expenses					4
5	Purchased Gas	91,938,208	(91,428,665)	509,543	509,543	5
6	Other Operations and Maintenance Expense	24,537,521 (1)	57,451	24,594,972	24,594,972	6
7	Depreciation and Amortization	9,125,712	(1,408,878)	7,716,834	7,716,834	7
8	Taxes Other than Income Taxes	3,059,665	565,661	3,625,326	3,625,326	8
9	Income Taxes	5,702,600	(808,382)	4,894,218	4,894,218	9
	Total Operating Expenses	<u>134,363,706</u>	<u>(93,022,813)</u>	<u>41,340,893</u>	<u>41,340,893</u>	
10	Operating Income	<u>15,224,349</u>	<u>(\$1,384,146)</u>	<u>\$13,840,203</u>	<u>\$13,840,203</u>	10
11	Other Income and Deductions					
12	Allowance for Equity Funds	15,685				
13	Other - Net	(95,650)				
	Total Other Income and Deductions	<u>(79,965)</u>				
14	Income Before Interest Expense	<u>15,144,384</u>				
15	Interest Expense					
16	Interest on Long-Term Debt	6,409,193				
17	Other Interest Expense	99,023 (1)				
18	Allowance for Borrowed Funds	(2,523)				
	Total Interest Expense	<u>6,505,693</u>				
19	Net Income Available for Common Stock	<u>\$8,638,691</u>				

(1) Includes reclassification of \$14,400 for Customer Deposit Interest Expense From Other Interest Expense to Other O&M Expense.

Supporting Schedules
(a) E-2
(b) C-2

Recap Schedules
A-1
A-2

UNS Gas, Inc.
Income Statement Pro Forma Adjustments
Test Year Ended December 31, 2010

Line No.	Description	Griffith Plant Operations	Golden Valley Pipeline Operations	Sales for Resale	Purchased Gas Cost and Revenue	Negotiated Sales Program Revenues and Gas Cost	Rate Case Revenue Annualization	Total Page Adjustments	Line No.
1	Operating Revenues								1
2	Gas Retail Revenues	(\$865,152)	(\$4,821,822)	(\$1,268,953)	(\$76,527,319)	(\$9,803,280)	\$757,392	(\$92,529,134)	2
3	Other Operating Revenue	0	0	0	0	0	0	0	3
	Total Operating Revenues	<u>(865,152)</u>	<u>(4,821,822)</u>	<u>(1,268,953)</u>	<u>(76,527,319)</u>	<u>(9,803,280)</u>	<u>757,392</u>	<u>(92,529,134)</u>	
4	Operating Expenses								4
5	Purchased Gas	0	(4,125,253)	(1,268,953)	(76,527,319)	(9,392,813)	0	(91,314,338)	5
6	Other Operations and Maintenance Expense	(129,351)	(2,570)	0	0	0	0	(131,921)	6
7	Depreciation and Amortization	0	0	0	0	0	0	0	7
8	Taxes Other than Income Taxes	0	(44)	0	0	0	0	(44)	8
9	Income Taxes	0	0	0	0	0	0	0	9
	Total Operating Expenses	<u>(129,351)</u>	<u>(4,127,867)</u>	<u>(1,268,953)</u>	<u>(76,527,319)</u>	<u>(9,392,813)</u>	<u>0</u>	<u>(91,446,303)</u>	
10	Operating Income	<u>(\$735,801)</u>	<u>(\$693,955)</u>	<u>\$0</u>	<u>\$0</u>	<u>(\$410,467)</u>	<u>\$757,392</u>	<u>(\$1,082,831)</u>	10

Supporting Schedules
N/A

Recap Schedules
C-1

UNS Gas, Inc.
Income Statement Pro Forma Adjustments
Test Year Ended December 31, 2010

Line No.	Description	Customer & Weather Normalization	Demand Side Management Revenue & Expense	Asset Management Agreement	Misc Service Revenue - Service & Late Fees	Payroll Expense	Payroll Tax Expense	Pension and Benefits	Total Page Adjustments	Line No.
1	Operating Revenues									
2	Gas Retail Revenues	(\$809,641)	\$0	\$0	\$0	\$0	\$0	\$0	(\$809,641)	1
3	Other Operating Revenue	0	(957,797)	(114,327)	3,940	0	0	0	(1,068,184)	2
	Total Operating Revenues	<u>(809,641)</u>	<u>(957,797)</u>	<u>(114,327)</u>	<u>3,940</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(1,877,825)</u>	3
4	Operating Expenses									
5	Purchased Gas	0	0	(114,327)	0	0	0	0	(114,327)	4
6	Other Operations and Maintenance Expense	0	(952,721)	0	0	288,054	0	287,984	(376,683)	5
7	Depreciation and Amortization	0	0	0	0	0	0	0	0	6
8	Taxes Other than Income Taxes	0	(5,055)	0	0	0	24,061	0	19,006	7
9	Income Taxes	0	0	0	0	0	0	0	0	8
	Total Operating Expenses	<u>0</u>	<u>(957,776)</u>	<u>(114,327)</u>	<u>0</u>	<u>288,054</u>	<u>24,061</u>	<u>287,984</u>	<u>(472,004)</u>	9
10	Operating Income	<u>(\$809,641)</u>	<u>(\$21)</u>	<u>\$0</u>	<u>\$3,940</u>	<u>(\$288,054)</u>	<u>(\$24,061)</u>	<u>(\$287,984)</u>	<u>(\$1,405,821)</u>	10

Supporting Schedules N/A
Recap Schedules C-1

UNS Gas, Inc.
Income Statement Pro Forma Adjustments
Test Year Ended December 31, 2010

Line No.	Description	Incentive Compensation	Rate Case Expense	CARES Regulatory Asset Amort.	Bad Debt Expense	Depr. & Amort. Exp. Annualization	Property Tax	Wholesale Credit Support	Total Page Adjustments	Line No.
1	Operating Revenues									1
2	Gas Retail Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	2
3	Other Operating Revenue	0	0	0	0	0	0	0	0	3
	Total Operating Revenues	0	0	0	0	0	0	0	0	
4	Operating Expenses									4
5	Purchased Gas	0	0	0	0	0	0	0	0	5
6	Other Operations and Maintenance Expense	15,997	311,111	0	122,192	0	0	64,375	513,675	6
7	Depreciation and Amortization	0	(116,687)	(82,098)	0	(1,228,687)	0	0	(1,427,452)	7
8	Taxes Other than Income Taxes	1,589	0	0	0	0	545,110	0	546,699	8
9	Income Taxes	0	0	0	0	0	0	0	0	9
	Total Operating Expenses	17,586	194,444	(82,098)	122,192	(1,228,687)	545,110	64,375	(367,078)	10
	Operating Income	(\$17,586)	(\$194,444)	\$82,098	(\$122,192)	\$1,228,687	(\$545,110)	(\$64,375)	\$367,078	

Supporting Schedules N/A

Recap Schedules C-1

UNS Gas, Inc.
Income Statement Pro Forma Adjustments
Test Year Ended December 31, 2010

Line No.	Description	Outside Legal Cost	Injuries & Damages	Common Systems Allocation	Miscellaneous Normalization Adjustment	Miscellaneous Adjustment	Income Taxes	Total Page Adjustments	Total Adjustments	Line No.
1	Operating Revenues									1
2	Gas Retail Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$93,338,775)	2
3	Other Operating Revenue	0	0	0	0	0	0	0	(1,068,184)	3
	Total Operating Revenues	0	0	0	0	0	0	0	(94,406,959)	
4	Operating Expenses									4
5	Purchased Gas	0	0	0	0	0	0	0	(91,428,665)	5
6	Other Operations and Maintenance Expense	(151,423)	(216,551)	(52,571)	484,626	(11,701)	0	52,380	57,451	6
7	Depreciation and Amortization	0	0	0	0	18,574	0	18,574	(1,408,878)	7
8	Taxes Other than Income Taxes	0	0	0	0	0	0	0	565,661	8
9	Income Taxes	0	0	0	0	0	(808,382)	(808,382)	(808,382)	9
	Total Operating Expenses	(151,423)	(216,551)	(52,571)	484,626	6,873	(808,382)	(808,382)	(93,022,813)	
10	Operating Income	\$151,423	\$216,551	\$52,571	(\$484,626)	(\$6,873)	\$808,382	\$737,428	(\$1,384,146)	10

Supporting Schedules N/A

Recap Schedules C-1

UNS Gas, Inc.
Computation of Gross Revenue Conversion Factor
Test Year Ended December 31, 2010

Line No.	Description	Percentage of Incremental Gross Revenues	Line No.
1	Gross Revenue	100.00%	1
2	Less: Uncollectible Revenue	<u>0.48000%</u>	2
3	Taxable Income as a Percent	99.52%	3
4	Less: Federal (31.630%) and State Income Taxes (6.968%) (Combined Effective Tax Rate = 38.598%)	<u>38.41%</u>	4
5	Change in Net Operating Income	<u>61.11%</u>	5
6	Gross Revenue Conversion Factor	<u>1.6365</u> (a)	6

(a) Line No. 1 divided by line No. 5.

Recap Schedules
A-1

Supporting Schedules
N/A

Schedule

D

UNS Gas, Inc.
Summary Cost of Capital
Test Year Ended December 31, 2010
(Thousands of Dollars)

Line No.	Capital Source	Capitalization		Cost Rate	Weighted Cost of Capital (c)	Line No.
		Amount	Percent			
Actual - End of Test Period						
1	Short-Term Debt	\$0	0.00%	N/A	0.00%	1
2	Long-Term Debt - Net	99,310 (1)	49.18%	6.52%	3.21%	2
3	Common Stock Equity	102,620	50.82%	10.50%	5.34%	3
4	Total Capital	<u>\$201,930</u>	<u>100.00%</u>		<u>8.55%</u>	4

Line No.	Capital Source	Capitalization		Cost Rate	Weighted Cost of Capital (c)	Line No.
		Amount	Percent			
Proposed - End of Test Period						
1	Short-Term Debt	\$0	0.00%	N/A	0.00%	1
2	Long-Term Debt - Net	99,310 (1)	49.18%	6.74%	3.31%	2
3	Common Stock Equity	102,620	50.82%	10.50%	5.34%	3
4	Total Capital	<u>\$201,930</u>	<u>100.00%</u>		<u>8.65%</u>	4

(1) The balance of Long-Term Debt is stated net of the unamortized balance of debt discount and issuance expense. Page 1 of Schedule D-2 provides a reconciliation between the Long-Term Debt balance of \$100 million shown on Schedule E-1 and the \$99.3 million balance shown above.

Supporting Schedules
(a) D-2
(b) E-1

Recap Schedules
(c) A-3

SCHEDULE D-1 PAGE 1 REFERENCES

**Links - End of Test Period and End of Test Period Proposed
Common Stock Equity - Actual Test Year - Schedule E-1 (P2)**

Cell References

Short-Term Debt-Actual - Schedule D-2 (P1)

Cost Rate-ST Debt-Actual - Schedule D-2 (P1)

Long-Term Debt-Net-Actual - Schedule D-2 (P1)

Cost Rate-LT Debt-Actual - Schedule D-2 (P1)

UNS Gas, Inc.
Summary Cost of Capital
Projected Year Ended December 31, 2011
(Thousands of Dollars)

Line No.	Capital Source	Capitalization		Cost Rate	Weighted Cost of Capital (b)	Line No.
		Amount	Percent			
	<u>Projected as of December 31, 2011</u>					
1	Short-Term Debt	\$0	0.00%	N/A	0.00%	1
2	Long-Term Debt - Net	99,029	49.28%	6.74%	3.32%	2
3	Common Stock Equity	101,926	50.72%	10.50%	5.33%	3
4	Total Capital	<u>\$200,955</u>	<u>100.00%</u>		<u>8.65%</u>	4

(1) Based on forecast presented in Schedule F - Present Rates

Supporting Schedules
(a) D-2, Pg 2

Recap Schedules
(b) A-3

UNS Gas, Inc.
Cost of Long-Term Debt and Short-Term Debt
Test Year Ended December 31, 2010
(Thousands of Dollars)

Line No.	Description	End of Test Period (Actual)			End of Test Period (Proposed)			Line No.
		Outstanding	Annual Interest	Cost Rate	Outstanding	Annual Interest	Cost Rate	
1	Senior Notes							
2	UNS Gas 2003 Series A	\$50,000	\$3,115		\$50,000	\$3,115		1
3	UNS Gas 2003 Series B	50,000	3,115		50,000	3,115		2
	Total Bonds	100,000	6,230	6.23%	100,000	6,230	6.23%	3
4	Total Long-Term Debt	100,000	6,230	6.23%	100,000	6,230	6.23%	4
5	Unamortized Debt Discount, Premium and Expense and Loss on reacquired Debt	(690)			(690)			5
6	Amortization of Debt Discount and Expense and Loss on reacquired Debt		178 (1)			241 (2)		6
7	Credit Facility Commitment Fees		72 (1)			225 (2)		7
8	Total Long-Term Debt - Net	\$99,310	\$6,480	6.52%	\$99,310	\$6,696	6.74%	8
9	Total Short-Term Debt	\$0	\$0	N/A	\$0	\$0	N/A	9

(1) Reflects expense as recorded for full 12-months of test-year
(2) Reflects expense as of December 31, 2010 of test-year incorporating cost of new credit facility closed in November, 2010

Supporting Schedules
E-1
Recap Schedules
D-1, Pg 1

SCHEDULE D-2 PAGE 1 REFERENCES

Links - End of Test Period and End of Test Period Proposed

Senior Notes & Annual Interest - Schedule D 12-31-10 Backup CONFIDENTIAL

Unamortized Debt Expense - Schedule D 12-31-10 Backup CONFIDENTIAL

Amortization of Debt Expense - Schedule D 12-31-10 Backup CONFIDENTIAL

Credit Facility Commitment Fees - Schedule D 12-31-10 Backup CONFIDENTIAL

Short-Term Debt Cost Rate - Schedule D 12-31-10 Backup CONFIDENTIAL

UNS Gas, Inc.
Cost of Long-Term Debt and Short-Term Debt
Projected Year Ended December 31, 2011
(Thousands of Dollars)

Line No.	Description	Projected Period Ended December 31, 2011			Line No.
		Outstanding	Annual Interest	Cost Rate	
1	Senior Notes				
2	UNS Gas 2011 Series A	(1) \$50,000	\$3,115		1
3	UNS Gas 2003 Series B	50,000	3,115		2
	Total Bonds	100,000	6,230	6.23%	3
4	Total Long-Term Debt	100,000	6,230	6.23%	4
5	Unamortized Debt Discount, Premium and Expense and Loss on Reacquired Debt	(971) (2)			5
6	Amortization of Debt Discount and Expense and Loss on Reacquired Debt		219 (2)		6
7	Credit Facility Commitment Fees		225		7
8	Total Long-Term Debt - Net	\$99,029	\$6,674	6.74%	8
9	Total Short-Term Debt	\$0	\$0	N/A	9

(1) Existing UNS Gas 2003 Series A bonds will mature in August, 2011. New bonds assumed issued at the same principal amount and interest rate, with a 15-year maturity, and issuance costs equaling 1% of principal

(2) Change from December 31, 2010 based on continuing amortization from 2010 and inclusion of issuance cost amortization from new bonds

Supporting Schedules
N/A

Recap Schedules
D-1, Pg 2

SCHEDULE D-2 PAGE 2 REFERENCES

Links

Senior Notes & Annual Interest - Schedule D 12-31-10 Backup CONFIDENTIAL
Unamortized Debt Expense - Schedule D 12-31-10 Backup CONFIDENTIAL
Amortization of Debt Expense - Schedule D 12-31-10 Backup CONFIDENTIAL
Credit Facility Commitment Fees - Schedule D 12-31-10 Backup CONFIDENTIAL
Total Short-Term Debt - UNSG Schedule F-1&2 12-31-10 Backup CONFIDENTIAL

UNS Gas, Inc.
Cost of Preferred Stock
Test Year Ended December 31, 2010

No preferred stock was outstanding during the test year.

No preferred stock is expected to be issued.

Supporting Schedules
N/A

Recap Schedules
N/A

UNS Gas, Inc.
Cost of Common Equity
Test Year Ended December 31, 2010

The cost of common equity capital for UNS Gas, Inc. is estimated to be 10.5%.

Supporting Schedules
N/A

Recap Schedules
D-1, Pg 1

Schedule

E

UNIS Gas, Inc.
Comparative Balance Sheets
Test Year Ended December 31, 2010 and Prior Years Ended December 31, 2009 and 2008

Line No.	Description	December 31, 2010	2009	2008	Line No.
(a)	Utility Plant				
1	Plant in Service	\$370,410,151	\$360,983,553	\$345,079,035	1
2	Construction Work in Progress	1,659,053	3,072,476	6,876,704	2
3	Plant Held for Future Use	334,380	334,380	334,380	3
4	Southern Union Acquisition Premium	18,271,349	18,271,349	18,271,349	4
5	Citizens Acquisition Discount	(68,391,292)	(68,391,292)	(68,391,292)	5
6	Total Utility Plant	322,283,640	314,270,465	302,170,176	6
7	Accumulated Depreciation and Amortization	(114,383,160)	(105,244,042)	(96,552,439)	7
8	Accumulated Amort. - So. Union Acquisition Premium	(3,154,024)	(3,178,067)	(2,672,818)	8
9	Accumulated Amort. - Citizens Acquisition Discount	12,909,203	11,895,790	10,004,599	9
10	Total Utility Plant - Net	217,655,659	217,744,146	212,949,518	10
	Current Assets				
11	Cash and Cash Equivalents	29,456,465	30,899,763	7,147,545	11
12	Accounts Receivable - Retail and Other	7,960,508	7,953,116	9,115,589	12
13	Allowance for Doubtful Accounts	(1,034,330)	(1,098,874)	(1,120,164)	13
14	Accrued Unbilled Revenues	13,286,023	14,645,014	16,599,596	14
15	Accounts Receivable - Due from Affiliates	1,967,373	522,592	1,733,102	15
16	Collateral Posted	2,500,000	1,750,000	7,500,000	16
17	Material and Supplies	2,083,013	2,297,348	2,119,281	17
18	Deferred Income Taxes - Current	369,912	594,805	523,669	18
19	Regulatory Assets - Current	8,382,131	5,248,268	7,668,202	19
20	Derivative Instruments	4,715	169,183	330,044	20
21	Other	(8,688)	162,862	244,100	21
22	Total Current Assets	64,967,122	63,144,077	51,860,964	22
	Regulatory & Other Assets				
23	Regulatory Assets - Noncurrent	4,673,428	5,472,754	9,548,177	23
24	Derivative Assets	196,788	108,314	28,410	24
25	Other	701,332	482,021	648,022	25
26	Total Deferred Debits	5,571,548	6,063,089	10,224,609	26
27	Total Assets	\$288,194,329	\$286,951,312	\$275,035,091	27

UNS Gas, Inc.
Comparative Balance Sheets
Test Year Ended December 31, 2010 and Prior Years Ended December 31, 2009 and 2008

Line No.	Description	Prior Years Ended December 31,			Line No.
		December 31, 2010	2009	2008	
Capitalization					
1	Common Stock	\$1	\$1		1
2	Additional Paid-In Capital	57,978,215	67,978,215	67,978,215	2
3	Accumulated Earnings	44,641,430	36,002,739	28,705,540	3
4	Total Common Stock Equity	102,619,646	103,980,955	96,683,756	4
5	Long-Term Debt	50,000,000	100,000,000	100,000,000	5
6	Total Capitalization	152,619,646	203,980,955	196,683,756	6
Current Liabilities					
7	Current Maturities of Long-Term Debt	50,000,000	0	0	7
8	Accounts Payable - Trade	14,056,107	17,031,296	15,995,245	8
9	Accounts Payables - Due to Affiliates	1,314,960	1,713,090	2,344,807	9
10	Interest Accrued	2,348,398	2,384,971	2,377,887	10
11	Accrued Taxes Other Than Income Taxes	4,967,043	4,633,281	4,939,710	11
12	Customer Deposits	3,129,709	2,938,318	2,687,433	12
13	Accrued Employee Expenses	1,585,890	1,570,015	1,277,811	13
14	Regulatory Liabilities - Current	9,676,247	10,304,856	4,895,710	14
15	Derivative Instruments	7,831,427	5,044,358	7,790,304	15
16	Other	161,754	145,080	217,064	16
17	Total Current Liabilities	95,071,535	45,765,265	42,525,971	17
Deferred Credits and Other Liabilities					
18	Deferred Income Taxes - Noncurrent	22,412,673	19,266,426	14,107,183	18
19	Derivative Instruments	2,033,920	2,635,283	5,739,176	19
20	Pension and Other Postretirement Benefits	3,768,946	3,404,435	4,021,406	20
21	Other	12,287,609	11,898,949	11,957,599	21
22	Total Deferred Credits and Other Liabilities	40,503,148	37,205,093	35,825,364	22
23	Total Liabilities and Stockholders' Equity	\$288,194,329	\$286,951,313	\$275,035,091	23

UNS Gas, Inc.
Comparative Income Statements
Test Year Ended December 31, 2010 and Prior Years Ended December 31, 2009 and 2008

Line No.	Description	Prior Years Ended December 31,			Line No.
		December 31, 2010	2009	2008	
(a) 1	Operating Revenues				
1	Gas Retail Revenues	\$147,128,390	\$150,557,979	\$172,354,849	1
2	Other Operating Revenue	2,459,665	2,428,754	1,885,778	2
3	Total Operating Revenues	<u>149,588,055</u>	<u>152,986,733</u>	<u>174,240,627</u>	3
(a) 4	Operating Expenses				
4	Purchased Gas Expenses	91,938,208	99,296,276	118,816,567	4
5	Other Operations and Maintenance Expense	24,523,121	23,805,128	23,874,121	5
6	Depreciation and Amortization	9,125,712	8,395,791	7,898,125	6
7	Taxes Other than Income Taxes	3,059,665	3,020,706	2,984,324	7
8	Income Taxes	5,702,600	4,757,729	5,485,353	8
9	Total Operating Expenses	<u>134,349,306</u>	<u>139,275,630</u>	<u>159,058,490</u>	9
10	Operating Income	<u>15,238,749</u>	<u>13,711,103</u>	<u>15,182,137</u>	10
	Total Other Income and Deductions				
11	Allowance for Equity Funds	15,685	133,994	(28,532)	11
12	Other - Net	(95,650)	(75,142)	24,397	12
13	Total Other Income and Deductions	<u>(79,965)</u>	<u>58,852</u>	<u>(4,135)</u>	13
14	Income Before Interest Expense	<u>15,158,784</u>	<u>13,769,955</u>	<u>15,178,002</u>	14
	Interest Expense				
15	Interest on Long Term-Debt	6,409,193	6,394,741	6,426,026	15
16	Other Interest Expense	113,423	144,264	171,088	16
17	Allowance for Borrowed Funds	(2,523)	(135,253)	42,848	17
18	Total Interest Expense	<u>6,520,093</u>	<u>6,403,752</u>	<u>6,639,962</u>	18
19	Net Income Available for Common Stock	<u>\$8,638,691</u>	<u>\$7,366,203</u>	<u>\$8,538,040</u>	19
20	Earnings Per Share of Average Common Stock Outstanding (1)	N/A	N/A	N/A	20

(1) UNS Gas, Inc. is a subsidiary of UniSource Energy Corporation and has no publicly traded stock; thus such information is not meaningful.

UNS Gas, Inc.
Comparative Statements of Cash Flows
Test Year Ended December 31, 2010 and Prior Years Ended December 31, 2009 and 2008
(Thousands of Dollars)

Line No.	Description	Prior Years Ended December 31,			Line No.
		December 31, 2010	2009	2008	
1	Cash Flows from Operating Activities				1
2	Cash Receipts from Customers	\$162,815	\$168,972	\$189,040	2
3	Performance Deposit Received	5,650	7,750	0	3
4	Customer Deposits Received	2,070	2,093	0	4
5	Cash Receipts from Gas Wholesale Sales	360	708	0	5
6	Income Tax Refunds Received	154	806	638	6
7	Interest Received	29	90	247	7
8	Other Cash Receipts	187	414	1,951	8
9	Purchased Energy Costs Paid	(94,726)	(92,578)	(130,764)	9
10	Payment of Affiliate Charges	(8,135)	(8,104)	(8,528)	10
11	Wages Paid, Net of Amounts Capitalized	(7,208)	(7,111)	(7,092)	11
12	Payment of Other Operations and Maintenance Costs	(9,207)	(8,193)	(8,370)	12
13	Performance Deposit Paid	(6,400)	(2,000)	(7,500)	13
14	Interest Paid, Net of Amounts Capitalized	(6,253)	(6,208)	(6,272)	14
15	Taxes Paid, Net of Amounts Capitalized	(17,417)	(17,592)	(18,221)	15
16	Income Taxes Paid	(2,670)	(1,139)	(1,500)	16
17	Allowance for Equity funds Used During Construction	(16)	(134)	29	17
18	Other Cash Payments	(1,128)	(953)	(782)	18
	Net Cash Flows from Operating Activities	18,105	36,821	2,876	
19	Cash Flows From Investing Activities				19
20	Capital Expenditures	(10,027)	(13,244)	(16,517)	20
21	Customer Advance Reimbursement from Citizens	1,254	0	0	21
	Net Cash Flows from Investing Activities	(8,773)	(13,244)	(16,517)	
22	Cash Flows from Financing Activities				22
23	Dividends Paid to UES	(10,000)	0	0	23
24	Payment of Debt Issuance Costs/Retirement Costs	(403)	0	0	24
25	Customer Advance Receipts	201	905	3,017	25
26	Customer Advance Refunds	(574)	(730)	(1,533)	26
	Net Cash Flows from Financing Activities	(10,776)	175	1,484	
27	Net Increase (Decrease) in Cash and Cash Equivalents	(1,444)	23,752	(12,157)	27
28	Cash and Cash Equivalents, Beginning of Period	30,900	7,148	19,305	28
29	Cash and Cash Equivalents, End of Period	\$29,456	\$30,900	\$7,148	29

UNIS Gas, Inc.
Comparative Statements of Changes in Stockholders' Equity (Deficit)
Test Year Ended December 31, 2010 and Prior Years Ended December 31, 2009 and 2008
(Thousands of Dollars, except shares outstanding)

Line No.	Description	Common Stock Shares Outstanding	Common Stock Amount	Premium on Common Stock	Common Stock Expense	Accumulated Earnings or (Deficit)	Accumulated Other Comprehensive Income (Loss)	Total Common Stock Equity or (Deficit)	Line No.
1	Balances at December 31, 2007	\$1,000	\$67,978	\$0	\$0	\$20,208	\$79	\$88,265	1
2	Impact of Change in Pension Plan Measurement Date					(40)		(\$40)	2
3	Comprehensive Income: 2008 net income					8,538		\$8,538	3
	Employee Benefit Obligations								
4	Amortization of net actuarial loss and prior service included in net periodic benefit cost (net of \$0 income taxes)								
5	Reclassification of Postretirement Benefit to Regulatory Asset (net of \$19 income taxes)						(\$1)	(\$1)	4
6	Reclassification of Unrealized Gain on Cash Flow Hedges to Regulatory Asset (net of \$32 income taxes)						(\$29)	(\$29)	5
7	Total Comprehensive Income						(\$49)	(\$49)	6
8	Balances at December 31, 2008	\$1,000	\$67,978	\$0	\$0	\$28,706	\$0	\$96,684	7
9	Impact of Prior Years' Adjustment - Share Based Compensation							(\$69)	8
10	Comprehensive Income: 2009 net income							\$7,367	9
11	Total Comprehensive Income							\$7,367	10
12	Balances at December 31, 2009	\$1,000	\$67,978	\$0	\$0	\$36,004	\$0	\$103,982	11
13	Comprehensive Income: 2010 net income							\$8,639	12
14	Total Comprehensive Income							\$8,639	13
15	Dividend Distribution to UES							(\$10,000)	14
16	Balances at December 31, 2010	\$1,000	\$57,978	\$0	\$0	\$44,643	\$0	\$102,621	15

Supporting Schedules N/A
Recap Schedules N/A

UNS Gas, Inc.
Detail of Gas Utility Plant - Summary Statement
Test Year Ended December 31, 2010

Line No.	Description	December 31, 2010 (a)	Net Additions (a)	December 31, 2009 (a)	Line No.
1	Utility Plant in Service				1
	Intangible Plant	\$1,162,566	(\$10,122)	\$1,172,688	
2	Transmission Plant	26,080,866	754	26,080,112	2
3	Distribution Plant	320,343,926	8,773,661	311,570,265	3
4	General Plant	22,822,793	662,304	22,160,489	4
5	Gross Plant in Service	<u>370,410,151</u>	<u>9,426,597</u>	<u>360,983,553</u>	5
6	Construction Work in Progress	1,659,053	(1,413,423)	3,072,476	6
7	Plant Held for Future Use	334,380	0	334,380	7
8	Southern Union Acquisition Premium	18,271,349	0	18,271,349	8
9	Citizens Acquisition Discount	(68,391,292)	0	(68,391,292)	9
10	Total Utility Plant	<u>322,283,640</u>	<u>8,013,174</u>	<u>314,270,465</u>	10
11	Accumulated Depreciation and Amortization	(114,383,160)	(9,139,118)	(105,244,042)	11
12	Accumulated Amort. - So. Union Acquisition Premium	(3,154,024)	24,043	(3,178,067)	12
13	Accumulated Amort. - Citizens Acquisition Discount	12,909,203	1,013,414	11,895,789	13
14	Total Accumulated Depreciation and Amortization	<u>(104,627,981)</u>	<u>(8,101,661)</u>	<u>(96,526,320)</u>	14
15	Total Net Utility Plant in Service	<u>\$217,655,659</u>	<u>(\$88,487)</u>	<u>\$217,744,145</u>	15

Supporting Schedules
(a) E-5 (P2-4)

Recap Schedules
E-1

UNS Gas, Inc.
Detail of Gas Utility Plant
Test Year Ended December 31, 2010

Line No.	Acct. No.	Description	December 31, 2010	Net Additions	December 31, 2009	Line No.
1	302	Intangible Plant				1
2	303	Franchises & Consents	\$350,749	(\$12,243)	\$362,992	2
3		Miscellaneous Intangible Plant	811,817	2,121	809,696	3
		Total Intangible Plant	<u>1,162,566</u>	<u>(10,122)</u>	<u>1,172,688</u>	
4	365	Transmission Plant				4
5	366	Land & Land Rights	102,806	0	102,606	5
6	367	Structures & Improvements	16,853	0	16,853	6
7	369	Mains	22,203,729	754	22,202,975	7
8	371	Measuring and Req. Station Equipment	3,574,097	0	3,574,097	8
9		Other Equipment	183,581	0	183,581	9
		Total Transmission Plant	<u>\$26,080,866</u>	<u>\$754</u>	<u>\$26,080,112</u>	
10	374	Distribution Plant				10
11	375	Land & Land Rights	311,536	53,547	257,989	11
12	376	Structures & Improvements	10,947	0	10,947	12
13	378	Mains	185,710,875	3,630,293	182,080,582	13
14	379	Meas. And Req. Equipment - General	4,242,237	586,150	3,656,087	14
15	380	Meas. And Req. Equipment - City Gate Services	4,088,878	254,571	3,834,307	15
16	381	Services	94,268,371	3,026,346	91,242,025	16
17	382	Meters	13,840,467	235,787	13,604,680	17
18	383	Meter Installation	8,938,595	368,542	8,570,053	18
19	384	Regulators	3,088,367	82,640	3,005,727	19
20	385	Regulator Installations	2,000,409	150,272	1,850,137	20
21	387	Industrial Measuring Equipment	2,109,431	202,214	1,907,217	21
22		Other Equipment	1,733,813	183,299	1,550,514	22
		Total Distribution Plant	<u>320,343,926</u>	<u>8,773,661</u>	<u>311,570,265</u>	
23	389	General Plant				23
24	390	Land & Land Rights	394,121	0	394,121	24
25	391	Structures & Improvements	5,833,135	118,278	5,714,857	25
26	392	Office Furniture & Equipment	2,218,149	(298,470)	2,516,619	26
27	393	Transportation Equipment	8,158,011	777,567	7,380,444	27
28	394	Stores Equipment	226,541	12,453	214,088	28
29	395	Tools, Shop & Garage Equipment	2,509,161	129,111	2,380,050	29
30	396	Laboratory Equipment	574,743	(213,455)	788,198	30
31	397	Power Operated Equipment	1,493,906	62,697	1,431,209	31
32	398	Communication Equipment	1,138,123	74,787	1,063,336	32
33		Miscellaneous Equipment	276,903	(664)	277,567	33
		Total General Plant	<u>22,822,793</u>	<u>662,304</u>	<u>22,160,489</u>	
34		Total Gas Plant in Service	<u>\$370,410,151</u>	<u>\$9,426,597</u>	<u>\$360,983,553</u>	34

Supporting Schedules
N/A
Recap Schedules
E-5 (P1)

UNS Gas, Inc.
Detail of Gas Utility Plant
Test Year Ended December 31, 2010

Line No.	Acct. No.	Description	December 31, 2010	Net Additions	December 31, 2009	Line No.
Southern Union Acquisition Premium						
Intangible Plant						
1	302	Franchises & Consents	\$20,652	\$0	\$20,652	1
2	303	Miscellaneous Intangible Plant	152,338	0	152,338	2
3		Total Intangible Plant	<u>172,990</u>	<u>0</u>	<u>172,990</u>	3
Distribution Plant						
4	376	Mains	11,988,346	0	11,988,346	4
5	378	Meas. And Req. Equipment - General	203,438	0	203,438	5
6	379	Meas. And Req. Equipment - City Gate	266,836	0	266,836	6
7	380	Services	3,646,695	0	3,646,695	7
8	381	Meters	846,443	0	846,443	8
9	382	Meter Installation	6,102	0	6,102	9
10	383	Regulators	(109,825)	0	(109,825)	10
11	385	Industrial Measuring Equipment	272,367	0	272,367	11
12	387	Other Equipment	203,196	0	203,196	12
13		Total Distribution Plant	<u>17,323,598</u>	<u>0</u>	<u>17,323,598</u>	13
General Plant						
14	389	Land and Land Rights	133,238	0	133,238	14
15	390	Structures & Improvements	173,464	0	173,464	15
16	391	Office Furniture & Equipment	21,060	0	21,060	16
17	393	Stores Equipment	26,148	0	26,148	17
18	394	Tools, Shop & Garage Equipment	434,479	0	434,479	18
19	396	Power Operated Equipment	(12,900)	0	(12,900)	19
20	398	Miscellaneous Equipment	(728)	0	(728)	20
21		Total General Plant	<u>774,761</u>	<u>0</u>	<u>774,761</u>	21
22		Total Southern Union Acquisition Premium	<u>\$18,271,349</u>	<u>\$0</u>	<u>\$18,271,349</u>	22

Supporting Schedules
N/A

Recap Schedules
E-5 (P1)

UNS Gas, Inc.
Detail of Gas Utility Plant
Test Year Ended December 31, 2010

Line No.	Acct. No.	Description	December 31, 2010	Net Additions	December 31, 2009	Line No.
<u>Citizens Acquisition Discount</u>						
1	302	Intangible Plant		\$0	(\$81,207)	1
2	303	Franchises & Consents	(\$81,207)		(80,488)	2
3		Miscellaneous Intangible Plant	(80,488)	0	(161,695)	3
		Total Intangible Plant	(161,695)	0		
<u>Transmission Plant</u>						
4	365	Land & Land Rights	(34,352)	0	(34,352)	4
5	366	Structures & Improvements	(5,238)	0	(5,238)	5
6	367	Mains	(3,573,586)	0	(3,573,586)	6
7	369	Measuring and Req. Station Equipment	(945,244)	0	(945,244)	7
8	371	Other Equipment	(53,866)	0	(53,866)	8
9		Total Transmission Plant	(4,612,286)	0	(4,612,286)	9
<u>Distribution Plant</u>						
10	374	Land & Land Rights	(86,374)	0	(86,374)	10
11	375	Structures & Improvements	(550)	0	(550)	11
12	376	Mains	(39,243,723)	0	(39,243,723)	12
13	378	Meas. And Req. Equipment - General	(419,801)	0	(419,801)	13
14	379	Meas. And Req. Equipment - City Gate	(533,526)	0	(533,526)	14
15	380	Services	(14,788,354)	0	(14,788,354)	15
16	381	Meters	(2,585,551)	0	(2,585,551)	16
17	382	Meter Installation	(1,658,681)	0	(1,658,681)	17
18	383	Regulators	(397,969)	0	(397,969)	18
19	384	Regulator Installations	(183,202)	0	(183,202)	19
20	385	Industrial Measuring Equipment	(237,062)	0	(237,062)	20
21	387	Other Equipment	(325,252)	0	(325,252)	21
22		Total Distribution Plant	(60,460,045)	0	(60,460,045)	22
<u>General Plant</u>						
23	389	Land & Land Rights	(109,571)	0	(109,571)	23
24	390	Structures & Improvements	(273,962)	0	(273,962)	24
25	391	Office Furniture & Equipment	(1,433,870)	0	(1,433,870)	25
26	392	Transportation Equipment	(190,332)	0	(190,332)	26
27	393	Stores Equipment	(39,585)	0	(39,585)	27
28	394	Tools, Shop & Garage Equipment	(513,773)	0	(513,773)	28
29	395	Laboratory Equipment	(175,657)	0	(175,657)	29
30	396	Power Operated Equipment	(12,272)	0	(12,272)	30
31	397	Communication Equipment	(342,300)	0	(342,300)	31
32	398	Miscellaneous Equipment	(65,944)	0	(65,944)	32
33		Total General Plant	(3,157,266)	0	(3,157,266)	33
34		Total Gas Plant in Service	(\$68,391,292)	\$0	(\$68,391,292)	34

UNS Gas, Inc.
Comparative Departmental Operating Income Statements
Test Year Ended December 31, 2010 and Prior Years Ended December 31, 2009 and 2008

Line No.	Description	Prior Years Ended December 31,			Line No.
		2010	2009	2008	
1	Operating Revenues				
2	Gas Retail Revenues				
3	Residential	\$88,787,339	\$90,792,973	\$97,118,513	1
4	Commercial	30,781,410	32,792,057	36,074,025	2
5	Industrial	1,586,569	1,923,596	1,788,718	3
6	Lighting	79,770	127,003	129,373	4
7	Public Authorities	6,302,788	6,749,247	7,629,013	5
8	Negotiated Sales Program (NSP)	9,803,280	8,956,718	17,761,492	6
9	Black Mountain Generating Station Sales	4,165,714	4,054,749	7,578,787	7
10	Transportation	4,352,569	4,181,106	4,274,928	8
11	Other Sales (Wholesale)	1,288,953	980,530	0	9
	Total Retail Revenues	<u>147,128,390</u>	<u>150,557,979</u>	<u>172,354,849</u>	11
12	Other Operating Revenue	2,459,665	2,428,754	1,885,778	12
13	Total Operating Revenues	<u>149,588,055</u>	<u>152,986,733</u>	<u>174,240,627</u>	13
	Operating Expenses				
14	Purchased Gas Expenses (includes NSP)	91,938,208	99,296,276	118,816,567	14
15	Other Operations and Maintenance Expense	24,523,122	23,805,128	23,874,121	15
16	Depreciation and Amortization	9,125,712	8,395,791	7,898,125	16
17	Taxes Other than Income Taxes	3,059,665	3,020,706	2,984,324	17
18	Income Taxes	5,702,600	4,757,729	5,485,353	18
19	Total Operating Expenses	<u>134,349,307</u>	<u>139,275,630</u>	<u>159,058,490</u>	19
20	Operating Income	<u>\$15,238,748</u>	<u>\$13,711,103</u>	<u>\$15,182,137</u>	20

Supporting Schedules
N/A

Recap Schedules
E-2

UNS Gas, Inc.
Gas Operating Statistics
Test Year Ended December 31, 2010 and Prior Years Ended December 31, 2009 and 2008

Line No.	Description	December 31,		Prior Years Ended December 31,		Line No.
		2010	2009	2008	2007	
Therm Sales						
1	Residential	73,081,932	69,640,536	72,093,430		1
2	Commercial	34,993,062	29,622,070	30,989,820		2
3	Industrial	6,760,004	2,103,914	1,824,003		3
4	Lighting	11,187,260	78,144	114,642		4
5	Public Authorities	81,494	6,443,821	6,947,568		5
6	Total	<u>126,103,752</u>	<u>107,888,485</u>	<u>111,969,463</u>		6
Average Number of Customers						
7	Residential	133,337	132,776	132,579		7
8	Commercial	11,228	11,372	11,447		8
9	Industrial	1,093	24	25		9
10	Lighting	12	2	2		10
11	Public Authorities	207	1,085	1,079		11
12	Total	<u>145,876</u>	<u>145,259</u>	<u>145,132</u>		12
Average Annual Therm Use						
13	Residential	548	524	544		13
14	Commercial	3,117	2,605	2,707		14
15	Industrial	6,185	87,663	72,960		15
16	Lighting	913,246	39,072	57,321		16
17	Public Authorities	394	5,939	6,439		17
18	Total	<u>864</u>	<u>743</u>	<u>772</u>		18

Note:

The above statistics exclude the Negotiated Sales Program (NSP) and Transportation. The following data summarizes NSP and Transportation statistics:

<u>Transportation (includes T2-Valencia & excludes BMGS)</u>	
Therm Sales	4,715,724
Average Number of Customers	34 (1)
Average Annual Therm Use	140,768
NSP	
Therm Sales	28,370,446
Average Number of Customers	19
Average Annual Therm Use	1,493,181

(1) The transportation customer count for the test year ended June 30, 2008 is larger than the prior years due to a change to counting meters instead of customers for ratemaking.

Supporting Schedules
N/A

Recap Schedules
N/A

UNS Gas, Inc.
Taxes Charged to Operations
Test Year Ended December 31, 2010 and Prior Years Ended December 31, 2009 and 2008

Line No.	Description	December 31,		Prior Years Ended December 31,		Line No.
		2010	2009	2008	2007	
	Federal Taxes					
1	Income	\$1,749,360	(\$566,574)	\$1,584,649		1
2	Unemployment	8,692	8,410	\$9,244		2
3	FICA	576,524	614,855	\$620,014		3
4	Deferred Income Taxes	2,941,939	4,538,179	\$3,247,340		4
5	Total	<u>5,276,515</u>	<u>4,594,870</u>	<u>5,461,247</u>		5
	State Taxes					
6	Income	562,099	292,554	143,622		6
7	Unemployment	11,225	10,030	10,782		7
8	Premium Receipts Tax	0	0	0		8
9	Real and Personal Property	0	0	0		9
10	Deferred Income Taxes	429,202	493,569	509,743		10
11	Total	<u>1,022,526</u>	<u>796,153</u>	<u>664,147</u>		11
	Local Taxes					
12	Income	0	0	0		12
13	Real and Personal Property	2,374,658	2,293,048	2,244,672		13
14	Indian Tribal Taxes - PIT and BAT	0	0	0		14
15	Other	88,566	94,363	99,612		15
16	Total	<u>2,463,224</u>	<u>2,387,411</u>	<u>2,344,284</u>		16
17	Total Taxes Charged to Operating Expenses	<u>\$8,762,265</u>	<u>\$7,778,435</u>	<u>\$8,469,678</u>		17

Note: Taxes and assessments related to sales of energy are not included in revenues or other tax expense categories.

Supporting Schedules N/A Recap Schedules E-2

UNS Gas, Inc.
Test Year Ended December 31, 2010
Notes to Financial Statements

The UNS Gas, Inc. Audited Financials as of December 31, 2010, which are confidential, will be provided when the Protective Agreement for this rate proceeding has been executed.

Supporting Schedules
N/A

Recap Schedules
N/A

Schedule

F

UNS Gas, Inc.
Income Statement - Test Year Ended December 31, 2010 and
Projected Year Ended December 31, 2011 at Present and Proposed Rates
(Thousands of Dollars Except Return on Average Common Equity)

Line No.	Description	Test Year Ended December 31, 2010 (a)	Projected Year Ended December 31, 2011		Line No.
			Present Rates	Proposed Rates	
1	Operating Revenues	\$149,588	\$149,937	\$155,364	1
2	Operating Expenses				
3	Purchased Gas	91,938	89,407	89,407	2
4	Other Operations and Maintenance Expense	24,523	27,392	27,392	3
5	Depreciation and Amortization	9,126	8,019	8,019	4
6	Taxes Other than Income Taxes	3,060	3,292	3,292	5
	Total Operating Expenses	128,647	128,110	128,110	6
7	Pre-Tax Operating Income	20,941	21,827	27,254	7
8	Other Income and Deductions				
9	Allowance for Equity Funds	16	87	87	8
10	Other - Net	(96)	(118)	(117)	9
	Total Other Income and Deductions	(80)	(31)	(30)	10
11	Income Before Interest Expense	20,861	21,796	27,224	11
12	Interest Expense				
13	Interest on Long-Term Debt	6,409	6,230	6,230	12
14	Other Interest Expense	113	465	465	13
15	Allowance for Borrowed Funds	(3)	(55)	(55)	14
	Total Interest Expense	6,519	6,640	6,640	15
16	Income Before Income Tax Expense	14,342	15,156	20,584	16
17	Income Tax Expense	5,703	5,850	7,945	17
18	Net Income Available for Common Stock	\$8,639	\$9,306	\$12,639	18
19	Earnings Per Share of Average Common Stock Outstanding	N/A	N/A	N/A	19
20	Return on Average Common Equity	8.42%	9.10%	12.16%	20

(1) Difference from Test Year to Present Rates due to adjustments made in moving from Regulatory to GAAP based accounting
(2) UNS Gas, Inc. is a subsidiary of UniSource Energy Corporation and has no publicly traded stock; thus such information is not meaningful.

UNS Gas, Inc.
Statement of Cash Flows - Test Year Ended December 31, 2010 and
Projected Year Ended December 31, 2011 at Present and Proposed Rates
(Thousands of Dollars)

Line No.	Description	Test Year Ended December 31, 2010 (a)	Projected Year Ended December 31, 2011		Line No.
			Present Rates	Proposed Rates	
1	Cash Flows from Operating Activities				
2	Cash Receipts from Customers	\$163,158	\$157,371	\$162,497	1
3	Other Cash Receipts	\$2,244	2,353	2,353	2
4	Purchased Gas Costs Paid	(\$94,726)	(85,225)	(85,225)	3
5	Payment of Other Operations and Maintenance Costs	(\$24,538)	(26,353)	(26,353)	4
6	Interest Paid, Net of Amounts Capitalized	(\$6,253)	(6,312)	(6,312)	5
7	Taxes Paid, Net of Amounts Capitalized	(\$19,501)	(15,540)	(15,875)	6
8	Income Taxes Paid	(\$432)	(587)	(2,391)	7
9	Other Cash Payments	(\$1,847)	(625)	(625)	8
	Net Cash Flows from Operating Activities	18,105	25,081	28,069	9
10	Cash Flows from Investing Activities				
11	Capital Expenditures	(10,027)	(12,461)	(12,461)	10
12	Other	1,254	0	0	11
	Net Cash Flows from Investing Activities	(8,773)	(12,461)	(12,461)	12
13	Cash Flow from Financing Activities				
14	LTD Proceeds	0	50,000	50,000	13
15	LTD Retirements	0	(50,000)	(50,000)	14
16	Payment of Debt Issuance Costs	0	0	0	15
17	Borrowing under Revolving Credit Facility	0	0	0	16
	Other	(776)	(1,249)	(1,249)	17
18	Common Dividends Paid	(10,000)	(10,000)	(10,000)	18
	Net Cash Flows from Financing Activities	(10,776)	(11,249)	(11,249)	
19	Net Increase (Decrease) in Cash	(\$1,444)	\$1,371	\$4,359	19

Supporting Schedule
(a) E-3

Recap Schedules
A-5

UNS Gas, Inc.
Projected Construction Requirements
Test Year Ended December 31, 2010 and Projected Years 2011 through 2013
(Thousands of Dollars)

Line No.	Description	Test Year Ended December 31, 2010		Projected Year Ended December 31,			Total 2011-2013	Line No.
		(a)	(b)	2011 (a)	2012 (a)	2013 (a)		
1	Transmission Plant	\$0	\$0	\$0	\$0	\$0	\$0	1
2	Distribution Plant	8,853	10,558	8,557	8,557	11,726	30,841	2
3	General Plant	1,174	1,903	2,271	2,271	1,905	6,079	3
4	Total Construction Expenditures	\$10,027	\$12,461	\$10,828	\$10,828	\$13,631	\$36,920	4

Supporting Schedules
N/A

Recap Schedules
(a) A-4
(b) F-2

UNS Gas, Inc.
Key Assumptions Used in Preparing Forecasts

Customer Growth and Sales

Retail customer growth is forecasted to be 0.7% in 2011.
Retail sales growth is forecasted to be 0.8% in 2011.

Purchased Gas Costs

Natural gas costs are forecasted using forward market projections and completed hedging transactions as of November 10, 2010. PGA pricing and gas cost recovery are based on the PGA mechanism in effect as of December 2010.

Operations and Maintenance Expenses

O&M Expenses for 2011 are based on the operating budget finalized in February 2011.

Construction Expenditures

Construction expenditures for 2011 through 2013 are based on the capital budget approved in December 2010, net of forecasted CIAC.

Interest Rate Assumptions

The interest rate on temporary investments is forecasted at 0.08% in 2011.
The interest rate on short-term borrowing is forecasted at 2.87% in 2011.

Capital Structure Changes

\$10 million payout of 2010 earnings in March 2011.
\$50 million of debt maturing in August 2011 is replaced by a new issue of \$50 million

Schedule G

UNGS GAS, INC.
CLASS COST OF SERVICE STUDY - SUMMARY AT PRESENT RATES
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
	TOTAL	RESIDENTIAL SERVICE (R-10)	CARES (R-12)	SMALL COMMERCIAL (C-20)	LARGE COMMERCIAL (C-22)	SMALL INDUSTRIAL (I-30)	LARGE INDUSTRIAL (I-32)	SMALL PUBLIC AUTHORITY (PA-40)	LARGE PUBLIC AUTHORITY (PA-42)	LIGHT (PA-44)	IRRIGATION (IR-60)	
DEVELOPMENT OF RATE BASE												
1	Gas Plant in Service	\$430,085,237	\$269,181,002	\$20,336,594	\$68,404,015	\$9,887,364	\$33,510,903	\$13,228,579	\$13,976,393	\$2,972	\$34,171	
2	Depreciation & Amort. Reserve	136,066,924	86,939,954	6,611,930	20,865,529	3,041,585	9,956,647	3,973,272	4,169,353	878	10,332	
3	Net Plant in Service	\$294,018,313	\$182,241,048	\$13,724,664	\$47,538,486	\$6,845,779	\$23,554,256	\$9,255,307	\$9,807,040	\$2,094	\$23,839	
ADDITIONS & DEDUCTIONS												
6	Cash Working Capital	\$1,409,346	\$912,415	\$68,501	\$218,090	\$29,814	\$94,714	\$40,942	\$40,140	\$25	\$120	
7	Materials & Supplies	2,045,505	1,324,266	99,421	316,533	43,272	137,466	59,422	58,259	36	174	
8	Prepayments	299,941	194,182	14,579	46,415	6,345	20,157	8,713	8,543	5	25	
9	Customer Adv. for Construction	(11,151,191)	(6,965,567)	(526,145)	(1,785,403)	(256,610)	(870,356)	(344,242)	(362,568)	0	(891)	
10	Customer Deposits	(3,129,709)	(2,049,023)	(154,228)	(880,135)	(46,323)	0	0	0	0	0	
11	Other	355,159	217,943	16,469	58,759	8,493	28,786	11,363	12,006	3	29	
12	Accum. Deferred Income Taxes	(30,170,097)	(18,882,808)	(1,426,594)	(4,798,481)	(106,854)	(2,350,760)	(927,973)	(980,432)	(208)	(2,397)	
13	Total Additions & Deductions	(\$40,341,046)	(\$25,248,592)	(\$1,907,998)	(\$6,824,222)	(\$908,598)	(\$2,939,993)	(\$1,151,775)	(\$1,224,052)	(\$140)	(\$2,999)	
14	TOTAL RATE BASE	\$253,677,267	\$156,992,456	\$11,816,667	\$40,714,264	\$5,937,181	\$893,063	\$20,614,263	\$8,103,532	\$1,953	\$20,900	
DEVELOPMENT OF RETURN												
REVENUES FROM GAS SALES												
19	Base Revenues Present Rates	\$53,841,863	\$36,866,422	\$1,799,297	\$9,922,343	\$856,760	\$120,775	\$1,769,918	\$1,626,312	\$45,797	\$11,559	
20	Revenue Adjustments	(52,092)	(188,321)	95,961	20,844	(11,532)	(382)	21,063	24,152	(44,154)	(1,317)	
21	TOTAL SALES OF GAS REVENUE	\$53,789,771	\$36,668,101	\$1,895,258	\$9,943,188	\$845,218	\$120,394	\$1,801,512	\$1,649,375	\$1,643	\$10,242	
OTHER OPERATING REVENUES												
24	Forfeited Discounts	\$318,260	\$231,836	\$17,648	\$56,434	\$429	\$1,198	\$7,115	\$248	\$0	\$549	
25	Miscellaneous Service Revenue	1,061,095	948,831	72,229	39,002	132	48	799	26	0	0	
26	OTHER REVENUE	12,146	8,314	406	2,238	193	399	367	187	10	3	
27	TOTAL OTHER OPERATING REVENUE	\$1,391,501	\$1,188,982	\$90,283	\$97,674	\$755	\$2,858	\$8,281	\$461	\$10	\$551	
28	TOTAL GAS OPERATING REVENUE	\$55,181,272	\$37,857,083	\$1,985,541	\$10,040,862	\$845,973	\$123,252	\$1,803,158	\$1,657,655	\$1,653	\$10,793	
OPERATING EXPENSES												
33	Operating & Maintenance	\$25,025,741	\$16,201,741	\$1,216,367	\$3,872,628	\$529,406	\$81,441	\$1,681,828	\$712,768	\$436	\$2,127	
34	Depreciation & Amortization	7,716,834	5,045,356	396,059	1,143,122	157,144	24,594	214,290	219,626	47	561	
35	Interest on Customer Deposits	78,775	51,574	3,882	22,153	1,166	0	0	0	0	0	
36	Taxes Other Than Income	3,625,326	1,929,674	137,645	723,361	103,528	11,901	402,316	165,443	37	380	
37	Tax Expense	4,894,218	3,063,185	231,423	778,414	112,515	17,394	381,342	159,046	34	389	
38	TOTAL OPERATING EXPENSES	\$41,340,894	\$26,291,530	\$1,975,377	\$6,539,677	\$903,759	\$135,270	\$2,991,522	\$1,242,867	\$553	\$3,457	
39	OPERATING INCOME	\$13,840,378	\$11,565,553	\$10,164	\$3,501,185	(\$57,786)	(\$12,018)	(\$1,188,364)	(\$414,789)	\$1,100	\$7,336	
40	RATE OF RETURN ON RATE BASE	5.46%	7.37%	0.09%	8.60%	-0.97%	-1.35%	-5.76%	5.12%	56.33%	35.10%	
OPERATING INCOME EXCLUDES												
45	OTHER OPERATING REVENUE	\$12,448,877	\$10,376,572	(\$80,119)	\$3,403,511	(\$58,541)	(\$14,876)	(\$1,190,009)	\$406,508	\$1,090	\$6,785	
46	RATE OF RETURN	4.91%	6.61%	-0.68%	8.36%	-0.99%	-1.67%	-5.77%	5.02%	55.80%	32.46%	

UNS GAS, INC.
CLASS COST OF SERVICE STUDY - SUMMARY AT PROPOSED RATES
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

LINE NO.	DESCRIPTION	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
	TOTAL	RESIDENTIAL SERVICE (R-10)	CARES (R-12)	SMALL VOLUME COMMERCIAL (C-20)	LARGE VOLUME COMMERCIAL (C-22)	SMALL VOLUME INDUSTRIAL (I-30)	LARGE VOLUME INDUSTRIAL (I-32)	SMALL VOLUME PUBLIC AUTHORITY (PA-40)	LARGE VOLUME PUBLIC AUTHORITY (PA-42)	LIGHT (PA-44)	IRRIGATION (IR-60)	
1	DEVELOPMENT OF RATE BASE											
2	Gas Plant in Service	\$430,085,237	\$269,181,002	\$20,338,594	\$68,404,015	\$1,523,244	\$33,510,903	\$13,228,579	\$13,976,393	\$2,972	\$34,171	
3	Depreciation & Amort. Reserve	136,066,924	86,939,954	6,611,930	20,865,529	497,445	9,956,647	3,973,272	4,169,353	878	10,332	
4	Net Plant in Service	\$294,018,313	\$182,241,048	\$13,724,664	\$47,538,486	\$1,025,799	\$23,554,256	\$9,255,307	\$9,807,040	\$2,084	\$23,839	
5	ADDITIONS & DEDUCTIONS											
6	Cash Working Capital	\$1,409,346	\$912,415	\$68,501	\$218,090	\$29,814	\$4,586	\$40,942	\$40,140	\$25	\$120	
7	Materials & Supplies	2,045,505	1,324,266	89,421	316,533	43,272	6,657	59,422	58,259	36	174	
8	Prepayments	299,941	194,182	14,579	46,415	6,345	976	8,713	8,543	5	25	
9	Customer Adv. for Construction	(11,151,191)	(6,965,567)	(526,145)	(1,785,403)	(256,610)	(39,409)	(344,242)	(362,568)	0	(891)	
10	Customer Deposits	(3,129,709)	(2,049,023)	(154,228)	(880,135)	(46,323)	0	0	0	0	0	
11	Other	355,159	217,943	16,469	58,759	8,493	1,308	11,363	12,006	3	29	
12	Accum Deferred Income Taxes	(30,170,097)	(18,882,808)	(1,426,594)	(4,798,481)	(106,554)	(2,350,760)	(927,973)	(980,432)	(208)	(2,397)	
13	Total Additions & Deductions	(\$40,341,046)	(\$25,248,592)	(\$1,907,998)	(\$6,824,222)	(\$908,598)	(\$2,939,993)	(\$1,151,775)	(\$1,224,052)	(\$140)	(\$2,939)	
14	TOTAL RATE BASE	\$253,677,267	\$156,992,456	\$11,816,667	\$40,714,264	\$893,063	\$20,614,263	\$8,103,532	\$8,582,988	\$1,953	\$20,900	
15	CLAIMED RATE OF RETURN	6.81%	6.81%	6.81%	6.81%	6.81%	6.81%	6.81%	6.81%	6.81%	6.81%	
16	RETURN ON RATE BASE	\$17,275,422	\$10,691,186	\$804,715	\$2,772,641	\$60,818	\$1,403,831	\$551,851	\$584,501	\$133	\$1,423	
17	PROPOSED SALES REVENUE	\$59,411,507	\$38,510,268	\$2,923,526	\$10,773,067	\$184,081	\$2,775,302	\$1,787,988	\$1,265,700	\$1,680	\$11,103	
18	OTHER OPERATING REVENUES											
19	Forfeited Discounts	\$318,260	\$231,836	\$17,048	\$56,434	\$429	\$1,198	\$7,115	\$248	\$0	\$549	
20	Miscellaneous Service Revenue	1,061,095	948,831	72,229	39,002	132	48	799	26	0	0	
21	Other Revenue	12,146	8,314	406	2,238	193	399	367	187	10	3	
22	TOTAL OTHER OPERATING REVENUE	\$1,391,501	\$1,188,982	\$90,283	\$97,674	\$755	\$1,646	\$8,281	\$461	\$10	\$551	
23	TOTAL GAS OPERATING REVENUE	\$60,803,008	\$39,699,250	\$3,013,809	\$10,870,741	\$186,940	\$2,776,948	\$1,796,268	\$1,266,161	\$1,690	\$11,654	
24	OPERATING EXPENSES											
25	Operating & Maintenance	\$25,025,741	\$16,201,741	\$1,216,367	\$3,872,628	\$529,406	\$1,681,828	\$726,998	\$712,768	\$436	\$2,127	
26	Depreciation & Amortization	7,716,834	5,045,356	386,059	1,143,122	157,144	526,035	214,290	219,626	47	561	
27	Interest on Customer Deposits	78,775	51,574	3,882	22,153	1,166	0	0	0	0	0	
28	Taxes Other Than Income	3,625,326	1,929,674	137,645	723,361	103,528	402,316	151,042	165,443	37	380	
29	Tax Expense	7,080,735	4,490,796	339,802	1,169,333	154,932	481,203	215,132	204,578	95	808	
30	TOTAL OPERATING EXPENSES	\$43,527,411	\$27,719,141	\$2,083,755	\$6,930,566	\$946,176	\$3,091,383	\$1,307,462	\$1,302,416	\$614	\$3,876	
31	OPERATING INCOME	\$17,275,597	\$11,980,108	\$930,054	\$3,940,146	\$233,371	(\$314,435)	\$488,807	(\$36,255)	\$1,076	\$7,778	
32	RATE OF RETURN ON RATE BASE	6.81%	7.63%	7.87%	9.66%	3.93%	-1.55%	6.03%	-0.42%	55.11%	37.21%	
33	RETURN AT PROPOSED RATES	\$15,884,096	\$10,791,126	\$839,770	\$3,842,471	\$232,616	(\$316,080)	\$480,526	(\$36,716)	\$1,066	\$7,227	
34	RETURN ON RATE BASE		6.87%	7.11%	9.44%	3.92%	-1.53%	5.93%	-0.43%	54.56%	34.58%	

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
RATE BASE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA	Total COMPANY	RESIDENTIAL SERVICE (R-10) DEMAND	COMMODITY	CUSTOMER	DEMAND	COMMODITY	CUSTOMER
1	302-303	Plant in Service								
2		Total Intangible Plant	LABOR	\$1,182,715	\$622,938	\$0	\$0	\$44,259	\$0	\$0
3	365-371	Total Transmission Plant	TRANS	\$19,160,402	\$10,091,813			\$717,012		
4										
5		Distribution Plant								
6	374	Land and Land Rights	DISTR	\$254,732	\$134,168			\$9,532		
7	375	Structures & Improvements	DISTR	16,168	8,516			605		
8	376	Mains	DISTMAIN	236,364,273	124,493,421			8,845,117		
9	378	Meas. and Reg. Station Equip - General	DISTREG	4,680,013	2,464,970			175,133		
10	379	Meas. and Reg. Station Equip - City Gate	DISTREG	3,003,971	1,582,196			112,413		
11	380	Services	CUST380	105,807,813			89,551,852			7,293,661
12	381	Meters	CUST381	14,477,528			12,174,719			991,598
13	382	Meter Installations	CUST382	11,241,795			9,453,665			769,975
14	383	House Regulators	CUST383	3,463,787			3,202,918			260,869
15	384	House Regulatory Installations	CUST384	2,317,105			2,142,596			174,509
16	385	Industrial Meas. & Reg. Station Equipment	CUST385	2,944,642			0			0
17	387	Other Equipment	DISTR	1,734,759	913,700	0	0	64,917	0	0
18		Total Distribution Plant		\$386,306,587	\$129,596,971	\$0	\$116,525,750	\$9,207,718	\$0	\$9,490,611
19										
20	389-398	Total General Plant	LABOR	\$23,435,533	\$12,343,531		\$0	\$876,994		\$0
21										
22		TOTAL GAS PLANT IN SERVICE		\$430,085,237	\$152,655,252	\$0	\$116,525,750	\$10,845,983	\$0	\$9,490,611
23										
24										
25		Less: Accumulated Depreciation (AD)								
26	302-303	Total Intangible Plant AD	LABOR	\$681,076	\$358,724	\$0	\$0	\$25,487	\$0	\$0
27										
28	365-371	Total Transmission Plant AD	TRANS	\$5,102,552	\$2,687,522	\$0	\$0	\$190,945	\$0	\$0
29										
30		Distribution Plant AD								
31	374	Land & Rights	DISTR	\$36,994	\$19,485			\$1,384		
32	375	Structures & Improvements	DISTR	11,985	6,312			448		
33	376	Mains	DISTMAIN	66,119,560	34,825,273			2,474,296		
34	378	Measuring and Regulating	DISTREG	1,052,521	554,364			39,387		
35	379	Measuring and Regulating - City Gas	DISTREG	664,422	349,952			24,864		
36	380	Services	CUST380	38,426,178			32,522,507			2,648,836
37	381	Meters	CUST381	6,745,099			5,672,217			461,987
38	382	Meter Installations	CUST382	2,276,986			1,914,806			155,956
39	383	Regulators	CUST383	1,431,072			1,323,294			107,779
40	384	Regulator Installations	CUST384	430,857			398,408			32,449
41	385	Industrial Measuring & Regulating	CUST385	1,112,928			0			0
42	387	Other Equipment	DISTR	651,920	343,367			24,396		
43		Total Distribution Plant AD		\$118,960,521	\$36,088,753	\$0	\$41,631,232	\$2,564,776	\$0	\$3,407,006
44										
45	389-398	Total General Plant AD	LABOR	\$11,322,776	\$5,963,723	\$0	\$0	\$423,716	\$0	\$0
46										
47		TOTAL ACCUMULATED DEPRECIATION		\$136,066,924	\$45,108,722	\$0	\$41,631,232	\$3,204,924	\$0	\$3,407,006
48										
49		TOTAL NET PLANT IN SERVICE		\$294,018,313	\$107,546,530	\$0	\$74,694,518	\$7,641,059	\$0	\$6,083,605

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
RATE BASE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	SMALL VOLUME PUBLIC AUTHORITY (PA-40)		LARGE VOLUME PUBLIC AUTHORITY (PA-42)		LG VOLUME PA TRANSPORT (T1 PAI-42)	
			DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER
1	302-303	Plant In Service						
2		Total Intangible Plant	\$49,961	\$0	\$11,355	\$0	\$43,673	\$0
3	365-371	Total Transmission Plant	\$809,388		\$183,953		\$707,521	
4								
5		Distribution Plant						
6	374	Land and Land Rights	\$10,761		\$2,446		\$9,406	
7	375	Structures & Improvements	683		155		597	
8	376	Mains	9,984,670		2,269,284		8,728,035	
9	378	Meas. and Reg. Station Equip - General	197,696		44,931		172,815	
10	379	Meas. and Reg. Station Equip - City Gate	126,896		28,840		110,925	
11	380	Services		793,583		4,291	5,439	
12	381	Meters		107,897		8,858	11,073	
13	382	Meter Installations		83,782		6,879	8,598	
14	383	House Regulators		0		0	0	
15	384	House Regulatory Installations		0		0	0	
16	385	Industrial Meas. & Reg. Station Equipment		0		198,330	247,912	
17	387	Other Equipment	73,281	0	16,655	0	64,058	0
18		Total Distribution Plant	\$10,393,987	\$0	\$2,362,291	\$218,357	\$9,085,837	\$273,022
19								
20	389-398	Total General Plant	\$989,981	\$0	\$224,998	\$0	\$865,385	\$0
21								
22		TOTAL GAS PLANT IN SERVICE	\$12,243,316	\$0	\$2,782,597	\$218,357	\$10,702,417	\$273,022
23								
24								
25		Less: Accumulated Depreciation (AD)						
26	302-303	Total Intangible Plant AD	\$28,770	\$0	\$6,539	\$0	\$25,150	\$0
27								
28	365-371	Total Transmission Plant AD	\$215,546	\$0	\$48,988	\$0	\$186,418	\$0
29								
30		Distribution Plant AD						
31	374	Land & Rights	\$1,563		\$355		\$1,366	
32	375	Structures & Improvements	506		115		443	
33	376	Mains	2,793,070		634,794		2,441,544	
34	378	Measuring and Regulating	44,461		10,105		38,866	
35	379	Measuring and Regulating - City Gas	28,067		6,379		24,535	
36	380	Services		288,205		1,558	1,975	
37	381	Meters		50,269		4,127	5,159	
38	382	Meter Installations		16,970		1,393	1,742	
39	383	Regulators		0		0	0	
40	384	Regulator Installations		0		0	0	
41	385	Industrial Measuring & Regulating		0		74,959	93,698	
42	387	Other Equipment	27,539		6,259		24,073	
43		Total Distribution Plant AD	\$2,895,206	\$0	\$658,007	\$82,037	\$2,530,826	\$102,574
44								
45	389-398	Total General Plant AD	\$478,305	\$0	\$108,707	\$0	\$418,107	\$0
46								
47		TOTAL ACCUMULATED DEPRECIATION	\$3,617,827	\$0	\$822,241	\$82,037	\$3,162,501	\$0
48								
49		TOTAL NET PLANT IN SERVICE	\$8,625,489	\$0	\$1,960,356	\$136,320	\$7,539,916	\$170,448

UNSGAS, INC.
CLASS COST OF SERVICE STUDY
RATE BASE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA	DEMAND	LIGHT (PA-44) COMMODITY	CUSTOMER	DEMAND	IRRIGATION (IP-60) COMMODITY	CUSTOMER
1	302-303	Plant in Service							
2		Total Intangible Plant	LABOR	\$12	\$0	\$0	\$125	\$0	\$0
3	365-371	Total Transmission Plant	TRANS	\$196			\$2,022		
4									
5		Distribution Plant							
6	374	Land and Land Rights	DISTR	\$3			\$27		2,901
7	375	Structures & Improvements	DISTR	0			2		386
8	376	Mains	DISTMAIN	2,423			24,942		300
9	378	Meas. and Reg. Station Equip. - General	DISTREG	48			494		0
10	379	Meas. and Reg. Station Equip. - City Gate	DISTREG	31			317		0
11	380	Services	CUST380						0
12	381	Meters	CUST381						0
13	382	Meter Installations	CUST382						0
14	383	House Regulators	CUST383						0
15	384	House Regulatory Installations	CUST384						0
16	385	Industrial Meas. & Reg. Station Equipment	CUST385						0
17	387	Other Equipment	DISTR	18	0	0	183	0	0
18		Total Distribution Plant		\$2,523	\$0	\$0	\$25,965	\$0	\$3,587
19									
20	389-398	Total General Plant	LABOR	\$240	\$0	\$0	\$2,473	\$0	\$0
21				\$2,972	\$0	\$0	\$30,584	\$0	\$3,587
22		TOTAL GAS PLANT IN SERVICE							
23									
24									
25		Less: Accumulated Depreciation (AD)							
26	302-303	Total Intangible Plant AD	LABOR	\$7	\$0	\$0	\$72	\$0	\$0
27									
28	365-371	Total Transmission Plant AD	TRANS	\$52	\$0	\$0	\$538	\$0	\$0
29									
30		Distribution Plant AD							
31	374	Land & Rights	DISTR	\$0			\$4		\$0
32	375	Structures & Improvements	DISTR	0			1		0
33	376	Mains	DISTMAIN	678			6,977		0
34	378	Measuring and Regulating	DISTREG	11			111		0
35	379	Measuring and Regulating - City Gas	DISTREG	7			70		0
36	380	Services	CUST380						1,053
37	381	Meters	CUST381						180
38	382	Meter Installations	CUST382						61
39	383	Regulators	CUST383						0
40	384	Regulator Installations	CUST384						0
41	385	Industrial Measuring & Regulating	CUST385						0
42	387	Other Equipment	DISTR	7			69		0
43		Total Distribution Plant AD		\$703	\$0	\$0	\$7,232	\$0	\$1,294
44									
45	389-398	Total General Plant AD	LABOR	\$116	\$0	\$0	\$1,195	\$0	\$0
46				\$878	\$0	\$0	\$9,038	\$0	\$1,294
47		TOTAL ACCUMULATED DEPRECIATION							
48				\$2,094	\$0	\$0	\$21,546	\$0	\$2,293
49		TOTAL NET PLANT IN SERVICE							

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
RATE BASE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA	Total COMPANY		RESIDENTIAL SERVICE (R-10)			CARES (R-12)			
				DEMAND	COMMODITY	CUSTOMER	DEMAND	COMMODITY	CUSTOMER			
		<u>Plant In Service</u>										
1	N/A	Working Capital										
2	154, 163	Cash Working Capital	WCOM	\$1,409,346	\$458,609	\$0	\$453,806	\$32,340	\$0	\$36,161		
3	165	Materials & Supplies	WCOM	2,045,505	665,619	0	658,647	46,938	0	52,483		
4		Prepayments	WCOM	299,941	97,602	0	96,580	6,883	0	7,696		
5		Total Working Capital		\$3,754,792	\$1,221,831	\$0	\$1,209,033	\$86,160	\$0	\$96,340		
6		Less: Customer Contributions										
7	252	Customer Advances for Construction	PLANT	(\$11,151,191)	\$0	\$0	(\$6,965,567)	\$0	\$0	(\$526,145)		
8	235	Customer Deposits	CUSTDEP	(3,129,709)	-	-	(2,049,023)	-	-	(154,228)		
9		Total Contributions		(\$14,280,900)	\$0	\$0	(\$9,014,591)	\$0	\$0	(\$680,373)		
10												
11		Other Rate Base										
12	182.3	Regulatory Assets - CARES	PLANT	\$369,442	\$131,131	\$0	\$100,095	\$9,317	\$0	\$8,152		
13	242	Regulatory Liabilities - Warm Spirit	PLANT	(14,283)	(7,839)	-	(5,444)	(557)	-	(443)		
14		Total Other Rate Base		\$355,159	\$123,292	\$0	\$94,651	\$8,760	\$0	\$7,709		
15												
16		Total Accumulated Deferred Taxes (ADIT)	PLANT	(\$30,170,097)	(\$10,708,630)	\$0	(\$8,174,178)	(\$760,836)	\$0	(\$665,758)		
17												
18		TOTAL RATE BASE		\$253,677,267	\$98,183,023	\$0	\$58,809,433	\$6,375,143	\$0	\$4,841,524		

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
RATE BASE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA	SMALL VOLUME COMMERCIAL (C-20)		LARGE VOLUME COMMERCIAL (C-22)		LG VOLUME COM TRANSPORT (T1 C-22)	
				DEMAND	COMMODITY	DEMAND	COMMODITY	DEMAND	COMMODITY
		Plant in Service							
1	N/A	Working Capital							
2	154, 163	Cash Working Capital	WCOM	\$175,164	\$0	\$42,926	\$8,903	\$14,988	\$1,573
3	165	Materials & Supplies	WCOM	254,231	0	62,302	12,921	21,754	2,284
4		Prepayments	WCOM	37,279	0	9,136	1,895	3,190	335
5		Total Working Capital		\$466,674	\$0	\$114,364	\$23,718	\$39,932	\$4,192
6		Less: Customer Contributions							
7	252	Customer Advances for Construction	PLANT	\$0	\$0	(\$1,785,403)	\$0	\$0	(\$148,900)
8	235	Customer Deposits	CUSTDEP			(880,135)			
9		Total Contributions		\$0	\$0	(\$2,665,538)	\$0	\$0	(\$148,900)
10		Other Rate Base							
11		Regulatory Assets - CARES	PLANT	\$50,171	\$0	\$8,588	\$2,563	\$4,641	\$288
12	182.3	Regulatory Liabilities - Warm Spirit	PLANT						
13	242	Total Other Rate Base		\$50,171	\$0	\$8,588	\$2,563	\$4,641	\$288
14		Total Accumulated Deferred Taxes (ADIT)	PLANT	(\$4,097,124)	\$0	(\$701,357)	(\$209,328)	(\$379,020)	(\$23,487)
15		TOTAL RATE BASE		\$37,567,039	\$0	\$3,147,225	\$1,919,229	\$3,472,038	\$41,207

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
RATE BASE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	Plant in Service				IRRIGATION (IR-60) COMMODITY	CUSTOMER
			ALLOCA	DEMAND	LIGHT (PA-44) COMMODITY	CUSTOMER		
1		Working Capital						
2	N/A	Cash Working Capital		\$24	\$0	\$99	\$0	\$21
3	154, 163	Materials & Supplies		34	0	144	0	30
4	165	Prepayments		5	0	21	0	4
5		Total Working Capital		\$63	\$0	\$264	\$0	\$55
6		Less: Customer Contributions						
7	252	Customer Advances for Construction		\$0	\$0	\$0	\$0	(\$891)
8	235	Customer Deposits						
9		Total Contributions		\$0	\$0	\$0	\$0	(\$891)
10								
11		Other Rate Base						
12	182.3	Regulatory Assets - CARES		\$3	\$0	\$26	\$0	\$3
13	242	Regulatory Liabilities - Warm Spirit						
14		Total Other Rate Base		\$3	\$0	\$26	\$0	\$3
15								
16		Total Accumulated Deferred Taxes (ADIT)		(\$208)	\$0	(\$2,145)	\$0	(\$252)
17								
18		TOTAL RATE BASE		\$1,951	\$0	\$19,692	\$0	\$1,208

UNIS GAS, INC.
CLASS COST OF SERVICE STUDY
EXPENSE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA	Total COMPANY	DEMAND	RESIDENTIAL SERVICE (R-10) COMMODITY	CUSTOMER	DEMAND	CARES (R-12) COMMODITY	CUSTOMER
1	805	Purchased Gas Expense		\$0		\$0	\$0			\$0
2	807	Purchased Gas Cost Expenses		509,543		310,662		22,323		\$0
3		Total Purchased Gas Expense		\$509,543		\$310,662		\$22,323		\$0
4										
5	856-870	Total Transmission Expense		\$467,657		\$246,321		\$17,501		\$0
6										
7		Distribution Expense		\$0		\$0		\$0		\$0
8	871	Distribution Load Dispatching								
9	874	Mains and Services		1,716,859		624,650		44,381		36,596
10	875	Maint. of Meas. & Reg. Station Equip - General		249,133		131,219		9,323		0
11	876	Maint. of Meas. & Reg. Station Equip - Industrial		151,061		0		0		0
12	877	Maint. of Meas. & Reg. Station Equip - City Gate		48,511		25,551		1,815		0
13	878	Meter and House Regulator		1,626,422		0		0		0
14	879	Customer Installations		861,266		0		1,390,999		113,293
15	880	Other Expenses		1,734,053		913,328		736,601		59,994
16	881	Rents		33,909		17,860		64,891		0
17	885	Maintenance Supervision & Engineering		341,186		179,703		12,768		0
18	887	Maintenance of Mains		804,797		423,888		30,117		0
19	888	Maint. of Compressor Station Equipment		1,208		636		45		0
20	889	Maint. of Meas. & Reg. Station Equip - General		30,140		15,875		1,128		0
21	890	Maint. of Meas. & Reg. Station Equip - Industrial		8		0		0		0
22	891	Maint. of Meas. & Reg. Station Equip - City Gate		2,207		1,162		83		0
23	892	Maintenance of Services		506,626		0		428,789		34,923
24	893	Maintenance of Meters and House Regulators		359,650		0		307,591		25,052
25	894	Maintenance of Other Equipment		53,187		28,014		1,990		0
26		Total Distribution Expense		\$8,520,226		\$2,361,886		\$167,809		\$269,859
27										
28		Customer Account Expense		\$0		\$0		\$0		\$0
29	901	Supervision		\$46,556		\$24,522		\$1,742		\$0
30	902	Meter Reading		994,225		0		841,171		68,511
31	903	Customer Records and Collection		3,817,775		0		3,210,516		261,488
32	904	Uncollectible Accounts		634,182		0		435,099		21,241
33	905	Miscellaneous Customer Accounts		5,104		0		4,204		329
34	907	Supervision - Customer Service		0		0		0		0
35	908	Customer Assistance		90,684		0		76,783		6,254
36	909	Informational and Instructional Advertising		206,970		0		175,243		14,273
37	910	Misc. Customer Service and Informational		2,239		0		1,896		154
38	913	Advertising Expenses								
39		Total Customer Account Expense		\$5,787,737		\$24,522		\$1,742		\$372,250
40										
41		Administrative and General Expense		\$0		\$0		\$0		\$0
42	920	Administrative and General Salaries		\$3,755,016		\$1,988,194		\$141,321		\$0
43	921	Office Supplies and Expenses		956,003		506,181		35,979		0
44	922	Administrative Expenses Transferred - Credit		(1,005,173)		(532,216)		(37,830)		0
45	923	Outside Services Employed		1,093,093		578,768		41,139		0
46	924	Property Insurance		13,384		7,087		504		0
47	925	Injuries and Damages		613,032		324,566		23,072		0
48	926	Employee Pension and Benefits		3,291,406		1,742,724		123,873		0
49	930	Miscellaneous General Expenses		512,743		271,486		19,297		0
50	931	Rents		109,831		58,153		4,134		0
51	932	Maintenance of General Plant		80,122		42,200		2,988		0
52	928	Regulatory Commission Expense		311,111		212,965		10,397		0
53		Total Administrative & General Expense		\$9,730,568		\$5,200,128		\$364,683		\$0
54										
55		Total Operation and Maintenance Expense		\$25,025,741		\$8,143,519		\$574,258		\$642,109

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
EXPENSE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA		SMALL VOLUME INDUSTRIAL (I-30)		LARGE VOLUME INDUSTRIAL (I-32)		LG VOLUME IND TRANSPORT (T1 I-32)		
			DEMAND	COMMODITY	DEMAND	COMMODITY	DEMAND	COMMODITY	DEMAND	COMMODITY	CUSTOMER
1	805	Purchased Gas Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	807	Purchased Gas Expense	2,146	\$0	6,780	\$0	\$0	\$0	\$0	\$0	\$0
3		Total Purchased Gas Expense	\$2,146	\$0	\$6,780	\$0	\$0	\$0	\$0	\$0	\$0
4											
5	856-870	Total Transmission Expense	\$1,526	\$0	\$4,625	\$0	\$0	\$0	\$48,350	\$0	\$0
6											
7											
8	871	Distribution Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	874	Distribution Load Dispatching	3,871	0	11,728	0	38	0	122,611	0	109
10	875	Mains and Services	813	0	2,464	0	0	0	25,757	0	0
11	876	Maint. of Meas. & Reg. Station Equip - General	0	0	28,827	0	8,479	0	0	0	22,468
12	877	Maint. of Meas. & Reg. Station Equip - Industrial	158	0	480	0	0	0	5,015	0	0
13	878	Maint. of Meas. & Reg. Station Equip - City Gate	0	0	156	0	688	0	0	0	1,822
14	879	Meter and House Regulator	0	83	0	0	364	0	0	0	965
15	880	Customer Installations	5,660	0	17,148	0	0	0	179,275	0	0
16	881	Other Expenses	111	0	335	0	0	0	3,506	0	0
17	885	Rents	1,114	0	3,374	0	0	0	35,273	0	0
18	887	Maintenance Supervision & Engineering	2,627	0	7,959	0	0	0	83,204	0	0
19	888	Maintenance of Mains	4	0	12	0	125	0	0	0	0
20	889	Maint. of Compressor Station Equipment	98	0	298	0	0	0	3,116	0	0
21	890	Maint. of Meas. & Reg. Station Equip - General	0	0	2	0	0	0	0	0	1
22	891	Maint. of Meas. & Reg. Station Equip - Industrial	7	0	22	0	0	0	228	0	0
23	892	Maint. of Meas. & Reg. Station Equip - City Gate	0	0	59	0	36	0	0	0	104
24	893	Maintenance of Services	0	0	35	0	152	0	0	0	403
25	894	Maintenance of Meters and House Regulators	174	0	526	0	0	0	5,499	0	0
26		Maintenance of Other Equipment									
27		Total Distribution Expense	\$14,636	\$0	\$29,223	\$0	\$9,758	\$0	\$463,608	\$0	\$25,872
28											
29											
30	901	Customer Account Expense	\$152	\$0	\$460	\$0	\$0	\$0	\$4,813	\$0	\$0
31	902	Supervision	0	116	0	0	34	0	0	0	451
32	903	Meter Reading	0	442	0	0	1,947	0	0	0	5,159
33	904	Customer Records and Collection	0	1,425	0	0	1,799	0	0	0	18,235
34	905	Uncollectible Accounts	0	2	0	0	4	0	0	0	22
35	907	Miscellaneous Customer Accounts	0	0	0	0	0	0	0	0	0
36	908	Supervision - Customer Service	0	0	0	0	0	0	0	0	0
37	909	Customer Assistance	0	11	0	0	3	0	0	0	8
38	910	Informational and Instructional Advertising	0	24	0	0	7	0	0	0	19
39	913	Misc. Customer Service and Informational Advertising Expenses	0	0	0	0	0	0	0	0	0
40		Total Customer Account Expense	\$152	\$2,020	\$460	\$0	\$3,794	\$0	\$4,813	\$0	\$23,894
41											
42											
43	920	Administrative and General Expense	\$12,375	\$0	\$37,563	\$0	\$0	\$0	\$375,228	\$0	\$0
44	921	Administrative and General Salaries	3,151	0	9,563	0	0	0	95,530	0	0
45	922	Office Supplies and Expenses	(3,313)	0	(10,055)	0	0	0	(100,444)	0	0
46	923	Administrative Expenses Transferred - Credit	3,602	0	10,935	0	0	0	109,230	0	0
47	924	Outside Services Employed	44	0	134	0	0	0	1,337	0	0
48	925	Property Insurance	2,020	0	6,132	0	0	0	61,258	0	0
49	926	Injuries and Damages	10,847	0	32,925	0	0	0	328,900	0	0
50	930	Employee Pension and Benefits	1,690	0	5,129	0	0	0	51,237	0	0
51	931	Miscellaneous General Expenses	362	0	1,099	0	0	0	10,975	0	0
52	932	Rents	262	0	792	0	0	0	8,283	0	0
53	928	Maintenance of General Plant	698	0	883	0	0	0	8,891	0	0
54		Regulatory Commission Expense	\$31,738	\$0	\$95,101	\$0	\$0	\$0	\$950,427	\$0	\$0
55		Total Administrative & General Expense	\$50,198	\$0	\$151,312	\$0	\$13,551	\$0	\$1,467,198	\$0	\$49,767

UNSGAS, INC.
CLASS COST OF SERVICE STUDY
EXPENSE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA		SMALL VOLUME PUBLIC AUTHORITY (PA-40)		LARGE VOLUME PUBLIC AUTHORITY (PA-42)		LG VOLUME PA TRANSPORT (TT PAI-42)	
			DEMAND	COMMODITY	CUSTOMER	DEMAND	COMMODITY	CUSTOMER	DEMAND	COMMODITY
1	805	Purchased Gas Expense	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	807	Purchased Gas Cost Expenses	24,163	5,927						
3		Total Purchased Gas Expense	\$24,163	\$5,927	\$0	\$0	\$0	\$0	\$0	\$0
4										
5	856-870	Total Transmission Expense	\$19,756	\$4,490	\$0	\$0	\$0	\$17,269	\$0	\$0
6										
7		Distribution Expense								
8	871	Distribution Load Dispatching	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	874	Mains and Services	50,098	11,396	3,992	0	22	43,793	0	27
10	875	Maint. of Meas. & Reg. Station Equip - General	10,524	2,392	0	0	0	9,200	0	0
11	876	Maint. of Meas. & Reg. Station Equip - Industrial	0	0	0	0	10,174	0	0	12,718
12	877	Maint. of Meas. & Reg. Station Equip - City Gate	2,049	466	0	0	0	1,791	0	0
13	878	Meter and House Regulator	0	10,050	0	0	825	0	0	1,031
14	879	Customer Installations	0	5,322	0	0	437	0	0	546
15	880	Other Expenses	73,251	16,648	0	0	0	64,032	0	0
16	881	Rents	1,432	326	0	0	0	1,252	0	0
17	885	Maintenance Supervision & Engineering	14,413	3,276	0	0	0	12,599	0	0
18	887	Maintenance of Mains	33,997	7,727	0	0	0	29,718	0	0
19	888	Maint. of Compressor Station Equipment	51	12	0	0	0	45	0	0
20	889	Maint. of Meas. & Reg. Station Equip - General	1,273	289	0	0	0	1,113	0	0
21	890	Maint. of Meas. & Reg. Station Equip - Industrial	0	0	0	0	0	0	0	1
22	891	Maint. of Meas. & Reg. Station Equip - City Gate	93	21	0	0	1	0	0	0
23	892	Maintenance of Services	0	3,800	0	0	21	0	0	26
24	893	Maintenance of Meters and House Regulators	0	2,222	0	0	182	0	0	228
25	894	Maintenance of Other Equipment	0	0	0	0	0	0	0	0
26		Total Distribution Expense	2,247	511	\$0	\$25,376	\$43,052	\$11,661	\$1,964	\$14,576
27			\$189,429	\$43,052	\$0	\$25,376	\$43,052	\$11,661	\$1,964	\$14,576
28		Customer Account Expense								
29	901	Supervision	\$1,967	\$447	\$0	\$0	\$0	\$1,719	\$0	\$0
30	902	Meter Reading	0	7,455	0	0	41	0	0	255
31	903	Customer Records and Collection	0	28,453	0	0	2,336	0	0	2,920
32	904	Uncollectible Accounts	0	19,169	0	0	1,980	0	0	7,852
33	905	Miscellaneous Customer Accounts	0	52	0	0	4	0	0	10
34	907	Supervision - Customer Service	0	0	0	0	0	0	0	0
35	908	Customer Assistance	0	680	0	0	4	0	0	5
36	909	Informational and Instructional Advertising	0	1,553	0	0	9	0	0	11
37	910	Misc. Customer Service and Informational	0	17	0	0	0	0	0	0
38	913	Advertising Expenses	0	0	0	0	0	0	0	0
39		Total Customer Account Expense	\$1,967	\$57,378	\$0	\$57,378	\$447	\$4,373	\$1,719	\$11,053
40			\$189,429	\$43,052	\$0	\$25,376	\$43,052	\$11,661	\$1,964	\$14,576
41		Administrative and General Expense								
42	920	Administrative and General Salaries	\$159,272	\$36,306	\$0	\$0	\$0	\$134,021	\$0	\$0
43	921	Office Supplies and Expenses	40,550	9,243	0	0	0	34,121	0	0
44	922	Administrative Expenses Transferred - Credit	(42,635)	(9,719)	0	0	0	(35,876)	0	0
45	923	Outside Services Employed	46,365	10,569	0	0	0	39,014	0	0
46	924	Property Insurance	568	129	0	0	0	478	0	0
47	925	Injuries and Damages	26,002	5,927	0	0	0	21,880	0	0
48	926	Employee Pension and Benefits	139,608	31,823	0	0	0	117,474	0	0
49	930	Miscellaneous General Expenses	21,748	4,958	0	0	0	18,300	0	0
50	931	Rents	4,659	1,062	0	0	0	3,920	0	0
51	932	Maintenance of General Plant	3,385	769	0	0	0	2,959	0	0
52	933	Regulatory Commission Expense	9,409	971	0	0	0	4,281	0	0
53		Total Administrative & General Expense	\$408,930	\$92,039	\$0	\$0	\$92,039	\$340,572	\$0	\$0
54			\$644,244	\$145,955	\$0	\$62,754	\$145,955	\$625,148	\$0	\$25,631
55		Total Operation and Maintenance Expense	\$644,244	\$145,955	\$0	\$62,754	\$145,955	\$625,148	\$0	\$25,631

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
EXPENSE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA	DEMAND	LIGHT (PA-44) COMMODITY	CUSTOMER	DEMAND	IRRIGATION (IR-60) COMMODITY	CUSTOMER
1	805	Purchased Gas Expense							
2	807	Purchased Gas Expense							
3		Purchased Gas Cost Expenses							
4		Total Purchased Gas Expense							
5	856-870	Total Transmission Expense							
6									
7		Distribution Expense							
8	871	Distribution Lead Dispatching							
9	874	Mains and Services							
10	875	Maint. of Meas. & Reg. Station Equip - General							
11	876	Maint. of Meas. & Reg. Station Equip - Industrial							
12	877	Maint. of Meas. & Reg. Station Equip - City Gate							
13	878	Meter and House Regulator							
14	879	Customer Installations							
15	880	Other Expenses							
16	881	Rents							
17	885	Maintenance Supervision & Engineering							
18	887	Maintenance of Mains							
19	888	Maint. of Compressor Station Equipment							
20	889	Maint. of Meas. & Reg. Station Equip - General							
21	890	Maint. of Meas. & Reg. Station Equip - Industrial							
22	891	Maint. of Meas. & Reg. Station Equip - City Gate							
23	892	Maintenance of Services							
24	893	Maintenance of Meters and House Regulators							
25	894	Maintenance of Other Equipment							
26		Total Distribution Expense							
27									
28		Customer Account Expense							
29	901	Supervision							
30	902	Meter Reading							
31	903	Customer Records and Collection							
32	904	Uncollectible Accounts							
33	905	Miscellaneous Customer Accounts							
34	907	Supervision - Customer Service							
35	908	Customer Assistance							
36	909	Informational and Instructional Advertising							
37	910	Misc. Customer Service and Informational Advertising Expenses							
38	913								
39		Total Customer Account Expense							
40									
41		Administrative and General Expense							
42	920	Administrative and General Salaries							
43	921	Office Supplies and Expenses							
44	922	Administrative Expenses Transferred - Credit							
45	923	Outside Services Employed							
46	924	Property Insurance							
47	925	Injuries and Damages							
48	926	Employee Pension and Benefits							
49	930	Miscellaneous General Expenses							
50	931	Rents							
51	932	Maintenance of General Plant							
52	928	Regulatory Commission Expense							
53		Total Administrative & General Expense							
54									
55		Total Operation and Maintenance Expense							

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
EXPENSE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA	Total COMPANY	DEMAND	RESIDENTIAL SERVICE (R-10) COMMODITY	CUSTOMER	DEMAND	CARES (R-12) COMMODITY	CUSTOMER
Depreciation and Amortization										
Intangible Plant Depreciation Expense										
1	302	Franchises and Consents	PLANT	\$12,304	\$4,367	\$0	\$3,334	\$310	\$0	\$272
2	303	Miscellaneous Intangible Plant	PLANT	962,759	341,724	0	260,847	24,279	0	21,245
3	407	Deferred Y2K	PAYXAG	0	0	0	0	0	0	0
4	407	Deferred CARES	DISTR	41,049	21,621	0	0	1,536	0	0
5	407	Rate Case Expense	TOTREV	(0)	(0)	0	0	(0)	0	0
6	407	Prescott Building Sale - Gain Sharing (50%)	TOTREV	0	0	0	0	0	0	0
7		Total Intangible Plant Depreciation Expense		\$1,016,113	\$367,712	\$0	\$264,180	\$26,125	\$0	\$21,517
8		Total Transmission Depreciation	TRANS	\$294,290	\$155,003	\$0	\$0	\$11,013	\$0	\$0
Distribution Plant Depreciation Expense										
11	374	Land and Land Rights	DISTR	\$1,347	\$709	\$0	\$0	\$50	\$0	\$0
12	375	Structures & Improvements	DISTR	172	90	0	0	6	0	0
13	376	Mains	DISTR	2,715,830	1,430,432	0	0	101,631	0	0
14	378	Meas. & Reg. Station Equip. - General	DISTR	108,102	56,937	0	0	4,045	0	0
15	379	Meas. & Reg. Station Equip. - City Gate	DISTR	73,364	38,641	0	0	2,745	0	0
16	380	Services	ACT380	2,065,088	0	0	1,747,815	0	0	142,353
17	381	Meters	ACT381	186,477	0	0	156,816	0	0	12,772
18	382	Meter Installations	ACT382	166,799	0	0	140,268	0	0	11,424
19	383	House Regulators	ACT383	59,538	0	0	55,054	0	0	4,484
20	384	House Regulatory Installations	ACT384	41,824	0	0	38,674	0	0	3,150
21	385	Industrial Meas. & Reg. Station Equipment	ACT385	36,364	0	0	0	0	0	0
22	385	Other Equipment	DISTR	25,356	13,355	0	0	949	0	0
23	387									
24		Total All Distribution Depreciation Expense		\$5,480,261	\$1,540,165	\$0	\$2,138,626	\$109,427	\$0	\$174,183
25		Total General Plant Depreciation Expense	PLANT	\$926,170	\$328,737	\$0	\$250,933	\$23,356	\$0	\$20,438
26		Total Depreciation and Amortization - All		\$7,716,834	\$2,391,616	\$0	\$2,653,740	\$169,922	\$0	\$216,138
27		Total Interest on Customer Deposits	CUSTDEP	\$78,775	\$0	\$0	\$51,574	\$0	\$0	\$3,882
28		Taxes Other Than Income Taxes	TRANS	\$111,184	\$58,561	\$0	\$0	\$4,161	\$0	\$0
29	403/404/406/407	Property Tax - Transmission	DISTR	2,887,811	1,415,674	0	0	100,562	0	0
30	403/404/406	Property Tax - Distribution	PISXG	120,773	41,608	0	34,708	2,956	0	2,827
31	403/404/406	Payroll Taxes - FUTA, SUTA, FICA & Medicare	LABOR	556,978	294,512	0	0	20,932	0	0
32	403/404/406	Medical and Dental	LABOR	89,957	47,566	0	0	3,361	0	0
33		Other	PISXG	58,624	20,197	0	16,848	1,435	0	1,372
34		Total Taxes Other Than Income Taxes		\$3,625,326	\$1,878,118	\$0	\$51,556	\$133,446	\$0	\$4,199
35		Income Taxes	PLANT	\$812,997	\$266,567	\$0	\$220,270	\$20,502	\$0	\$17,940
36	408	Current Income Tax - State & Federal	PLANT	10,601,944	3,763,074	0	2,872,453	267,362	0	233,951
37	408	Deferred IT - Federal & State (debits)	PLANT	(6,520,723)	(2,314,477)	0	(1,766,701)	(164,441)	0	(143,892)
38	411	Deferred IT - Federal & State (credits)		\$4,894,218	\$1,737,163	\$0	\$1,326,022	\$123,423	\$0	\$108,000
39		Total Income Taxes		\$36,446,676	\$12,413,253	\$0	\$10,815,091	\$877,626	\$0	\$866,328
40		Total Operating Expense - Excluding Income Taxes		\$41,340,894	\$14,150,416	\$0	\$12,141,113	\$1,001,049	\$0	\$974,328

UNIS GAS, INC.
CLASS COST OF SERVICE STUDY
EXPENSE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA		SMALL VOLUME COMMERCIAL (C-20)		LARGE VOLUME COMMERCIAL (C-22)		LG. VOLUME COM. TRANSPORT (T1 C-22)	
			DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER
Depreciation and Amortization										
Intangible Plant Depreciation Expense										
1	302	Miscellaneous	\$1,671	\$0	\$286	\$0	\$85	\$33	\$165	\$10
2	303	Deferred Y2K	130,743	0	22,381	0	6,680	2,609	12,095	749
3	407	Deferred CARES	0	0	0	0	0	0	0	0
4	407	Rate Case Expense	8,272	0	0	0	423	0	765	0
5	407	Prescott Building Sale - Gain Sharing (60%)	(0)	0	0	0	(0)	0	(0)	0
6	407	Total Intangible Plant Depreciation Expense	\$140,687	\$0	\$22,667	\$0	\$7,188	\$2,642	\$13,015	\$0
7	856-870	Total Transmission Depreciation	\$59,304	\$0	\$3,030	\$0	\$0	\$0	\$5,486	\$0
8	374	Distribution Plant Depreciation Expense	\$271	\$0	\$0	\$0	\$14	\$0	\$25	\$0
9	375	Land and Land Rights	35	0	0	0	2	0	3	0
10	376	Structures & Improvements	547,283	0	0	0	27,961	0	50,628	0
11	378	Mains	21,784	0	0	0	1,113	0	2,015	0
12	379	Meas. & Reg. Station Equip. - General	14,784	0	0	0	755	0	1,368	0
13	380	Meas. & Reg. Station Equip. - City Gate	0	0	0	0	0	0	0	0
14	381	Services	0	0	0	0	0	0	0	0
15	382	Meters	157,176	0	15,176	0	0	0	0	0
16	383	House Regulators	14,102	0	0	0	0	0	0	0
17	384	House Regulators	0	0	12,614	0	0	0	0	0
18	385	House Regulatory Installations	0	0	0	0	0	533	0	171
19	386	Industrial Meas. & Reg. Station Equipment	0	0	0	0	0	0	0	0
20	387	Other Equipment	0	0	0	0	0	0	0	0
21	387	Total All Distribution Depreciation Expense	5,110	0	0	0	0	0	0	0
22	589,267	Total General Plant Depreciation Expense	\$589,267	\$0	\$183,891	\$0	\$30,106	\$14,847	\$54,512	\$4,266
23	125,775	Depreciation and Amortization - All	\$125,775	\$0	\$21,530	\$0	\$6,426	\$2,510	\$11,635	\$721
24	403/404/406/407	Total Interest on Customer Deposits	\$0	\$0	\$22,153	\$0	\$0	\$1,166	\$0	\$0
25	408	Property Tax - Transmission	\$22,405	\$0	\$0	\$0	\$1,145	\$0	\$0	\$0
26	408	Property Tax - Distribution	541,637	0	0	0	27,673	0	\$2,073	\$0
27	408	Property Tax - General	15,919	0	2,978	0	813	0	50,106	0
28	408	Payroll Taxes - FUTA, SUTA, FICA & Medicare	112,998	0	0	0	5,779	347	1,473	0
29	408	Medical and Dental	18,250	0	0	0	933	0	10,125	100
30	408	Other	7,727	0	1,446	0	395	169	1,635	0
31	408	Total Taxes Other Than Income Taxes	\$718,937	\$0	\$4,424	\$0	\$36,738	\$516	\$66,126	\$48
32	409	Income Taxes	\$110,408	\$0	\$18,900	\$0	\$5,641	\$2,203	\$10,213	\$0
33	410	Deferred IT - Federal & State (debits)	1,439,753	0	246,461	0	73,559	28,729	133,190	\$633
34	411	Deferred IT - Federal & State (credits)	(885,519)	0	(151,586)	0	(45,242)	(17,670)	(81,918)	(5,076)
35	411	Total Income Taxes	\$664,639	\$0	\$113,775	\$0	\$33,957	\$13,262	\$61,465	\$3,810
36	409	Total Operating Expense - Excluding Income Taxes	\$4,744,358	\$0	\$1,016,905	\$0	\$241,572	\$98,919	\$416,919	\$3,834
37	410	Total Operating Expense - Including Taxes	\$5,408,997	\$0	\$1,130,680	\$0	\$275,530	\$112,182	\$478,404	\$7,644

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
EXPENSE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA		SMALL VOLUME INDUSTRIAL (I-30)		LARGE VOLUME INDUSTRIAL (I-32)		LG VOLUME IND TRANSPORT (T1-I-32)	
			DEMAND	COMMODITY	CUSTOMER	DEMAND	COMMODITY	CUSTOMER	DEMAND	COMMODITY
1	302	Depreciation and Amortization								
2	303	Intangible Plant Depreciation Expense								
3	407	Franchises and Consents	\$27	\$0	\$17	\$82	\$5	\$857	\$0	\$14
4	407	Miscellaneous Intangible Plant	2,118	0	1,292	6,416	416	67,076	0	1,107
5	407	Deferred Y2K	0	0	0	0	0	0	0	0
6	407	Deferred CAPES	134	0	0	0	0	0	0	0
7	407	Rate Case Expense	(0)	0	0	406	0	4,244	0	0
8		Prescott Building Sale - Gain Sharing (50%)	0	0	0	0	0	(0)	0	0
9		Total Intangible Plant Depreciation Expense	\$2,279	\$0	\$1,309	\$6,904	\$422	\$72,177	\$0	\$1,121
10	856-870	Total Transmission Depreciation	\$961	\$0	\$0	\$2,910	\$0	\$30,425	\$0	\$0
11		Distribution Plant Depreciation Expense								
12	374	Land and Land Rights								
13	375	Structures & Improvements	\$4	\$0	\$0	\$13	\$0	\$139	\$0	\$0
14	376	Mains	1	0	0	2	0	18	0	0
15	378	Meas. & Reg. Station Equip. - General	9,864	0	0	26,857	0	280,775	0	0
16	379	Meas. & Reg. Station Equip. - City Gate	353	0	0	1,069	0	11,176	0	0
17	380	Services	239	0	0	726	0	7,565	0	0
18	381	Meters	0	0	241	0	149	0	0	0
19	382	Meter Installations	0	0	22	0	95	0	0	424
20	383	House Regulators	0	0	19	0	85	0	0	252
21	384	House Regulatory Installations	0	0	0	0	0	0	0	225
22	385	Industrial Meas. & Reg. Station Equipment	0	0	0	0	0	0	0	0
23	387	Other Equipment	0	0	6,939	0	0	0	0	0
24		Total All Distribution Depreciation Expense	83	\$0	\$7,222	\$28,918	\$2,370	\$302,315	\$0	\$5,409
25		Total General Plant Depreciation Expense	\$9,544	\$0	\$1,243	\$6,172	\$401	\$64,527	\$0	\$1,065
26		Depreciation and Amortization - All	\$2,279	\$0	\$1,309	\$6,904	\$422	\$72,177	\$0	\$1,121
27	403/404/406/407	Intangible Plant	961	0	0	2,910	0	30,425	0	0
28	403/404/406	Transmission Plant	9,544	0	7,222	28,918	0	302,315	0	6,310
29	403/404/406	General Plant	2,037	0	1,243	6,172	401	64,527	0	1,065
30		Total Depreciation and Amortization - All	\$14,820	\$0	\$9,773	\$44,904	\$3,192	\$469,443	\$0	\$8,496
31	431	Total Interest on Customer Deposits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
32		Taxes Other Than Income Taxes								
33	408	Property Tax - Transmission	\$363	\$0	\$0	\$1,100	\$0	\$11,495	\$0	\$0
34	408	Property Tax - Distribution	8,173	0	0	26,580	0	277,879	0	0
35	408	Property Tax - General	258	0	172	781	55	8,167	0	0
36	408	Payroll Taxes - FUTA, SUTA, FICA & Medicare	1,831	0	0	5,555	0	56,149	0	147
37	408	Medical and Dental	296	0	0	897	0	9,069	0	0
38	408	Other	125	83	83	379	27	3,964	0	0
39		Total Taxes Other Than Income Taxes	\$11,645	\$83	\$235	\$35,293	\$82	\$366,722	\$0	\$219
40		Income Taxes								
41	409	Current Income Tax - State & Federal	\$1,788	\$0	\$1,091	\$5,418	\$352	\$56,642	\$0	\$935
42	410	Deferred IT - Federal & State (debits)	23,319	0	14,230	70,654	4,985	738,643	0	12,188
43	411	Deferred IT - Federal & State (credits)	(14,342)	0	(8,752)	(43,456)	(2,820)	(454,302)	0	(7,496)
44		Total Income Taxes	\$10,765	\$0	\$6,569	\$32,616	\$2,117	\$340,983	\$0	\$5,627
45		Total Operating Expense - Excluding Income Taxes	\$76,664	\$0	\$41,272	\$231,509	\$16,826	\$2,303,363	\$0	\$59,481
46		Total Operating Expense - Including Taxes	\$87,429	\$0	\$47,841	\$264,125	\$18,942	\$2,644,346	\$0	\$64,108

UNIS GAS, INC.
CLASS COST OF SERVICE STUDY
EXPENSE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA		SMALL VOLUME PUBLIC AUTHORITY (PA-40)		LARGE VOLUME PUBLIC AUTHORITY (PA-42)		LG VOLUME PA TRANSPORT (T1 PA1-42)	
			DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER
Depreciation and Amortization										
Intangible Plant Depreciation Expense										
1	302	Franchises and Consents	\$350	\$28	\$80	\$0	\$6	\$0	\$0	\$8
2	303	Miscellaneous Intangible Plant	27,407	2,206	6,229	0	489	23,958	0	611
3	407	Deferred Y2K	0	0	0	0	0	0	0	0
4	407	Deferred CARES	1,734	0	394	0	0	1,516	0	0
5	407	Rate Case Expense	(0)	0	(0)	0	0	(0)	0	0
6	407	Prescott Building Sale - Gain Sharing (50%)	0	0	0	0	0	0	0	0
7		Total Intangible Plant Depreciation Expense	\$29,481	\$2,234	\$6,703	\$0	\$495	\$25,780	\$0	\$619
8	855-870	Total Transmission Depreciation	\$12,432	\$0	\$2,825	\$0	\$0	\$10,867	\$0	\$0
9		Distribution Plant Depreciation Expense								
10		Land and Land Rights	\$57	\$0	\$13	\$0	\$0	\$50	\$0	\$0
11	374	Structures & Improvements	7	0	2	0	0	6	0	0
12	375	Mains	114,724	0	26,074	0	0	100,285	0	0
13	376	Meas. & Reg. Station Equip. - General	4,567	0	1,038	0	0	3,992	0	0
14	378	Meas. & Reg. Station Equip. - City Gate	3,099	0	704	0	0	2,709	0	0
15	379	Services	0	15,489	0	0	84	0	0	106
16	381	Meters	0	1,390	0	0	114	0	0	143
17	382	Meter Installations	0	1,243	0	0	102	0	0	128
18	383	House Regulators	0	0	0	0	0	0	0	0
19	384	House Regulatory Installations	0	0	0	0	0	0	0	0
20	384	Industrial Meas. & Reg. Station Equipment	0	0	0	0	0	0	0	0
21	385	Other Equipment	1,071	0	243	0	2,449	0	0	3,062
22	387	Total All Distribution Depreciation Expense	\$123,525	\$18,122	\$28,074	\$0	\$2,749	\$107,879	\$0	\$3,438
23		Total General Plant Depreciation Expense	\$26,365	\$2,122	\$5,992	\$0	\$470	\$23,047	\$0	\$588
24		Depreciation and Amortization - All	\$29,491	\$2,234	\$6,703	\$0	\$495	\$25,780	\$0	\$619
25	403/404/406/407	Intangible Plant	12,432	0	2,825	0	0	10,867	0	0
26	403/404/406	Transmission Plant	123,525	18,122	28,074	0	2,749	107,879	0	3,438
27	403/404/406	Distribution Plant	26,365	2,122	5,992	0	470	23,047	0	588
28		Total Depreciation and Amortization - All	\$181,813	\$22,477	\$43,594	\$0	\$3,714	\$167,872	\$0	\$4,645
29	431	Total Interest on Customer Deposits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
30		Taxes Other Than Income Taxes								
31	408	Property Tax - Transmission	\$4,697	\$0	\$1,067	\$0	\$0	\$4,106	\$0	\$0
32	408	Property Tax - Distribution	113,540	0	25,805	0	0	99,251	0	0
33	408	Property Tax - General	3,337	293	758	0	65	2,917	0	81
34	408	Payroll Taxes - General	23,600	0	5,376	0	0	20,055	0	0
35	408	Medical and Dental	3,812	0	868	0	0	3,239	0	0
36	408	Other	1,620	142	368	0	32	1,416	0	39
37		Total Taxes Other Than Income Taxes	\$150,606	\$436	\$34,243	\$0	\$97	\$130,983	\$0	\$121
38		Income Taxes								
39	409	Current Income Tax - State & Federal	\$23,144	\$1,862	\$5,260	\$0	\$413	\$20,231	\$0	\$516
40	410	Deferred IT - Federal & State (debits)	301,807	24,288	68,593	0	5,383	263,823	0	6,730
41	411	Deferred IT - Federal & State (credits)	(185,627)	(14,938)	(42,188)	0	(3,311)	(162,264)	0	(4,139)
42		Total Income Taxes	\$139,325	\$11,212	\$31,665	\$0	\$2,485	\$121,790	\$0	\$3,107
43		Total Operating Expense - Excluding Income Taxes	\$996,663	\$105,667	\$223,792	\$0	\$19,846	\$823,804	\$0	\$30,397
44		Total Operating Expense - Including Taxes	\$1,125,988	\$116,879	\$255,457	\$0	\$22,331	\$945,593	\$0	\$33,503

UNSGAS, INC.
CLASS COST OF SERVICE STUDY
EXPENSE ALLOCATION TO CLASSES OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	FERC Account	DESCRIPTION	ALLOCA	DEMAND	LIGHT (PA-44) COMMODITY	CUSTOMER	DEMAND	IRRIGATION (IR-60) COMMODITY	CUSTOMER
Depreciation and Amortization									
Intangible Plant Depreciation Expense									
1	302	Franchises and Consents							
2	303	Miscellaneous Intangible Plant							
3	407	Deferred Y2K							
4	407	Deferred CARES							
5	407	Rate Case Expense							
6	407	Prescott Building Sale - Gain Sharing (50%)							
7		Total Intangible Plant Depreciation Expense	\$7	\$0	\$0	\$0	\$74	\$0	\$8
8	856-870	Total Transmission Depreciation	\$3	\$0	\$0	\$0	\$31	\$0	\$0
9									
10									
11									
12	374	Distribution Plant Depreciation Expense							
13	375	Land and Land Rights							
14	375	Structures & Improvements							
15	378	Mains							
16	378	Meas. & Reg. Station Equip. - General							
17	380	Meas. & Reg. Station Equip. - City Gate							
18	381	Services							
19	382	Meters							
20	382	Meter Installations							
21	384	House Regulators							
22	385	House Regulatory Installations							
23	387	Industrial Meas. & Reg. Station Equipment							
24		Other Equipment							
25		Total All Distribution Depreciation Expense	\$30	\$0	\$0	\$0	\$309	\$0	\$66
26									
27									
28		Total General Plant Depreciation Expense	\$6	\$0	\$0	\$0	\$66	\$0	\$8
29	403/404/406/407	Depreciation and Amortization - All	\$7	\$0	\$0	\$0	\$74	\$0	\$8
30	403/404/406	Intangible Plant	3	0	0	0	31	0	0
31	403/404/406	Distribution Plant	30	0	0	0	309	0	66
32	403/404/406	General Plant	6	0	0	0	66	0	8
33		Total Depreciation and Amortization - All	\$47	\$0	\$0	\$0	\$479	\$0	\$82
34									
35	431	Total Interest on Customer Deposits	\$0	\$0	\$0	\$0	\$0	\$0	\$0
36									
37									
38	408	Taxes Other Than Income Taxes	\$1	\$0	\$0	\$0	\$12	\$0	\$0
39	408	Property Tax - Transmission	28	0	0	0	284	0	0
40	408	Property Tax - Distribution	1	0	0	0	8	0	1
41	408	Payroll Taxes - General	6	0	0	0	61	0	0
42	408	Payroll Taxes - FUTA, SUTA, FICA & Medicare	1	0	0	0	10	0	0
43	408	Medical and Dental	0	0	0	0	4	0	1
44	408	Other	0	0	0	0	0	0	0
45		Total Taxes Other Than Income Taxes	\$37	\$0	\$0	\$0	\$378	\$0	\$2
46									
47	409	Income Taxes	\$6	\$0	\$0	\$0	\$58	\$0	\$7
48	410	Current Income Tax - State & Federal	73	0	0	0	754	0	88
49	411	Deferred IT - Federal & State (debits)	(45)	0	0	0	(464)	0	(54)
50		Deferred IT - Federal & State (credits)	\$34	\$0	\$0	\$0	\$348	\$0	\$41
51		Total Income Taxes	\$25	\$0	\$0	\$0	\$258	\$0	\$41
52		Total Operating Expense - Excluding Income Taxes	\$505	\$0	\$14	\$14	\$2,620	\$0	\$448
53									
54		Total Operating Expense - Including Taxes	\$539	\$0	\$14	\$14	\$2,968	\$0	\$489

UNIS GAS, INC.
CLASS COST OF SERVICE STUDY
DISTRIBUTION OF RATE BASE BY FUNCTION
FOR THE PERIOD ENDING DECEMBER 31, 2010

LINE NO.	FERC ACCT.	TOTAL COMPANY	DEMAND	COMMODITY	CUSTOMER	TRANSMISSION PLANT	DEMAND		OTHER	COMMODITY
							MAIN	REGULATOR		
Plant in Service										
Intangible Plant										
1	302		\$314,286	\$0	\$108,713	\$14,852	\$183,211	\$5,956	\$1,555	\$0
2	303		\$65,429	0	300,393	41,038	506,245	16,458	4,296	0
3			\$1,192,715	\$0	\$409,106	\$55,689	\$689,455	\$22,414	\$5,860	\$0
4										
5	365		\$71,171	\$0	\$0	\$71,171	\$0	\$0	\$0	\$0
6	366		15,411	0	0	15,411	0	0	0	0
7	367		18,624,163	0	0	18,624,163	0	0	0	0
8	369		478,502	0	0	478,502	0	0	0	0
9			(28,845)	0	0	(28,845)	0	0	0	0
10	371		\$19,160,402	\$0	\$0	\$19,160,402	\$0	\$0	\$0	\$0
11										
12										
13										
14	374		\$254,732	\$0	\$0	\$0	\$0	\$0	\$254,732	\$0
15	375		16,168	0	0	0	0	0	16,168	0
16	376		236,364,273	0	0	0	236,364,273	0	0	0
17	378		4,680,013	0	0	0	0	4,680,013	0	0
18	379		3,003,971	0	0	0	0	3,003,971	0	0
19	380		105,807,813	0	105,807,813	0	0	0	0	0
20	381		14,477,528	0	14,477,528	0	0	0	0	0
21	382		11,241,795	0	11,241,795	0	0	0	0	0
22	383		3,463,787	0	3,463,787	0	0	0	0	0
23	384		2,317,105	0	2,317,105	0	0	0	0	0
24	385		2,944,642	0	2,944,642	0	0	0	0	0
25	387		1,734,759	0	1,734,759	0	0	0	1,734,759	0
26			\$386,306,687	\$0	\$140,252,670	\$0	\$236,364,273	\$7,683,965	\$2,005,659	\$0
27										
28			\$405,466,989	\$0	\$140,252,670	\$19,160,402	\$236,364,273	\$7,683,965	\$2,005,659	\$0
29										
30										
31	389		\$344,920	\$225,611	\$119,309	\$16,299	\$201,069	\$6,537	\$1,706	\$0
32	390		6,441,157	4,213,135	2,228,022	304,378	3,754,830	122,066	31,861	0
33	391		1,706,031	1,115,908	590,123	80,619	994,519	32,331	8,439	0
34	392		8,690,332	5,684,311	3,006,021	410,663	5,065,971	164,690	42,887	0
35	393		235,157	153,815	81,342	11,112	137,083	4,456	1,163	0
36	394		2,591,481	1,695,077	896,404	122,451	1,510,687	49,111	12,819	0
37	395		493,497	322,795	170,703	23,320	287,661	9,352	2,441	0
38	396		1,673,233	1,094,455	578,778	79,069	975,400	31,709	8,277	0
39	397		969,680	634,264	335,416	45,822	565,269	18,376	4,797	0
40	398		290,044	189,717	100,327	13,706	169,079	5,497	1,435	0
41			\$23,435,533	\$15,329,088	\$8,106,446	\$1,107,450	\$13,661,568	\$444,126	\$115,925	\$0
42										
43										
44	101/114		\$1,162,715	\$773,609	\$409,106	\$55,889	\$689,455	\$22,414	\$5,850	\$0
45	101/114		19,160,402	19,160,402	0	19,160,402	0	0	0	0
46	101/114		386,306,587	246,053,917	140,252,670	0	236,364,273	7,683,985	2,005,659	0
47	101/114		23,435,533	15,329,088	8,106,446	1,107,450	13,661,568	444,126	115,925	0
48			\$430,085,237	\$281,317,015	\$148,768,222	\$20,323,741	\$250,715,316	\$8,150,624	\$2,127,434	\$0

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
DISTRIBUTION OF RATE BASE BY FUNCTION
FOR THE PERIOD ENDING DECEMBER 31, 2010

LINE NO.	FERC ACCT.	SERVICES	METERS	REGULATORS	METER READING	RECORD	OTHER
Plant In Service							
Intangible Plant							
1	302	Franchises and Consents					
2	303	Miscellaneous Intangible Plant	\$82,014	\$19,936	\$6,763	\$0	\$0
3			226,619	55,086	16,688	0	0
4		Total Intangible Plant	\$308,633	\$75,021	\$25,452	\$0	\$0
Transmission Plant							
5	365	Land and Land Rights	\$0	\$0	\$0	\$0	\$0
6	366	Structures & Improvements	0	0	0	0	0
7	367	Mains	0	0	0	0	0
8	369	Measuring and Reg. Station Equipment	0	0	0	0	0
9	371	Other Equipment	0	0	0	0	0
10		Total Transmission Plant	\$0	\$0	\$0	\$0	\$0
Distribution Plant							
11	374	Land and Land Rights	\$0	\$0	\$0	\$0	\$0
12	375	Structures & Improvements	0	0	0	0	0
13	376	Mains	0	0	0	0	0
14	378	Meas. & Reg. Station Equip - General	0	0	0	0	0
15	379	Meas. & Reg. Station Equip - City Gate	0	0	0	0	0
16	380	Services	0	0	0	0	0
17	381	Meters	105,807,813	0	0	0	0
18	382	Meter Installations	0	14,477,528	0	0	0
19	383	House Regulators	0	11,241,795	0	0	0
20	384	House Regulatory Installations	0	0	0	0	0
21	385	Industrial Meas. & Reg. Station Equipment	0	0	3,463,787	0	0
22	386	Other Equipment	0	0	2,317,105	0	0
23	387	Total Distribution Plant	\$0	\$25,719,324	\$8,725,634	\$0	\$0
24		Plant In Service - Trans. & Dist.	\$105,807,813	\$25,719,324	\$8,725,634	\$0	\$0
25		General Plant	\$105,807,813	\$25,719,324	\$8,725,634	\$0	\$0
General Plant							
26	389	Land and Rights	\$90,008	\$21,879	\$7,423	\$0	\$0
27	390	Structures & Improvements	1,860,639	408,571	138,612	0	0
28	391	Office Furniture and Equipment	445,194	108,216	36,713	0	0
29	392	Transportation Equipment	2,267,768	551,240	187,013	0	0
30	393	Stores Equipment	61,365	14,916	5,061	0	0
31	394	Tools, Shop and Garage Equipment	676,255	164,381	55,768	0	0
32	395	Laboratory Equipment	128,780	31,303	10,620	0	0
33	396	Power Operated Equipment	436,635	106,135	36,007	0	0
34	397	Communication Equipment	253,041	61,508	20,867	0	0
35	398	Miscellaneous Equipment	75,688	18,398	6,242	0	0
36	399	Total General Plant	\$6,115,572	\$1,486,548	\$504,326	\$0	\$0
37		Plant In Service - All	\$308,633	\$75,021	\$25,452	\$0	\$0
38	101/114	Intangible Plant	0	0	0	0	0
39	101/114	Transmission Plant	105,807,813	25,719,324	8,725,634	0	0
40	101/114	Distribution Plant	6,115,572	1,486,548	504,326	0	0
41	101/114	General Plant					
42		Total Plant In Service	\$112,232,018	\$27,280,693	\$9,255,312	\$0	\$0

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
DISTRIBUTION OF RATE BASE BY FUNCTION
FOR THE PERIOD ENDING DECEMBER 31, 2010

LINE NO.	FERC ACCT.	SERVICES	METERS	CUSTOMER REGULATORS	METER READING	RECORD	OTHER
Less: Accumulated Depreciation (AD)							
Intangible Plant							
1	302	Franchises & Consents	\$51,748	\$12,579	\$4,267	\$0	\$0
2	303	Miscellaneous Intangible Plant (Software)	125,981	30,623	10,389	0	0
3		Total Intangible Plant AD	\$177,729	\$43,202	\$14,657	\$0	\$0
4							
5	365	Transmission Plant	\$0	\$0	\$0	\$0	\$0
6	366	Land & Land Rights	0	0	0	0	0
7	367	Structures & Improvements	0	0	0	0	0
8	367	Mains	0	0	0	0	0
9	369	Measuring and Reg. Station Equipment	0	0	0	0	0
10	371	Other Equipment	0	0	0	0	0
11		Total Transmission Plant AD	\$0	\$0	\$0	\$0	\$0
12							
13		Distribution Plant					
14	374	Land & Rights	\$0	\$0	\$0	\$0	\$0
15	375	Structures & Improvements	0	0	0	0	0
16	376	Mains	0	0	0	0	0
17	378	Measuring and Regulating	0	0	0	0	0
18	379	Measuring and Regulating - City Gas	0	0	0	0	0
19	380	Services	38,426,178	0	0	0	0
20	381	Meters	0	6,745,099	0	0	0
21	382	Meter Installations	0	2,276,966	0	0	0
22	383	Regulators	0	0	1,431,072	0	0
23	384	Regulator Installations	0	0	430,857	0	0
24	385	Industrial Measuring & Regulating	0	0	1,112,928	0	0
25	387	Other Equipment	0	0	0	0	0
26		Total Distribution Plant AD	\$38,426,178	\$9,022,085	\$2,974,857	\$0	\$0
27							
28		General Plant					
29	389	Land & Rights	\$4,210	\$1,023	\$347	\$0	\$0
30	390	Structures & Improvements	254,931	61,967	21,023	0	0
31	391	Office Furniture & Equipment	303,345	73,736	25,016	0	0
32	392	Transportation Equipment	1,702,444	413,823	140,394	0	0
33	393	Stores Equipment	14,798	3,597	1,220	0	0
34	394	Tools, Shop, & Garage Equipment	261,804	63,663	21,598	0	0
35	395	Laboratory Equipment	54,234	13,163	4,472	0	0
36	396	Power Operated Equipment	205,597	48,976	16,965	0	0
37	397	Communication Equipment	118,157	28,721	9,744	0	0
38	398	Miscellaneous Equipment	35,091	8,530	2,894	0	0
39		Total General Plant AD	\$2,954,712	\$718,219	\$243,663	\$0	\$0
40							
41		Accumulated Depreciation - All					
42	108/115	Intangible Plant Accum. Depreciation	\$177,729	\$43,202	\$14,657	\$0	\$0
43	108/115	Transmission Plant Accum. Depreciation	0	0	0	0	0
44	108/115	Distribution Plant Accum. Depreciation	38,426,178	9,022,085	2,974,857	0	0
45	108/115	General Plant Accum. Depreciation	2,954,712	718,219	243,663	0	0
46		Total Accum. Depreciation - All	\$41,558,618	\$9,783,506	\$3,233,176	\$0	\$0
47							
48							
49		TOTAL NET PLANT	\$70,673,399	\$17,497,387	\$6,022,135	\$0	\$0
50							

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
DISTRIBUTION OF RATE BASE BY FUNCTION
FOR THE PERIOD ENDING DECEMBER 31, 2010

LINE NO.	FERC ACCT.	SERVICES	METERS	CUSTOMER REGULATORS	METER READING	RECORD	OTHER
51		Working Capital					
52	N/A	Cash Working Capital	\$148,522	\$215,194	\$74,064	\$363,905	\$89,521
53	154, 163	Materials & Supplies	533,781	129,749	44,019	0	0
54	165	Prepayments	78,270	19,026	6,455	0	0
55		Total Working Capital	\$760,573	\$363,969	\$124,537	\$363,905	\$89,521
56							
57		Less: Customer Contributions					
58	252	Customer Advances for Construction	(\$2,909,936)	(\$707,395)	(\$239,970)	\$0	\$0
59	235	Customer Deposits	(816,707)	(1,985,522)	(67,350)	0	0
60		Total Contributions	(\$3,726,643)	(\$905,857)	(\$307,321)	\$0	\$0
61							
62		SUBTOTAL RATE BASE	\$67,707,329	\$16,955,499	\$5,639,352	\$94,768	\$89,521
63							
64		Other Rate Base					
65	182.3	Regulatory Assets - CARES	\$0	\$0	\$0	\$0	\$0
66	242	Regulatory Liabilities - Warm Spirit	0	0	0	0	0
67		Total Other Rate Base	\$0	\$0	\$0	\$0	\$0
68							
69		Less: Accumulated Deferred Taxes (ADIT)					
70	190	ADIT	\$2,620,367	\$636,948	\$216,091	\$0	\$0
71	282	ADIT - Other Property	(10,443,234)	(2,538,488)	(861,210)	0	0
72	283	ADIT - Other	(50,109)	(12,160)	(4,132)	0	0
73		Total Accumulated Deferred Taxes (ADIT)	(\$7,872,976)	(\$1,913,730)	(\$649,252)	\$0	\$0
74							
75		TOTAL RATE BASE	\$59,834,353	\$15,041,768	\$5,190,100	\$94,768	\$89,521

UNIS GAS, INC.
CLASS COST OF SERVICE STUDY
DISTRIBUTION OF EXPENSE BY FUNCTION
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

LINE NO.	FERC ACCT.	TOTAL COMPANY	DEMAND		TRANSMISSION	DEMAND		COMMODITY				
			COMPANY	COMMODITY		CUSTOMER	MAIN	DISTRIBUTION REGULATOR	OTHER	GAS	OTHER	
1	805		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	807		509,543	0	509,543	0	0	0	0	0	0	509,543
3			\$509,543	\$0	\$509,543	\$0	\$0	\$0	\$0	\$0	\$0	\$509,543
4												
5												
6	856		\$677	\$677	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	857		0	0	0	0	0	0	0	0	0	0
8	864		0	0	0	0	0	0	0	0	0	0
9	870		466,990	466,990	0	0	0	0	0	0	0	0
10			\$467,667	\$467,667	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11												
12												
13	871		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
14	874		1,716,859	1,228,135	0	488,724	0	1,228,135	0	0	0	0
15	875		249,133	249,133	0	0	0	0	0	249,133	0	0
16	876		151,061	151,061	0	0	0	0	0	151,061	0	0
17	877		48,511	48,511	0	0	0	0	0	48,511	0	0
18	878		1,626,422	1,626,422	0	0	0	0	0	0	0	0
19	879		861,268	0	0	0	0	0	0	0	0	0
20	880		1,734,053	1,146,509	0	587,544	0	1,107,998	0	38,712	0	0
21	881		33,909	33,909	0	0	0	32,764	0	1,145	0	0
22	885		341,186	225,583	0	115,603	0	217,966	0	7,617	0	0
23	887		804,797	804,797	0	0	0	804,797	0	0	0	0
24	888		1,208	799	0	409	0	772	0	27	0	0
25	889		30,140	30,140	0	0	0	0	0	30,140	0	0
26	890		8	8	0	0	0	0	0	8	0	0
27	891		2,207	2,207	0	0	0	0	0	2,207	0	0
28	892		506,626	0	0	506,626	0	0	0	0	0	0
29	893		359,650	0	0	359,650	0	0	0	0	0	0
30	894		53,187	53,187	0	0	0	0	0	0	0	0
31			\$8,520,226	\$3,973,980	\$0	\$4,546,246	\$0	\$3,392,232	\$528,561	\$53,187	\$0	\$0
32												
33												
34	901		\$46,558	\$0	\$0	\$46,558	\$0	\$0	\$0	\$0	\$0	\$0
35	902		994,225	0	0	994,225	0	0	0	0	0	0
36	903		3,817,775	0	0	3,817,775	0	0	0	0	0	0
37	904		634,182	0	0	634,182	0	0	0	0	0	0
38	905		5,104	0	0	5,104	0	0	0	0	0	0
39	907		0	0	0	0	0	0	0	0	0	0
40	908		90,684	0	0	90,684	0	0	0	0	0	0
41	909		206,970	0	0	206,970	0	0	0	0	0	0
42	910		0	0	0	0	0	0	0	0	0	0
43	913		2,239	0	0	2,239	0	0	0	0	0	0
44			\$5,797,737	\$0	\$0	\$5,797,737	\$0	\$0	\$0	\$0	\$0	\$0
45												
46			\$14,785,630	\$4,441,647	\$0	\$10,343,982	\$467,667	\$3,392,232	\$528,561	\$53,187	\$0	\$0

TOTAL EXPENSE EXCLUD A&G & GAS

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
DISTRIBUTION OF EXPENSE BY FUNCTION
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

LINE NO.	FERC ACCT.	SERVICES	METERS	REGULATORS	CUSTOMER METER READING	RECORD	OTHER
1	805	Purchased Gas Expense	\$0	\$0	\$0	\$0	\$0
2	807	Purchased Gas Expense	0	0	0	0	0
3		Total Purchased Gas Expense	\$0	\$0	\$0	\$0	\$0
4							
5		Transmission Expense					
6	856	Mains Expense	\$0	\$0	\$0	\$0	\$0
7	857	Measuring and Regulating Station	0	0	0	0	0
8	864	Maintenance of Compressor Station Equipment	0	0	0	0	0
9	870	Operation Supervision and Engineering	0	0	0	0	0
10		Total Purchased Gas Expense	\$0	\$0	\$0	\$0	\$0
11							
12		Distribution Expense					
13	871	Distribution Load Dispatching	\$0	\$0	\$0	\$0	\$0
14	874	Mains and Services	488,724	0	0	0	0
15	875	Measuring and Regulating Station - General	0	0	0	0	0
16	876	Measuring and Regulating Station - Industrial	0	0	0	0	0
17	877	Measuring and Regulating Station - City Gate	0	0	0	0	0
18	878	Meier and House Regulator	0	0	0	0	0
19	879	Customer Installations	0	1,209,979	416,443	0	0
20	880	Other Expenses	440,837	640,742	220,526	0	0
21	881	Rents	0	109,143	37,564	0	0
22	885	Maintenance Supervision & Engineering	86,737	21,475	7,391	0	0
23	887	Maintenance of Mains	0	0	0	0	0
24	888	Maint. of Compressor Station Equipment	307	76	26	0	0
25	889	Maint. of Measure & Regulate Station Equip - General	0	0	0	0	0
26	890	Maint. of Measure & Regulate Station Equip - Industrial	0	0	0	0	0
27	891	Maint. of Measure & Regulate Station Equip - City Gate	0	0	0	0	0
28	892	Maintenance of Services	506,626	0	0	0	0
29	893	Maintenance of Meters and House Regulators	0	267,562	92,088	0	0
30	894	Maintenance of Other Equipment	0	0	0	0	0
31		Total Distribution Gas Expense	\$1,523,231	\$2,248,977	\$774,038	\$0	\$0
32							
33		Customer Account Expense					
34	901	Supervision	\$34,933	\$8,649	\$2,977	\$0	\$0
35	902	Meter Reading	0	0	0	994,225	0
36	903	Customer Records and Collection	0	0	0	0	0
37	904	Uncollectible Accounts	0	0	0	3,817,775	0
38	905	Miscellaneous Customer Accounts	0	0	0	0	634,162
39	907	Supervision - Customer Service	0	0	0	0	5,104
40	908	Customer Assistance	0	0	0	0	0
41	909	Informational and Instructional Advertising	0	0	0	0	90,684
42	910	Miscellaneous Customer Service and Informational Advertising Expenses	0	0	0	0	206,970
43	913	Total Purchased Gas Expense	\$34,933	\$8,649	\$2,977	\$994,225	\$939,179
44							
45		TOTAL EXPENSE EXCLUD A&G & GAS	\$1,558,164	\$2,257,625	\$777,015	\$994,225	\$939,179

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
DISTRIBUTION OF EXPENSE BY FUNCTION
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

LINE NO.	FERC ACCT.	TOTAL COMPANY	DEMAND	COMMODITY	CUSTOMER	TRANSMISSION	DEMAND			COMMODITY		
							MAIN	DISTRIBUTION	OTHER	MAIN	DISTRIBUTION	OTHER
1	920	\$3,755,016	\$1,128,018	\$0	\$2,626,998	\$118,771	\$861,504	\$134,235	\$13,508	\$0	\$0	\$0
2	921	956,003	287,186	0	668,817	30,238	219,333	34,175	3,439	0	0	0
3	922	(1,005,173)	(301,957)	0	(703,216)	(31,793)	(230,614)	(35,933)	(3,616)	0	0	0
4	923	1,093,093	328,368	0	764,725	34,574	250,786	39,076	3,932	0	0	0
5	924	13,384	4,021	0	9,364	423	3,071	478	48	0	0	0
6	925	613,032	184,157	0	428,875	19,390	140,647	21,915	2,205	0	0	0
7	926	3,291,406	988,748	0	2,302,658	104,107	755,140	117,662	11,840	0	0	0
8	930	512,743	154,030	0	358,714	16,218	117,637	18,330	1,844	0	0	0
9	931	109,831	32,994	0	76,837	3,474	25,198	3,926	395	0	0	0
10	932	80,122	24,069	0	56,053	2,534	18,382	2,864	288	0	0	0
11	928	311,111	93,459	0	217,652	9,840	71,377	11,122	1,119	0	0	0
12		\$9,730,568	\$2,923,092	\$0	\$6,807,476	\$307,776	\$2,232,461	\$347,851	\$35,003	\$0	\$0	\$0
13		\$25,025,741	\$7,364,739	\$509,543	\$17,151,459	\$775,443	\$5,624,693	\$878,412	\$88,190	\$509,543	\$0	\$0
14												
15												
16												
17												
18	302	\$12,304	\$8,048	\$0	\$4,256	\$581	\$7,173	\$233	\$61	\$0	\$0	\$0
19	303	962,759	629,737	0	333,022	45,495	561,234	18,245	4,762	0	0	0
20	407	0	0	0	0	0	0	0	0	0	0	0
21	407	41,049	41,049	0	0	0	0	0	41,049	0	0	0
22	407	(0)	(0)	0	(0)	(0)	(0)	(0)	(0)	0	0	0
23	407	0	0	0	0	0	0	0	0	0	0	0
24		\$1,016,113	\$679,835	\$0	\$337,276	\$46,077	\$568,407	\$18,478	\$45,873	\$0	\$0	\$0
25												
26												
27	365	\$918	\$918	\$0	\$0	\$918	\$0	\$0	\$0	\$0	\$0	\$0
28	366	173	173	0	0	173	0	0	0	0	0	0
29	367	255,777	255,777	0	0	255,777	0	0	0	0	0	0
30	369	38,186	38,186	0	0	38,186	0	0	0	0	0	0
31	371	(764)	(764)	0	(764)	(764)	0	0	0	0	0	0
32		\$294,230	\$294,230	\$0	\$0	\$294,230	\$0	\$0	\$0	\$0	\$0	\$0
33												
34												
35	374	\$1,347	\$1,347	\$0	\$0	\$0	\$0	\$0	\$1,347	\$0	\$0	\$0
36	375	172	172	0	0	172	0	0	172	0	0	0
37	376	2,715,830	2,715,830	0	0	0	2,715,830	0	0	0	0	0
38	378	108,102	108,102	0	0	0	0	108,102	0	0	0	0
39	379	73,364	73,364	0	0	0	0	73,364	0	0	0	0
40	380	2,065,088	2,065,088	0	0	0	0	0	0	0	0	0
41	381	186,477	186,477	0	0	186,477	0	0	0	0	0	0
42	382	166,799	166,799	0	0	166,799	0	0	0	0	0	0
43	383	59,538	59,538	0	0	59,538	0	0	0	0	0	0
44	384	41,824	41,824	0	0	41,824	0	0	0	0	0	0
45	385	36,364	36,364	0	0	36,364	0	0	0	0	0	0
46	387	25,356	25,356	0	0	25,356	0	0	25,356	0	0	0
47		\$5,480,261	\$2,924,171	\$0	\$2,556,090	\$0	\$2,715,830	\$181,466	\$26,875	\$0	\$0	\$0
48		\$6,790,664	\$3,897,295	\$0	\$2,893,368	\$340,367	\$3,284,237	\$199,944	\$72,748	\$0	\$0	\$0
49												

TOTAL DEPRECIATION EXPENSE EXCLUDING GENERAL

UNGS GAS, INC.
CLASS COST OF SERVICE STUDY
DISTRIBUTION OF EXPENSE BY FUNCTION
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

LINE NO.	FERC ACCT.	SERVICES	METERS	REGULATORS	CUSTOMER METER READING	RECORD	OTHER
1	920	Administrative and General Expense					
2	921	Administrative and General Salaries	\$395,717	\$197,334	\$252,497	\$969,577	\$238,517
3	922	Office Supplies and Expenses	100,747	50,240	64,284	246,848	60,725
4	923	Administrative Expenses Transferred - Credit	(105,929)	(52,824)	(67,590)	(259,544)	(63,848)
5	924	Outside Services Employed	115,194	57,444	73,502	282,246	89,433
6	925	Property Insurance	1,411	703	900	3,456	850
7	926	Injuries and Damages	64,604	32,216	41,222	158,290	38,940
8	928	Employee Pension and Benefits	346,860	172,970	221,323	849,869	209,069
9	931	Miscellaneous General Expenses	54,035	26,946	34,478	132,395	32,569
10	932	Rents	11,574	5,772	7,385	28,659	6,976
11	928	Maintenance of General Plant	8,444	4,211	5,388	20,688	5,089
12		Regulatory Commission Expense	32,786	16,350	20,920	80,332	19,762
13		Total Purchased Gas Expense	\$1,025,443	\$1,485,765	\$511,361	\$2,512,515	\$618,063
14		Total Operation and Maintenance Expense	\$2,583,606	\$3,743,391	\$1,288,376	\$6,330,290	\$1,557,262
15		Depreciation and Amortization					
16		Intangible Plant Depreciation Expense					
17	302	Franchises and Consents	\$3,211	\$780	\$0	\$0	\$0
18	303	Miscellaneous Intangible Plant	251,235	61,069	20,718	0	0
19	407	Deferred Y2K	0	0	0	0	0
20	407	Deferred CARES	0	0	0	0	0
21	407	Rate Case Expense	(0)	(0)	(0)	0	0
22	407	Prescott Building Sale - Gain Sharing (50%)	(0)	(0)	(0)	0	0
23	407	Total Intangible Plant Depreciation Expense	\$254,446	\$61,850	\$20,983	\$0	\$0
24		Transmission Plant Depreciation Expense					
25	365	Land and Land Rights	\$0	\$0	\$0	\$0	\$0
26	366	Structures & Improvements	0	0	0	0	0
27	367	Mains	0	0	0	0	0
28	369	Measuring and Reg. Station Equipment	0	0	0	0	0
29	371	Other Equipment	0	0	0	0	0
30		Total Transmission Depreciation	\$0	\$0	\$0	\$0	\$0
31		Distribution Plant Depreciation Expense					
32	374	Land and Land Rights	\$0	\$0	\$0	\$0	\$0
33	375	Structures & Improvements	0	0	0	0	0
34	376	Mains	0	0	0	0	0
35	378	Meas. and Reg. Station Equipment - General	0	0	0	0	0
36	379	Meas. and Reg. Station Equipment - City Gate	0	0	0	0	0
37	380	Services	2,065,088	0	0	0	0
38	381	Meters	0	186,477	0	0	0
39	382	Meter Installations	0	166,799	0	0	0
40	383	House Regulators	0	0	0	0	0
41	384	House Regulatory Installations	0	59,538	0	0	0
42	385	Industrial Meas. & Reg. Station Equipment	0	41,824	0	0	0
43	387	Other Equipment	0	36,364	0	0	0
44		Total All Distribution Depreciation Expense	\$2,065,088	\$353,276	\$137,726	\$0	\$0
45		TOTAL DEPRECIATION EXPENSE EXCLUDING GENERAL	\$2,919,534	\$415,125	\$158,709	\$0	\$0
46		TOTAL DEPRECIATION EXPENSE	\$2,919,534	\$415,125	\$158,709	\$0	\$0

UNS GAS, INC.
CLASS COST OF SERVICE STUDY
DISTRIBUTION OF EXPENSE BY FUNCTION
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

LINE NO.	FERC ACCT.	TOTAL COMPANY	DEMAND			CUSTOMER	TRANSMISSION	DEMAND			COMMODITY	OTHER
			COMMODITY	REGULATOR	OTHER			MAIN	DISTRIBUTION	REGULATOR		
General Plant Depreciation Expense												
1	389	Land and Rights										
2	390	Structures & Improvements	(\$1,401)	(\$916)	\$0	(\$484)	(\$66)	(\$616)	(\$27)	(\$7)	\$0	\$0
3	391	Office Furniture and Equipment	232,342	151,974	0	80,368	10,979	135,442	4,403	1,149	0	0
4	392	Transportation Equipment	384,089	251,231	0	132,858	18,150	223,902	7,279	1,900	0	0
5	393	Stores Equipment	0	0	0	0	0	0	0	0	0	0
6	394	Tools, Shop and Garage Equipment	4,610	3,016	0	1,595	218	2,688	87	23	0	0
7	395	Laboratory Equipment	71,426	46,720	0	24,707	3,375	41,638	1,354	353	0	0
8	396	Power Operated Equipment	53,160	34,772	0	18,388	2,512	30,989	1,007	263	0	0
9	397	Communication Equipment	121,323	79,357	0	41,966	5,733	70,725	2,299	600	0	0
10	398	Miscellaneous Equipment	52,823	34,551	0	18,272	2,496	30,793	1,001	261	0	0
11		Total General Plant Depreciation Expense	7,798	5,100	0	2,697	368	4,546	148	39	0	0
12			\$926,170	\$605,804	\$0	\$320,366	\$43,766	\$539,905	\$17,552	\$4,561	\$0	\$0
Depreciation and Amortization - All												
13		Intangible Plant										
14	14	Transmission Plant	\$1,016,113	\$678,835	\$0	\$337,278	\$46,077	\$568,407	\$18,478	\$45,873	\$0	\$0
15	15	Distribution Plant	294,290	294,290	0	0	294,290	0	0	0	0	0
16	16	General Plant	5,480,261	2,824,171	0	2,556,090	43,766	2,715,830	181,466	26,875	0	0
17		Total Depreciation and Amortization - All	926,170	605,804	\$0	320,366	\$384,133	\$3,824,141	\$217,496	\$77,329	\$0	\$0
Interest on Customer Deposits												
20		Customer Deposit Interest Expense	78,775	78,775	0	0	0	0	0	0	0	0
21	431	Total Interest on Customer Deposits	\$78,775	\$78,775	\$0	\$0	\$0	\$0	\$0	\$78,775	\$0	\$0
Taxes Other Than Income Taxes												
24		Property Tax - Transmission	\$111,184	\$111,184	\$0	\$0	\$111,184	\$0	\$0	\$0	\$0	\$0
25	408	Property Tax - Distribution	2,687,811	1,777,108	0	910,703	0	1,717,105	60,004	0	0	0
26	408	Property Tax - General	120,773	78,997	0	41,776	5,707	70,404	2,289	597	0	0
27	408	Payroll Taxes - FUTA, SUTA, FICA & Medicare	556,978	167,318	0	389,660	17,617	127,786	19,911	2,004	0	0
28	408	Medical and Dental	89,957	27,023	0	62,933	2,845	20,639	3,216	324	0	0
29	408	Other	58,624	36,345	0	20,278	2,770	34,174	1,111	290	0	0
30	408	Total Taxes Other Than Income Taxes	\$3,625,326	\$2,195,976	\$0	\$1,425,350	\$140,124	\$1,970,107	\$86,530	\$3,215	\$0	\$0
31		TOTAL OPERATING EXPENSE - EXCLUD. INCOME TAX	\$36,446,676	\$14,146,589	\$509,543	\$21,790,543	\$1,299,701	\$11,418,942	\$1,180,438	\$247,509	\$509,543	\$0
32		Income Taxes										
33		Current Income Tax - State & Federal	\$812,997	\$531,778	\$0	\$281,219	\$38,418	\$473,931	\$15,407	\$4,022	\$0	\$0
34	409	Deferred IT - Federal & State (debits)	10,601,944	6,934,689	0	3,667,255	500,996	6,180,332	200,917	\$2,443	0	0
35	410	Deferred IT - Federal & State (credits)	(6,520,723)	(4,265,178)	0	(2,255,544)	(308,138)	(3,801,212)	(123,574)	(32,255)	0	0
36	411	Total Income Taxes	\$4,894,218	\$3,201,288	\$0	\$1,682,930	\$231,277	\$2,853,052	\$92,750	\$24,209	\$0	\$0
37		TOTAL OPERATING EXPENSE - INCLUDE. INCOME TAX	\$41,340,894	\$17,347,878	\$509,543	\$23,473,473	\$1,530,978	\$14,271,994	\$1,273,188	\$271,718	\$509,543	\$0

UNS GAS REVENUES AND UNIT COST

TEST YEAR PERIOD ENDING DECEMBER 31, 2010

LINE NO.	REVENUES	TOTAL COMPANY						SMALL COMMERCIAL	LARGE COMMERCIAL	SMALL INDUSTRIAL	LARGE INDUSTRIAL	SMALL PUBLIC LARGE PUBL		LIGHTING	IRRIGATION
		TOTAL	RESIDENTIAL	COMMERCIAL	COMMERCIAL	INDUSTRIAL	INDUSTRIAL					AUTHORITY	AUTHORITY		
1	CAPACITY COMPONENTS	\$25,314,400	\$16,443,806	\$6,340,438	\$479,242	\$77,481		\$559,446	\$1,065,320	\$339,320	\$1,330	\$8,017			
2	PRODUCTION DEMAND COMP	\$509,543	\$332,985	\$130,529	\$6,877	\$2,146		\$6,780	\$24,163	\$5,927	\$8	\$129			
3	TRANSMISSION DEMAND COMP	\$2,088,733	\$1,330,824	\$515,947	\$38,409	\$4,404		\$72,407	\$89,190	\$36,838	\$103	\$612			
4															
5															
6	DISTRIBUTION DEMAND COMP	\$22,716,124	\$14,779,997	\$5,689,961	\$433,956	\$70,932		\$480,259	\$951,968	\$296,555	\$1,219	\$7,276			
7	DISTRIBUTION MAINS	21,000,076	13,816,254	5,328,869	331,937	38,255		358,634	865,406	232,660	1,155	6,905			
8	DISTRIBUTION REGULATORS	1,513,147	834,855	315,571	98,195	32,234		113,921	57,932	60,071	55	313			
9	DISTRIBUTION OTHER	202,901	128,889	49,522	3,823	443		7,704	8,629	3,824	10	58			
10															
11	COMMODITY COMPONENTS	0	0	0	0	0		0	0	0	0	0			
12															
13	CUSTOMER COMPONENTS	\$28,475,371	\$22,119,553	\$3,602,750	\$385,976	\$42,912		\$1,242,066	\$584,055	\$515,521	\$313	\$2,225			
14	CUST SERVICE DROP COMPONENT	11,066,572	8,690,249	1,377,859	121,591	15,817		463,349	206,639	190,035	64	969			
15	CUST METER COMPONENT	5,761,294	4,517,101	699,678	72,017	8,055		247,453	113,546	102,961	63	419			
16	CUST REGULATOR COMPONENT	1,831,599	1,464,625	195,049	32,754	3,878		71,145	35,968	28,067	22	91			
17	CUST METER READING COMP	1,696,907	1,312,549	218,336	20,080	2,388		75,241	36,934	31,246	26	108			
18	CUST RECORDS & COLL COMP	6,516,042	5,018,991	836,643	90,812	9,166		294,164	141,650	124,101	99	416			
19	CUST SALES	1,602,957	1,116,038	275,185	28,723	3,608		90,714	49,317	39,110	39	222			
20	TOTAL COMPANY	\$53,789,771	\$38,563,359	\$9,943,188	\$845,218	\$120,394		\$1,801,512	\$1,649,375	\$854,841	\$1,643	\$10,242			
21															
22	PER UNIT COST	\$4.22	\$0.2296	\$0.2258	\$0.1121	\$0.1678		\$0.0273	\$0.2050	\$0.0525	\$0.8001	\$0.2899			
23	CAPACITY COMPONENTS														
24															
25	PRODUCTION DEMAND COMP	\$0.0304	\$0.0046	\$0.0046	\$0.0016	\$0.0046		\$0.0003	\$0.0046	\$0.0009	\$0.0046	\$0.0046			
26	TRANSMISSION DEMAND COMP	\$0.1659	\$0.0186	\$0.0184	\$0.0090	\$0.0095		\$0.0035	\$0.0172	\$0.0057	\$0.0619	\$0.0221			
27															
28	DISTRIBUTION DEMAND COMP	\$1.9138	\$0.2064	\$0.2028	\$0.1015	\$0.1537		\$0.0235	\$0.1832	\$0.0459	\$0.7336	\$0.2632			
29	DISTRIBUTION MAINS	\$1.7117	\$0.1929	\$0.1898	\$0.0776	\$0.0829		\$0.0175	\$0.1704	\$0.0360	\$0.6948	\$0.2498			
30	DISTRIBUTION REGULATORS	\$0.1859	\$0.0117	\$0.0112	\$0.0230	\$0.0698		\$0.0056	\$0.0111	\$0.0093	\$0.0329	\$0.0113			
31	DISTRIBUTION OTHER	\$0.0162	\$0.0018	\$0.0018	\$0.0009	\$0.0010		\$0.0004	\$0.0017	\$0.0006	\$0.0059	\$0.0021			
32															
33	COMMODITY COMPONENTS	\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000		\$0.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000			
34															
35	CUSTOMER COMPONENTS	\$1.1372	\$0.3089	\$0.1283	\$0.0855	\$0.0931		\$0.0807	\$0.1124	\$0.0796	\$0.1882	\$0.0805			
36	CUST SERVICE DROP COMPONENT	\$0.3986	\$0.1213	\$0.0491	\$0.0284	\$0.0343		\$0.0226	\$0.0398	\$0.0294	\$0.0386	\$0.0351			
37	CUST METER COMPONENT	\$0.2255	\$0.0631	\$0.0249	\$0.0168	\$0.0175		\$0.0121	\$0.0218	\$0.0159	\$0.0382	\$0.0152			
38	CUST REGULATOR COMPONENT	\$0.0746	\$0.0205	\$0.0069	\$0.0077	\$0.0084		\$0.0035	\$0.0069	\$0.0043	\$0.0131	\$0.0033			
39	CUST METER READING COMP	\$0.0710	\$0.0183	\$0.0078	\$0.0047	\$0.0052		\$0.0037	\$0.0071	\$0.0048	\$0.0155	\$0.0039			
40	CUST RECORDS & COLL COMP	\$0.2764	\$0.0701	\$0.0298	\$0.0212	\$0.0199		\$0.0144	\$0.0273	\$0.0192	\$0.0595	\$0.0150			
41	TOTAL COMPANY	\$3.2473	\$0.5385	\$0.3541	\$0.0067	\$0.0078		\$0.0044	\$0.0095	\$0.0060	\$0.0233	\$0.0080			
42															
43															
44															
45	TOTAL CAPACITY SERVICE	\$2.1101	\$0.2296	\$0.2258	\$0.1121	\$0.1678		\$0.0273	\$0.2050	\$0.0525	\$0.8001	\$0.2899			
46															
47															
48	CUSTOMER COMPONENT \$/MO/CUST	\$16.27	\$13.80	\$27.04	\$756.15	\$210.35		\$5,376.91	\$44.47	\$3,182.23	\$3.72	\$47.34			
49															
50	TOTAL THRUPTUT THERM	136,599,666	71,618,665	28,074,332	4,277,857	461,542		20,471,203	5,197,028	6,469,737	1,662	27,639			
51	TOTAL ANNUAL CUSTOMERS	145,848	133,548	11,105	40	17		19	1,094	14	7	4			

UNS GAS, INC.
DEVELOPMENT OF ALLOCATION FACTORS TO CLASS OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	ALLOCATION FACTOR TABLE Description	Allocation Factor	SMALL VOLUME COMMERCIAL (C-20)		LARGE VOLUME COMMERCIAL (C-22)		LG VOLUME COM TRANSPORT (T1 C-22)	
			DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER
1	PRODUCTION ALLOCATORS Annual Firm Therm Throughput	DEMGAS	28,074,332		1,479,191			
2	TRANSMISSION ALLOCATORS Proportional Responsibility	TRANS	20.15%		1.03%		1.86%	
3	DISTRIBUTION ALLOCATORS Proportional Responsibility	DISTR	20.15%		1.03%		1.86%	
4	Distribution Mains	DISTRMAIN	20.15%		1.03%		1.86%	
5	Distribution Regulators	DISTRREG	20.15%		1.03%		1.86%	
6	Proportional Responsibility		20.15%		1.03%		1.86%	
7	COMMODITY ALLOCATORS Annual Firm Therm Throughput	THERMS		28,074,332		1,479,191		2,798,666
8	Annual Firm Therm Throughput CARES	CARES		28,074,332		1,479,191		2,798,666
9	CUSTOMER ALLOCATORS Year End Number of Customers	CUST10		11,105		31		9
10	ACCT 380-Services	CUST380		8,155,568		48,158		13,888
11	ACCT 381-Meters	CUST381		1,094,828		46,261		13,288
12	ACCT 382-Meter Installations	CUST382		1,094,828		46,261		13,288
13	ACCT 383-House Regulators	CUST383		0		0		0
14	ACCT 384-House Reg. Installation	CUST384		0		0		0
15	ACCT 385-Industrial Reg Equipment	CUST385		0		0		0
16	ACCT 487-Misc. Service Revenue	CUST487		38,002		1,035,721		287,494
17	ACCT 902-Meter Read Expense	CUST902		75,458		104		28
18	ACCT 903-Customer Records & Collections	CUST903		288,513		12,191		306
19	ACCT 904-Customer UNCOLLECTIBLES	CUST904	0	117,252	0	3,605	0	3,502
20	ACCT 902 + 903 + 904	CUSTMS		481,222		16,009		6,545
21	ACCT 912-Demo & Selling	CDA912		0		0		10,353
22	ACCT 913-Advertising Expenses	CDA913		0		0		0
23	Customer Advances	CUSTAFC		(1,785,403)		(107,709)		(148,900)
24	Customer Deposits	CUSTDEP		(880,135)		(46,323)		0
25	INTERNALLY DEVELOPED FACTORS Total Gas Plant in Service	PLANT	58,405,922		9,998,093		1,165,455	334,813
26	Sum of Allocated Labor	LABOR	2,036,425		104,146		182,464	
27	Plant in Service Excluding Intangible and General	PISXIG	53,444,949		9,998,093		4,944,122	334,813
28	TOTAL TRANSMISSION PLANT	TRANPLT	3,861,129		197,271		357,188	0
29	ACCT 376 MAINS + 380 SERVICES	PLT376380	47,631,201		8,053,131		4,406,300	13,714
30	ACCT 382 + 384 INSTALLATIONS	PLT382384	0	850,134	0	35,921	0	10,318
31	TOTAL DISTRIBUTION PLANT	DISTRPLT	49,583,820		9,998,093		4,586,934	334,813
32	TOTAL GENERAL PLANT	GENPLT	4,722,637		0		436,885	0
33	NET PLANT RESIDENTIAL ONLY	RESNTPT						0
34	LABOR PRODUCTION LABOR ACCT 820-887	LABPROD	64,031		0		3,574	0
35	LABOR ACCT 870-894	LABTM	0		0		0	0
36	LAROR ACCT 901-910	LABDST	1,086,476		0		100,508	0
37	LAROR ACCT 920-932	LABCA	389,219		0		34,156	0
38	PRESENT REVENUE	LABA&G	516,699		0		47,799	0
39	PAYROLL EXCLUDING A&G	TOTREV	9,922,343		305,087		551,663	0
40	WORKING CASH 1/8 OF O&M	PAYXAG	1,519,726		0		134,664	0
41	Forfeited Discounts (Late Fees) Directly Assigned	WCOM	388,799		95,280		33,268	0
42			56,434		150		279	3,492

UNS GAS, INC.
DEVELOPMENT OF ALLOCATION FACTORS TO CLASS OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	ALLOCATION FACTOR TABLE		SMALL VOLUME INDUSTRIAL (I-30)		LARGE VOLUME INDUSTRIAL (I-32)		LARGE VOLUME IND. TRANSPORT (T1 I-32)	
	Description	Allocation Factor	DEMAND	COMMODITY	DEMAND	COMMODITY	DEMAND	COMMODITY
1	PRODUCTION ALLOCATORS Annual Firm Therm Throughput	DEMGAS	461,542	461,542	1,458,281	16,000,749		
2	TRANSMISSION ALLOCATORS Proportional Responsibility	TRANS	0.33%		0.99%		10.34%	
3	DISTRIBUTION ALLOCATORS Proportional Responsibility	DISTR	0.33%		0.99%		10.34%	
4	Distribution Mains	DISTR	0.33%		0.99%		10.34%	
5	Distribution Regulators	DISTR	0.33%		0.99%		10.34%	
6	Proportional Responsibility				0.99%		10.34%	
7	COMMODITY ALLOCATORS Annual Firm Therm Throughput	THERMS		461,542	1,458,281	16,000,749		
8	Annual Firm Therm Throughput CARES	CARES		461,542	1,458,281	16,000,749		
9	CUSTOMER ALLOCATORS Year End Number of Customers	CUST10		17				13
10	ACCT 380- Services	CUST380		12,515				21,989
11	ACCT 381- Meters	CUST381		1,676				19,562
12	ACCT 382- Meter Installations	CUST382		1,676				19,562
13	ACCT 383- House Regulators	CUST383		0				0
14	ACCT 384- House Reg. Installation	CUST384		0				0
15	ACCT 385- Industrial Reg Equipment	CUST385		561,934				437,976
16	ACCT 487- Misc. Service Revenue	CUST487		27				41
17	ACCT 902- Meter Read Expense	CUST902		116				450
18	ACCT 903- Customer Records & Collections	CUST903		442				5,155
19	ACCT 904- Customer UNCOLLECTIBLES	CUST904		1,427				18,257
20	ACCT 902 + 903 + 904	CUST904	0	1,984				23,863
21	ACCT 912- Demo. & Selling	CDA912		0				0
22	ACCT 913- Advertising Expenses	CDA913		0				0
23	Customer Advances	CUSTAFC		(39,409)				(791,149)
24	Customer Deposits	CUSTDEP		0				0
25	INTERNALLY DEVELOPED FACTORS Total Gas Plant in Service	PLANT	945,975		577,269		186,007	494,443
26	Sum of Allocated Labor	LABOR	32,999		100,119		1,011,906	494,443
27	Plant in Service Excluding Intangible and General	PISXIG	865,624		577,269		186,007	0
28	TOTAL TRANSMISSION PLANT	TRANPLT	62,537		0		0	0
29	ACCT 376- MAINS + 380- SERVICES	PLT376380	771,461		12,358		7,619	0
30	ACCT 382 + 384- INSTALLATIONS	PLT382384	0		1,301		5,732	21,713
31	TOTAL DISTRIBUTION PLANT	DISTRPLT	803,087		577,269		186,007	15,190
32	TOTAL GENERAL PLANT	GENPLT	76,490		0		25,438,217	494,443
33	NET PLANT RESIDENTIAL ONLY	RESNTPT			0		2,422,876	0
34	LABOR PRODUCTION LABOR ACCT 820-867	LABPROD	1,053		0		0	0
35	LABOR ACCT 870-894	LABDST	17,597		0		0	0
36	LABOR ACCT 901-910	LABCA	5,980		0		557,400	0
37	LABOR ACCT 920-932	LABA&G	6,369		0		189,422	0
38	PRESENT REVENUE	TOTREV	120,775		0		265,085	0
39	PAYROLL EXCLUDING A&G	PAYXAG	24,630		0		1,538,789	0
40	WORKING CASH 1/8 OF O&M	WCOM	6,275		0		746,822	0
41	Forfeited Discounts (Late Fees) Directly Assigned		2,804		3,905		183,400	0
42					801		987	6,221

UNS GAS, INC.
DEVELOPMENT OF ALLOCATION FACTORS TO CLASS OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	ALLOCATION FACTOR TABLE Description	Allocation Factor	LIGHT (PA-44)		DEMAND		IRRIGATION (IR-60) COMMODITY	CUSTOMER
			COMMODITY	CUSTOMER	COMMODITY	CUSTOMER		
1	PRODUCTION ALLOCATORS Annual Firm Therm Throughput	DEMGAS	1,662		1,662		27,639	
2	TRANSMISSION ALLOCATORS Proportional Responsibility	TRANS	0.00%				0.01%	
3	DISTRIBUTION ALLOCATORS Proportional Responsibility	DISTR	0.00%				0.01%	
4	Distribution Mains	DISTR	0.00%				0.01%	
5	Distribution Regulators	DISTR	0.00%				0.01%	
6	Proportional Responsibility		0.00%				0.01%	
7	COMMODITY ALLOCATORS Annual Firm Therm Throughput	THERMIS		1,662				27,639
8	Annual Firm Therm Throughput CARES	CARES		1,662				27,639
9	CUSTOMER ALLOCATORS Year End Number of Customers	CUST10		7				4
10	ACCT 380-Utilities	CUST380		0				2,938
11	ACCT 381-Meters	CUST381		0				386
12	ACCT 382-Meter Installations	CUST382		0				386
13	ACCT 383-House Regulators	CUST383		0				0
14	ACCT 384-House Reg. Installation	CUST384		0				0
15	ACCT 385-Industrial Reg Equipment	CUST385		0				0
16	ACCT 487-Misc. Service Revenue	CUST487		0				0
17	ACCT 902-Meter Read Expense	CUST902		0				0
18	ACCT 903-Customer Records & Collections	CUST903		0				27
19	ACCT 904-Customer UNCOLLECTIBLES	CUST904		0				102
20	ACCT 902 + 903 + 904	CUST902		0				136
21	ACCT 912-Demo & Selling	CDA912		0				265
22	ACCT 913-Advertising Expenses	CDA913		0				0
23	Customer Advances	CUSTAFC		0				0
24	Customer Deposits	CUSTDEP		0				(891)
25	INTERNALLY DEVELOPED FACTORS Total Gas Plant in Service	PLANT	2,972				30,584	3,587
26	Sum of Allocated Labor	LABOR	104				1,086	
27	Plant in Service Excluding Intangible and General	PISXIG	2,719				27,987	3,587
28	TOTAL TRANSMISSION PLANT	TRANPLT	196		0		2,022	0
29	ACCT 376 MAINS + 380 SERVICES	PLT376380	2,423		0		24,942	2,901
30	ACCT 382 + 384 INSTALLATIONS	PLT382384	0		0		0	300
31	TOTAL DISTRIBUTION PLANT	DISTRPLT	2,523		0		25,965	3,587
32	TOTAL GENERAL PLANT	GENPLT	240		0		2,473	0
33	NET PLANT RESIDENTIAL ONLY	RESNTPT			0			0
34	LABOR PRODUCTION	LABPROD	4		0		63	0
35	LABOR ACCT 820-867	LABTM	0		0		0	0
36	LABOR ACCT 870-894	LABDIST	55		0		569	0
37	LAFOR ACCT 901-910	LABCA	19		0		193	0
38	LAFOR ACCT 920-932	LABA&G	26		0		271	0
39	PRESENT REVENUE	TOTREV	45,797		0		11,559	0
40	PAYROLL EXCLUDING A&G	PAYXAG	78		0		825	0
41	WORKING CASH 1/8 OF O&M	WCOWM	53		0		220	0
42	Forfeited Discounts (Late Fees) Directly Assigned		0		0		549	46

UNIS GAS, INC.
DEVELOPMENT OF ALLOCATION FACTORS TO CLASS OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	Allocation Factor Table Description	Allocation Factor		SMALL VOLUME COMMERCIAL (C-20)		LARGE VOLUME COMMERCIAL (C-22)		LG VOLUME COMMODITY		COMMODITY		CUSTOMER	
		DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER	DEMAND	CUSTOMER
RATIO TABLE													
1	ANNUAL FIRM THERM THROUGHPUT	25.62%	0.00%	0.00%	0.00%	1.35%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
2	ANNUAL FIRM THERM THROUGHPUT	0.00%	21.02%	0.00%	0.00%	0.00%	1.11%	0.00%	0.00%	0.00%	2.10%	0.00%	0.00%
3	ANNUAL FIRM THROUGHPUT EXCLUD CARES	0.00%	21.80%	0.00%	0.00%	0.00%	1.15%	0.00%	0.00%	0.00%	2.17%	0.00%	0.00%
4	Year End Number of Customers	0.00%	0.00%	0.00%	7.61%	0.00%	0.00%	0.02%	0.00%	0.00%	0.00%	0.01%	0.00%
5	ACCT 360-Services	0.00%	0.00%	0.00%	7.61%	0.00%	0.00%	0.04%	0.00%	0.00%	0.00%	0.01%	0.00%
6	ACCT 381-Meters	0.00%	0.00%	0.00%	7.56%	0.00%	0.00%	0.32%	0.00%	0.00%	0.00%	0.09%	0.00%
7	ACCT 382-Meter Installations	0.00%	0.00%	0.00%	7.56%	0.00%	0.00%	0.32%	0.00%	0.00%	0.00%	0.09%	0.00%
8	ACCT 383-House Regulators	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	ACCT 384-House Reg. Installation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	ACCT 385-Industrial Reg Equipment	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	ACCT 487-Misc. Service Revenue	0.00%	0.00%	0.00%	3.68%	0.00%	0.00%	35.17%	0.00%	0.00%	0.00%	10.10%	0.00%
12	ACCT 902-Meter Read Expense	0.00%	0.00%	0.00%	7.61%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.03%	0.00%
13	ACCT 903-Customer Records & Collections	0.00%	0.00%	0.00%	7.56%	0.00%	0.00%	0.32%	0.00%	0.00%	0.00%	0.09%	0.00%
14	ACCT 904-Customer UNCOLLECTIBLES	0.00%	0.00%	0.00%	18.47%	0.00%	0.00%	0.57%	0.00%	0.00%	0.00%	1.03%	0.00%
15	ACCT 902 + 903 + 904	0.00%	0.00%	0.00%	8.84%	0.00%	0.00%	0.29%	0.00%	0.00%	0.00%	0.19%	0.00%
16	ACCT 912-Demo & Selling	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
17	ACCT 913-Advertising Expenses	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
18	Customer Advances	0.00%	0.00%	0.00%	16.01%	0.00%	0.00%	0.97%	0.00%	0.00%	0.00%	1.34%	0.00%
19	Customer Deposits	0.00%	0.00%	0.00%	28.12%	0.00%	0.00%	1.48%	0.00%	0.00%	0.00%	0.00%	0.00%
20	Total Gas Plant in Service	13.56%	0.00%	0.00%	2.32%	0.69%	0.00%	0.27%	1.26%	0.00%	0.00%	0.08%	0.00%
21	Sum of Allocated Labor	20.29%	0.00%	0.00%	0.00%	1.04%	0.00%	0.00%	1.82%	0.00%	0.00%	0.00%	0.00%
22	Plant in Service Excluding Intangible and General	13.18%	0.00%	0.00%	2.47%	0.67%	0.00%	0.29%	1.22%	0.00%	0.00%	0.08%	0.00%
23	TOTAL TRANSMISSION PLANT	20.15%	0.00%	0.00%	0.00%	1.03%	0.00%	0.00%	1.86%	0.00%	0.00%	0.00%	0.00%
24	ACCT 376 MAINS + 380 SERVICES	13.92%	0.00%	0.00%	2.35%	0.71%	0.00%	0.01%	1.29%	0.00%	0.00%	0.00%	0.00%
25	ACCT 382 + 384 INSTALLATIONS	0.00%	0.00%	0.00%	6.27%	0.00%	0.00%	0.26%	0.00%	0.00%	0.00%	0.08%	0.00%
26	TOTAL DISTRIBUTION PLANT	12.84%	0.00%	0.00%	2.59%	0.66%	0.00%	0.30%	1.19%	0.00%	0.00%	0.09%	0.00%
27	TOTAL GENERAL PLANT	20.15%	0.00%	0.00%	0.00%	1.03%	0.00%	0.00%	1.86%	0.00%	0.00%	0.00%	0.00%
28	NET PLANT RESIDENTIAL ONLY	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
29	LABOR PRODUCTION	25.62%	0.00%	0.00%	0.00%	1.35%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
30	LABOR ACCT 820-867	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
31	LABOR ACCT 870-894	20.15%	0.00%	0.00%	0.00%	1.03%	0.00%	0.00%	1.86%	0.00%	0.00%	0.00%	0.00%
32	LABOR ACCT 901-910	20.15%	0.00%	0.00%	0.00%	1.03%	0.00%	0.00%	1.86%	0.00%	0.00%	0.00%	0.00%
33	LABOR ACCT 920-932	20.15%	0.00%	0.00%	0.00%	1.03%	0.00%	0.00%	1.86%	0.00%	0.00%	0.00%	0.00%
34	PRESENT REVENUE	18.43%	0.00%	0.00%	0.00%	0.57%	0.00%	0.00%	1.02%	0.00%	0.00%	0.00%	0.00%
35	PAYROLL EXCLUDING A&G	20.33%	0.00%	0.00%	0.00%	1.04%	0.00%	0.00%	1.80%	0.00%	0.00%	0.00%	0.00%
36	WORKING CASH 1/8 OF O&M	12.43%	0.00%	0.00%	3.05%	0.63%	0.00%	0.31%	1.06%	0.00%	0.00%	0.11%	0.00%

UNSGAS, INC.
DEVELOPMENT OF ALLOCATION FACTORS TO CLASS OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	ALLOCATION FACTOR TABLE Description	Allocation Factor		SMALL VOLUME INDUSTRIAL (1-30)		LARGE VOLUME INDUSTRIAL (1-32)		LARGE VOLUME IND TRANSPORT (T1 I-32)	
		DEMAND	CUSTOMER	DEMAND	COMMODITY	DEMAND	COMMODITY	DEMAND	CUSTOMER
1	ANNUAL FIRM THERM THROUGHPUT	0.42%	0.00%	0.00%	0.00%	1.35%	0.00%	0.00%	0.00%
2	ANNUAL FIRM THERM THROUGHPUT	0.00%	0.35%	0.00%	0.00%	0.00%	1.09%	0.00%	0.00%
3	ANNUAL FIRM THERM THROUGHPUT EXCLUD CARES	0.00%	0.36%	0.00%	0.00%	0.00%	1.13%	0.00%	0.00%
4	Year End Number of Customers	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.01%
5	ACCT 380- Services	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.02%
6	ACCT 381- Meters	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.14%
7	ACCT 382- Meter Installations	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.14%
8	ACCT 383- House Regulators	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	ACCT 384- House Reg. Installation	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	ACCT 385- Industrial Reg Equipment	0.00%	0.00%	19.08%	0.00%	0.00%	0.00%	0.00%	14.87%
11	ACCT 487- Misc. Service Revenue	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	ACCT 902- Meter Read Expense	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.05%
13	ACCT 904- Customer Records & Collections	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.14%
14	ACCT 902 + 903 + 904	0.00%	0.00%	0.22%	0.00%	0.00%	0.00%	0.00%	2.88%
15	ACCT 912- Demo & Selling	0.00%	0.00%	0.04%	0.00%	0.00%	0.00%	0.00%	0.44%
16	ACCT 913- Advertising Expenses	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
17	Customer Advances	0.00%	0.00%	0.35%	0.00%	0.00%	0.00%	0.00%	0.00%
18	Customer Deposits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	7.09%
19	Customer Deposits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
20	Total Gas Plant in Service	0.22%	0.00%	0.13%	0.00%	0.67%	0.00%	6.97%	0.11%
21	Sum of Allocated Labor	0.33%	0.00%	0.00%	0.00%	1.00%	0.00%	10.08%	0.00%
22	Plant in Service Excluding Intangible and General	0.21%	0.00%	0.14%	0.00%	0.65%	0.00%	10.08%	0.00%
23	TOTAL TRANSMISSION PLANT	0.33%	0.00%	0.00%	0.00%	0.95%	0.00%	6.76%	0.12%
24	ACCT 376 MAINS + 360 SERVICES	0.23%	0.00%	0.00%	0.00%	0.68%	0.00%	10.34%	0.00%
25	ACCT 382 + 384 INSTALLATIONS	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	7.14%	0.01%
26	TOTAL DISTRIBUTION PLANT	0.21%	0.00%	0.15%	0.00%	0.63%	0.00%	6.58%	0.11%
27	TOTAL GENERAL PLANT	0.33%	0.00%	0.00%	0.00%	0.99%	0.00%	10.34%	0.13%
28	NET PLANT RESIDENTIAL ONLY	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
29	LABOR PRODUCTION	0.42%	0.00%	0.00%	0.00%	1.35%	0.00%	0.00%	0.00%
30	LABOR ACCT 820-867	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
31	LABOR ACCT 870-894	0.33%	0.00%	0.00%	0.00%	0.99%	0.00%	0.00%	0.00%
32	LAROR ACCT 901-910	0.33%	0.00%	0.00%	0.00%	0.99%	0.00%	10.34%	0.00%
33	LAROR ACCT 920-932	0.33%	0.00%	0.00%	0.00%	0.99%	0.00%	10.34%	0.00%
34	PRESENT REVENUE	0.22%	0.00%	0.00%	0.00%	0.28%	0.00%	2.86%	0.00%
35	PAYROLL EXCLUDING A&G	0.33%	0.00%	0.00%	0.00%	1.00%	0.00%	9.99%	0.00%
36	WORKING CASH 1/8 OF O&M	0.20%	0.00%	0.12%	0.00%	0.60%	0.00%	5.86%	0.20%

UNIS GAS, INC.
DEVELOPMENT OF ALLOCATION FACTORS TO CLASS OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	Description	Allocation Factor	SMALL VOLUME PUBLIC AUTHORITY (PA-40)		LARGE VOLUME PUBLIC AUTHORITY (PA-42)		LARGE VOLUME PA TRANSPORT (T1 PA-42)	
			DEMAND	COMMODITY	DEMAND	COMMODITY	DEMAND	COMMODITY
RATIO TABLE								
1	ANNUAL FIRM THERM THROUGHPUT		4.74%	0.00%	1.16%	0.00%	0.00%	0.00%
2	ANNUAL FIRM THERM THROUGHPUT		0.00%	3.89%	0.00%	0.95%	0.00%	3.89%
3	ANNUAL FIRM THROUGHPUT EXCLUD CARES		0.00%	4.04%	0.00%	0.99%	0.00%	4.03%
4	Year End Number of Customers		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	ACCT 380-Service	CUST10	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%
6	ACCT 381-Meters	CUST380	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%
7	ACCT 382-Meter Installations	CUST381	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%
8	ACCT 382-Meter Regulators	CUST382	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%
9	ACCT 383-House Regulators	CUST383	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	ACCT 384-House Reg. Installation	CUST384	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	ACCT 385-Industrial Reg. Equipment	CUST385	0.00%	0.00%	0.00%	0.00%	0.00%	8.42%
12	ACCT 487-Misc. Service Revenue	CUST487	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	ACCT 902-Meter Read Expense	CUST902	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%
14	ACCT 903-Customer Records & Collections	CUST903	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%
15	ACCT 904-Customer UNCOLLECTIBLES	CUST904	0.00%	0.00%	0.00%	0.00%	0.00%	1.24%
16	ACCT 902 + 903 + 904	CUSTMIS	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%
17	ACCT 912-Demo & Selling	CDA912	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
18	ACCT 913-Advertising Expenses	CDA913	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
19	Customer Advances	CUSTAFC	0.00%	0.00%	0.00%	0.00%	0.00%	2.55%
20	Customer Deposits	CUSTDEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
21	Total Gas Plant in Service	PLANT	2.85%	0.00%	0.65%	0.00%	2.49%	0.06%
22	Sum of Allocated Labor	LABOR	4.24%	0.00%	0.97%	0.00%	3.60%	0.00%
23	Plant in Service Excluding Intangible and General	PISXIG	2.76%	0.00%	0.63%	0.00%	2.42%	0.00%
24	TOTAL TRANSMISSION PLANT	TRANPLT	4.22%	0.00%	0.96%	0.00%	3.69%	0.00%
25	ACCT 376 MAINS + 380 SERVICES	PLT376380	2.92%	0.00%	0.66%	0.00%	2.55%	0.00%
26	ACCT 382 + 384 INSTALLATIONS	PLT382384	0.00%	0.00%	0.00%	0.00%	0.00%	0.06%
27	TOTAL DISTRIBUTION PLANT	DISTRPLT	2.69%	0.00%	0.61%	0.00%	2.35%	0.00%
28	NET GENERAL PLANT	GENPLT	4.22%	0.00%	0.96%	0.00%	3.69%	0.00%
29	LABOR PRODUCTION	LABPROD	4.74%	0.00%	1.16%	0.00%	0.00%	0.00%
30	LABOR ACCT 820-867	LABTM	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
31	LABOR ACCT 870-894	LABDST	4.22%	0.00%	0.96%	0.00%	3.69%	0.00%
32	LABOR ACCT 901-910	LABCA	4.22%	0.00%	0.96%	0.00%	3.69%	0.00%
33	LABOR ACCT 920-932	LABA&G	4.22%	0.00%	0.96%	0.00%	3.69%	0.00%
34	PRESENT REVENUE	TOTREV	3.02%	0.00%	0.31%	0.00%	1.38%	0.00%
35	PAYROLL EXCLUDING A&G	PAYXAG	4.24%	0.00%	0.97%	0.00%	3.57%	0.00%
36	WORKING CASH 1/8 OF O&M	WCOWM	2.57%	0.00%	0.58%	0.00%	2.10%	0.10%

UNS GAS, INC.
DEVELOPMENT OF ALLOCATION FACTORS TO CLASS OF SERVICE
FOR THE TEST PERIOD ENDING DECEMBER 31, 2010

Line No.	Description	Allocation Factor	ALLOCATION FACTOR TABLE		DEMAND	LIGHT (PA-44) COMMODITY		CUSTOMER	DEMAND	IRRIGATION (IR-60) COMMODITY		CUSTOMER
			ANNUAL FIRM THERM THROUGHPUT	ANNUAL FIRM THERM THROUGHPUT EXCLUD CARES		DEMAND	COMMODITY			DEMAND	COMMODITY	
RATIO TABLE												
1	ANNUAL FIRM THERM THROUGHPUT	DEMGAS	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03%	0.00%	0.00%	0.00%
2	ANNUAL FIRM THERM THROUGHPUT	THERMIS	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.00%	0.00%
3	ANNUAL FIRM THERM THROUGHPUT EXCLUD CARES	CARES	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.00%	0.00%
4	Year End Number of Customers	CUST10	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
5	ACCT 380- Services	CUST380	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
6	ACCT 381- Meters	CUST381	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
7	ACCT 382- Meter Installations	CUST382	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
8	ACCT 383- House Regulators	CUST383	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
9	ACCT 384- House Reg. Installation	CUST384	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
10	ACCT 385- Industrial Reg Equipment	CUST385	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
11	ACCT 487- Misc. Service Revenue	CUST487	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	ACCT 902- Meter Read Expense	CUST902	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
13	ACCT 903- Customer Records & Collections	CUST903	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
14	ACCT 904- Customer UNCOLLECTIBLES	CUST904	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
15	ACCT 902 + 903 + 904	CUSTMIS	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
16	ACCT 912- Demo & Selling	CD4912	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
17	ACCT 913- Advertising Expenses	CD4913	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
18	Customer Advances	CUSTAFC	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
19	Customer Deposits	CUSTDEP	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
20	Total Gas Plant in Service	PLANT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
21	Sum of Allocated Labor	LABOR	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
22	Plant in Service Excluding Intangible and General	PISXIG	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
23	TOTAL TRANSMISSION PLANT	TRANPLT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
24	ACCT 376 MAINS + 380 SERVICES	PLT376380	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
25	ACCT 382 + 384 INSTALLATIONS	PLT382384	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
26	TOTAL DISTRIBUTION PLANT	DISTRPLT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
27	TOTAL GENERAL PLANT	GENPLT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
28	NET PLANT RESIDENTIAL ONLY	RESNTPT	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
29	LABOR PRODUCTION	LABPROD	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.03%	0.00%	0.00%	0.00%
30	LABOR ACCT 820-867	LABTM	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
31	LABOR ACCT 870-894	LABDST	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
32	LABOR ACCT 901-910	LABCA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
33	LABOR ACCT 920-932	LABA&G	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
34	PRESENT REVENUE	TOTREV	0.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.00%	0.00%	0.00%
35	PAYROLL EXCLUDING A&G	PAYXAG	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%
36	WORKING CASH 1/8 OF O&M	WC0M	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%

Schedule

H

UNS Gas, Inc.
Summary of Revenues by Customer Classifications
Adjusted Present Rates And Proposed Rates
Test Year Ended December 31, 2010
(Thousands of Dollars)

Line No.	Class of Service	Present Rates Unadjusted (1.) (A)	Present Rates Adjusted (B)	Proposed Rates (C)	Proposed Net Increase Relative to Present Rates Unadjusted (D)	Proposed Net Increase Relative to Present Rates Unadjusted As a Percentage (E)	Proposed Net Increase Relative to Present Rates Adjusted (F)	Proposed Net Increase Relative to Present Rates Adjusted As a Percentage (G)	Line No.
1	Residential Service	\$38,655,719	\$38,563,359	\$41,433,794	\$2,778,074	107.19%	\$2,870,435	7.44%	1
2	Small Commercial Service	9,922,343	9,943,188	10,773,067	850,724	8.57%	829,880	8.35%	2
3	Large Commercial Service	856,750	845,218	1,178,792	322,042	37.59%	333,574	39.47%	3
4	Small Industrial Service	120,775	120,394	184,081	63,306	52.42%	63,688	52.90%	4
5	Large Industrial Service	1,691,685	1,723,264	2,693,037	1,001,352	59.19%	969,772	56.28%	5
6	Small Public Authority Service	1,628,312	1,649,375	1,787,988	159,676	9.81%	138,613	8.40%	6
7	Large Public Authority Service	830,689	854,841	1,265,700	435,011	52.37%	410,859	48.06%	7
8	Special Gas Light Service	45,797	1,643	1,680	(44,117)	-96.33%	37	2.25%	8
9	Irrigation Service	11,559	10,242	11,103	(456)	-3.95%	861	8.41%	9
10	Transport T-2 Service	78,233	78,248	82,266	4,033	5.15%	4,018	5.13%	10
11	Subtotal	\$53,841,863 (2.)	\$53,789,771	\$59,411,507	\$5,569,644	10.34%	\$5,621,736	10.45%	11
12	Other Operating Revenue	2,459,665	1,391,481	1,391,481	(1,068,184) (3.)	-43.43%	0	0.00%	12
13	Total	\$56,301,528	\$55,181,252	\$60,802,988	\$4,501,460	8.00%	\$5,621,736	10.19%	13

Supporting Schedules
H-2 (P2) Recap Schedules
A-1

Note 1. - Excludes PGA Revenues

Note 2. - Ties to H-2, page 2 of 2.

Note 3. - Net of DSM Revenue and Expense Adjustment (-\$957,797), Asset Management Agreement Revenue (\$114,327), and Service Fees Adjustment (\$3,960).

UNS Gas, Inc.
Comparisons of Customers and Therms by Rate Schedules
Present And Proposed Rates
Test Year Ended December 31, 2010

Line No.	Class of Service	Rate Schedule Present	Proposed	Actual			Test Year Therm Adjustments (D)	Adjusted			Line No.
				Therm Sales (A)	Average Number of Customers (B)	Average Therm per Customer (C)		Therm Sales (E)	Average Number of Customers (F)	Average Therm per Customer (G)	
1	Residential Service	R-10	R-10	68,528,822	123,905	553	(1,711,357)	66,817,465	123,490	541	1
2	Residential Service Cares	R-12	R-12	4,553,110	9,432	483	248,050	4,801,200	10,058	477	2
3	Small Volume Commercial Service	C-20	C-20	28,704,605	11,196	2,564	(630,273)	28,074,332	11,105	2,528	3
4	Large Volume Commercial Service	C-22	C-22	1,473,577	30	49,394	5,614	1,479,191	31	47,208	4
5	Small Volume Industrial Service	I-30	I-30	474,144	18	27,094	(12,602)	461,542	17	27,150	5
6	Large Volume Industrial Service	I-32	I-32	1,458,281	5	291,656	0	1,458,281	5	291,656	6
7	Small Volume Public Authority	P-40	P-40	5,301,723	1,088	4,873	(104,695)	5,197,028	1,094	4,749	7
8	Large Volume Public Authority	P-42	P-42	1,275,841	6	212,640	(1,140)	1,274,701	6	212,450	8
9	Special Gas Light Service	P-44	P-44	50,579	202	251	(48,917)	1,662	7	237	9
10	Irrigation Service	I-60	I-60	30,915	5	6,288	(3,276)	27,639	4	7,057	10
11	Commercial Transport	T1-C22	T1-C22	2,965,739	10	296,574	(167,073)	2,798,666	9	310,963	11
12	Industrial Transport	T1-I32	T1-I32	11,187,260	12	913,246	(1,391)	11,185,869	11	994,299	12
13	Industrial Transport -Interruptible	T1-I32-I	T1-I32-I	4,814,880	2	2,407,440	0	4,814,880	2	2,407,440	13
14	Public Authority Transport	T1-P42	T1-P42	5,195,036	8	692,671	0	5,195,036	8	692,671	14
15	Transport T-2 Service	T2	T2	3,012,173	1	3,012,173	0	3,012,173	1	0	15
16	Total Gas Service			<u>139,026,685</u>	<u>145,918</u>	<u>7,917,900</u>	<u>(2,427,019)</u>	<u>136,599,666</u>	<u>145,848</u>	<u>937</u>	16

UNS Gas, Inc.
Comparisons of Revenues by Rate Schedules
Present And Proposed Rates
Test Year Ended December 31, 2010

Line No.	Class of Service	Actual Net Revenue (A)	Test Year End Adjustment Revenue Annualization (B)	Customer Annualization and Weather Normalization (C)	Adjusted Net Revenue (D)	Proposed Increase		Proposed Net Revenue (G)	Line No.
						\$ (E)	% (F)		
1	Residential Service	\$36,856,422	\$421,073	(\$609,394)	\$36,668,101	\$1,842,167	5.02%	\$38,510,268	1
2	Residential Service Cares	1,799,297	(6,819)	102,780	1,895,258	1,028,268	54.25%	2,923,526	2
3	Small Volume Commercial Service	9,922,343	214,594	(193,750)	9,943,188	829,880	8.35%	10,773,067	3
4	Large Volume Commercial Service	305,087	6,146	2,933	314,166	140,380	44.68%	454,546	4
5	Small Volume Industrial Service	120,775	2,912	(3,294)	120,394	63,688	52.90%	184,081	5
6	Large Volume Industrial Service	152,895	3,462	0	156,357	90,468	57.86%	246,825	6
7	Small Volume Public Authority	1,628,312	48,980	(27,917)	1,649,375	138,613	8.40%	1,787,988	7
8	Large Volume Public Authority	168,066	4,715	(148)	172,634	85,759	49.68%	258,393	8
9	Special Gas Light Service	45,797	1,538	(45,692)	1,643	37	2.25%	1,680	9
10	Irrigation Service	11,559	(3)	(1,314)	10,242	861	8.41%	11,103	10
11	Commercial Transport	551,663	11,675	(32,285)	531,052	193,194	36.38%	724,246	11
12	Industrial Transport	1,145,869	20,735	(1,403)	1,165,201	654,913	56.21%	1,820,114	12
13	Industrial Transport -Interruptible	392,921	8,785	0	401,706	224,391	55.86%	626,098	13
14	Public Authority Transport	662,623	19,584	0	682,207	325,100	47.65%	1,007,307	14
15	Transport T-2 Service	78,233	15	0	78,248	4,018	0.00%	82,266	15
16	Total Gas Service	\$53,841,863	\$757,392	(\$809,484)	\$53,789,771	\$5,621,736	10.45%	\$59,411,507	16

UNS Gas, Inc.
Comparison of Present And Proposed Rates
Test Year Ended December 31, 2010

Line No.		Present Rate (A)	Proposed Rate (B)	Increase	
				\$ (C)	% (D)
1	Residential Service				
2	Customer Charge	\$10.00	\$11.00	\$1.00	10.00%
3	Distribution Margin Therms	\$0.3270	\$0.3324	\$0.0054	1.65%
4	Residential Service Cares (R12)				
5	Customer Charge	\$7.00	\$11.00	\$4.00	57.14%
6	Distribution Margin Therms Summer	\$0.3270	\$0.3324	\$0.01	1.65%
7	Distribution Margin Therms Winter (First 100 Therms)	\$0.1770	\$0.3324	\$0.16	87.79%
8	Distribution Margin Therms Winter all additional therms	\$0.3270	\$0.3324	\$0.01	1.65%
9	Small Commercial Service (C20)				
10	Customer Charge	\$15.50	\$20.00	\$4.50	29.03%
11	Distribution Margin Therms	\$0.2806	\$0.2888	\$0.0082	2.92%
12	Large Commercial Service (C22)				
13	Customer Charge	\$105.00	\$225.00	\$120.00	114.29%
14	Distribution Margin Therms	\$0.1857	\$0.2501	\$0.0644	34.68%
15	Small Volume Industrial Service (I-30):				
16	Customer Charge	\$15.50	\$20.00	\$4.50	29.03%
17	Distribution Margin Therms	\$0.2540	\$0.3900	\$0.1360	53.54%
18	Large Volume Industrial Service (I-32):				
19	Customer Charge	\$105.00	\$225.00	\$120.00	114.29%
20	Distribution Margin Therms	\$0.1029	\$0.1600	\$0.0571	55.49%
21	Small Volume PA (PA-40)				
22	Customer Charge	\$15.50	\$20.00	\$4.50	29.03%
23	Distribution Margin Therms	\$0.2782	\$0.2935	\$0.0153	5.50%
24	Large Volume PA (PA-42)				
25	Customer Charge	\$105.00	\$225.00	\$120.00	114.29%
26	Distribution Margin Therms	\$0.1295	\$0.1900	\$0.0605	46.72%
27	Special Gas Light Service (PA-44):				
28	Single Orifice	\$19.56	\$20.00	\$0.44	2.25%
29	Double Orifice	\$39.12	\$40.00	\$0.88	2.25%
30	Triple Orifice	\$58.68	\$60.00	\$1.32	2.25%
31	Quadruple Orifice	\$78.24	\$80.00	\$1.76	2.25%
32	Irrigation Service (IR-60)				
33	Customer Charge	\$15.50	\$20.00	\$4.50	29.03%
34	Distribution Margin Therms	\$0.3442	\$0.3677	\$0.0235	6.83%

UNS Gas, Inc.
Typical Bill Comparison - Present And Proposed Rates
Test Year Ended December 31, 2010

Line No.

Residential Service (R10)				
1	Customer Charge (Sum: Apr - Nov)	\$10.00	\$11.00	
2	Distribution Margin Therms	0.3270	0.3324	
3				
4				
5		Total Margin	Total Margin	Proposed
6	Average Therms per Month	Present Rate	Proposed Rate	Increase
7		(A)	(B)	\$
8				(C)
9	5	\$11.64	\$12.66	\$1.03
10				8.83%
11	10	\$13.27	\$14.32	\$1.05
12				7.94%
13	20	\$16.54	\$17.65	\$1.11
14				6.70%
15	35	\$21.45	\$22.63	\$1.19
16				5.54%
17	50	\$26.35	\$27.62	\$1.27
18				4.82%
19	75	\$34.53	\$35.93	\$1.40
20				4.07%
21	100	\$42.70	\$44.24	\$1.54
22				3.60%
23	250	\$91.75	\$94.10	\$2.35
24				2.56%
25	500	\$173.50	\$177.20	\$3.70
				2.13%

Residential Service (R10)				
26	Customer Charge (Win: Dec-Mar)	\$10.00	\$11.00	
27	Distribution Margin Therms	0.3270	\$0.3324	
28				
29				
30		Total Margin	Total Margin	Proposed
31	Average Therms per Month	Present Rate	Proposed Rate	Increase
32		(A)	(B)	\$
33				(C)
34	5	\$11.64	\$12.66	\$1.03
35				8.83%
36	10	\$13.27	\$14.32	\$1.05
37				7.94%
38	20	\$16.54	\$17.65	\$1.11
39				6.70%
40	35	\$21.45	\$22.63	\$1.19
41				5.54%
42	50	\$26.35	\$27.62	\$1.27
43				4.82%
44	75	\$34.53	\$35.93	\$1.40
45				4.07%
46	100	\$42.70	\$44.24	\$1.54
47				3.60%
48	250	\$91.75	\$94.10	\$2.35
				2.56%
	500	\$173.50	\$177.20	\$3.70
				2.13%

UNS Gas, Inc.
Typical Bill Comparison - Present And Proposed Rates
Test Year Ended June 30, 2008

Line No.

1	Residential Service Cares (R12)				
2	Customer Charge (Summer)	\$7.00	\$11.00		
3	Distribution Margin Therms	0.3270	0.3324		
4					
5					
6					
7	<u>Average Therms per Month</u>	<u>Total Margin Present Rate</u>	<u>Total Margin Proposed Rate</u>	<u>Proposed Increase \$</u>	<u>Proposed Increase %</u>
8		(A)	(B)	(C)	(D)
9					
10	5	\$8.64	\$12.66	\$4.03	46.64%
11					
12	10	\$10.27	\$14.32	\$4.05	39.47%
13					
14	20	\$13.54	\$17.65	\$4.11	30.34%
15					
16	35	\$18.45	\$22.63	\$4.19	22.71%
17					
18	50	\$23.35	\$27.62	\$4.27	18.29%
19					
20	75	\$31.53	\$35.93	\$4.40	13.97%
21					
22	100	\$39.70	\$44.24	\$4.54	11.43%
23					
24	250	\$88.75	\$94.10	\$5.35	6.03%
25					
26	500	\$170.50	\$177.20	\$6.70	3.93%

UNS Gas, Inc.
Typical Bill Comparison - Present And Proposed Rates
Test Year Ended June 30, 2008

Line No.

Small Commercial Service (C20)					
Line No.	Description	Present Rate	Proposed Rate	Proposed Increase \$	Proposed Increase %
1	Customer Charge	\$15.50	\$20.00		
2	Distribution Margin Therms	\$0.2806	\$0.2888		
3					
4		Total Margin Present Rate	Total Margin Proposed Rate	Proposed Increase \$	Proposed Increase %
5	Average Therms per Month	(A)	(B)	(C)	(D)
7					
8	50	\$29.53	\$34.44	\$4.91	16.63%
9					
10	100	\$43.56	\$48.88	\$5.32	12.21%
11					
12	500	\$155.80	\$164.40	\$8.60	5.52%
13					
14	1,000	\$296.10	\$308.80	\$12.70	4.29%
15					
16	1,500	\$436.40	\$453.20	\$16.80	3.85%
17					
18	2,500	\$717.00	\$742.00	\$25.00	3.49%
19					
20	5,000	\$1,418.50	\$1,464.00	\$45.50	3.21%
21					
22	7,500	\$2,120.00	\$2,186.00	\$66.00	3.11%
23					
24	10,000	\$2,821.50	\$2,908.00	\$86.50	3.07%

Large Commercial Service (C22)					
Line No.	Description	Present Rate	Proposed Rate	Proposed Increase \$	Proposed Increase %
25	Customer Charge	\$105.00	\$225.00		
26	Distribution Margin Therms	\$0.1857	\$0.2501		
27					
28					
29					
30		Total Margin Present Rate	Total Margin Proposed Rate	Proposed Increase \$	Proposed Increase %
31	Average Therms per Month				
32	10,000	\$1,962	\$2,726	\$764	38.94%
33					
34	12,500	\$2,426	\$3,351	\$925	38.12%
35					
36	15,000	\$2,891	\$3,977	\$1,086	37.57%
37					
38	17,500	\$3,355	\$4,602	\$1,247	37.17%
39					
40	20,000	\$3,819	\$5,227	\$1,408	36.87%
41					
42	25,000	\$4,748	\$6,478	\$1,730	36.44%
43					
44	30,000	\$5,676	\$7,728	\$2,052	36.15%
45					
46	45,000	\$8,462	\$11,480	\$3,018	35.67%
47					
48	75,000	\$14,033	\$18,983	\$4,950	35.28%

UNS Gas, Inc.
Typical Bill Comparison - Present And Proposed Rates
Test Year Ended June 30, 2008

Line No.

Small Volume Industrial Service (I-30):					
Line No.	Description	Present Rate	Proposed Rate	Proposed Increase \$	Proposed Increase %
1	Customer Charge	\$15.50	\$20.00		
2	Distribution Margin Therms	\$0.2540	\$0.3900		
3					
4		Total Margin	Total Margin		
5	Average Therms per Month	Present Rate	Proposed Rate	Increase	Increase
6		(A)	(B)	(C)	(D)
7					
8	50	\$28.20	\$39.50	\$11.30	40.07%
9					
10	100	\$40.90	\$59.00	\$18.10	44.25%
11					
12	500	\$142.50	\$215.00	\$72.50	50.88%
13					
14	1,000	\$269.50	\$410.00	\$140.50	52.13%
15					
16	1,500	\$396.50	\$605.00	\$208.50	52.59%
17					
18	2,500	\$650.50	\$995.00	\$344.50	52.96%
19					
20	5,000	\$1,285.50	\$1,970.00	\$684.50	53.25%
21					
22	7,500	\$1,920.50	\$2,945.00	\$1,024.50	53.35%
23					
24	10,000	\$2,555.50	\$3,920.00	\$1,364.50	53.39%

Large Volume Industrial Service (I-32):					
Line No.	Description	Present Rate	Proposed Rate	Proposed Increase \$	Proposed Increase %
25	Customer Charge	\$105.00	\$225.00		
26	Distribution Margin Therms	\$0.1029	\$0.1600		
27					
28					
29		Total Margin	Total Margin		
30	Average Therms per Month	Present Rate	Proposed Rate	Increase	Increase
31		(A)	(B)	(C)	(D)
32	10,000	\$1,134.00	\$1,825.00	\$691.00	60.93%
33					
34	15,000	\$1,648.50	\$2,625.00	\$976.50	59.24%
35					
36	20,000	\$2,163.00	\$3,425.00	\$1,262.00	58.34%
37					
38	30,000	\$3,192.00	\$5,025.00	\$1,833.00	57.42%
39					
40	50,000	\$5,250.00	\$8,225.00	\$2,975.00	56.67%
41					
42	75,000	\$7,822.50	\$12,225.00	\$4,402.50	56.28%
43					
44	100,000	\$10,395.00	\$16,225.00	\$5,830.00	56.08%
45					
46	125,000	\$12,967.50	\$20,225.00	\$7,257.50	55.97%
47					
48	150,000	\$15,540.00	\$24,225.00	\$8,685.00	55.89%

UNS Gas, Inc.
Typical Bill Comparison - Present And Proposed Rates
Test Year Ended June 30, 2008

Line No.

Small Volume Public Authority (PA-40)				
1	Customer Charge	\$15.50	\$20.00	
2	Distribution Margin Therms	\$0.2782	\$0.2935	
3				
4				
5		Total Margin	Total Margin	Proposed
6	Average Therms per Month	Present Rate	Proposed Rate	Increase
7		(A)	(B)	\$
8	50	\$29.41	\$34.68	\$5.27
9				17.90%
10	100	\$43.32	\$49.35	\$6.03
11				13.92%
12	500	\$154.60	\$166.75	\$12.15
13				7.86%
14	1,000	\$293.70	\$313.50	\$19.80
15				6.74%
16	1,500	\$432.80	\$460.25	\$27.45
17				6.34%
18	2,500	\$711.00	\$753.75	\$42.75
19				6.01%
20	5,000	\$1,406.50	\$1,487.50	\$81.00
21				5.76%
22	7,500	\$2,102.00	\$2,221.25	\$119.25
23				5.67%
24	10,000	\$2,797.50	\$2,955.00	\$157.50
				5.63%

Large Volume Public Authority (PA-42)				
25	Customer Charge	\$105.00	\$225.00	
26	Distribution Margin Therms	\$0.1295	\$0.1900	
27				
28				
29				
30		Total Margin	Total Margin	Proposed
31	Average Therms per Month	Present Rate	Proposed Rate	Increase
32	10,000	\$1,400.00	\$2,125.00	\$725.00
33				51.79%
34	15,000	\$2,047.50	\$3,075.00	\$1,027.50
35				50.18%
36	20,000	\$2,695.00	\$4,025.00	\$1,330.00
37				49.35%
38	30,000	\$3,990.00	\$5,925.00	\$1,935.00
39				48.50%
40	50,000	\$6,580.00	\$9,725.00	\$3,145.00
41				47.80%
42	75,000	\$9,817.50	\$14,475.00	\$4,657.50
43				47.44%
44	100,000	\$13,055.00	\$19,225.00	\$6,170.00
45				47.26%
46	125,000	\$16,292.50	\$23,975.00	\$7,682.50
47				47.15%
48	150,000	\$19,530.00	\$28,725.00	\$9,195.00
				47.08%

UNS Gas, Inc.
Typical Bill Comparison - Present And Proposed Rates
Test Year Ended June 30, 2008

Line No.

1	Special Gas Light Service (PA-44):				
2	Customer Charge Lighting Group A	\$15.17	\$20.00		
3	Customer Charge Lighting Group B	\$18.20	\$20.00		
4					
5					
6				Proposed	Proposed
7	Average Monthly Customers	Annual Bill		Increase	Increase
8		Present	Proposed	\$	%
9					
10	The following is an annual delivery bill per lamp				
11					
12	Customer Charge Lighting Group A	\$182.04	\$240.00	\$57.96	31.84%
13	Customer Charge Lighting Group B	\$218.40	\$240.00	\$21.60	9.89%
14					
15					
16	Note: There is no longer a Group A and Group B rate. All current customers are applicable to the Single Orifice Rate.				

17	Irrigation Service (IR-60)				
18	Customer Charge	\$15.50	\$20.00		
19	Distribution Margin Therms	\$0.3442	\$0.3677		
20					
21				Proposed	Proposed
22	Average Therms per Month	Total Margin	Total Margin	Increase	Increase
23		Present Rate	Proposed Rate	\$	%
24		(A)	(B)	(C)	(D)
25	50	\$32.71	\$38.39	\$5.68	17.35%
26	100	\$49.92	\$56.77	\$6.85	13.72%
27					
28	500	\$187.60	\$203.85	\$16.25	8.66%
29					
30	1,000	\$359.70	\$387.70	\$28.00	7.78%
31					
32	1,500	\$531.80	\$571.55	\$39.75	7.47%
33					
34	2,500	\$876.00	\$939.25	\$63.25	7.22%
35					
36	5,000	\$1,736.50	\$1,858.50	\$122.00	7.03%
37					
38	7,500	\$2,597.00	\$2,777.75	\$180.75	6.96%
39					
40	10,000	\$3,457.50	\$3,697.00	\$239.50	6.93%

Line No.	Usage Range - Therms			Therms (D)	Cumulative Bills		Cumulative Therms		
	Lower	Upper	Number of Bills (C)		Bills	Percent of Total (F)	Therms (G)	Percent of Total (H)	
	(A)	(B)			(E)				
RESIDENTIAL SERVICE RATE R-10									
1	0	4	189,222	440,752	189,222	12.8%	440,752	0.7%	
2	5	9	176,232	1,386,784	365,454	24.7%	1,827,536	2.7%	
3	10	14	157,938	2,009,735	523,392	35.3%	3,837,271	5.7%	
4	15	19	121,582	2,125,546	644,974	43.5%	5,962,817	8.9%	
5	20	24	89,879	2,010,594	734,853	49.6%	7,973,412	11.9%	
6	25	29	73,033	1,988,172	807,885	54.5%	9,961,584	14.9%	
7	30	34	57,040	1,836,815	864,925	58.4%	11,798,399	17.7%	
8	35	39	49,976	1,852,633	914,901	61.7%	13,651,032	20.4%	
9	40	44	45,092	1,895,350	959,993	64.8%	15,546,382	23.3%	
10	45	49	40,964	1,923,427	1,000,957	67.5%	17,469,809	26.1%	
11	50	54	37,130	1,923,795	1,038,088	70.1%	19,393,604	29.0%	
12	55	59	35,817	2,029,968	1,073,905	72.5%	21,423,572	32.1%	
13	60	64	33,906	2,087,956	1,107,811	74.8%	23,511,528	35.2%	
14	65	69	31,579	2,100,855	1,139,389	76.9%	25,612,383	38.3%	
15	70	74	29,322	2,092,707	1,168,712	78.9%	27,705,090	41.5%	
16	75	79	27,768	2,116,715	1,196,480	80.7%	29,821,805	44.6%	
17	80	84	25,882	2,098,615	1,222,362	82.5%	31,920,420	47.8%	
18	85	89	24,214	2,082,811	1,246,576	84.1%	34,003,231	50.9%	
19	90	94	22,187	2,017,312	1,268,763	85.6%	36,020,544	53.9%	
20	95	99	20,424	1,957,265	1,289,188	87.0%	37,977,809	56.8%	
21	100	104	18,480	1,861,425	1,307,668	88.2%	39,839,233	59.6%	
22	105	109	16,643	1,757,806	1,324,312	89.4%	41,597,039	62.3%	
23	110	114	15,186	1,676,513	1,339,498	90.4%	43,273,552	64.8%	
24	115	119	13,885	1,600,553	1,353,382	91.3%	44,874,105	67.2%	
25	120	124	12,563	1,509,699	1,365,945	92.2%	46,383,804	69.4%	
26	125	129	11,308	1,415,727	1,377,253	92.9%	47,799,531	71.5%	
27	130	134	10,315	1,341,710	1,387,568	93.6%	49,141,241	73.5%	
28	135	139	9,072	1,224,549	1,396,640	94.2%	50,365,790	75.4%	
29	140	144	8,155	1,140,263	1,404,795	94.8%	51,506,053	77.1%	
30	145	149	7,308	1,057,282	1,412,102	95.3%	52,563,334	78.7%	
31	150	154	6,685	999,688	1,418,787	95.7%	53,563,023	80.2%	
32	155	159	6,023	930,218	1,424,810	96.1%	54,493,241	81.6%	
33	160	164	5,286	842,311	1,430,096	96.5%	55,335,552	82.8%	
34	165	169	4,743	779,199	1,434,839	96.8%	56,114,751	84.0%	
35	170	174	4,363	737,911	1,439,202	97.1%	56,852,663	85.1%	
36	175	179	3,927	683,369	1,443,129	97.4%	57,536,032	86.1%	
37	180	184	3,489	624,332	1,446,618	97.6%	58,160,364	87.0%	
38	185	189	3,240	595,580	1,449,858	97.8%	58,755,944	87.9%	
39	190	194	2,737	516,475	1,452,595	98.0%	59,272,419	88.7%	
40	195	199	2,547	492,868	1,455,142	98.2%	59,765,287	89.4%	
41	200	299	21,366	4,916,637	1,476,508	99.6%	64,681,924	96.8%	
42	300	399	3,715	1,227,901	1,480,223	99.9%	65,909,825	98.6%	
43	400	499	952	411,206	1,481,175	100.0%	66,321,031	99.3%	
44	500	999	633	381,935	1,481,808	100.0%	66,702,966	99.8%	
45	1,000	1,999	57	70,907	1,481,864	100.0%	66,773,872	99.9%	
46	≥ 2,000		15	43,593	1,481,879	100.0%	66,817,465	100.0%	
47									
48			Average Monthly Customers	123,490					
49			Average Annual Therm per Customer	45					
50			Median therms per Customer	30					

Line No.	Usage Range - Therms		Number of Bills	Therms	Cumulative Bills		Cumulative Therms	
	Lower	Upper			Bills	Percent of Total	Therms	Percent of Total
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
RESIDENTIAL SERVICE RATE R-12								
1	0	4	11,636	34,498	11,636	9.6%	34,498	0.7%
2	5	9	15,733	126,768	27,369	22.7%	161,267	3.4%
3	10	14	14,530	189,302	41,898	34.7%	350,569	7.3%
4	15	19	11,319	201,652	53,217	44.1%	552,221	11.5%
5	20	24	8,233	188,245	61,450	50.9%	740,466	15.4%
6	25	29	6,698	186,454	68,147	56.5%	926,920	19.3%
7	30	34	5,057	166,455	73,205	60.7%	1,093,375	22.8%
8	35	39	4,637	175,608	77,841	64.5%	1,268,984	26.4%
9	40	44	4,142	177,950	81,984	67.9%	1,446,934	30.1%
10	45	49	3,699	177,570	85,683	71.0%	1,624,504	33.8%
11	50	54	3,386	179,391	89,069	73.8%	1,803,895	37.6%
12	55	59	3,286	190,475	92,355	76.5%	1,994,370	41.5%
13	60	64	3,058	192,371	95,414	79.1%	2,186,741	45.5%
14	65	69	2,925	199,042	98,338	81.5%	2,385,783	49.7%
15	70	74	2,491	181,805	100,830	83.5%	2,567,588	53.5%
16	75	79	2,279	177,619	103,109	85.4%	2,745,207	57.2%
17	80	84	2,134	176,706	105,243	87.2%	2,921,913	60.9%
18	85	89	1,943	170,759	107,186	88.8%	3,092,672	64.4%
19	90	94	1,770	164,463	108,956	90.3%	3,257,135	67.8%
20	95	99	1,534	150,229	110,490	91.5%	3,407,364	71.0%
21	100	104	1,398	143,981	111,888	92.7%	3,551,345	74.0%
22	105	109	1,181	127,415	113,068	93.7%	3,678,760	76.6%
23	110	114	1,031	116,400	114,100	94.5%	3,795,159	79.0%
24	115	119	869	102,344	114,968	95.3%	3,897,504	81.2%
25	120	124	733	90,033	115,701	95.9%	3,987,537	83.1%
26	125	129	685	87,695	116,386	96.4%	4,075,232	84.9%
27	130	134	585	77,741	116,971	96.9%	4,152,973	86.5%
28	135	139	461	63,546	117,432	97.3%	4,216,519	87.8%
29	140	144	396	56,660	117,828	97.6%	4,273,179	89.0%
30	145	149	328	48,441	118,156	97.9%	4,321,620	90.0%
31	150	154	335	51,205	118,492	98.2%	4,372,825	91.1%
32	155	159	265	41,765	118,756	98.4%	4,414,591	91.9%
33	160	164	265	43,086	119,021	98.6%	4,457,676	92.8%
34	165	169	213	35,774	119,234	98.8%	4,493,450	93.6%
35	170	174	181	31,355	119,415	98.9%	4,524,805	94.2%
36	175	179	168	29,798	119,583	99.1%	4,554,602	94.9%
37	180	184	137	25,076	119,720	99.2%	4,579,679	95.4%
38	185	189	118	22,188	119,838	99.3%	4,601,867	95.8%
39	190	194	105	20,338	119,943	99.4%	4,622,205	96.3%
40	195	199	92	18,141	120,035	99.5%	4,640,346	96.6%
41	200	299	594	137,375	120,629	99.9%	4,777,721	99.5%
42	300	399	57	18,879	120,686	100.0%	4,796,600	99.9%
43	400	499	7	3,188	120,693	100.0%	4,799,788	100.0%
44	500	999	2	1,411	120,695	100.0%	4,801,200	100.0%
45								
46			Average Monthly Customers	10,058				
47			Average Annual Therm per Customer	40				
48			Median therms per Customer	31				

Line No.	Usage Range - Therms			Therms	Cumulative Bills		Cumulative Therms	
	Lower	Upper	Number of Bills		Bills	Percent of Total	Therms	Percent of Total
	(A)	(B)	(C)		(D)	(E)	(F)	(G)
SMALL VOLUME COMMERCIAL RATE C-20								
1	0	9	45,795	103,386	45,795	34%	103,386	0.37%
2	10	19	10,154	151,125	55,949	42%	254,512	0.91%
3	20	29	6,786	167,925	62,735	47%	422,437	1.50%
4	30	39	5,097	176,184	67,832	51%	598,621	2.1%
5	40	49	4,461	198,123	72,293	54%	796,744	2.8%
6	50	59	3,827	207,749	76,121	57%	1,004,493	3.6%
7	60	69	3,357	214,640	79,477	60%	1,219,132	4.3%
8	70	79	2,901	214,129	82,378	62%	1,433,261	5.1%
9	80	89	2,704	225,718	85,082	64%	1,658,979	5.9%
10	90	99	2,400	223,993	87,482	66%	1,882,972	6.7%
11	100	109	2,253	232,443	89,735	67%	2,115,415	7.5%
12	110	119	2,056	232,094	91,790	69%	2,347,509	8.4%
13	120	129	1,763	216,221	93,553	70%	2,563,730	9.1%
14	130	139	1,625	215,417	95,179	71%	2,779,147	9.9%
15	140	149	1,487	211,434	96,665	73%	2,990,581	10.7%
16	150	159	1,391	211,480	98,057	74%	3,202,061	11.4%
17	160	169	1,332	215,483	99,389	75%	3,417,545	12.2%
18	170	179	1,192	204,410	100,581	75%	3,621,955	12.9%
19	180	189	1,116	202,564	101,697	76.3%	3,824,519	13.6%
20	190	199	1,035	197,804	102,732	77.1%	4,022,322	14.3%
21	200	249	4,420	969,089	107,152	80.4%	4,991,411	17.8%
22	250	299	3,349	899,761	110,501	82.9%	5,891,172	21.0%
23	300	349	2,736	868,125	113,236	85.0%	6,759,297	24.1%
24	350	399	2,218	812,710	115,454	86.6%	7,572,007	27.0%
25	400	449	2,011	834,622	117,465	88.1%	8,406,629	29.9%
26	450	499	1,564	726,386	119,030	89.3%	9,133,014	32.5%
27	500	599	2,534	1,357,862	121,564	91.2%	10,490,876	37.4%
28	600	699	2,009	1,272,517	123,573	92.7%	11,763,393	41.9%
29	700	799	1,487	1,086,798	125,060	93.8%	12,850,191	45.8%
30	800	899	1,113	924,249	126,173	94.7%	13,774,440	49.1%
31	900	999	990	918,575	127,164	95.4%	14,693,015	52.3%
32	1,000	1,499	2,683	3,194,344	129,846	97.4%	17,887,359	63.7%
33	1,500	1,999	1,305	2,199,689	131,151	98.4%	20,087,048	71.5%
34	2,000	2,999	1,117	2,640,577	132,269	99.3%	22,727,625	81.0%
35	3,000	3,999	387	1,307,948	132,656	99.5%	24,035,573	85.6%
36	4,000	4,999	198	866,378	132,854	99.7%	24,901,951	88.7%
37	5,000	5,999	123	652,208	132,977	99.8%	25,554,159	91.0%
38	6,000	6,999	72	453,753	133,049	99.8%	26,007,912	92.6%
39	7,000	7,999	60	439,871	133,109	99.9%	26,447,783	94.2%
40	8,000	8,999	35	291,963	133,144	99.9%	26,739,746	95.2%
41	9,000	9,999	39	364,822	133,183	99.9%	27,104,568	96.5%
42	10,000	10,999	21	209,771	133,204	100.0%	27,314,338	97.3%
43	11,000	11,999	14	154,895	133,218	100.0%	27,469,233	97.8%
44	12,000	12,999	13	155,745	133,231	100.0%	27,624,979	98.4%
45	13,000	13,999	10	131,123	133,240	100.0%	27,756,102	98.9%
46	14,000	14,999	7	97,089	133,247	100.0%	27,853,191	99.2%
47	15,000	-	13	221,141	133,260	100.0%	28,074,332	100.0%
48								
49			Average Monthly Customers	11,105				
50			Average Annual Therm per Customer	211				
51			Median therms per Customer	57				

Line No.	Usage Range - Therms			Therms	Cumulative Bills		Cumulative Therms	
	Lower	Upper	Number of Bills		Bills	Percent of Total	Therms	Percent of Total
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
LARGE VOLUME COMMERCIAL RATE C-22								
1	0	249	135	8,283	135	35.8%	8,283	0.6%
2	250	499	38	13,451	173	46.0%	21,735	1.5%
3	500	749	39	21,397	212	56.4%	43,131	2.9%
4	750	999	8	5,913	220	58.5%	49,044	3.3%
5	1,000	1,999	35	43,180	255	67.8%	92,224	6.2%
6	2,000	2,999	13	27,740	268	71.3%	119,963	8.1%
7	3,000	3,999	13	41,636	282	74.9%	161,599	10.9%
8	4,000	4,999	3	13,770	285	75.8%	175,369	11.9%
9	5,000	5,999	6	28,229	291	77.3%	203,598	13.8%
10	6,000	6,999	8	45,831	299	79.4%	249,430	16.9%
11	7,000	7,999	6	38,355	304	80.9%	287,785	19.5%
12	8,000	8,999	2	16,092	306	81.5%	303,877	20.5%
13	9,000	9,999	3	29,203	310	82.4%	333,080	22.5%
14	10,000	19,999	38	480,843	348	92.5%	813,923	55.0%
15	20,000	29,999	21	453,313	369	98.2%	1,267,236	85.7%
16	30,000	39,999	6	171,089	375	99.7%	1,438,324	97.2%
17	40,000	49,999	1	40,867	376	100.0%	1,479,191	100.0%
18								
19			Average Monthly Customers	31				
20			Average Annual Therm per Customer	3,934	excludes transport customers			
21			Median therms per Customer	541				

Line No.	Usage Range - Therms		Number of Bills	Therms	Cumulative Bills		Cumulative Therms	
	Lower	Upper			Bills	Percent of Total	Therms	Percent of Total
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
SMALL VOLUME INDUSTRIAL RATE I-30								
1	0	249	86	2,462	86	42.4%	2,462	0.5%
2	250	499	11	3,679	97	47.6%	6,141	1.3%
3	500	749	12	7,729	109	53.3%	13,870	3.0%
4	750	999	15	12,775	123	60.5%	26,645	5.8%
5	1000	1499	11	13,550	134	65.7%	40,195	8.7%
6	1500	1999	6	9,723	140	68.6%	49,918	10.8%
7	2000	2499	5	11,023	145	71.0%	60,941	13.2%
8	2500	2999	6	16,317	151	73.8%	77,258	16.7%
9	3000	3499	6	19,224	156	76.7%	96,482	20.9%
10	3500	3999	4	14,706	160	78.6%	111,187	24.1%
11	4000	4499	6	24,351	166	81.4%	135,539	29.4%
12	4500	4999	6	27,446	172	84.3%	162,984	35.3%
13	5000	5499	4	20,212	176	86.2%	183,196	39.7%
14	5500	5999	2	11,229	178	87.1%	194,425	42.1%
15	6000	6499	4	23,820	182	89.0%	218,245	47.3%
16	6500	6999	1	6,649	183	89.5%	224,894	48.7%
17	8000	8499	2	15,609	185	90.5%	240,503	52.1%
18	8500	8999	1	8,438	186	91.0%	248,941	53.9%
19	9000	9499	1	8,889	187	91.4%	257,830	55.9%
20	9500	9999	1	9,603	187	91.9%	267,433	57.9%
21	10000	10999	5	50,896	192	94.3%	318,329	69.0%
22	11000	11999	5	54,777	197	96.7%	373,106	80.8%
23	12000	12999	5	59,764	202	99.0%	432,870	93.8%
24	14000	14999	1	13,898	203	99.5%	446,769	96.8%
25	15000	15999	1	14,773	204	100.0%	461,542	100.0%
26								
27			Average Monthly Customers	17				
28			Average Annual Therm per Customer	2,262				
29			Median therms per Customer	898				
30								
31								
32								
33								
34								
	Usage Range - Therms		Number of Bills	Therms	Cumulative Bills		Cumulative Therms	
	Lower	Upper			Bills	Percent of Total	Therms	Percent of Total
35	LARGE VOLUME INDUSTRIAL RATE I-32							
36								
37	0	499	9	741	9	15.0%	741	0.1%
38	1,000	1,999	1	1,203	10	16.7%	1,944	0.1%
39	2,000	2,999	1	2,108	11	18.3%	4,052	0.3%
40	5,000	9,999	10	88,906	21	35.0%	92,958	6.4%
41	10,000	14,999	12	149,529	33	55.0%	242,487	16.6%
42	15,000	9,999	7	123,997	40	66.7%	366,483	25.1%
43	20,000	29,999	9	204,390	49	81.7%	570,873	39.2%
44	40,000	49,999	2	86,642	51	85.0%	657,515	45.1%
45	50,000	59,999	3	155,162	54	90.0%	812,677	55.7%
46	50,000	99,999	1	81,942	55	91.7%	894,619	61.4%
47	60,000	69,999	1	68,320	56	93.3%	962,940	66.0%
48	100,000	149,999	4	495,137	60	100.0%	1,458,077	100.0%
49								
50			Average Monthly Customers	5				
51			Average Annual Therm per Customer	24,301	excludes transport customers			
52			Median therms per Customer	7,811				

Line No.	Usage Range - Therms		Number of Bills	Therms	Cumulative Bills		Cumulative Therms	
	Lower	Upper			Bills	Percent of Total	Therms	Percent of Total
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
SMALL VOLUME PUBLIC AUTHORITY RATE P-40								
1	0	49	6,094	69,830	6,094	46.4%	69,830	1.4%
2	50	99	1,383	95,774	7,477	56.9%	165,604	3.3%
3	100	199	1,339	185,481	8,816	67.1%	351,085	7.1%
4	200	299	825	192,591	9,640	73.4%	543,676	11.0%
5	300	399	594	195,400	10,235	77.9%	739,076	14.9%
6	400	499	407	172,215	10,642	81.0%	911,292	18.4%
7	500	599	313	163,172	10,955	83.4%	1,074,464	21.7%
8	600	699	254	155,624	11,209	85.4%	1,230,088	24.8%
9	700	799	239	169,295	11,447	87.2%	1,399,382	28.3%
10	800	899	167	134,017	11,614	88.4%	1,533,399	31.0%
11	900	999	127	114,998	11,741	89.4%	1,648,397	33.3%
12	1,000	1,999	700	937,400	12,442	94.7%	2,585,797	52.2%
13	2,000	2,999	291	674,694	12,733	97.0%	3,260,491	65.8%
14	3,000	3,999	165	535,384	12,898	98.2%	3,795,876	76.6%
15	4,000	4,999	99	419,540	12,997	99.0%	4,215,416	85.1%
16	4,000	5,999	42	218,258	13,039	99.3%	4,433,674	89.5%
17	6,000	7,999	31	191,670	13,070	99.5%	4,625,343	93.4%
18	6,000	8,999	35	264,116	13,106	99.8%	4,889,459	98.7%
19	9,000	11,999	7	63,095	13,113	99.9%	4,952,553	95.4%
20	10000	64202300	19	237,169	13,132	100.0%	5,189,723	100.0%
21								
22			Average Monthly Customers	1,094				
23			Average Annual Therm per Customer	395				
24			Median therms per Customer	121				
25								
26								
27								
28								
29								
30								
31	LARGE VOLUME PUBLIC AUTHORITY RATE P-42							
32	400	599	1	538	1	1.4%	538	0.0%
33	600	799	1	630	2	2.8%	1,168	0.1%
34	800	999	2	1,745	4	5.6%	2,913	0.2%
35	1000	5999	5	12,910	9	12.5%	15,823	1.2%
36	6000	7999	11	75,829	20	27.8%	91,652	7.2%
37	8000	9999	6	54,192	26	36.1%	145,844	11.4%
38	10000	12999	22	319,064	47	66.7%	464,907	36.5%
39	19000	23999	4	83,630	51	72.2%	548,537	43.0%
40	24000	26999	8	201,947	59	83.3%	750,485	58.9%
41	30000	39999	12	523,983	71	100.0%	1,274,467	100.0%
42								
43			Average Monthly Customers	6				
44			Average Annual Therm per Customer	17,950	excludes transport customers			
45			Median therms per Customer	1,673				

Line No.	Usage Range - Therms		Number of Bills	Therms	Cumulative Bills		Cumulative Therms	
	Lower	Upper			Bills	Percent of Total	Therms	Percent of Total
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
IRRIGATION SERVICE RATE I-60								
1	0	99	37	410	37	77.4%	410	1.5%
2	100	199	2	295	39	80.6%	705	2.6%
3	300	399	2	659	40	83.9%	1,364	4.9%
4	500	599	2	1,107	42	87.1%	2,472	9.0%
5	800	899	2	1,641	43	90.3%	4,113	14.9%
6	1,000	1,099	2	2,165	45	93.5%	6,278	22.7%
7	1,100	1,199	1	1,157	46	95.2%	7,435	26.9%
8	5,300	5,399	1	5,442	46	96.8%	12,877	46.6%
9	6,500	6,599	1	6,628	47	98.4%	19,505	70.6%
10	8,000	8,099	1	8,109	48	100.0%	27,614	100.0%
11								
12			Average Monthly Customers	4				
13			Average Annual Therm per Customer	575				
14			Median therms per Customer	108				
15								
16								
17								
18								
19								
20	Special Gas Light Service PA-44							
21								
22								
23	Customer Lighting Group A							84
24	Customer Lighting Group B							0
25								
26								
27	Average Customer Lighting Group A							7
28	Average Customer Lighting Group B							0