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BEFORE THE ARIZONA CORPORATION COMMISSION

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BOB STUMP
Chairman
GARY PIERCE
Commissioner
BRENDA BURNS
Commissioner
BOB BURNS
Commissioner
SUSAN BITTER SMITH
Commissioner

Arizona Corporation Commission

DOCKETED

JUN 27 2013

DOCKETED BY
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IN THE MATTER OF THE APPLICATION
OF UNS GAS, INC. FOR APPROVAL OF
ITS GAS ENERGY EFFICIENCY
IMPLEMENTATION PLAN FOR 2011 AND
2012

DOCKET NO. G-04204A-11-0149

DECISION NO. 73939

ORDER

Open Meeting
June 11 and 12, 2013
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. On October 19, 2012, Staff filed a Memorandum and Proposed Order regarding the UNS Gas, Inc. ("UNS Gas" or the "Company") application for approval of its 2011-2012 Gas Energy Efficiency Implementation Plan. The Company filed its exceptions to Staff's Proposed Order on October 31, 2012. Staff filed Proposed Amendment No. 1 on November 5, 2012. Comments were filed by the Residential Utility Consumer Office ("RUCO") on November 7, 2012 and a Notice of Errata was filed by RUCO on November 20, 2012. On January 28, 2013, UNS Gas filed a response to RUCO's comments.

2. Based on the length of time that has passed since the filing of Staff's Proposed Order and a correction made to Staff's analysis, Staff has submitted a Revised Memorandum and Proposed Order replacing the previously filed Open Meeting Memorandum and Proposed Order.

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1 The revised analysis takes into consideration changes in natural gas prices since May of 2012 and
2 budget numbers that were revised by UNS Gas on February 6, 2013..

3 **INTRODUCTION**

4 3. On April 4, 2011, UNS Gas filed an application with the Arizona Corporation
5 Commission (“Commission”) requesting approval of its 2011-2012 Gas Energy Efficiency
6 Implementation Plan (“EE Plan”) and a change to its Demand-Side Management (“DSM”) Surcharge (“DSMS”).

8 4. On September 6, 2011, UNS Gas filed updated information applicable to its EE
9 Plan. Specifically, UNS Gas updated the budget information and portfolio savings filed in its
10 original application. UNS Gas also filed to update the DSMS that was filed in its original
11 application and requested a waiver and modification of the Gas Energy Efficiency Standards
12 (“GEES”) pursuant to A.A.C. R14-2-2520 and the Cumulative Energy Efficiency Standard set
13 forth in A.A.C. R14-2-2504.B.

14 5. On April 17, 2012, UNS Gas filed an amendment to its original application for its
15 EE Plan to include approval for the 2013 Energy Efficiency Plan. The Company did not plan to
16 propose any changes to the proposed EE Plan programs, budgets, or DSMS previously filed in this
17 docket and requested the Commission waive the requirement for the Company to file a separate
18 2013 Plan. UNS Gas also filed to modify its previous request for a waiver of the GEES to
19 incorporate a new table outlining the GEES levels the Company believes it can obtain.

20 6. Prior to the completion of Staff’s revised memorandum and proposed order, UNS
21 Gas provided Staff with updated natural gas pricing and budgets more reflective of the current
22 activity in the UNS Gas territory regarding the energy efficiency implementation plan for the
23 remainder of 2013 (“2013 EE Plan”).

24 7. UNS Gas is certificated to provide natural gas service as a public service
25 corporation in the State of Arizona. UNS Gas is a wholly-owned subsidiary of UniSource Energy
26 Services and is engaged in providing natural gas service within portions of Arizona, pursuant to
27 authority granted by the Commission. UNS Gas provides natural gas service in the counties of
28 Apache, Coconino, Mohave, Navajo, Santa Cruz and Yavapai. As of December 2011, the

1 Company had approximately 147,500 customers. Of that total, 135,050 are Residential customers.
2 The remainder of the customers is a mix of Commercial, Industrial, and Municipal customers.

3 **EE PLAN OVERVIEW**

4 8. UNS Gas' 2013 EE Plan contains new programs, enhancements to existing
5 programs, and continued support for already successful programs. The 2013 EE Plan is designed
6 to comply with the Commission's GEES and to provide a framework for future compliance. For
7 the Company's existing and proposed DSM programs, the 2013 EE Plan estimates each program's
8 total cost and the cost per therm reduction, and explains how these programs comply with the
9 requirements in the GEES.

10 9. To implement the 2013 EE Plan, UNS Gas is requesting an updated plan budget
11 total of approximately \$2.3 million with a slight increase to the current DSMS.

12 10. The UNS Gas 2013 EE Plan includes the implementation of new programs, changes
13 to current programs, and the continuation of cost-effective DSM programs already in place.
14 Included in the new programs are: Multifamily Direct Install, Behavioral Comprehensive,
15 Education and Outreach, Codes and Support, and a Renewable Energy Technology ("RET")
16 program for Solar/Thermal Water Heating. The Company also is enhancing current programs
17 through the addition of new measures to Existing Homes/Direct Install and Commercial and
18 Industrial ("C&I") Facilities. UNS Gas has also filed to increase eligibility for its existing Low
19 Income Weatherization Program ("LIWP") and to continue administering the Joint Utility
20 Residential New Construction and Energy Efficiency Residential Financing program. The UNS
21 Gas 2013 EE Plan includes a mix of programs targeted to multiple customer segments as detailed
22 below.

23 Residential Programs

- 24 • Existing Homes • Behavioral Comprehensive Program
25 • New Construction • Solar Thermal Water Heating (RET)
26 • LIWP
27 • Energy Financing
28

| | | |
|----|--|---|
| 1 | | <ul style="list-style-type: none"> • >25 inches. • Add a measure for High-Efficiency Single Rack Oven. • Add a measure for High-Efficiency Double Rack Oven. • Add a measure for High-Efficiency Energy Star® Steam Cooker. |
| 2 | | |
| 3 | HVAC/Process Heat (incentives paid to contractor) | <ul style="list-style-type: none"> • Add a measure for High-Efficiency Condensing Unit Heaters (131,000-305,000 Btuh). • Add a measure for Power-Vented Unit Heaters (150,000-300,000 Btuh). • Add a measure for Programmable Thermostats. • Add a measure for Custom Modifications covering 75% of incremental costs for a custom project equivalent to \$2,700 based on first year savings. • Add a measure for High-Efficiency Space Heating Steam Boilers (>300 kBtuh). • Add a measure for Survey and Replacement of Commercial Steam Traps. • Add a measure for Survey and Replacement of Industrial Steam Traps. |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | Water Heating (incentives paid to contractor) | <ul style="list-style-type: none"> • Add a measure for High-Efficiency Pool and Spa Heaters (<500 kBtuh). • Add a measure for Low-Flow Pre Rinse Spray Valves. • Add measures for Commercial Multi-Family Clothes Washers CEE Tier 1, 2, and 3. |
| 11 | | |
| 12 | | |
| 13 | Multifamily Direct Install | |
| 14 | Water Heating (incentives paid to contractor) | <ul style="list-style-type: none"> • Implement a new program with a measure for Low Flow Shower Head (1.5 GPM). • Implement a new program with a measure for Kitchen Faucet Aerators (1.5 GPM). • Implement a new program with a measure for Bathroom Faucet Aerators (1 GPM). |
| 15 | | |
| 16 | Non-Residential Solar Water Heating | |
| 17 | Water Heating | <ul style="list-style-type: none"> • Implement a new program for qualified solar thermal systems new construction and retro-fit Commercial Gas Water Heater with incentive offered upon proof of purchase after system is installed and operational. |
| 18 | | |
| 19 | Other Support Programs | |
| 20 | Codes Support | <ul style="list-style-type: none"> • Implement a new program to increase energy savings through improving levels of compliance with existing building energy codes and supporting/informing residential and commercial sectors of energy code updates. |
| 21 | | |
| 22 | Education and Outreach | <ul style="list-style-type: none"> • Implement a new program to provide customers with the tools and knowledge necessary to better manage their energy use including marketing/education on available DSM options and the importance of energy efficiency. |
| 23 | | |
| 24 | | |

25 13. The Commission approved the GEES in Decision No. 72042 on December 10,
 26 2010, in Docket No. RG-00000B-09-0428. The rules are designed to cause affected utilities to
 27 achieve therm or therm equivalent savings through DSM and RET programs in order to ensure
 28 reliable gas service at reasonable rates and costs. As established in these rules, "energy efficiency"

1 means the production or delivery of an equivalent level and quality of end-use gas service using
2 less energy, or the conservation of energy by end-use customers. Energy efficiency is a type of
3 DSM. DSM programs promote materials, devices, technologies, educational programs, practices,
4 or facility alterations designed to result in increased energy efficiency, including combined heat
5 and power used to displace space heating, water heating, or another load. RET programs promote
6 technology applications.

7 14. The GEES rules outline specific cumulative annual energy savings by calendar
8 year. Under A.A.C. R14-2-2504.B, UNS Gas is required to meet a cumulative annual energy
9 savings for calendar year 2011 of 0.50% of retail energy sales in the prior year. For 2012, that
10 cumulative annual energy savings is 1.20% of retail energy sales in the prior year. Based on UNS
11 Gas' most recently filed full year Annual DSM Progress Report filed on April 2, 2012, UNS Gas
12 reached a cumulative annual EE savings as a percent of previous year's retail sales of 0.20% for
13 2011. Based on end of year estimates, UNS Gas will reach a cumulative annual EE savings as a
14 percent of previous year's retail sales of 0.36% for 2012.

15 **PROPOSED PROGRAM CHANGES**

16 15. UNS Gas' 2013 EE Plan is comprised of several new programs falling into both the
17 residential and non-residential categories and new programs which apply across both categories of
18 customers. UNS Gas has designed a comprehensive portfolio of programs in an effort to deliver
19 gas energy savings to meet, or come close to meeting, annual DSM energy savings goals as
20 outlined in the GEES.

21 A. Residential Programs: Existing Homes

22 16. UNS Gas is requesting budget approval to continue this program (previously
23 referred to as the Residential HVAC Program and Efficient Home Heating Program) plus approval
24 for adding these additional measures: high-efficiency residential boilers; pipe wrap; and high-
25 efficiency pool and spa heaters.

26 *Current Program*

27 17. This program was approved by the Commission in Decision Nos. 72045 dated
28 December 10, 2010, and 72056 dated January 6, 2011. The program is targeted to all existing

1 homes in need of energy efficiency improvements. The program has two components. The first
2 component is the current program. It involves an initial energy audit including the direct
3 installation of low-flow shower heads and faucet aerators. This is followed by the identification of
4 larger home energy efficiency improvements and a referral to a Building Performance Institute
5 (“BPI”) certified contractor who will assist with the larger improvements.

6 *Proposed Changes*

7 18. UNS Gas is requesting to continue the current residential existing homes program
8 and add to it a second component that promotes the installation of pipe wrap, high-efficiency
9 boilers, and high-efficiency pool and spa heaters. The program hopes to achieve increased energy
10 savings from the installation of even more energy-efficient measures and contribute toward
11 transforming the industry to emphasize best practice building science principles.

12 19. The high-efficiency steam heating boilers will be offered with an incentive of \$500
13 per unit for a replacement on burnout of existing boilers. UNS Gas estimates to install 4 units in
14 2013. The pipe wrap option will be an option for a homeowner to add pipe wrap to pipes on an
15 existing water heater. UNS Gas plans to offer pipe wrap on the first six feet of pipe with an
16 incentive of \$12 per installation. They plan to install 200 units in 2013. The high-efficiency pool
17 and spa heater option is a replacement on burnout option allowing for an incentive of \$150 per unit
18 with an estimated 5 units installed in 2013. UNS Gas will provide program management,
19 oversight, and marketing through website promotion, community interest groups, mass-market
20 channels, brochures and bill inserts, trade ally marketing efforts, contractor enrollment and
21 training.

22 20. A third party implementation contractor will be responsible for the recruitment,
23 training, and mentorship of participating contractors, retailers and manufacturers; training energy
24 auditors; data tracking; rebate processing; and technical support. Program delivery will be
25 coordinated with Arizona Public Service (“APS”) and UNS Electric to address any overlap among
26 the utilities.

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1 *Proposed Budget*

2 21. The 2013 proposed budget for the Residential Existing Homes Program is
3 \$941,965. Proposed incentives make up \$557,650 of the total program budget. Overall Program
4 Development, Analysis, and Reporting Software costs would be allocated across all of the cost-
5 effective energy efficiency programs.

6 *Cost Effectiveness*

7 22. Staff's review of the benefits and costs associated with the proposed changes with
8 the addition of new measures in the Residential Existing Homes Program found that the new
9 measures are not cost-effective at this point in time. Given the nature of the current natural gas
10 market, the benefits in terms of therm and capacity savings do not outweigh the costs associated
11 with the measures. Staff's benefit-cost analysis is presented in the table below.

| Measure | Units | Present Value DSM Savings | Present Value DSM Cost | Benefit/Cost Ratio |
|------------------------|-------|---------------------------|------------------------|--------------------|
| High Efficiency Boiler | 4 | \$2,164.40 | \$4,540.88 | 0.48 |
| Pipe Wrap | 200 | \$4,670.00 | \$5,406.00 | 0.86 |
| Pool and Spa Heater | 5 | \$1,387.85 | \$1,631.15 | 0.85 |

16 *Recommendations*

17 23. UNS Gas' analysis submitted with its original application indicated the Company
18 had calculated a measure level Societal Cost Test ratio for the three new measures as 1.2 for the
19 boiler, 1.2 for the pipe wrap, and 2.2 for the pool and spa heaters. Staff's analysis led to the
20 benefit-cost ratios indicated in the table above. Variances in the results can be pinpointed to a few
21 analysis differences including the fact that Staff's analysis includes the Program Level Non-
22 Incentive Costs into the cost per unit at the measure level. UNS Gas did not include program costs
23 in its Societal Cost Test analysis. Staff also utilized a calculated after-tax cost of capital as the
24 discount rate for UNS Gas equal to 6.99% based on data from UNS Gas' last rate case (Decision
25 No. 73142 dated May 1, 2012). UNS Gas' analysis utilized a 4% discount rate. The avoided
26 natural gas cost used in Staff's calculation was based on index pricing provided by UNS Gas dated
27 February 1, 2013. UNS Gas' original application utilized avoided costs for UNS Gas as of August
28 4, 2010.

1 24. The last approved budget for this program, approved in Decision Nos. 72045 and
2 72056, was equal to \$1,077,145 for 2011. The proposed budget for this program for 2013 is
3 \$941,965. This represents a decrease of \$135,180 or roughly a 13% decrease.

4 25. Given the results of Staff's cost-benefit analysis, Staff has not recommended
5 approval of the proposed new measures for the Residential Existing Homes Program.

6 B. Residential Programs: New Construction

7 26. UNS Gas is requesting budget approval to continue this program with one
8 modification that updates the construction standard and energy savings to Energy Star® v3.

9 *Current Program*

10 27. This program was approved by the Commission in Decision No. 72023 dated
11 December 10, 2010, as the Energy Smart Home-Joint Program. The program is designed with an
12 incentive schedule that awards builders an additional incentive for installation of more efficient
13 gas heating and water heating equipment than that required in the residential new home
14 construction program. To qualify for an incentive, homes must first qualify for the APS Energy
15 Star new home program, then be tested by an approved energy rater, and finally meet the required
16 Home Energy Rating System ("HERS") Index score.

17 *Proposed Changes*

18 28. No new measures were requested for this program; however, new therm savings
19 estimates were completed to update construction standards to Energy Star® v3.

20 *Proposed Budget*

21 29. The 2013 proposed budget for the Residential New Construction Program is
22 \$140,932. Overall Program Development, Analysis, and Reporting Software costs would be
23 allocated across all of the cost-effective energy efficiency programs.

24 *Cost Effectiveness*

25 30. This program was found cost-effective in Decision No. 72023 dated December 10,
26 2010.

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1 *Recommendations*

2 31. The last approved budget for this program was in Decision No. 72023 and was
3 equal to \$218,375 for 2011. The proposed budget for this program for 2013 is \$140,932. This
4 represents a decrease of \$77,443 or roughly a 35% decrease. Staff has recommended continuation
5 of the current program at the proposed budget numbers.

6 C. Residential Programs: Low Income Weatherization

7 32. UNS Gas is requesting budget approval to continue the LIWP and modify the
8 income eligibility levels from 150% of poverty level to track more closely with the percent of
9 poverty level set by the Low Income Home Energy Assistance Program (“LIHEAP”). The current
10 level set by LIHEAP is approximately 200% of poverty level. UNS Gas is also requesting a
11 change to increase the maximum spending per home from \$2,000 to \$3,000 to be consistent with
12 the funding given per home by UNS Electric and Tucson Electric Power Company (“TEP”).

13 *Current Program*

14 33. This program was approved by the Commission in Decision No. 70180 dated
15 February 27, 2008. The program is designed so that funding from UNS Gas, up to \$2,000 per
16 home currently, is utilized to pay for energy efficient weatherization measures, equipment
17 replacement and/or repair and other home improvements which may lower the average household
18 energy consumption for low-income customers within the UNS Gas service territory.
19 Weatherization measures are conducted in accordance with the Weatherization Assistance
20 Program (“WAP”) funded by the U.S. Department of Energy.

21 *Proposed Changes*

22 34. UNS Gas is requesting to continue the current residential Low Income
23 Weatherization Program with an increase to the funding per home from \$2,000 to \$3,000 and
24 adjust the income eligibility levels from 150% of poverty level to track more closely with the
25 percent of poverty level set by LIHEAP.

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1 *Proposed Budget*

2 35. The 2013 proposed budget for the Residential Low Income Weatherization Program
3 is \$201,501. Overall Program Development, Analysis, and Reporting Software costs would be
4 allocated across all of the cost-effective energy efficiency programs.

5 *Cost Effectiveness*

6 36. Staff's review of this program included an examination of the results from the
7 LIWP for January through December 2011. According to the Annual DSM Progress Report filed
8 by UNS Gas in April 2012, UNS Gas had 117 households receive weatherization assistance during
9 2011. The goal for the calendar year 2011 was 125 households. Savings reported for the same
10 time period are 267,480 kWhs and 13,224 therms. By mid-year 2011, the Northern Arizona
11 Council of Governments ("NACOG") had utilized all of the annual budget allocated to NACOG.
12 An increase of \$25,000 was provided to NACOG in July 2011. NACOG completed 63% of the
13 homes weatherized in 2011 for UNS Gas. No program marketing dollars were spent on this
14 program in 2011 and none are being requested in 2013 as the popularity of the program is high
15 without the need for advertising and promotion.

16 *Recommendations*

17 37. The last approved budget for this program was in Decision No. 71623 equal to
18 \$200,000 for 2011. The proposed budget for this program is \$201,501 which represents an
19 increase of \$1,501 or roughly less than 1% increase. Given the high degree of interest in the
20 program in 2011, Staff has recommended continuing the LIWP.

21 38. The change requested by the Company to increase the income eligibility from
22 where it is currently set at 150% of the federal poverty level to track with LIHEAP which is
23 currently 200% of poverty level seems reasonable to Staff as these guidelines are also used by the
24 Governor's Office Of Energy Policy. However, Staff has not recommended approval of UNS Gas'
25 request to provide increased dollar allocations per home being weatherized. Staff's benefit-cost
26 analysis for the increase in spending versus leaving the per home dollar allocation where it is now
27 revealed the current level of allocation is a benefit-cost ratio of 1.39. Staff has recommended
28 continuing with the current per home allocation of \$2,000.

1 D. Residential Programs: Energy Financing

2 39. UNS Gas is requesting budget approval to continue this pilot program with no
3 modifications.

4 *Current Program*

5 40. This program was approved by the Commission in Decision No. 72062 (January 6,
6 2011) as a two-year pilot program. The program offers energy efficiency loans to UNS Gas
7 customers who are seeking financing to assist in paying for energy efficiency improvements to
8 their homes. Loan dollars can be used for energy efficiency measures that have been approved by
9 the Commission as part of the Residential Existing Homes program. The program objective is to
10 offer 9.99% interest unsecured loans with a 2% interest rate buy down resulting in a low-interest
11 loan at 7.99%. Loans are available for up to \$10,000 with repayment terms up to 12 years.

12 *Proposed Changes*

13 41. UNS Gas is requesting to continue the current residential energy financing pilot
14 program and to add those new measures submitted with the proposed changes to the Residential
15 Existing Homes Program (pipe wrap, high-efficiency boilers, and high-efficiency pool and spa
16 heaters) to the list of approved measures for which the loan can be used.

17 *Proposed Budget*

18 42. The 2013 proposed budget for the Residential Energy Financing Program is
19 \$24,740.

20 *Cost Effectiveness*

21 43. Staff's review of this program included an examination of the results from the
22 Residential Energy Financing Program for January through December 2011. According to the
23 Annual DSM Progress Report filed by UNS Gas in April 2012, UNS Gas had no participants in
24 this pilot program during 2011 and there were no savings reported for the same time period.
25 Expenses for 2011 totaled \$16,917. UNS Gas redirected its efforts during 2011 to focus more on a
26 local lending partner given the relative small scale of the program. In December 2011, UNS Gas
27 had a contract with Vantage West Credit Union in Tucson to fund the residential loans. The loan
28 terms from the original agreed upon terms in Decision No. 72062 have changed slightly with the

1 switch to an in-state lender. There will be a reduction in the buy-down costs of approximately
2 \$310,000 during the first two years of the program, a more liquid treatment of the loan loss reserve
3 account, and a reduction in the term of the loan for the residential customer from 12 years to 10
4 years.

5 *Recommendations*

6 44. After talking with UNS Gas, Staff understands the challenges UNS Gas has faced in
7 implementing this program during a downturn in the economy when so many residential customers
8 are struggling to stay employed and pay existing bills. According to UNS Gas, it has had little
9 interest from customers but has had a good dialogue open with participating contractors and are
10 compiling feedback on barriers.

11 45. The last approved budget for this program was in Decision No. 72062 equal to
12 \$321,386 for 2011. The proposed budget for this program is \$24,740 which represents a decrease
13 of \$296,646 or roughly a 92% decrease.

14 46. Given the slow start to the implementation of this pilot program which included the
15 vendor delaying implementation until the TEP Energy Efficiency program is approved and the
16 lack of interest to date in this program, Staff does not recommend going forward with the program
17 at this point in time.

18 E. Residential Programs: Behavioral Comprehensive Program

19 47. UNS Gas is requesting budget approval to implement a K-12 Education measure as
20 part of the new Behavioral Comprehensive Program. The Behavioral Comprehensive Program is
21 designed to provide customers with more information to allow them to better understand and
22 manage their energy usage. This K-12 program incorporates energy-based classroom curriculum
23 instructing students on energy saving approaches that can be implemented in their homes. This
24 program is an extension of the existing UNS Electric education program approved in Decision
25 No.70401 (July 3, 2008).

26 *Current Program*

27 48. This is a new program and does not replace or modify any current program.

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1 *Proposed Changes*

2 49. UNS Gas is requesting to implement a K-12 Education program which will target
3 teachers who are willing to add the energy-based classroom curriculum to their existing
4 educational program. The K-12 Education approach involves sending students home with energy
5 conservation kits containing a low-flow shower head, faucet aerator, and furnace whistle in
6 addition to educational materials regarding actions that can be taken to reduce energy use. A
7 student report card will be developed to determine how many of the items delivered in the kit were
8 actually installed. Implementation will be handled by a third party contractor, and extra effort will
9 be made to coordinate the school program with other energy efficiency efforts in the same
10 neighborhood. UNS Gas estimates delivering 1,000 energy conservation kits.

11 *Proposed Budget*

12 50. The 2013 proposed budget for the Residential K-12 Education Program is \$29,731.

13 *Cost Effectiveness*

14 51. Staff's review of the benefits and costs associated with the proposed new
15 Residential K-12 Education Program found that the education program is cost-effective. In the
16 analysis, Staff utilized UNS Gas' energy savings estimates which assumed installation of the low
17 flow shower head (21 therm savings annually), kitchen aerator (34 therm savings annually), and a
18 furnace whistle (7 therm savings annually). The savings estimates also took into consideration
19 water savings benefits from the installation of a low flow shower head and a kitchen aerator.

| Measure | # of Kits | Present Value DSM Savings | Present Value DSM Cost | Benefit/Cost Ratio |
|------------------------|-----------|------------------------------|---------------------------|-----------------------|
| K-12 Education Program | 1,000 | \$216,780.00 | \$73,060.00 | 2.97 |

22 *Total participation was estimated at 50% of the total number of kits distributed.

23 *Recommendations*

24 52. UNS Gas' analysis submitted with its original application indicated the Company
25 had calculated a measure level Societal Cost Test ratio for the Residential K-12 Education
26 Program of 18.7. Staff's analysis led to the benefit-cost ratio indicated in the table above.
27 Variances in the results can be pinpointed to the fact that Staff's analysis includes the Program
28 Level Non-Incentive Costs into the cost per unit at the measure level. UNS Gas did not include

1 program costs in its Societal Cost Test analysis. Staff also included the cost of the shower head,
2 kitchen aerator, and the furnace whistle as an implementation cost rather than an incentive cost as
3 UNS Gas did. In addition, Staff utilized a calculated after-tax cost of capital as the discount rate
4 for UNS Gas equal to 6.99% based on data from UNS Gas' last rate case (Decision No. 73142
5 dated May 1, 2012). UNS Gas' analysis utilized a 4% discount rate. The avoided natural gas cost
6 used in Staff's calculation was based on index pricing provided by UNS Gas dated February 1,
7 2013. UNS Gas' original application utilized avoided costs for UNS Gas as of August 4, 2010.

8 53. Given the results of Staff's cost-benefit analysis, Staff has recommended approval
9 of the Residential K-12 Education Program.

10 F. Residential and Commercial Programs: Solar Water Heating

11 54. UNS Gas is requesting budget approval to implement a Residential and
12 Commercial Solar Thermal Water Heating Program. The Solar Thermal Water Heating Program
13 would be offered to existing residential customers, residential new construction customers, and
14 existing and new small commercial customers.

15 *Current Program*

16 55. This is a new program and does not replace or modify any current program.

17 *Proposed Changes*

18 56. UNS Gas is requesting to implement a solar thermal water heating program which
19 offers incentives to participating customers on qualified solar thermal systems upon proof of
20 purchase and after the system is installed and operational. To qualify, a system must be listed by
21 the Solar Rating Certification Council ("SRCC") and have OG-300 certification. Typically,
22 customers in the UNS Gas service territory own and operate either conventional gas or electric
23 storage water heaters. These water heating systems can be very energy inefficient. However,
24 consumers are reluctant to change water heating systems due to capital constraints or lack of
25 awareness of more energy efficient options. UNS Gas is proposing to remove barriers to the
26 installation of solar thermal water heating and increase customer acceptance and program
27 participation by allowing customers to receive the incentive themselves or choose to assign the
28 incentive payment directly to the installer, thus reducing initial out-of-pocket investments. All

1 UNS Gas customers who are property owners of existing residential or small commercial facilities,
2 new home builders, and commercial property developers are eligible for this program.

3 57. UNS Gas plans to maximize opportunities for program coordination with other
4 approved UNS Gas energy efficiency programs and with any electric utility energy efficiency
5 programs in place to maximize benefits while minimizing promotional costs. The Company will
6 also utilize trained and qualified trade allies to inform and educate residential and commercial
7 customers about more efficient water heating technologies. The program has been designed to
8 offer average incentive dollars equal to \$699 per home for existing residential customers for up to
9 50 customers; incentive dollars equal to \$699 per home for residential new construction for up to
10 12 customers; and incentive dollars equal to \$400 per panel for up to 12 existing commercial
11 retrofits; and incentive dollars equal to \$400 per panel for up to 12 commercial new constructions.

12 *Proposed Budget*

13 58. The 2013 proposed budget for the Residential and Commercial Solar Thermal
14 Water Heating Program is \$115,123. Proposed incentives make up \$52,938 of the total program
15 budget. Overall Program Development, Analysis, and Reporting Software costs would be
16 allocated across all of the cost-effective energy efficiency programs.

17 *Cost Effectiveness*

18 59. Solar Thermal Water Heating is considered a RET. According to A.A.C. R14-2-
19 2504.A., RET programs are approved as part of the GEES. Energy savings from RET programs
20 expressed in therms or equivalent therms may be included toward meeting the energy saving goal.
21 Staff completed a cost-benefit analysis of the Solar Thermal Water Heating Program examining
22 the accuracy of the information and the economic feasibility of extending ratepayer dollars to
23 support such a program. The result of that analysis indicated that the Solar Thermal Water
24 Heating Program is not cost-effective at this point in time. However, as a RET program within the
25 GEES, the program is not required to lead to a benefit-to-cost ratio greater than one to be
26 implemented as part of an energy efficiency program.

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1 *Recommendations*

2 60. Staff recognizes that reduced energy consumption from water heating may
3 represent significant savings potential for UNS Gas' Energy Efficiency Portfolio and getting UNS
4 Gas even closer to the required standards under GEES. Staff has recommended the Solar Thermal
5 Water Heating Program for approval under the following conditions:

- 6 • UNS Gas proposed as part of the Solar Thermal Water Heating Program that the Company
7 will monitor incentives paid to customers for the same system from both the gas and the
8 electric utility and that the maximum incentive that would be paid would be no more than
9 85% of the installed cost of the system requiring that customers pay at least 15% of the
10 system installed cost. Staff does not agree that a customer should be able to collect an
11 incentive from both the electric and natural gas utility for the same installation of a Solar
12 Thermal Water Heater. Staff has recommended that for areas of its system where the
13 electric utility also offers an incentive for the installation of a Solar Thermal Water Heater
14 that UNS Gas should work with the associated utility prior to payment of an incentive to
15 insure that a customer does not receive incentive dollars from both utilities.
16 • For those instances where UNS Gas is the utility paying the incentive to the customer for
17 the Solar Thermal Water Heater, Staff has recommended that the incentive not exceed 50%
18 of the installed cost of the system (comparable with the incentive cap set for Southwest Gas
19 with its Solar Water Heating Program).
20 • UNS Gas will work with the associated electric utility in the service territory to insure that
21 the energy savings resulting from the installation of a RET are not double-counted by both
22 utilities to meet either the required gas energy efficiency standard or the REST requirement
23 but rather is counted only by the utility paying the incentive dollars for the system.
24 • UNS Gas will also incorporate into its DSM Portfolio Savings Reports details as to how
25 many Solar Thermal Water Heaters were installed and whether UNS Gas was the utility
26 paying the incentive and reporting the associated energy savings from each installation.

19 G. C&I Facilities Programs: Cooking, HVAC, Water Heating

20 61. UNS Gas is requesting budget approval to continue the C&I Facilities program plus
21 approval for adding 21 additional measures. UNS Gas is also requesting to modify the delivery of
22 the program to a direct install program similar to what was approved as a Small Business Program
23 for TEP in Decision No. 70457 (August 6, 2008) and the C&I Facilities Program for UNS Electric
24 approved in Decision No. 70524 (September 30, 2008).

25 *Current Program*

26 62. This program was approved by the Commission in Decision No. 70180 (February
27 27, 2008). The program was established with incentives for specific energy efficiency measures in
28 existing commercial and industrial facilities being paid directly to customers. The program is

1 designed to promote the installation of high-efficiency, gas-fueled equipment and systems at
2 existing commercial and industrial facilities within the UNS Gas service area. Current approved
3 measures within the C&I Facilities program include: High Efficiency Space Heating Hot Water
4 Boiler <300 kBtuh, High Efficiency Space Heating Hot Water Boiler >=300 kBtuh, High
5 Efficiency Furnace <300,000 Btuh (AFUE > 92), High Efficiency Furnace <300,000 Btuh (AFUE
6 > 95), Storage Water Heater >75,000 Btuh, High Efficiency Griddle, and Storage Water Heater
7 <75,000 Btuh. Overall participation in the program has been low. According to the Annual DSM
8 Progress Report for January through December 2011 filed in April 2012, 15 customers participated
9 in this program in 2011. The energy savings goal of 95,000 therms in 2011 was reached and
10 exceeded as the program recorded 195,820 therm savings. However, significant barriers exist
11 which prevent higher participation levels such as the economic climate pushing for reduced
12 spending when possible rather than increased incremental costs which may occur with the
13 purchase of more energy-efficient equipment.

14 *Proposed Changes*

15 63. UNS Gas is requesting to continue the current measures offered as part of the C&I
16 Facilities program and expand the program to include 21 new measures. The Company is also
17 requesting a revamp of how the program is delivered. The proposed changes include average
18 incentive levels of 75% of the incremental cost being paid directly to the contractor rather than
19 incentives paid to the customer. This program delivery option incorporates the use of an
20 implementation contractor who is responsible for contractor recruitment, contractor training,
21 applications processing, pre- and post-inspections of customers' facilities, rebate processing, and
22 reporting to UNS Gas the administration of the program. This program delivery method has
23 worked well for TEP and UNS Electric, and UNS Gas believes the change will remove barriers
24 that are currently limiting participating in the program as commercial and industrial customers
25 will only be required to pay the amount of the retro-fit that is not covered by utility incentives thus
26 lowering the out-of-pocket expense to the customers. In addition, UNS Gas is also requesting to
27 remove the \$8,000 incentive caps for C&I customers and the \$25,000 incentive cap per school
28 district as these incentives have proven to be more of a disincentive to participation.

64. The new measures proposed by UNS Gas are listed in the table below along with estimated average incentive dollars per unit and the number of units expected for participation.

| C&I Facilities Program Proposed New Measures | | |
|---|----------------------------------|-------------------------|
| Measure | Average Incentive \$ per unit | Estimated # of Units |
| High Efficiency Space Heating Steam Boiler | \$1,800 | 10 |
| High Efficiency Fryer | \$900 | 15 |
| High Efficiency Large Vat Fryer | \$900 | 15 |
| High Efficiency Combination Oven | \$1,000 | 10 |
| High Efficiency Convection Oven | \$1,000 | 10 |
| High Efficiency Conveyor Oven (<25 inches) | \$400 | 10 |
| High Efficiency Conveyor Oven (>25 inches) | \$900 | 10 |
| High Efficiency Single Rack Oven | \$1,000 | 10 |
| High Efficiency Double Rack Oven | \$1,000 | 10 |
| High Efficiency Energy Star Steam Cooker | \$1,750 | 10 |
| Condensing Unit Heater | \$400 | 10 |
| Power Vented Unit Heater | \$2,000 | 10 |
| Programmable Thermostats | \$100 | 50 |
| High Efficiency Pool and Spa Heater (<500 kBtuh) | \$150 | 5 |
| Low-Flow Pre-Rinse Spray Valve | \$50 | 50 |
| Commercial/Multifamily Clothes Washer CEE Tier 1 | \$75 | 50 |
| Commercial/Multifamily Clothes Washer CEE Tier 2 | \$75 | 50 |
| Commercial/Multifamily Clothes Washer CEE Tier 3 | \$75 | 50 |
| Steam Trap Survey and Replacement Commercial | \$250 | 200 |
| Steam Trap Survey and Replacement Industrial | \$250 | 25 |
| Custom Measures* | \$2,700 | 5 |

*Custom incentive is based on a projection of covering 75% of the incremental cost for a typical custom project and is equivalent to \$2,700 based on first year savings.

65. The proposed changes to the program mean that it will be operated as an “up-stream” market program where the incentives are offered directly to the qualified contractor who will then provide installation services to customers. The program will also include promotion and education material designed to provide decision makers in the small business arena with necessary data to make informed decisions.

Proposed Budget

66. The 2013 proposed budget for the C&I Facilities Program is \$698,594. Incentives make up \$411,750 of the total program budget. Overall Program Development, Analysis, and Reporting Software costs would be allocated across all of the cost-effective energy efficiency programs.

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1 *Cost Effectiveness*

2 67. Staff's review of the benefits and costs associated with the proposed new measures
3 in the C&I Facilities Program found that a few of the new measures are not cost-effective at this
4 point in time. As stated earlier, with the current depressed natural gas prices, the benefits in terms
5 of therm and capacity savings do not necessarily outweigh the costs associated with the measures.
6 Staff's benefit-cost analysis is presented in the table below.

| Measure | Units | Present Value DSM Savings | Present Value DSM Cost | Benefit / Cost Ratio |
|--|-------|------------------------------|---------------------------|-------------------------|
| High Efficiency Space Heating Steam Boiler | 10 | \$42,647.49 | \$41,070.22 | 1.04 |
| High Efficiency Fryer | 15 | \$22,722.57 | \$23,547.54 | 0.96 |
| High Efficiency Large Vat Fryer | 15 | \$27,014.62 | \$24,586.43 | 1.10 |
| High Efficiency Combination Oven | 10 | \$16,957.77 | \$18,877.36 | 0.90 |
| High Efficiency Convection Oven | 10 | \$12,876.13 | \$17,451.22 | 0.74 |
| High Efficiency Conveyor Oven (<25 inches) | 10 | \$30,927.95 | \$12,327.20 | 2.51 |
| High Efficiency Conveyor Oven (>25 inches) | 10 | \$35,556.62 | \$20,191.33 | 1.76 |
| High Efficiency Single Rack Oven | 10 | \$43,509.52 | \$24,064.47 | 1.81 |
| High Efficiency Double Rack Oven | 10 | \$88,912.59 | \$39,887.89 | 2.23 |
| High Efficiency Energy Star Steam Cooker | 10 | \$64,591.02 | \$40,257.07 | 1.60 |
| Condensing Unit Heater | 10 | \$20,981.42 | \$17,154.73 | 1.22 |
| Power Vented Unit Heater | 10 | \$81,508.58 | \$66,765.06 | 1.22 |
| Programmable Thermostats | 50 | \$9,581.74 | \$12,286.09 | 0.78 |
| High Efficiency Pool and Spa Heater (<500 kBtuh) | 5 | \$1,387.86 | \$1,337.47 | 1.04 |
| Low-Flow Pre-Rinse Spray Valve | 50 | \$3,917.10 | \$3,803.56 | 1.03 |
| Commercial/Multifamily Clothes Washer CEE Tier 1 | 50 | \$29,798.12 | \$10,233.59 | 2.91 |
| Commercial/Multifamily Clothes Washer CEE Tier 2 | 50 | \$36,193.47 | \$11,942.68 | 3.03 |
| Commercial/Multifamily Clothes Washer CEE Tier 3 | 50 | \$38,781.58 | \$22,952.50 | 1.69 |
| Steam Trap Survey and Replacement Commercial | 200 | \$99,209.04 | \$99,115.97 | 1.00 |
| Steam Trap Survey and Replacement Industrial | 25 | \$56,920.29 | \$20,820.01 | 2.73 |
| Custom Measures | 5 | \$48,177.05 | \$28,286.53 | 1.70 |

19 *Recommendations*

20 68. UNS Gas' analysis submitted with its original application indicated the Company
21 had calculated a measure level Societal Cost Test ratio for each of the new measures as detailed
22 below. Staff's analysis led to the benefit-cost ratios indicated in the table above. Variances in the
23 results can be pinpointed to analysis differences including the fact that Staff's analysis includes the
24 Program Level Non-Incentive Costs into the cost per unit at the measure level. UNS Gas did not
25 include program costs in its Societal Cost Test analysis. Staff also utilized a calculated after-tax
26 cost of capital as the discount rate for UNS Gas equal to 6.99% based on data from UNS Gas' last
27 rate case (Decision No. 73142 dated May 1, 2012). UNS Gas' analysis utilized a 4% discount rate.
28 The avoided natural gas cost used in Staff's calculation was based on index pricing provided by

1 UNS Gas dated February 1, 2013. UNS Gas' original application utilized avoided costs for UNS
 2 Gas as of August 4, 2010. Staff also included monetized water and electricity benefits when
 3 applicable based on energy/water savings provided by UNS Gas.

| Measure | Staff Benefit/Cost Ratio | UNS Gas Societal Cost Test |
|--|--------------------------|----------------------------|
| High Efficiency Space Heating Steam Boiler | 1.04 | 1.9 |
| High Efficiency Fryer | 0.96 | 1.6 |
| High Efficiency Large Vat Fryer | 1.10 | 1.8 |
| High Efficiency Combination Oven | 0.90 | 1.4 |
| High Efficiency Convection Oven | 0.74 | 1.1 |
| High Efficiency Conveyor Oven (<25 inches) | 2.51 | 7.1 |
| High Efficiency Conveyor Oven (>25 inches) | 1.76 | 3.6 |
| High Efficiency Single Rack Oven | 1.81 | 3.8 |
| High Efficiency Double Rack Oven | 2.23 | 5.5 |
| High Efficiency Energy Star Steam Cooker | 1.60 | 3.2 |
| Condensing Unit Heater | 1.22 | 2.4 |
| Power Vented Unit Heater | 1.22 | 2.4 |
| Programmable Thermostats | 0.78 | 1.2 |
| High Efficiency Pool and Spa Heater (<500 kBtuh) | 1.04 | 1.4 |
| Low-Flow Pre-Rinse Spray Valve | 1.03 | 3.9 |
| Commercial/Multifamily Clothes Washer CEE Tier 1 | 2.91 | 3.6 |
| Commercial/Multifamily Clothes Washer CEE Tier 2 | 3.03 | 3.7 |
| Commercial/Multifamily Clothes Washer CEE Tier 3 | 1.69 | 2.0 |
| Steam Trap Survey and Replacement Commercial | 1.00 | 1.6 |
| Steam Trap Survey and Replacement Industrial | 2.73 | 8.1 |
| Custom Measures* | 1.70 | 3.3 |

17 69. The last approved budget for this program was in Decision No. 70180 equal to
 18 \$218,545 for 2011. The proposed budget for this program is \$698,594 which represents an
 19 increase of \$480,049 or roughly a 219% increase.

20 70. Staff has recommended approval of all of the measures except: High Efficiency
 21 Combination Oven, High Efficiency Convection Oven, and Programmable Thermostats. For
 22 Staff's recommended measures, Staff did not monetize the environmental benefits associated with
 23 the proposed measures but recognizes that there are benefits to the environment from the
 24 implementation of these measures. When taking into consideration those environmental benefits,
 25 Staff has recommended also approving the High Efficiency Fryer as an additional measure to the
 26 C&I program.

27 71. After considering the low participation levels for this program and the proven
 28 success of the direct install methodology, Staff has recommended that UNS Gas be allowed to

1 implement a direct install design whereby 75% of the incremental cost is being paid directly to the
2 contractor rather than incentives paid to the customer. UNS Gas also requested the removal of the
3 \$8,000 incentive cap for C&I customers and the \$25,000 incentive cap per school district. After
4 reviewing the approval of these caps with Decision No. 70180, Staff is concerned that a removal of
5 the incentive cap would lead to several larger commercial and industrial customers receiving the
6 majority of the budgeted incentive dollars. However, Staff recognizes that with the increased
7 number of measures available, the incentive cap is more likely to be reached sooner than with the
8 limited number of measures available prior to this filing. Staff has recommended increasing the
9 incentive cap for C&I customers to \$16,000 and increasing the incentive cap per school district to
10 \$50,000.

11 H. Multifamily Programs: Direct Install

12 72. UNS Gas is requesting budget approval to implement a new Multifamily Direct
13 Install program to its current energy efficiency portfolio. This program is designed to encourage
14 energy efficiency upgrades in the multifamily buildings of five or more units. Three measures
15 have been proposed as part of the new Multifamily Direct Install Program: Low Flow Shower
16 Heads (1.5 GPM), Kitchen Faucet Aerators (1.5 GPM), and Bathroom Faucet Aerators (1 GPM).

17 *Current Program*

18 73. This is a new program and does not replace or modify any current program.

19 *Proposed Changes*

20 74. Multifamily housing represents a vast opportunity for energy efficiency potential;
21 however, this segment also brings with it substantial barriers to implementing energy efficiency
22 programs such as lack of capital and lack of awareness of the benefits to energy efficiency
23 upgrades. UNS Gas believes the 2-4 unit market segment is best served by its Residential Existing
24 Homes Program. At the same time the 5+ multifamily housing market segment can be reached by
25 both the C&I Facilities Program and this new Multifamily Direct Install Program.

26 75. The program would be structured such that delivery will occur through direct
27 installation of selected low cost energy efficiency improvements in existing complexes. The
28 program would be open to all existing multifamily housing complexes and new construction

1 projects within the UNS Gas service area with five dwelling units or more. All UNS Gas
 2 customers who are property owners of existing residential multifamily complexes or developers of
 3 new complexes with five or more dwelling units would be eligible for the program.

4 76. The program is designed so that delivery would be through a direct installation
 5 effort of the faucet aerators and low flow shower heads. The installation would be at no cost to the
 6 owner as the program itself would pay for the full cost of the product installation. The installation
 7 would be completed by either the facility's existing maintenance personnel or through a program
 8 authorized installation contractor.

9 77. UNS Gas will market the program via communications with apartment managers
 10 and owners including options such as direct outreach, local newspapers and radio, and bill inserts.
 11 UNS Gas will also work with contractors and industry specialists to communicate the new
 12 program. The Company anticipates that property managers will take advantage of the offer and
 13 donate the labor to install the energy efficient devices.

14 *Proposed Budget*

15 78. The 2013 proposed budget for the Multifamily Direct Install Program is \$47,130.
 16 Proposed incentives make up \$8,058 of the total program budget. Overall Program Development,
 17 Analysis, and Reporting Software costs would be allocated across all of the cost-effective energy
 18 efficiency programs.

19 *Cost Effectiveness*

20 79. Staff's review of the benefits and costs associated with the proposed new measures
 21 in the Multifamily Direct Install Program found that all three of the proposed new measures are
 22 cost-effective. Staff's benefit-cost analysis is presented in the table below.

| Measure | Units | Present Value DSM Savings | Present Value DSM Cost | Benefit/Cost Ratio |
|-------------------------|-------|---------------------------|------------------------|--------------------|
| Low Flow Shower Head | 275 | \$60,065.50 | \$33,093.50 | 1.82 |
| Kitchen Faucet Aerator | 275 | \$30,313.25 | \$8,929.25 | 3.40 |
| Bathroom Faucet Aerator | 275 | \$18,026.25 | \$8,299.50 | 2.17 |

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1 *Recommendations*

2 80. UNS Gas' analysis submitted with its original application indicated the Company
3 had calculated a measure level Societal Cost Test ratio for the three new measures as 8.6 for the
4 Low Flow Shower Head, 36.6 for the Kitchen Faucet Aerator, and 33.8 for the Bathroom Faucet
5 Aerator. Staff's analysis led to the benefit-cost ratios indicated in the table above. Variances in
6 the results can be pinpointed to differences including the fact that Staff's analysis includes the
7 Program Level Non-Incentive Costs into the cost per unit at the measure level. UNS Gas did not
8 include program costs in its Societal Cost Test analysis. Staff also utilized a calculated after-tax
9 cost of capital as the discount rate for UNS Gas equal to 6.99% based on data from UNS Gas' last
10 rate case (Decision No. 73142 dated May 1, 2012). UNS Gas' analysis utilized a 4% discount rate.
11 The avoided natural gas cost used in Staff's calculation was based on index pricing provided by
12 UNS Gas dated February 1, 2013. UNS Gas' original application utilized avoided costs for UNS
13 Gas as of August 4, 2010.

14 81. Given the results of Staff's cost-benefit analysis, Staff has recommended approval
15 of all three new measures proposed in the new Multifamily Direct Install Program.

16 I. Support Program: Education and Outreach

17 82. UNS Gas is requesting budget approval to add this program to the UNS Gas energy
18 efficiency portfolio.

19 *Current Program*

20 83. This is a new program and does not replace or modify any current program.

21 *Proposed Changes*

22 84. UNS Gas believes that to further its ability to meet overall performance goals in
23 energy savings, its customers must understand the concept of energy efficiency and embrace those
24 concepts. To meet this goal, UNS Gas is proposing to implement a new Education and Outreach
25 program designed to encourage higher levels of participation in DSM programs. The Company
26 will strive to educate residential and commercial customers on how to conserve energy and in turn
27 lower their gas utility bills. UNS Gas will strive to educate customers about their energy use

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1 decisions, actions, and options for increasing energy efficiency through the new Education and
2 Outreach Program.

3 85. The education of consumers about their energy use would occur through a variety
4 of avenues such as: bill messages, website interaction through uesaz.com, UNS Gas customer care
5 representatives will be knowledgeable about energy efficiency issues, bill inserts, email
6 newsletters, and even participation at fairs and other local events. The intention behind the
7 program is to help customers understand and embrace the concept of DSM and to encourage
8 higher levels of participation in the DSM programs offered. This program would support all DSM
9 program marketing and advertising efforts.

10 86. All UNS Gas residential and commercial customers will be eligible for this
11 program. In addition, UNS Gas' existing "Bright" energy efficiency marketing platform will still
12 be used to keep in touch with customers via social media such as Facebook and Twitter.

13 *Proposed Budget*

14 87. The 2013 proposed budget for the Education and Outreach Program is \$29,731.
15 Overall Program Development, Analysis, and Reporting Software costs would be allocated across
16 all of the cost-effective energy efficiency programs.

17 *Cost Effectiveness*

18 88. Staff's review of this program did not include completing a cost-benefit analysis.
19 Since this is an education program, there is not a calculation for energy savings.

20 *Recommendations*

21 89. UNS Gas is requesting approval to recover the cost of the program through the
22 DSMS but will not have accompanying direct energy savings from this program. Staff agrees with
23 UNS Gas that the program will directly benefit other DSM programs by increasing awareness of
24 those programs and ultimately increasing participation in those programs. Staff has recommended
25 approval of the Education and Outreach Program as a new program offered in the UNS Gas energy
26 efficiency portfolio.

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1 J. Support Programs: Codes Support

2 90. UNS Gas is requesting budget approval to add this pilot program to the UNS Gas
3 energy efficiency portfolio.

4 *Current Program*

5 91. This is a new program and does not replace or modify any current program.

6 *Proposed Changes*

7 92. UNS Gas is requesting to implement a pilot Energy Codes Support Program
8 designed to increase energy savings in new construction and renovated buildings in both the
9 residential and commercial segments to improve compliance levels with building codes and
10 establish a process passing on periodic energy code updates. The Company recognizes that
11 building energy codes are a simple cost-effective way of achieving energy savings; however, the
12 Company also recognizes that many energy code officials lack the time and resources to enforce
13 those codes. In addition, building design professionals may not be well informed of energy code
14 requirements. UNS Gas believes that the Energy Codes Support Program will reduce energy
15 consumption and assist in improving compliance with existing and future energy codes.

16 93. This program will be open to all new construction and existing facilities that receive
17 gas service from UNS Gas. All UNS Gas customers who are property owners of existing
18 residential or small commercial facilities, new home builders, and commercial property developers
19 can take part in this program. To reach this audience with the energy codes message, UNS Gas
20 will hold trainings for local code officials and building design professionals to promote code
21 compliance. UNS Gas will also keep apprised of changes and market trends in energy codes and
22 pass that information on to local groups responsible for energy code compliance and enforcement.

23 94. In addition, the Energy Codes Support Program will facilitate energy savings
24 through adoption of codes where they currently do not exist and act as an advocate for energy code
25 updates over time. The program will also provide support to local jurisdictions through such
26 activities as: classroom training sessions/brown bag training sessions/field training sessions for
27 code officials and building professionals, purchasing energy code books for officials and
28 supporting energy code certifications. UNS Gas will also coordinate activities with the Southwest

1 Energy Efficiency Project (“SWEEP”) to support research on and adoption of building codes and
2 equipment standards.

3 *Proposed Budget*

4 95. The 2013 proposed budget for the Energy Codes Support Program is \$38,077.
5 Overall Program Development, Analysis, and Reporting Software costs would be allocated across
6 all of the cost-effective energy efficiency programs.

7 *Cost Effectiveness*

8 96. Staff’s review of this program did not include completing a cost-benefit analysis
9 since this is an education program, there is not a calculation for energy savings.

10 *Recommendations*

11 97. UNS Gas will take an integrated evaluation approach to develop savings
12 methodologies for estimating savings from the implementation of more stringent energy code
13 adoption and increased energy code compliance. UNS Gas will propose a calculation
14 methodology to gauge energy savings from energy code adoption to the Commission.

15 98. Staff agrees with UNS Gas’ assessment that energy savings can be achieved
16 through the adherence to energy codes. Staff also understands that these codes vary widely across
17 the state of Arizona and that education on what the codes are is key to implementation. Staff has
18 recommended approval of the Energy Codes Support Program.

19 **BUDGET**

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| UNS GAS, INC. 2013 EE BUDGET | | | | |
|--|-----------|-----------|-----------|-----------|
| | Actuals | Actuals | UNS | Staff |
| | 2011 | 2012** | Proposed | Proposed |
| | | | 2013 | 2013 |
| Residential Programs | | | | |
| Existing Homes | \$564,125 | \$622,152 | \$941,965 | \$933,120 |
| New Construction | \$47,328 | \$90,504 | \$140,932 | \$140,932 |
| Low Income Weatherization | \$201,500 | \$143,696 | \$201,500 | \$201,500 |
| Energy Financing | \$16,917 | \$2,310 | \$24,740 | \$0 |
| Behavioral Comprehensive (K-12) | \$0 | \$0 | \$29,731 | \$29,731 |
| Non-Residential Programs | | | | |
| C&I Facilities | \$114,484 | \$150,908 | \$698,594 | \$665,047 |
| Multifamily Direct Install | \$0 | \$0 | \$47,130 | \$47,130 |
| Both Residential & Non-Residential Programs | | | | |
| Solar Thermal Water Heating | \$0 | \$0 | \$115,122 | \$115,122 |

| | | | | | |
|---|---|-------------|-------------|-------------|--------------------|
| 1 | Support Programs | | | | |
| 2 | Education & Outreach | \$0 | \$0 | \$29,731 | \$29,731 |
| 3 | Codes Support | \$0 | \$0 | \$38,077 | \$38,077 |
| 4 | Program Development, Analysis, Reporting, Software* | \$134,451 | \$26,881 | \$118,485 | \$118,485 |
| 5 | Baseline Study | \$7,046 | \$0 | \$0 | \$0 |
| 6 | Annual Program Cost/Budget Per Year | \$1,085,851 | \$1,036,451 | \$2,386,007 | \$2,318,675 |

*Program Development, Analysis, Reporting Software costs are allocated across all programs for benefit-cost analysis purposes.

**2012 Actuals were supplied by UNS Gas but have not been reported on the DSM report yet this year.

7 99. The above table details UNS Gas' proposed energy efficiency budget for the
8 remainder of 2013 and Staff's recommended budget (in bold) which removes funding for those
9 programs not cost-effective. Staff's proposed budget for 2013 represents an increase of
10 approximately \$1.3 million which is just slightly more than double the actual budget for 2012.
11 Given the number of new measures UNS Gas is proposing that have a benefit-cost ratio greater
12 than one, Staff has recommended approval of the Staff-proposed budget as stated above.

13 100. Given that a few of the new measures proposed by UNS Gas were not considered
14 cost-effective at this point in time, Staff has adjusted the projected savings UNS Gas may reach in
15 2013 below.

| PROJECTED ENERGY EFFICIENCY SAVINGS (with recommended measures) | | | | | |
|---|---|-------------|-------------|-------------|-------------|
| | 2010 | 2011 | 2012 | 2013 | |
| 18 | Actual/Projected Sales (therms) | 140,222,684 | 139,990,850 | 135,765,533 | 150,607,549 |
| 19 | Required Savings (%) | | 0.50% | 1.20% | 1.80% |
| 20 | Required Savings From Prior Year Sales (therms) | | 701,113 | 1,679,890 | 2,443,780 |
| 21 | Energy Efficiency Programs Savings (therms) | | 281,203 | 217,426 | 476,895 |
| 22 | Renewable Energy Technology Programs Savings (therms) | | 0 | 0 | 19,113 |
| 23 | Total Savings (therms) | | 281,203 | 217,426 | 496,008 |
| 24 | Total Cumulative Savings (therms) | | 281,203 | 498,629 | 994,637 |
| 25 | Savings (%) | | 0.201% | 0.356% | 0.733% |
| 26 | Difference Between Required Savings and Projected/Actual Savings (therms) | | 419,910 | 1,181,261 | 1,449,143 |

26 BUDGET SHIFTING

27 101. UNS Gas has requested the ability to shift up to 50 percent of its approved funds
28 from residential to non-residential sector programs, or from non-residential to residential sector

1 programs, based on program activity. The Company has also requested that it be allowed to
2 increase the total budget for the energy efficiency programs by up to 25 percent, where cost-
3 effective. The Company states that this type of flexibility maximizes participation in successful
4 programs and allows it to continue accepting applications from customers in cases where an
5 individual program may be over-subscribed.

6 102. While the Commission has allowed utilities to shift energy efficiency program
7 funding among programs or measures within the residential sector, or among programs or
8 measures within the non-residential sector, recent practice has been to limit shifting from sector to
9 sector, to ensure that both residential and non-residential customers have reasonable opportunity to
10 participate in energy efficiency programs. Allowing funding shifts among programs or measures
11 within a sector allows a reasonable degree of flexibility, but ensures reasonable access to
12 participation in energy efficiency programs for both residential and non-residential customers.

13 103. When considering the proposed budget that Staff has recommended for 2013
14 includes an almost doubling of actual dollars spent in 2011 and 2012, Staff believes that a
15 reasonable amount of flexibility has already been incorporated into the 2013 proposed budget.
16 Staff has recommended that UNS Gas be allowed to shift funds (up to 25% of the program's
17 budgeted funds) between measures and programs within each customer segment but not be
18 allowed to shift funds between residential and non-residential segments (with the exception that
19 budgeted dollars for LIWP should not be allocated to other programs). Staff agrees with UNS Gas
20 that it is helpful for utilities to have the flexibility to increase the budget slightly if necessary to
21 maximize participation. Staff has recommended that UNS Gas be allowed to increase the total
22 budget for the energy efficiency programs by up to 5 percent, where cost-effective.

23 **MEASUREMENT, EVALUATION, AND RESEARCH (MER)**

24 104. In its original application, UNS Gas requested that the reporting requirements
25 outlined in A.A.C. R14-2-2509 supersede the reporting requirements detailed in Decision No.
26 70011 dated November 27, 2008. Currently, UNS Gas is required to file its DSM surcharge filing
27 on April 1st each year (with the surcharge taking effect June 1st of each year) and its semi-annual
28 ...

1 DSM reports on March 1st and September 1st of each year. A.A.C. R14-2-2509 outlines that
2 specific DSM reports be filed April 1st and October 1st of each year.

3 105. Staff agrees that in order to avoid confusion and duplicative filings, the reporting
4 requirements detailed in A.A.C. R14-2-2509 supersede those reporting requirements outlined in
5 Decision No. 70011 so that UNS Gas would be required to file DSM reports on April 1st and
6 October 1st of each year.

7 **DSMS**

8 106. In order to propose a DSMS that is most reflective of the Company's current
9 position, Staff requested updated DSM balance (estimated as of December 2012) information and
10 projected sales for 2013. The updated balance and terms can be seen in the table below along
11 with Staff's calculation of the proposed DSMS (with the reduced budget for measures not cost-
12 effective) and the impact to a residential customer bill.

| DEMAND SIDE MANAGEMENT SURCHARGE | | |
|---|---|-------------|
| STAFF PROPOSED 2012-2013 PLAN CALCULATION | | |
| (a) | Total Therm Sales (Including CARES):* | 154,937,268 |
| (b) | Less CARES Sales Forecast: | 3,981,782 |
| (a) - (b) = (c) | Total Therms Applicable to Surcharge | 150,955,486 |
| | Total Budget | \$2,318,875 |
| | Carry-Over DSM Balance (over-collected) | \$348,625 |
| (d) | Total DSM Cost to be Recovered | \$1,970,250 |
| (d) / (c) = (e) | Proposed Surcharge (per therm) | \$0.0131 |
| (f) | Current Surcharge (per therm)** | \$0.0084 |
| (g) | Average Residential Monthly Usage (therms) | 45 |
| (f) x (g) = (h) | Surcharge \$ Collected (Current Surcharge) | \$0.3780 |
| (e) x (g) = (i) | Surcharge \$ Collected (Proposed Surcharge) | \$0.5873 |
| (i) - (h) | Monthly Bill Impact for Residential Customers | \$0.2093 |

26 *Total therm sales for purposes of calculating the surcharge include all customer volumes including transport customers. Therm
27 sales reported for purposes of meeting the GEES do not include transport only customers.

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1 **WAIVER REQUEST**

2 107. In its original application, UNS Gas indicated that it would make all efforts to meet
 3 the 2011 EE Standard target of 0.50% of prior year sales. Actual 2011 savings was 0.201%.
 4 Given the result for 2011 and the time that has passed in implementing a new energy efficiency
 5 plan with additional measures, UNS Gas has requested a waiver of the GEES in A.A.C. R14-2-
 6 2504.B. Specifically in its September 2011 filing, UNS Gas has requested a modification of the
 7 GEES as detailed in the table below.

8

| Requested Waiver To Standard | | |
|------------------------------|---|--|
| Calendar Year | Cumulative Energy Efficiency Standard (Current) | Cumulative Energy Efficiency Standard (UNS Gas Requested Modification) |
| 2011 | 0.5% | 0.08% |
| 2012 | 1.2% | 0.61% |
| 2013 | 1.8% | 1.20% |
| 2014 | 2.4% | 1.80% |
| 2015 | 3.0% | 2.40% |
| 2016 | 3.6% | 3.00% |
| 2017 | 4.2% | 3.60% |
| 2018 | 4.8% | 4.20% |
| 2019 | 5.4% | 4.80% |
| 2020 | 6.0% | 5.40% |

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17 108. Staff recognizes UNS Gas' efforts in implementing cost-effective energy efficiency
 18 programs that are beneficial to all customer classes. Staff also realizes that the current market
 19 dominated with low natural gas prices leads to difficulty in finding cost-effective options to save
 20 on natural gas usage. UNS Gas has an established energy efficiency program and has provided
 21 new measures for increasing the opportunity for energy savings. However, Staff believes that
 22 UNS Gas should continue to strive to hit the established GEES each year. Staff has recommended
 23 a waiver be granted to UNS Gas of the GEES Standards established in A.A.C. R14-2-2504.B for
 24 the calendar years 2012 and 2013. Waivers of future years' requirements can be evaluated during
 25 future years' implementation plan reviews.

26 109. Staff has recommended that UNS Gas implement its plan as modified by Staff
 27 above for the remainder of 2013 and be required to file its next energy efficiency plan no later than
 28 June 1, 2013 pursuant to A.A.C. R14-2-2505. Also, as indicated above, Staff has recommended

1 that A.A.C. R14-2-2509 supersede those reporting requirements outlined in Decision No. 70011 so
2 that UNS Gas would be required to file DSM reports on April 1st and October 1st of each year.

3 110. In addition, Staff has recommended that the UNS Gas EE Plan filed in compliance
4 with A.A.C. R14-2-2505 be considered sufficient in meeting the requirements of R14-2-313.

5 111. Staff has also recommended that UNS Gas revise Exhibit 3 (Clean Version and
6 Redlined Version) from its September 6, 2011 filing, the Demand Side Management Surcharge
7 (DSMS) tariff – Rider R-2, so that the tariff is consistent with the terms of the Commission’s
8 Decision. This tariff should be submitted to Docket Control within 30 days of the effective date of
9 this Decision.

10 112. We support energy efficiency but we think the process could and should be
11 improved. We are not convinced that the current method of cost-effective analysis is the best way
12 to ensure that ratepayer money is being invested in a prudent manner. We think there should be
13 further discussion, outside of this implementation plan, to more fully explore the various options
14 that could better analyze cost efficiency. We look forward to the opportunity to make sure that
15 energy efficiency programs are truly cost effective.

16 113. As stated earlier, Staff’s analysis estimates that UNS Gas only reached 0.201% of
17 prior year retail energy sales, in 2011, despite the fact that the Energy efficiency standard called
18 for 0.50%. In fact, UNS Gas has not been able to achieve the EE Standard targets, each year,
19 which led Staff to propose a waiver from the GEES Standards for 2012 and 2013. Even the most
20 ambitious implementation plans cannot attain the EE Standards. We feel that this is one of many
21 reasons why the entire EE process needs to be reviewed and possibly reformed.

22 114. We decline to approve the Residential K-12 Education Program. We decline to
23 approve the Solar Thermal Water Heating Program. The budget for Commercial & Industrial
24 Facilities shall remain at \$218,545 for 2013 and each year thereafter until further order of the
25 Commission, and we decline to approve any of the proposed new measures, at this time. The
26 incentive cap for C&I customers and incentive cap for school districts shall remain at \$8,000 and
27 \$25,000, respectively. We decline to approve the new Multifamily Direct Install program. We
28 ...

1 decline to approve the Education and Outreach Program. We decline to approve the Energy Codes
2 Support Program.

3 CONCLUSIONS OF LAW

4 1. UNS Gas, Inc. is an Arizona public service corporation within the meaning of
5 Article XV, Section 2, of the Arizona Constitution.

6 2. The Commission has jurisdiction over UNS Gas, Inc. and over the subject matter of
7 the Application.

8 3. The Commission, having reviewed the application and Staff's Memorandum dated
9 March 13, 2013, concludes that it is in the public interest to approve UNS Gas, Inc.'s proposed
10 2013 EE Plan with the modifications described herein.

11 ORDER

12 IT IS THEREFORE ORDERED that UNS Gas, Inc.'s proposed 2013 EE Plan be adopted
13 as modified by this Decision.

14 IT IS FURTHER ORDERED that UNS Gas, Inc.'s existing Residential Existing Homes
15 Program is approved but the additional three proposed measures (high-efficiency residential
16 boilers, pipe wrap, and high-efficiency pool and spa heaters) are not approved.

17 IT IS FURTHER ORDERED that UNS Gas, Inc.'s proposed Residential Low Income
18 Weatherization Program (with an increase in the income eligibility from 150% to 200% of the
19 federal poverty level to track with LIHEAP) is approved for funding at the \$2,000 per home level.

20 IT IS FURTHER ORDERED that UNS Gas, Inc.'s proposed Residential Energy Financing
21 Pilot Program is not approved.

22 IT IS FURTHER ORDERED that UNS Gas, Inc.'s proposed Residential Behavioral
23 Comprehensive Program (K-12 Education Program) is not approved.

24 IT IS FURTHER ORDERED that UNS Gas, Inc.'s proposed Residential and Commercial
25 Solar Water Heating Program is not approved.

26 IT IS FURTHER ORDERED that UNS Gas, Inc.'s existing Commercial & Industrial
27 Facilities program is approved, in accordance with Finding of Fact 114.

28

1 IT IS FURTHER ORDERED that UNS Gas, Inc.'s proposed Multifamily Direct Install
2 Program is not approved.

3 IT IS FURTHER ORDERED that UNS Gas, Inc.'s proposed Education and Outreach
4 Program is not approved.

5 IT IS FURTHER ORDERED that UNS Gas, Inc.'s proposed Codes Support Program is not
6 approved.

7 IT IS FURTHER ORDERED that the total budget be set at \$1,612,582 for 2013, and each
8 year thereafter until further order of the Commission, with the budget flexibility recommended by
9 Staff in Finding of Fact 103.

10 IT IS FURTHER ORDERED that the DSM Surcharge remain at the current level of
11 \$0.0084 per therm.

12 IT IS FURTHER ORDERED that UNS Gas, Inc.'s request for waiver of the Gas Energy
13 Efficiency Standard is granted with the modifications recommended by Staff in Finding of Fact
14 108.

15 IT IS FURTHER ORDERED that UNS Gas, Inc. not file its next Energy Efficiency
16 Implementation Plan until further order of the Commission.

17 IT IS FURTHER ORDERED that UNS Gas, Inc. follow reporting requirements as outlined
18 in A.A.C. R14-2-2509 and those reporting requirements supersede any reporting requirements
19 outlined in Decision No. 70011.

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1 IT IS FURTHER ORDERED that UNS Gas, Inc. file with Docket Control, as a compliance
2 matter in this case, a tariff consistent with the terms of this Decision within 30 days of the effective
3 date of this Decision.

4 IT IS FURTHER ORDERED that UNS Gas, Inc. provide notice to its customers of the
5 approved DSM surcharge within 30 days of the effective date of this Decision in a form acceptable
6 to Staff.

7 IT IS FURTHER ORDERED that this Decision shall become effective immediately.

8
9 **BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION**

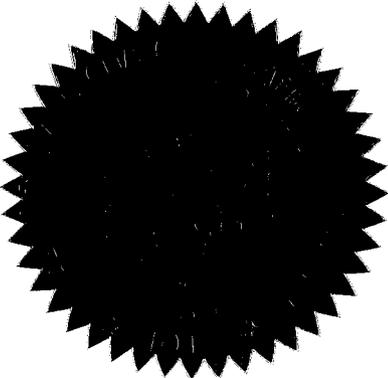
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11 
12 CHAIRMAN

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12 COMMISSIONER

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15 COMMISSIONER

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15 COMMISSIONER

15 COMMISSIONER



IN WITNESS WHEREOF, I, JODI JERICH, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this 21st day of June, 2013.


JODI JERICH
EXECUTIVE DIRECTOR

DISSENT: _____

DISSENT: _____

SMO:RSP:sms/WVC

1 SERVICE LIST FOR: UNS GAS, INC.
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17 Ms. Lyn A. Farmer, Esq.
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