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OPEN MEETING ITEM

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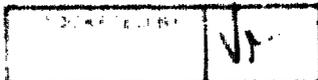
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MEMORANDUM
UNCLASSIFIED

OCT 06 2000

TO: THE COMMISSION

FROM: Utilities Division



DATE: October 6, 2000

RE: IN THE MATTER OF THE STAFF REPORT ON THE ROLLING AVERAGE PURCHASED GAS ADJUSTOR MECHANISM (DOCKET NO. G-00000C-98-0568)

Commission Decision No. 61225 (October 30, 1998) required that "Staff review and make recommendations on the Purchased Gas Adjustor ("PGA") Mechanism, as approved herein, within twenty-four months of the date of this order." On September 6, 2000, Staff filed its Staff Report on the Rolling Average PGA Mechanism ("Staff Report").

The Staff Report contains Staff's analysis of the June 1999 - September 2000 experience with the 12 month rolling average PGA mechanism as well as Staff's recommendations regarding the PGA mechanism. To summarize Staff's findings, the PGA mechanism is performing as it was expected to and there do not appear to be any major problems with it. The mechanism allows the PGA rate to adjust over time to reflect the changes in the price of natural gas, while minimizing to the extent possible the sudden swings in the PGA rate applied to customers' monthly bills. As part of Staff's review of the PGA mechanism, Staff met with the local distribution companies ("LDCs") and other interested parties to discuss how the PGA mechanism has functioned since June 1999. Based upon these discussions and its review of the PGA mechanism, Staff believes that certain adjustments to the PGA mechanism would be beneficial.

The Staff Report contains a number of recommendations that either adjust or clarify how the PGA mechanism works. Staff's recommendations regarding the PGA mechanism are as follows:

- A. The existing \$0.07 and \$0.12 per therm bands on the PGA rate should be changed to \$0.10 and \$0.16 per therm for natural gas and propane, respectively.
- B. LDCs should use a lag that is shorter than two months, when feasible. Staff will work with each LDC to identify the shortest feasible lag for that LDC. Staff will then send a letter to each LDC, identifying the lag to be used by that LDC. Any future changes in the lag period should be approved by Staff.
- C. The interest on the PGA bank balance should be added into the calculation of the 12 month rolling average PGA rate as it is accrued each month. On the sheet showing the PGA rate calculation, the interest may either be shown as a separate column or included

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THE COMMISSION

October 6, 2000

Page 2

in another cost column (in which case, it should be noted on the sheet that the interest component is included in that column). The three month commercial paper rate should continue to be applied to the PGA bank balance.

- D. Each LDC should provide tariff sheets, containing the updated PGA rate, to the Staff at least five working days prior to the first day of the month in which the PGA rate will be applied to customers. The monthly PGA report, containing PGA bank balance accounting, sales information, purchase invoices, etc. may be provided to Staff with the end of the month filing or separately. Staff should work with each LDC to set up the necessary reporting procedures.
- E. The Commission should establish a process to review the appropriateness of gas procurement activities. Staff should hold discussions with the LDCs and other interested parties and submit a formal gas procurement review process to the Commission for approval by June 1, 2001.
- F. Staff should file a further review of the PGA mechanism with the Commission by December 1, 2001.

Staff believes that adoption of these recommendations will enhance the PGA mechanism while retaining the features of the mechanism that have made it successful to this point. Staff recommends approval of the recommendations listed above.



Steven M. Olea
Acting Assistant Director
Utilities Division

SMO:BGG:lhv/RJM

ORIGINATOR: Robert Gray

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BEFORE THE ARIZONA CORPORATION COMMISSION

CARL J. KUNASIK
Chairman
JIM IRVIN
Commissioner
WILLIAM A. MUNDELL
Commissioner

IN THE MATTER OF THE STAFF REPORT ON)
THE ROLLING AVERAGE PURCHASED GAS)
ADJUSTOR MECHANISM)
)

DOCKET NO. G-00000C-98-0568
DECISION NO. _____
ORDER

Open Meeting
October 24 and 25, 2000
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. Black Mountain Gas Company, Citizens Communications Company, Duncan Rural Service Corporation, Energy West, Graham County Utilities, and Southwest Gas are engaged in providing natural gas and/or propane service within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission.
2. Commission Decision No. 61225 (October 30, 1998) required that "Staff review and make recommendations on the Purchased Gas Adjustor ("PGA") Mechanism, as approved herein, within twenty-four months of the date of this order.
3. On September 6, 2000, Staff filed its Staff Report on the Rolling Average PGA Mechanism ("Staff Report").
4. The Staff Report contains Staff's analysis of the June 1999 - September 2000 experience with the 12 month rolling average PGA mechanism as well as Staff's recommendations regarding the PGA mechanism.
5. To summarize Staff's findings, the PGA mechanism is performing as it was expected to and there do not appear to be any major problems with it. The mechanism allows the PGA rate to adjust over time to reflect the changes in the price of natural gas, while minimizing to the extent possible the sudden swings in the PGA rate applied to customers' monthly bills.

1 6. As part of Staff's review of the PGA mechanism, Staff met with the local distribution
2 companies ("LDCs") and other interested parties to discuss how the PGA mechanism has functioned
3 since June 1999.

4 7. Based upon these discussions and its review of the PGA mechanism, Staff believes that
5 certain adjustments to the PGA mechanism would be beneficial.

6 8. The Staff Report contains a number of recommendations that either adjust or clarify how
7 the PGA mechanism works.

8 9. Staff's recommendations regarding the PGA mechanism are as follows:

9
10 A. The existing \$0.07 and \$0.12 per therm bands on the PGA rate should be changed
11 to \$0.10 and \$0.16 per therm for natural gas and propane, respectively.

12 B. LDCs should use a lag that is shorter than two months, when feasible. Staff will
13 work with each LDC to identify the shortest feasible lag for that LDC. Staff will
14 then send a letter to each LDC, identifying the lag to be used by that LDC. Any
15 future changes in the lag period should be approved by Staff.

16 C. The interest on the PGA bank balance should be added into the calculation of the 12
17 month rolling average PGA rate as it is accrued each month. On the sheet showing
18 the PGA rate calculation, the interest may either be shown as a separate column or
19 included in another cost column (in which case, it should be noted on the sheet that
20 the interest component is included in that column). The three month commercial
21 paper rate should continue to be applied to the PGA bank balance.

22 D. Each LDC should provide tariff sheets, containing the updated PGA rate, to the Staff
23 at least five working days prior to the first day of the month in which the PGA rate
24 will be applied to customers. The monthly PGA report, containing PGA bank
25 balance accounting, sales information, purchase invoices, etc. may be provided to
26 Staff with the end of the month filing or separately. Staff should work with each
27 LDC to set up the necessary reporting procedures.

28 E. The Commission should establish a process to review the appropriateness of gas
procurement activities. Staff should hold discussions with the LDCs and other
interested parties and submit a formal gas procurement review process to the
Commission for approval by June 1, 2001.

F. Staff should file a further review of the PGA mechanism with the Commission by
December 1, 2001.

1 10. Staff believes that adoption of these recommendations will enhance the PGA mechanism
2 while retaining the features of the mechanism that have made it successful to this point.

3 11. Staff has recommended approval of the recommendations listed above.

4 CONCLUSIONS OF LAW

5 1. Black Mountain Gas Company, Citizens Communications Company, Duncan Rural
6 Service Corporation, Energy West, Graham County Utilities, and Southwest Gas are Arizona public
7 service corporations within the meaning of Article XV, Section 2, of the Arizona Constitution.

8 2. The Commission has jurisdiction over the local distribution companies and the subject
9 matter of this docket.

10 3. The Commission, having reviewed the Staff Report and Staff's Memorandum dated
11 October 6, 2000, concludes that it is in the public interest to Staff's recommendations.

12 ORDER

13 THEREFORE, IT IS ORDERED that Staff's recommendations contained herein be and hereby
14 are approved.

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

16
17 **BY ORDER OF THE ARIZONA CORPORATION COMMISSION**

18
19 CHAIRMAN

COMMISSIONER

COMMISSIONER

20 IN WITNESS WHEREOF, I, BRIAN C. McNEIL,
21 Executive Secretary of the Arizona Corporation
22 Commission, have hereunto, set my hand and caused the
23 official seal of this Commission to be affixed at the Capitol,
24 in the City of Phoenix, this ____ day of _____, 2000.

25 _____
26 BRIAN C. McNEIL
27 Executive Secretary

28 DISSENT: _____

DRS:BGG:lh

OPEN MEETING ITEM

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AZ CORP COMMISSION
ARIZONA DOCUMENT CONTROL
COMMISSION

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Director of Utilities

**Staff Report on the Rolling Average PGA Mechanism
September 6, 2000**

DOCKET NO. G-00000C-98-0568

Arizona Corporation Commission

UNCO • WOOD • CHIA

Introduction

Commission Decision Number 61225 (October 30, 1998) required that "Staff review and make recommendations on the Purchased Gas Adjustor Mechanism, as approved herein, within twenty-four months of the date of this order." This report provides Staff's review and recommendations regarding the 12 month rolling average purchased gas adjustor (PGA) mechanism used by Arizona local distribution companies (LDCs)

The 12 month rolling average PGA mechanism is currently being used by the following LDCs: Black Mountain Gas - Cave Creek Division, Black Mountain Gas - Page Division, Citizens Utilities - Northern Arizona Gas Division, Citizens Utilities - Santa Cruz Division, Duncan Rural Services, Energy West (Broken Bow Gas), Graham County Utilities, and Southwest Gas. The new PGA mechanism was implemented by most of the LDCs in June 1999. The exceptions were Citizens Utilities - Santa Cruz Division, which implemented it in October 1999 and Black Mountain Gas - Page Division, which implemented it in January 2000.

This Staff review of the PGA mechanism has involved a review of the monthly PGA information of the LDCs as well as an on-going dialogue with the LDCs and other interested parties. Since implementation of the new PGA mechanism, Staff has at various times discussed the PGA mechanism with all of the LDCs. On May 24, 2000, Staff held a PGA Mechanism Review Workshop which was attended by a number of interested parties. At the May 24th meeting the group identified a number of potential issues for discussion. The group agreed that Staff would summarize the issues and send out an issues list to the parties to comment on by June 15th. Staff received comments from Black Mountain Gas, the Residential Utility Consumer Office, and Southwest Gas. After reviewing the parties' comments, Staff sent a draft set of recommendations out to the parties for comment. No comments were received.

PGA Monthly Rates June 1999 - September 2000

A review of the actual monthly PGA rates is helpful in assessing the usefulness of the rolling average PGA mechanism. Appendix One shows the monthly PGA rates and contains graphs showing the monthly movement of the PGA rate. In general there was little movement in the PGA rates through the last half of 1999, reflecting the relative stability of natural gas prices during that timeframe. Beginning around January, 2000 the PGA rates started to move up, reflecting the concurrent rise in natural gas prices. This rise accelerated in the spring and carried on through the summer. Most of the LDCs have PGA rates in August/September 2000 which are \$0.05-\$0.07/therm higher than the PGA rates which were effective in the fall of 1999. Because the current runup in natural gas prices has been so swift and large (Appendix Two documents the rising cost of natural gas), a number of the LDCs have hit the \$0.07 (natural gas) or \$0.12 (propane) per therm cap on the PGA rate. Because of the severity of the natural gas price increase, the rise in the PGA rates has not fully kept pace, due to the PGA rate reflecting a 12 month average for natural gas costs. However, the gradual rise in the PGA rate does seem to be a reasonable balancing of the goals of reflecting the changing cost of natural gas and greater price stability. Staff believes that the PGA rate, as calculated under the new PGA mechanism, is

performing as the parties and the Commission expected when the mechanism was implemented in June 1999.

Use of the \$0.07/ therm and \$0.12/therm PGA Rate Caps

One key aspect of the new PGA mechanism is that it places a \$0.07/therm band on the PGA rate of natural gas LDCs and a \$0.12/therm band on the PGA rate of propane LDCs. The band works to limit the change in the PGA rate so that it is no more than \$0.07 per therm (or \$0.12 per therm) different than the PGA rate in effect during any of the preceding 12 months. The goal of this banding was to allow pricing flexibility while also provide customers with a level of pricing stability from one year to the next. It was recognized at the time the new PGA mechanism was implemented that in cases where there are extreme swings in the price of natural gas, the PGA rate is likely to hit the band. In such cases an LDC may find that its PGA bank balance becomes highly over or under collected (triggering the PGA bank balance threshold) and the LDC may need to file for approval of an additional surcharge or credit, on a temporary basis.

Such a case has occurred in recent months. Southwest Gas's PGA rate hit the \$0.07 band in recent months and is likely to experience a large undercollected PGA bank balance within a few months, so it filed for and received Commission approval of the use of a \$0.05691 per therm surcharge (Decision No. 62860, August 24, 2000). The surcharge is effective through the end of December 2000 and will likely be revisited at that time to consider whether an extension is necessary to address Southwest Gas's PGA bank balance at that time. It appears likely that other LDCs will also file with the Commission for approval of temporary surcharges.

The \$0.07 and \$0.12 per therm bands appear to be functioning as intended. The question is whether the bands should be adjusted to allow more or less flexibility in the movement of the PGA rate. When the current PGA mechanism was implemented, all the parties realized that the \$0.07 and \$0.12 per therm band levels were arbitrarily set and at a future time it might be beneficial to adjust these levels in the future. At the May 24th PGA Review Workshop a number of parties expressed an interest in loosening up the bands or eliminating them altogether. Staff believes that retention of the banding is useful in addressing the goal of price stability. However, Staff believes that some loosening of the banding could take place without sacrificing the overall goal of price stability. Staff believes that the bands should be extended to \$0.10 per therm for natural gas LDCs and \$0.16 per therm for propane LDCs.

Bank Balance Thresholds

Decision No. 61225 created bank balance thresholds for all the LDCs. When the bank balance threshold was met or exceeded, either with an overcollection or an undercollection, the LDC is required to take one of the following actions:

1. File for a PGA rate adjustment within 45 days of completing the Monthly Bank Balance Exhibits that illustrate that the threshold has been exceeded, OR

2. Contact Staff to discuss why a PGA rate adjustment is not necessary at that time.

If Option 2 is chosen, the Company should immediately contact Staff to discuss the reason(s) why a PGA rate adjustment is not necessary and provide Staff with written documentation supporting such position. If Staff agrees that a filing is not necessary, the Utilities Division Director will notify the LDC in writing of such a finding and will identify any further conditions. If the LDC does not receive such a letter within 30 days of the bank balance threshold being exceeded, the LDC must file for a PGA rate adjustment within 45 days of the threshold being exceeded.

The purpose of the bank balance threshold is to force the LDC to take action if its PGA bank balance becomes highly over or under collected. The PGA bank balance thresholds are shown in the table below.

Local Distribution Company	Bank Balance Threshold
Black Mountain Gas Company - Cave Creek Division	\$180,000
Black Mountain Gas Company - Page Division	\$60,000
Citizens Utilities - Northern Arizona Gas Division	\$4,200,000
Citizens Utilities - Santa Cruz Division	\$250,000
Duncan Rural Services Corporation	\$35,000
Energy West (Broken Bow Gas)	\$120,000
Graham County Utilities, Inc.	\$150,000
Southwest Gas Corporation	\$22,400,000

Due to the large increase in natural gas prices, a number of the LDCs have hit their bank balance triggers. The bank balance trigger seems to be working as it was intended. Staff is not aware of any issues or concerns regarding the bank balance threshold levels and, therefore, does not recommend any change to them.

Lag Between Monthly Gas Purchases and Reflection of Purchases in the Monthly PGA Rate

With the 12 month rolling average PGA mechanism there is a lag between when the natural gas is purchased and when it is actually reflected in the monthly PGA rate. This lag is necessary to provide the LDC time to receive invoices from its suppliers and calculate the monthly PGA rate using actual historical data. Decision No. 61225 requires that there be no more than a two month lag, meaning that the PGA rate for March 2000 must reflect gas cost information from February 1999 - January 2000 or more recent information. Most LDCs have used the two month lag, although, in the summer of 2000, Duncan Rural Services shortened the lag it uses. At the May 24, 2000 meeting, a number of parties expressed an interest in shortening the time lag that is used. In general it is beneficial to use as short a time lag as possible, because the shorter the lag the more quickly changing natural gas prices will be reflected in the monthly PGA rate. While Staff has attempted to maintain a standard PGA mechanism for all the LDCs,

in this case Staff believes that it would be beneficial to allow LDCs to use a lag that is shorter than two months, when feasible. Staff will work with each LDC to identify the shortest feasible lag for that LDC. Staff will then send a letter to each LDC, identifying the lag to be used by that LDC. Any future changes in the lag period should be approved by Staff.

Amortization of the Frozen PGA Bank Balance

When the new PGA mechanism was implemented, the LDCs' existing PGA bank balances were frozen and amortization rates were set to recover or refund the frozen bank balance. Most of the frozen bank balances were set up to be amortized over one year and have now been fully amortized. The only LDC with frozen bank balances that are still being amortized is Black Mountain Gas, in both its Page and Cave Creek Divisions. Black Mountain's frozen PGA bank balances were set to amortize over longer periods of time, due to the large size of the undercollected bank balances.

Interest on the PGA Bank Balance

When the new PGA mechanism was implemented, LDCs were allowed to start applying interest to the over or under recovered PGA bank balance. Decision No. 61225 did not specifically address how the interest would be recovered. It appears that some LDCs have added in into the calculation of the 12 month rolling average PGA rate, while others have not. The most simple, straightforward way to recover the interest is to add it into the calculation of the 12 month rolling average PGA rate as it is accrued each month. Inclusion of the interest in the PGA rate calculation does not seem likely to result in a significant shift in the PGA rate, given the relatively small size of the interest accrued in comparison to the overall bank balance and gas cost numbers. The interest should be added into the calculation of the 12 month rolling average PGA rate as it is accrued each month. On the sheet showing the PGA rate calculation, the interest may either be shown as a separate column or included in another cost column (in which case it should be noted on the sheet that the interest component is included in that column).

Several parties have raised the question of whether the 3 month commercial paper rate is the most appropriate interest rate to apply to the PGA bank balance. While there are a number of other interest rates which could be applied to the PGA bank balance, the 3 month commercial paper rate appears to have worked well since June 1999 and no party has raised a compelling reason as to why another rate should be used. It is Staff's opinion that the 3 month commercial paper rate should continue to be applied to the PGA bank balance.

Reporting of PGA Information to ACC Staff

Decision No. 61225 identifies a number of reporting requirements related to the PGA mechanism. It appears that clarification in several areas is necessary. Each LDC should provide tariff sheets, containing the updated PGA rate, to the Staff at least five working days prior to the

first day of the month in which the PGA rate will be applied to customers. This will ensure that Staff can update the PGA rate information on the Commission's website on a timely basis.

The monthly PGA report, containing PGA bank balance accounting, sales information, purchase invoices, etc. may be provided to Staff with the end of the month filing or separately. Staff will work with each LDC to set up the necessary reporting procedures.

Gas Procurement Review

Natural gas LDCs purchase gas on the spot market, by using basin indexes, through longer term contracts, and other means. To ensure that each LDC's customers are not paying more than they should, the Commission has historically monitored the procurement of natural gas by the LDCs. In the past when a review of gas procurement activities has taken place it was typically in the context of a rate proceeding

Many other states have a separate gas procurement review process which takes place on some type of set schedule, such as annually or every other year. Providing a separate venue enables the state commission to provide the necessary attention to gas procurement issues. Additionally, there are cases where LDCs do not have a rate proceeding for a large number of years and, therefore, there is no forum for a formal review of gas procurement issues. This is troublesome from both a regulatory and an LDC perspective. If there are problems with gas procurement activities, the regulator may not discover them until many years later. For the LDC, the appropriateness of gas procurement activities remains an open question and a possible liability when there is no formal review for many years. Given these circumstances and the fact that the cost of the gas commodity makes up a sizable portion of the typical customer's monthly bill, the Commission should establish some type of process to review the appropriateness of gas procurement activities. Staff should hold discussions with the LDCs and other interested parties and submit a formal gas procurement review process to the Commission for approval by June 1, 2001.

Further Review of the PGA Mechanism

For most LDCs the new PGA mechanism has been operational for approximately a year. The past year has provided valuable experience with the mechanism. However, given the 12 month cycle used by the mechanism, it requires a sizable period of time after implementation to more thoroughly observe the new PGA mechanism and its effects. During the discussions with the LDCs and interested parties, a suggestion was made that a further review of the new PGA mechanism be undertaken in the future, when the mechanism has been in place longer. Given the importance of the PGA mechanism and the relatively short time it has been operational, a further review of the PGA mechanism in the future would be beneficial. Staff should file a further review of the PGA mechanism with the Commission by December 1, 2001. This would provide approximately two and a half years experience with the mechanism, including another full winter and summer cycle. The impacts of the present increase in natural gas prices on the PGA mechanism could be studied as part of such a review.

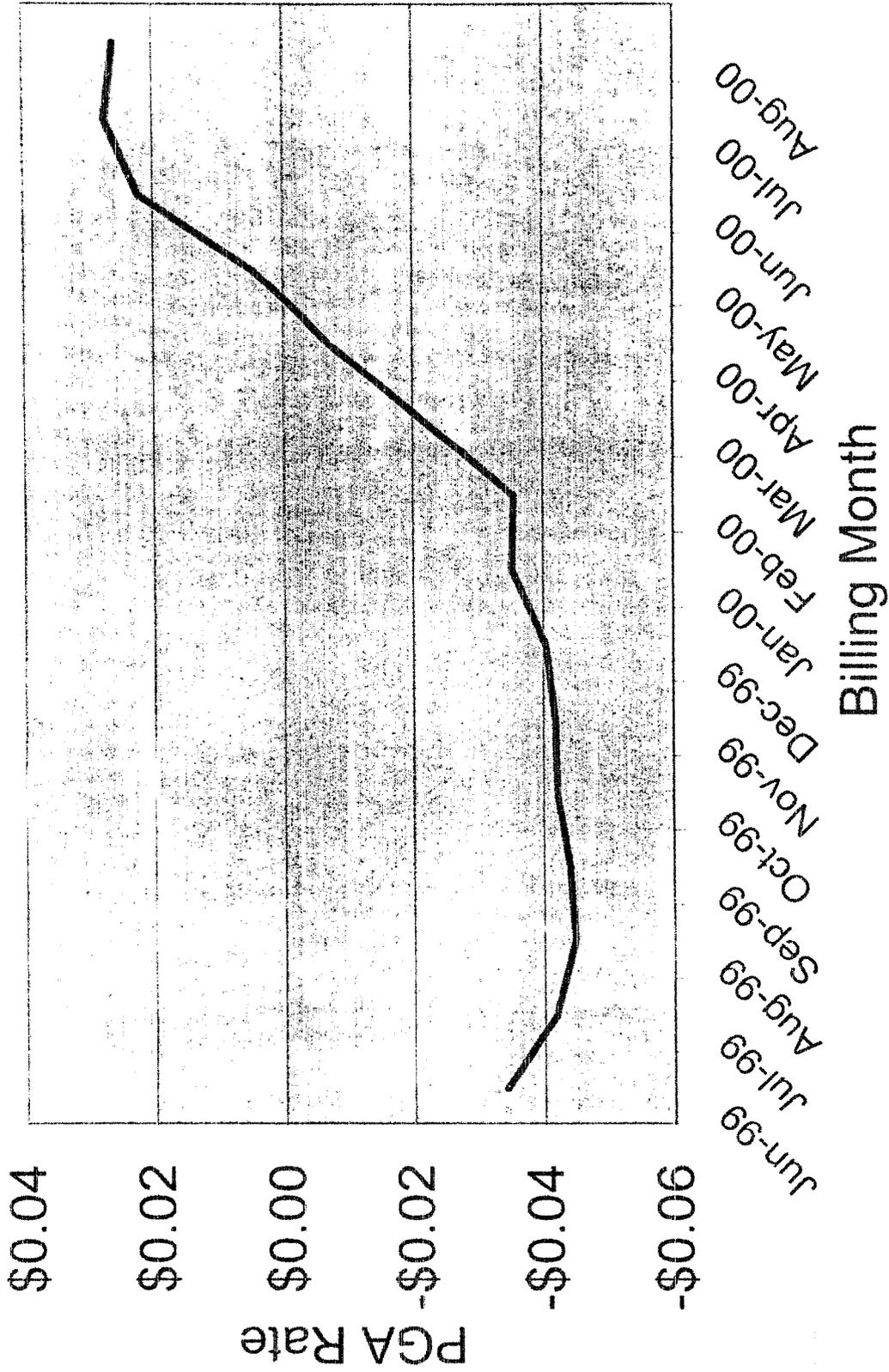
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Appendix One

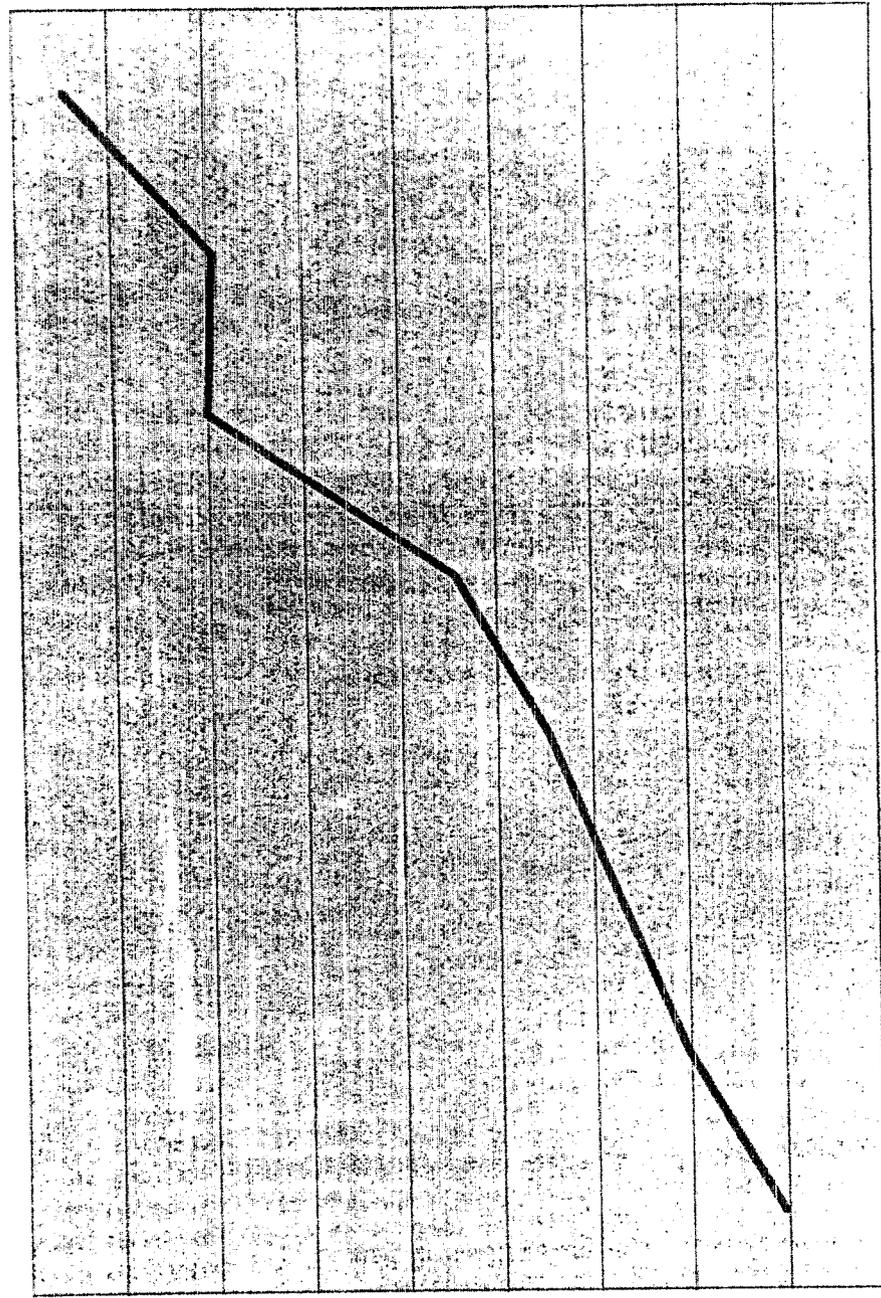
Monthly Rolling Average PGA Rate

	BMG - Cave Creek	BMG - Page	Energy West Broken Bow	Citizens - NAGD	Citizens - Santa Cruz	Duncan	Graham	SW Gas
Jun-99	-\$0.0342		-\$0.0393	-\$0.0001		\$0.0517	-\$0.01660	\$0 00908
Jul-99	-\$0.0418		-\$0.0457	-\$0.0014		-\$0.0282	-\$0.01470	\$0 00943
Aug-99	-\$0.0448		-\$0.0605	-\$0.0089		-\$0.0335	-\$0.00820	\$0.01071
Sep-99	-\$0.0440		-\$0.0579	-\$0.0190		-\$0.0512	-\$0.00750	\$0.00883
Oct-99	-\$0.0421		-\$0.0588	-\$0.0172	-\$0.13551	-\$0.0452	-\$0.01121	\$0.00987
Nov-99	-\$0.0418		-\$0.0520	-\$0.0105	-\$0.12956	-\$0.0360	-\$0.01101	\$0.01013
Dec-99	-\$0.0403		-\$0.0518	-\$0.0074	-\$0.12559	-\$0.0152	-\$0.01081	\$0.01510
Jan-00	-\$0.0352	-\$0.0593	-\$0.0432	\$0.0069	-\$0.11168	-\$0.0138	-\$0.00591	\$0.02210
Feb-00	-\$0.0355	-\$0.0394	-\$0.0352	\$0.0130	-\$0.09325	-\$0.0081	-\$0.00501	\$0.02752
Mar-00	-\$0.0215	-\$0.0248	-\$0.0281	\$0.0174	-\$0.09852	-\$0.0260	\$0.00359	\$0.03441
Apr-00	-\$0.0071	-\$0.0107	-\$0.0355	\$0.0306	-\$0.06551	-\$0.0450	\$0.02169	\$0.03881
May-00	\$0.0048	\$0.0087	-\$0.0222	\$0.0403	-\$0.06551	-\$0.0597	\$0.03029	\$0.05555
Jun-00	\$0.0222	\$0.0601	-\$0.0234	\$0.0465	-\$0.06551	-\$0.0496	\$0.02759	\$0.06596
Jul-00	\$0.0274	\$0.0587	\$0.0140	\$0.0506	-\$0.06551	-\$0.0349	\$0.03209	\$0.06894
Aug-00	\$0.0260	\$0.0895	\$0.0179	\$0.0510	-\$0.06551	-\$0.0412	\$0.03979	\$0.07883
Sep-00			\$0.0211			-\$0.0439		

Black Mountain Gas - Cave Creek Division



Black Mountain Gas - Page Division



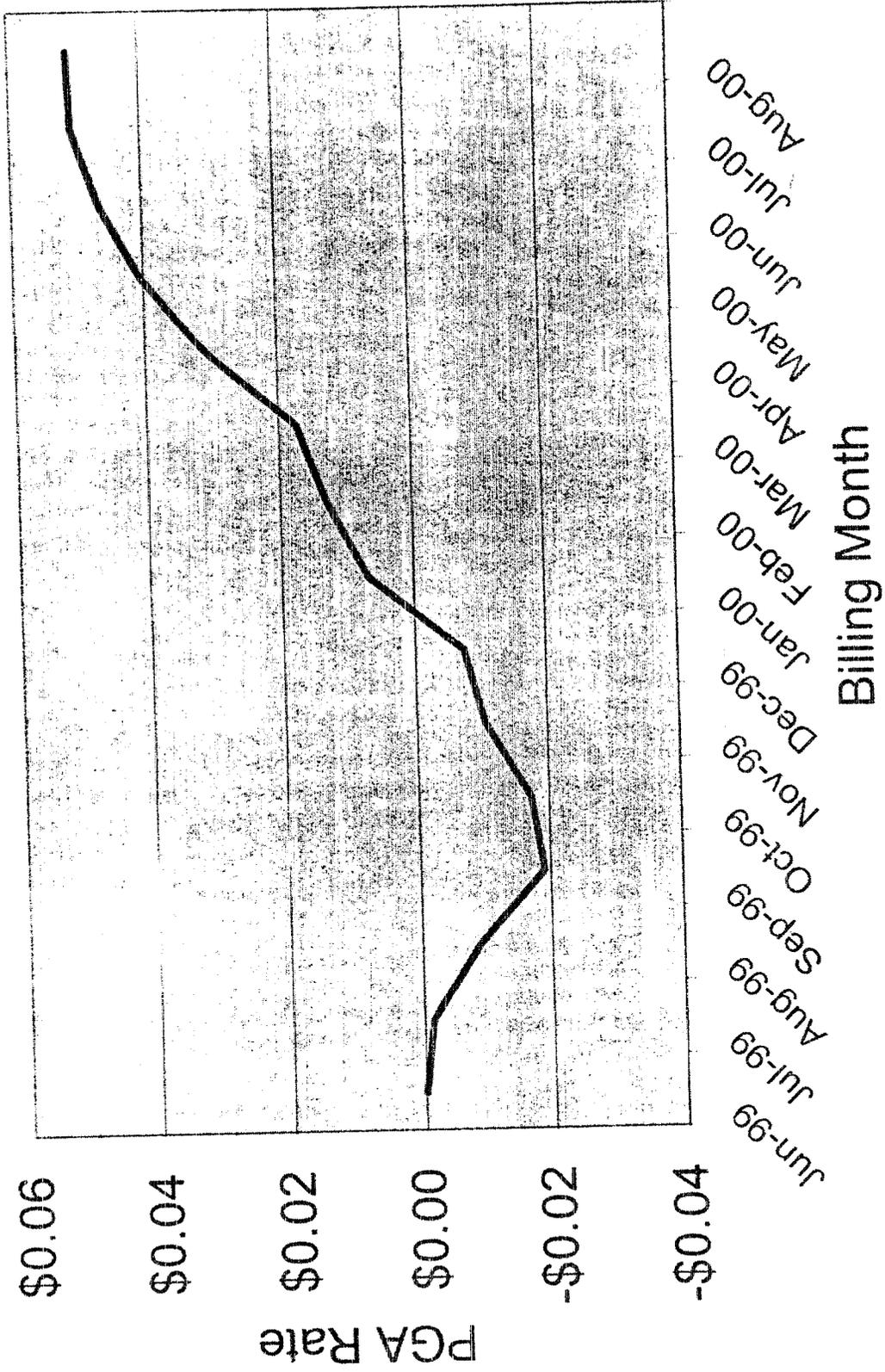
\$0.10
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PG&A Rate

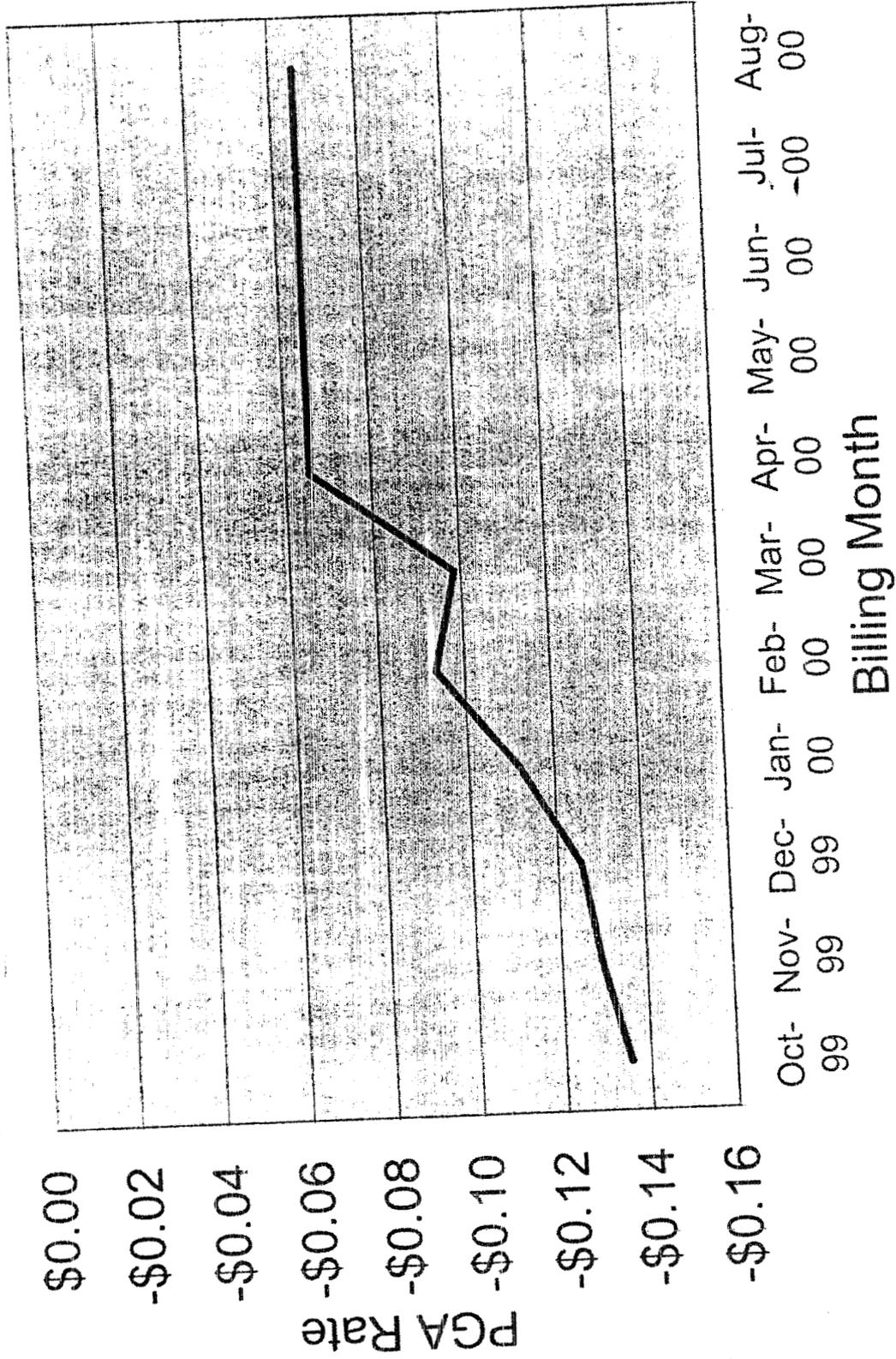
Jan-00 Feb-00 Mar-00 Apr-00 May-00 Jun-00 Jul-00 Aug-00

Billing Month

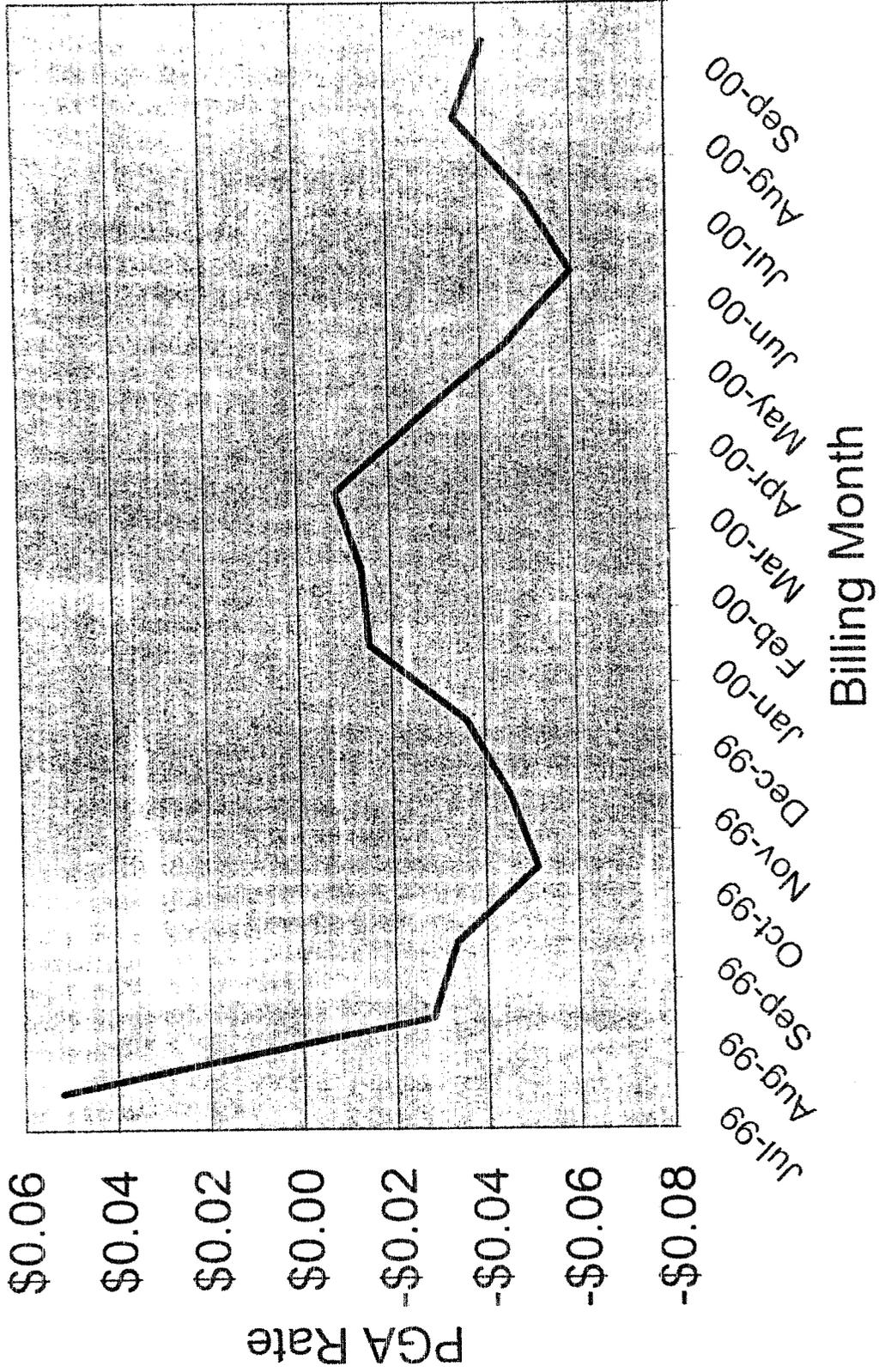
Citizens Utilities - Northern Arizona Gas Div.



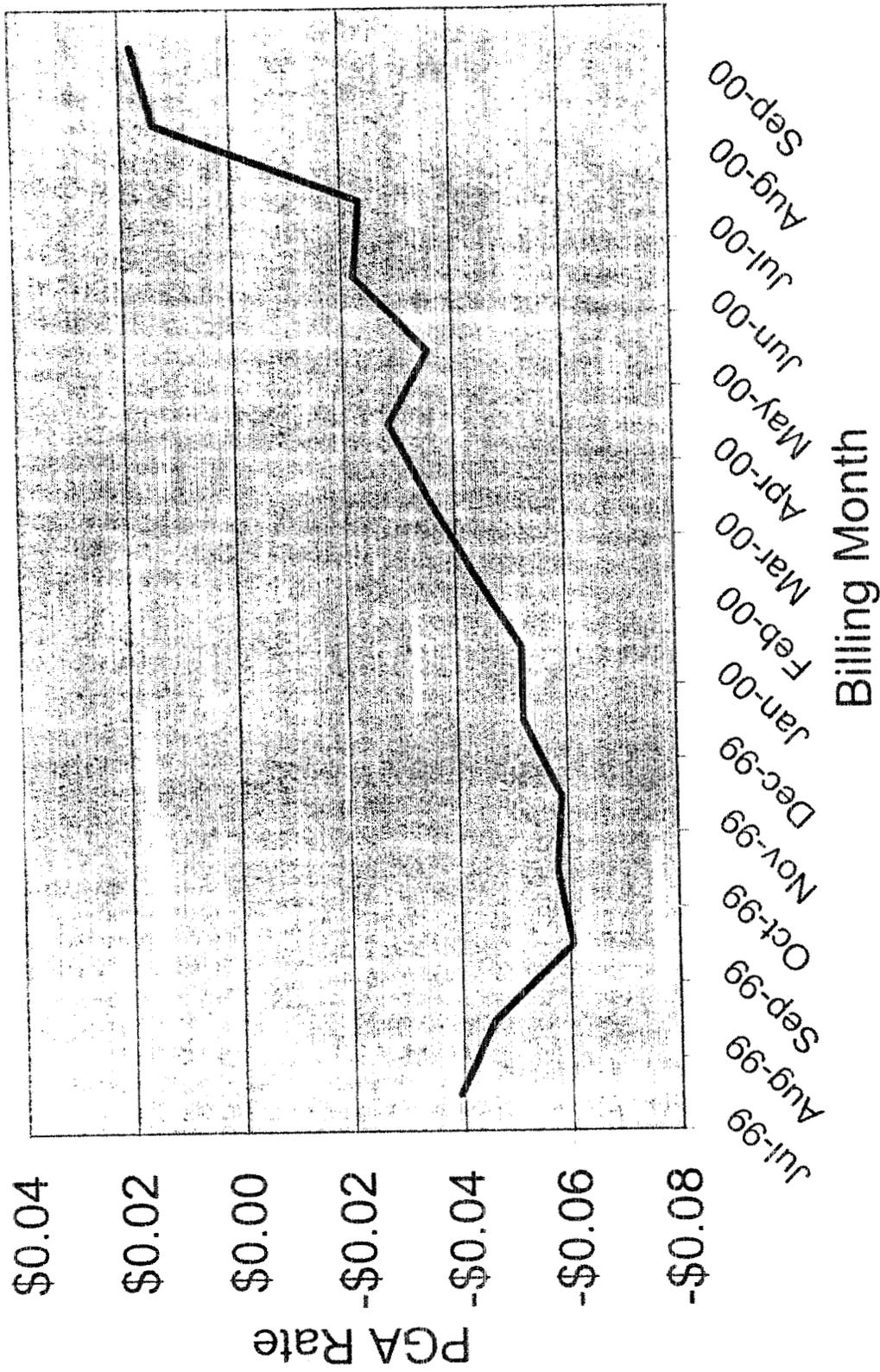
Citizens Utilities - Santa Cruz Gas Div.



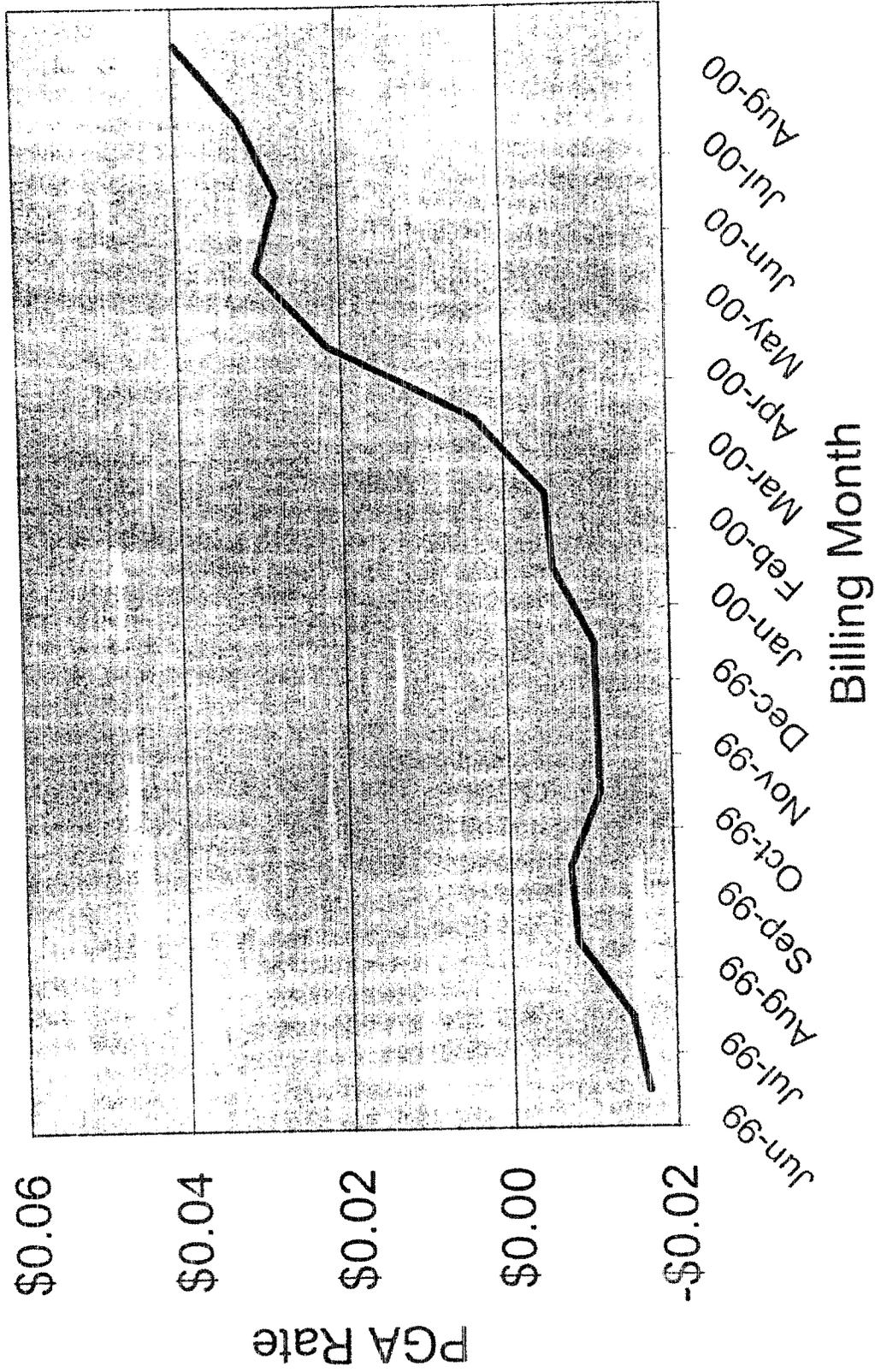
Duncan Rural Services



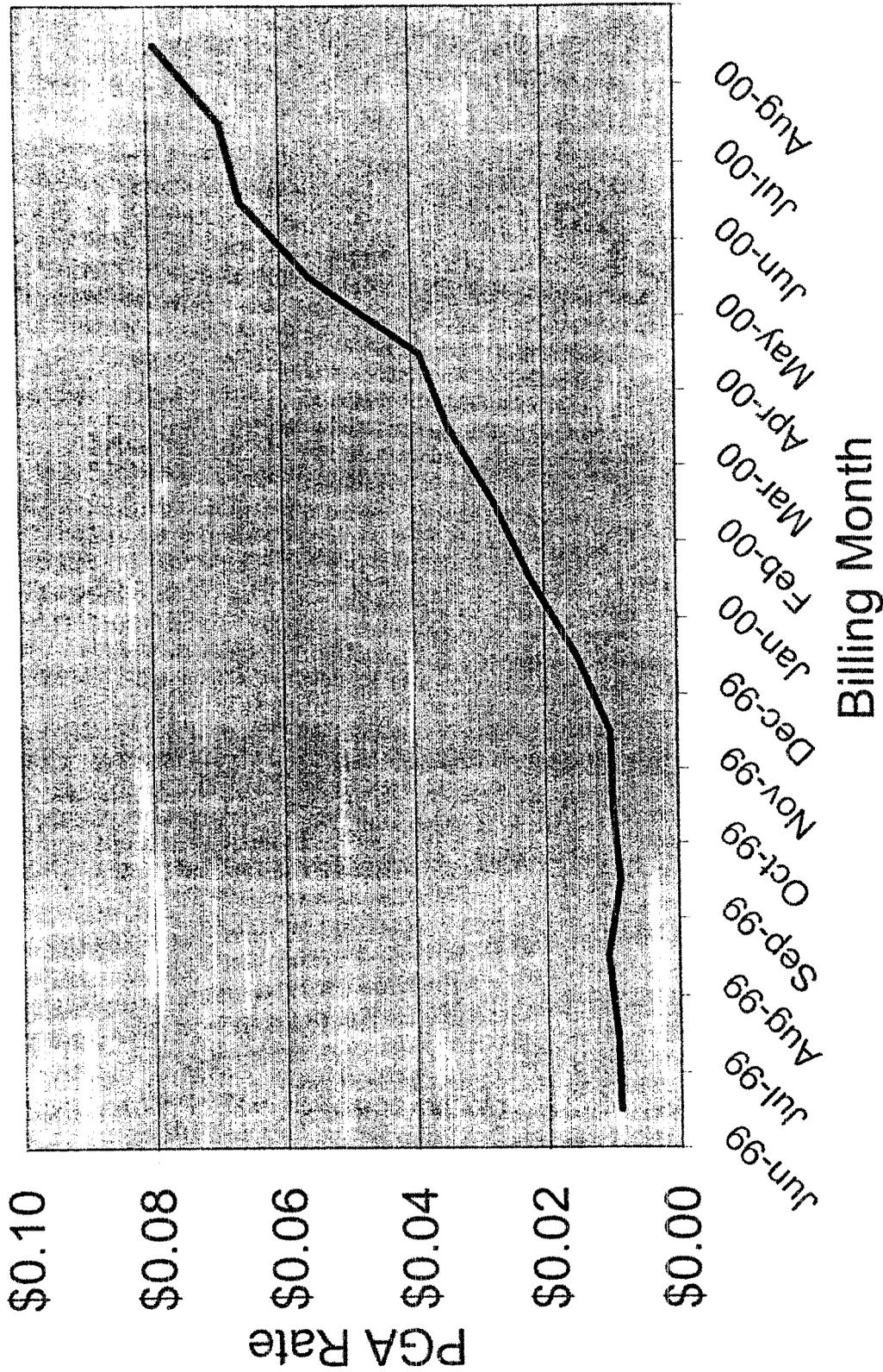
Energy West (Broken Bow)



Graham County Utilities



Southwest Gas



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Appendix Two – Spot Market Natural Gas Prices

Since the spring of 2000 the price of natural gas in the San Juan basin in New Mexico has increased from \$2.23 per MMBtu in January 2000 to \$4.09 per MMBtu in July 2000. Additionally, NYMEX futures prices indicate that still higher prices are very possible in the winter of 2000-2001. A number of possible causes have been put forward by natural gas experts, including:

1. Lack of new well drilling, due to low natural gas prices in recent years
2. Accelerate depletion rates at existing natural gas wells
3. Natural gas storage levels have been lower than the previous year
4. Additional demand for natural gas, particularly from new natural gas fired electric generators
5. Mild winters in recent years
6. High oil prices have limited the opportunity to switch to alternate fuels

The following table and graph show the changing cost of natural gas in the San Juan basin in New Mexico, one of the main natural gas supply basins for Arizona.

Appendix Two

NYMEX Futures

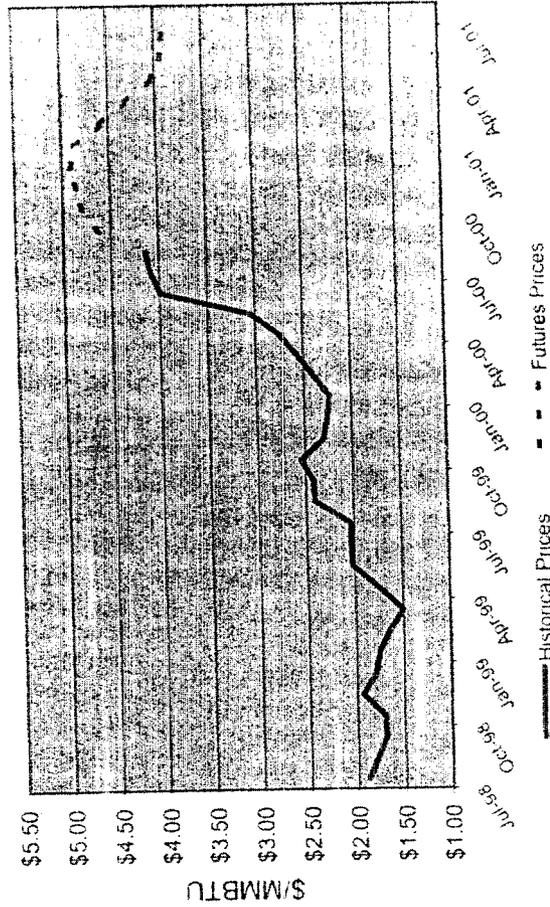
Prices at
Henry Hub
(\$/MMBtu)

San Juan Spot
Market Price
(\$/MMBtu)

Sep-98	\$1.70
Oct-98	\$1.71
Nov-98	\$1.94
Dec-98	\$1.80
Jan-99	\$1.76
Feb-99	\$1.65
Mar-99	\$1.50
Apr-99	\$1.75
May-99	\$2.02
Jun-99	\$2.04
Jul-99	\$2.04
Aug-99	\$2.41
Sep-99	\$2.42
Oct-99	\$2.55
Nov-99	\$2.30
Dec-99	\$2.26
Jan-00	\$2.23
Feb-00	\$2.41
Mar-00	\$2.58
Apr-00	\$2.76
May-00	\$3.06
Jun-00	\$3.99
Jul-00	\$4.09
Aug-00	\$4.14
Sep-00	
Oct-00	
Nov-00	
Dec-00	
Jan-01	
Feb-01	
Mar-01	
Apr-01	
May-01	
Jun-01	
Jul-01	

\$1.62
\$4.80
\$4.85
\$4.92
\$4.86
\$4.59
\$4.32
\$4.06
\$3.95
\$3.93
\$3.90

San Juan Wellhead Natural Gas Prices



Note NYMEX futures prices are as of August 30, 2000.