

BEFORE THE WYOMING PUBLIC SERVICE COMMISSION

IN THE MATTER OF THE APPLICATION)
OF SOURCEGAS DISTRIBUTION LLC)
FOR AUTHORITY TO INCREASE ITS)
NATURAL GAS RATES BY \$7.46)
MILLION PER ANNUM, TO)
CONSOLIDATE ITS TORRINGTON,)
CASPER AND GILLETTE DIVISIONS,)
AND TO IMPLEMENT A DEMAND-SIDE)
MANAGEMENT PROGRAM AND)
SEVERAL RATE ADJUSTMENT)
MECHANISMS)

Docket No. 30022-148-GR-10
(Record No. 12450)

DIRECT PRE-FILED TESTIMONY OF

Bryce J. Freeman

On behalf of the Wyoming Office of Consumer Advocate

Filed July 19, 2010
Hearing September 20, 2010

1 **Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.**

2
3 A. My name is Bryce J. Freeman. My business address is 2515 Warren Avenue, Suite 304,
4 Cheyenne, WY, 82002. I am the Administrator of the Wyoming Office of Consumer
5 Advocate (OCA). The OCA is an independent consumer advocacy agency that was
6 created by an act of the legislature in the 2003 general session.

7
8 **Q. WHAT IS THE FUNCTION OF THE OCA?**

9
10 A. Pursuant to W.S. § 37-2-401,

11
12 The office of consumer advocate shall represent the interests of Wyoming
13 citizens and all classes of utility customers in matters involving public
14 utilities. In the exercise of its powers the office of the consumer advocate
15 shall consider all relevant factors, including, but not limited to, the
16 provision of safe, efficient and reliable utility services at just and
17 reasonable prices.
18

19
20 **Q. ARE THE ANALYSES AND RECOMMENDATIONS OF THE OCA, IN THIS OR**
21 **ANY OTHER CASE BEFORE THE COMMISSION, INFLUENCED OR**
22 **DIRECTED BY THE COMMISSION?**

23
24 A. No. Although the OCA is a division within the Commission according to W.S. § 37-2-
25 401, it is a separate division with no reporting or supervisory links to the Commission.
26 The OCA has the right under W.S. § 37-2-402(ii) to appeal decisions of the Commission
27 that it does not find in the public interest. The only link between the OCA and the Public
28 Service Commission is the source of common funding provided by the assessment on
29 gross utility operating revenues; this assessment funds both the Commission and the
30 OCA. Additionally, as Administrator of the OCA, I report directly to the Governor of
31 Wyoming.

32
33 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
34 **OCCUPATIONAL EXPERIENCE.**

1 A. I received a Bachelor of Science degree in business administration from the University of
2 Wyoming in 1982. The area of concentration in my undergraduate work was statistics.
3 After graduating from the University of Wyoming, I was employed for three years by the
4 Laramie County Treasurer as Deputy Treasurer, and then for six years by the Wyoming
5 Department of Revenue as a Principal Appraiser dealing primarily with utility valuation
6 and capital cost issues. I came to the Wyoming Public Service Commission in April of
7 1994, in the capacity of Senior Economist, serving in that position for approximately two
8 years. In 1996 I accepted a position as Lead Rate Analyst in the rates and pricing section
9 on the Commission Staff, and in May of 2003 I was appointed Administrator of the OCA.

10 In July of 2004, I was appointed to a two-year term of service on the board of the
11 Wyoming Infrastructure Authority (WIA). In July of 2006, I was reappointed to a four
12 year term and in February of this year I was reappointed to a four year term on the WIA
13 Board. I currently serve as secretary of the WIA Board of Directors. Also in 2004, I was
14 elected to the position of Secretary of the National Association of State Utility Consumer
15 Advocates or NASUCA, which is a national trade association composed primarily of
16 state chartered consumer advocate offices throughout the country. In November of last
17 year I stepped down as NASUCA Secretary and currently serve on the NASUCA
18 Executive Committee.

19 In March of this year I was appointed by the Board of Directors of the Western Electricity
20 Coordinating Council (WECC) to serve on the Scenario Planning Steering Group
21 (SPSG), the governing body responsible for advising WECC on electric transmission
22 planning scenarios pursuant to the interconnection wide transmission planning project
23 currently being undertaken under the auspices of the U.S. Department of Energy. My
24 participation in all of these organizations provides me with unique knowledge and
25 experience upon which I can draw in formulating advocacy positions on behalf of
26 Wyoming utility consumers.

27 **Q. HAVE YOU TESTIFIED BEFORE THIS COMMISSION IN PREVIOUS**
28 **PROCEEDINGS?**

29
30 A. Yes. I have detailed the cases in which I have testified before this Commission in
31 Appendix A, attached to my testimony. I have also offered testimony before the Federal

1 Communications Commission, the Federal Energy Regulatory Commission and the
2 United States Congress.

3
4 **Q. ON WHOSE BEHALF DO YOU APPEAR HERE TODAY?**

5
6 A. I appear here today on behalf of the OCA. As I indicated previously, the OCA is an
7 independent party in this proceeding, separate and apart from the Commission or its
8 advisory staff.

9
10 **Q. AS A MEMBER OF THE OCA, DO YOU ADVOCATE THE INTERESTS OF**
11 **CERTAIN GROUPS OF CONSUMERS OVER OTHERS?**

12
13 A. No. As a member of the OCA, it is my statutory obligation to advocate the best interest
14 of all citizens in the state. Specifically, W.S. § 37-2-401 states that the OCA “shall
15 represent the interests of Wyoming citizens and all classes of utility customers in
16 matters involving public utilities.” This public interest standard requires the OCA to
17 represent the broadest possible utility consumer constituency, even though some of those
18 consumers may also be represented independently as parties in this case. The OCA is
19 responsible for balancing the positions and recommendations of the Company, and of
20 other parties, to arrive at a set of recommendations that serve the overall long term public
21 interest.

22 **Q. ARE YOU SPONSORING ANY EXHIBITS IN THIS PROCEEDING?**

23 A. Yes. I am sponsoring exhibits OCA BJJ 1 through BJJ 2. These exhibits support the
24 recommendations that I am making in this proceeding, and I will refer to them throughout
25 my testimony.

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

27 A. My testimony in this proceeding presents the results of my investigation into three
28 distinct aspects of Source Gas Distribution’s (SGD or Company) proposed rate increase.
29 First I will provide a review and critique of SGD’s proposed energy efficiency and
30 conservation plan. My review of the plan will focus on the structure of the program, its

1 implementation, prospective benefits to the Company's customers and the cost of
2 effectiveness of the conservation measures the Company is proposing. I will also
3 examine the link between a robust energy efficiency program, marginal revenues lost
4 through energy efficiency, and rate design principles that can be used to encourage
5 energy efficiency efforts.

6 The second issue that I will present is the Company's proposed Use Per Customer
7 Adjustment Riders, or UPCA riders. The Company has proposed the UPCA riders to
8 compensate it for a decline in revenues that it alleges have resulted from a decline in per
9 customer use of natural gas which will increase if the proposed energy efficiency and
10 conservation program is approved by the Commission. The UPCA riders are of
11 particular interest to the OCA in view of the inflation, uncollectable accounts and
12 infrastructure riders proposed by the Company, as well as the Company's proposed rate
13 design and the proposed energy efficiency program.

14 Finally, I will address the proposed recovery of certain costs associated with Company's
15 prior billing system. As the Commission is well aware SGD encountered numerous
16 problems in implementing its prior billing system and outsourcing the billing and
17 customer service function under Accenture using the Peace billing system. The
18 Commission, the OCA and several of the Choice Gas providers spent substantial time
19 and effort in resolving the billing issues. SGD ultimately abandoned Accenture and the
20 Peace system in favor of an in-house billing and customer care function.

21 Energy Efficiency

22 **Introduction and Background**

23 **Q. WHAT IS THE PURPOSE OF UTILITY SPONSORED ENERGY EFFICIENCY** 24 **AND DEMAND SIDE PROGRAMS?**

25 A. The purpose of these programs is to defer the acquisition of new capacity and energy in a
26 growing system, or to reduce fuel and commodity costs in a flat or declining load system
27 essentially displacing new or existing supply side resources.

1 **Q. DOES THE OCA SUPPORT UTILITY SPONSORED ENERGY EFFICIENCY**
2 **PROGRAMS?**

3 A. The OCA generally supports energy efficiency initiatives that provide benefits to
4 customers whether they are sponsored by a utility, a private entity or a governmental
5 organization. In order for an energy efficiency program to provide benefits to ratepayers,
6 as a threshold matter the program must be cost effective. In other words, the benefits of
7 providing the program to customers must outweigh the costs. Additionally, if energy
8 efficiency and demand response are thought of as resources that can provide energy and
9 capacity in the same way that supply side resources do, then energy efficiency and
10 demand side resources should be less expensive than competing supply side resources. If
11 demand resources are more expensive than supply resources then it is less expensive for
12 customers simply to buy more gas or build more electric generation capacity.
13 Determining the actual costs and benefits to customers, however, is not altogether a
14 trivial exercise as I will describe later in my testimony.

15 **Q. BY WHAT MEANS ARE ENERGY EFFICIENCY MEASURES JUDGED TO BE**
16 **COST EFFECTIVE?**

17 A. The concept of cost effectiveness is straight forward, as I stated earlier in my testimony.
18 Generally, the cost effectiveness of a utility sponsored energy efficiency program is
19 determined by tabulating the costs of providing the measure and netting those costs
20 against the savings (costs avoided by the measure) to determine if there are net benefits
21 to customers as a result of the measure. In practice, however, there are a number of
22 complicating factors. For example, utility sponsored energy efficiency measures
23 typically involve the payment of an incentive to induce ratepayers to participate in the
24 measure. The cost of offering these incentives is then spread across the general body (or
25 class) of ratepayers for recovery. This creates a cost for non-participants and a benefit
26 for participants that must be recognized in determining whether or not an energy
27 efficiency measure is cost effective for the overall body of ratepayers and for participants
28 and non-participants. One must also define exactly what constitutes a cost and what
29 constitutes a benefit to ratepayers in order to determine whether an energy efficiency
30 measure is cost effective.

1 Over the years several standardized tests have been developed that are designed to assist
2 in the quantification of cost effectiveness. These tests assist policy makers in
3 determining the overall cost effectiveness of energy efficiency programs and measures as
4 well as the distribution of costs and benefits among a utility's ratepayers.

5 **Q. PLEASE DESCRIBE THESE TESTS AND WHAT THEY ARE INTENDED TO**
6 **MEASURE.**

7 A. The five standard tests that are widely used in determining the cost effectiveness of
8 energy efficiency measures are discussed in depth in a publication by the National Action
9 Plan for Energy Efficiency and are defined as follows:¹

10 **Ratepayer Impact Measure (RIM)** - The RIM examines the impact of energy efficiency
11 programs on utility rates. Unlike typical supply-side investments, energy efficiency programs
12 reduce energy sales. Reduced energy sales can lower revenues and put upward pressure on retail
13 rates as the remaining fixed costs are spread over fewer kWh. The costs included in the RIM are
14 program overhead and incentive payments and the cost of lost revenues due to reduced sales.⁶ The
15 benefits included in the RIM are the avoided costs of energy saved through the efficiency
16 measure...

17 **Participant Cost Test (PCT)** - The PCT examines the costs and benefits from the perspective
18 of the customer installing the energy efficiency measure (homeowner, business, etc.). Costs
19 include the incremental costs of purchasing and installing the efficient equipment, above the cost
20 of standard equipment, that are borne by the customer. The benefits include bill savings realized
21 to the customer through reduced energy consumption and the incentives received by the
22 customer, including any applicable tax credits.

23 **Program Administrator Cost Test (PACT aka Utility Cost Test)** - The PACT examines
24 the costs and benefits of the energy efficiency program from the perspective of the entity
25 implementing the program (utility, government agency, nonprofit, or other third party). The costs
26 included in the PACT include overhead and incentive costs. Overhead costs are administration,
27 marketing, research and development, evaluation, and measurement and verification.² Incentive

1 costs are payments made to the customers to offset purchase or installations costs (mentioned
2 earlier in the PCT as benefits).³ The benefits from the utility perspective are the savings derived
3 from not delivering the energy to customers. Depending on the jurisdiction and type of utility, the
4 “avoided costs” can include reduced wholesale electricity or natural gas purchases, generation
5 costs, power plant construction, transmission and distribution facilities, ancillary service and
6 system operating costs, and other components.⁴

7 **Total Resource Cost (TRC)** - The TRC measures the net benefits of the energy efficiency
8 program for the region as a whole. Costs included in the TRC are costs to purchase and install the
9 energy efficiency measure and overhead costs of running the energy efficiency program. The
10 benefits included are the avoided costs of energy (as with the PACT and the RIM).

11 **Societal Cost Test (SCT)** - The SCT includes all of the costs and benefits of the TRC, but it
12 also includes environmental and other non-energy benefits that are not currently valued by the
13 market. The SCT may also include non-energy costs, such as reduced customer comfort levels.

14 **Q. ARE THERE OTHER CONSIDERATIONS BEYOND THE COST TESTS**
15 **DESCRIBED ABOVE IN DETERMINING WHETHER AN ENERGY**
16 **EFFICIENCY MEASURE OR PROGRAM IS NOT ONLY COST EFFECTIVE**
17 **BUT FAIR AND REASONABLE TO RATEPAYERS?**

18 A. Certainly. The above described tests are quantitative methods, based on certain
19 assumptions, that can assist in determining the net benefits (or costs) of an energy
20 efficiency program or measure. There are myriad other qualitative considerations that
21 are equally important in assessing the public interest value of energy efficiency
22 initiatives. These qualitative considerations may range from deciding what costs and
23 benefits are to be included in the respective tests to how much weight should be given to
24 individual tests in determining whether or not a measure or program is in the public
25 interest. Additionally, the design of energy efficiency programs is inextricably related to
26 the other parts of traditional utility ratemaking, including in particular the rate design. I

¹ National Action Plan for Energy Efficiency (2008). *Understanding Cost-Effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Emerging Issues for Policy-Makers*. Energy and Environmental Economics, Inc. and Regulatory Assistance Project. <www.epa.gov/eeactionplan>

1 will discuss how these qualitative considerations relate to the Company's application in
2 this proceeding later in my testimony.

3 **Q. ARE THERE GENERAL PRINCIPLES THAT CHARACTERIZE THE**
4 **VARIOUS COST EFFECTIVENESS TESTS YOU PREVIOUSLY DESCRIBED?**

5 A. Generally, the cost effectiveness tests described above are designed to measure the net
6 present value of the benefits (or costs) of energy efficiency over the life cycle of the
7 measure or program. The results are indicated by the ratio of the net present value of the
8 costs to the net present value of the benefits. A ratio of less than one indicates that the
9 net present value of the costs exceeds the net present value of the benefits while a ratio
10 exceeding one indicates that the value of the benefits exceeds the costs. Obviously, the
11 lower the costs and the greater the benefits the more cost effective a program or measure
12 is. Each of the standard cost effectiveness tests includes different costs and benefits and
13 thus produces a different quantification of cost effectiveness.

14 For example, the RIM test includes the cost of administering the program as well as the
15 incentives and lost revenues due to decreased sales while benefits are limited to avoided
16 energy (commodity) and capacity costs. The TRC, on the other hand, takes a more
17 expansive view of costs and benefits. The TRC, since it does not reflect the individual
18 position of participants, non-participants or the administrator (utility), omits the cost of
19 providing incentives because incentives are a cost to the utility but a benefit to the
20 participants that is assumed to net to zero on a total resource basis. Likewise, the lost
21 revenues considered in the RIM test are a cost to the utility that is expected to be
22 recovered in the context of future rate proceedings or through other rate or revenue
23 adjustment mechanisms and are not considered in the TRC.

24 From this perspective the TRC can be thought of as measuring the net benefit all of the
25 stakeholders – the utility, the participants and the non-participants, whereas the other
26 tests measure the net benefits to either the utility, participants or non-participants. It is
27 not surprising then that the more restrictive RIM, PACT and PCT tests exaggerate either
28 the costs or benefits to the utility, participants and non-participants relative to the net
29 benefits to ratepayers as a whole. In fact, the RIM test almost always shows that from a

1 ratepayer perspective utility sponsored energy efficiency initiatives have a cost benefit
2 ratio of less than one and are not cost effective. The PCT frequently shows the opposite,
3 that participants in energy efficiency programs frequently enjoy comparatively out-sized
4 benefits even after consideration of any lost revenue impacts reflected in their rates. The
5 PACT ratio usually falls somewhere in between.

6 Ultimately the TRC can be viewed as reflecting the net benefits to all the constituents. If
7 the TRC is positive (greater than one) the implication is that all of the constituents
8 (utility, participants and non-participants) benefit from the measure or program, although
9 participants may benefit more than non-participants. This view is supported by the
10 National Action Plan for Energy Efficiency that I cited earlier which states that “The
11 TRC may be considered the sum of the PCT and RIM, that is, the participant and non-
12 participant cost-effectiveness tests.”²

13 **Q. ARE THESE GENERAL OBSERVATIONS CONSISTENT WITH THE COST**
14 **EFFECTIVENESS TEST RESULTS FILED BY SGD IN THIS CASE?**

15 A. Yes. According to the Appendix A attached to the direct testimony of Paul Smith on
16 behalf of the Company none of the energy efficiency measures show a positive result for
17 the RIM test but show positive results for the other three tests conducted by the
18 Company. Additionally, the total portfolio of measures produces a RIM test result of less
19 than one, but a positive result for the other three tests.

20 **Q. HAS THIS COMMISSION APPROVED ENERGY EFFICIENCY PROGRAMS**
21 **FOR OTHER WYOMING UTILITIES THAT SHOWED SIMILAR COST**
22 **EFFECTIVENESS TEST RESULTS?**

23 Yes, I have reviewed other energy efficiency programs that have recently been approved
24 by the Commission for both electric and gas utilities and have concluded that the cost
25 effectiveness test results for those programs are very similar to those produced by SGD in
26 this case. For example, in Docket Number 20000-264-EA-06, Rocky Mountain Power
27 (RMP), a major electric service provider in the state, proposed an energy efficiency

² Ibid

1 program that consisted of several energy efficiency measures including appliance,
2 lighting and weatherization efficiency measures. In that case none of the individual
3 measures nor the total program portfolio in total showed a cost effective RIM test result
4 but all of the other test results showed that the measures and the overall program were
5 cost effective.

6 In Cheyenne Light, Fuel & Power's (CLF&P) recent proposal to implement a demand
7 side management program the Company submitted similar results. It's study, because it
8 is a combination electric and gas utility, are categorized by either gas or electricity
9 efficiency measures. CLF&P's analysis showed results consistent with those presented
10 by SGD in this case. None of the measures nor the overall portfolio of measures, either
11 on the gas or electric divisions showed a cost effective result for the RIM test but all of
12 the other test results showed that the programs and measures are cost effective.

13 Finally, in Docket Number 30010-94-GR-08, Questar Gas Company (QGC) in
14 conjunction with a proposed general rate increase and revenue decoupling mechanism,
15 requested approval of a demand side management and energy efficiency program. The
16 results for QGC's program show slightly different results than those for SGD, RMP and
17 CLF&P in that the results of all of the tests, including the RIM, demonstrate that all of its
18 proposed measures, with the exception of the market transformation and low income
19 weatherization measures, are cost effective. This result is likely due to the fact that QGC
20 simply added the Wyoming programs to its existing Utah programs and by doing so
21 incurred very little if any additional administrative costs. Absent the opportunity to
22 include Wyoming customers in the Utah programs the RIM result in that case would
23 likely not have been cost effective.

24 **Q. DO YOU BELIEVE IT IS FAIR FOR CUSTOMERS WHO DO NOT**
25 **PARTICIPATE IN AN ENERGY EFFICIENCY PROGRAM TO PAY FOR SOME**
26 **OF THE COSTS INCURRED TO OFFER THE PROGRAM?**

27 **A.** In my view, the way in which the cost of efficiency services are typically recovered from
28 customers is not dissimilar from the way that many other costs of providing service are
29 recovered from customers. In Wyoming, as in most jurisdictions, costs are recovered

1 from customers on an average basis since most utilities do not have the capability of
2 identifying costs on the basis of individual customers. Costs can be broken out by class
3 of service with a fairly high degree of precision but costs within customer classes are
4 much more difficult to determine on anything other than an average basis. Thus, costs
5 within customer classes are frequently recovered in an average rate that may not reflect
6 the actual cost of serving any one individual customer. From this perspective the
7 recovery of efficiency costs from non-participating customers can be characterized as no
8 more or less a subsidy between customers than many of the other costs of service that are
9 recovered from the general body of ratepayers.

10 In fact, for many utilities there are substantial existing subsidies within customer classes
11 many of which have been created or exacerbated by the rational response of customers to
12 historic volatility and price spikes in utility prices. As prices for utility services and
13 energy commodities have increased over the last decade most utilities, gas utilities in
14 particular, have experienced a decline in the average use per customer. This declining
15 use per customer, to the extent that a significant amount of a utility's fixed costs are
16 recovered in usage based charges, means that those fixed costs must be recovered over
17 fewer units of use thereby creating upward rate pressure. These lost revenues have
18 historically been recovered periodically from all customers through general rate increase
19 requests. However, typical rate designs have not changed with the change in customer
20 behavior; the tendency has been simply to increase the volumetric rate to recover the
21 revenue short fall without any recognition of how costs are incurred by customers with
22 different usage characteristics. Therefore, price induced energy efficiency and demand
23 response creates its own rate impacts on customers notwithstanding any additional
24 impacts that might be created as the result of utility sponsored programs.

25 **Q. DOES THE FACT THAT A SIGNIFICANT AMOUNT OF THE FIXED COSTS**
26 **HAVE HISTORICALLY BEEN RECOVERED IN VOLUMETRIC RATES**
27 **CREATE A PROBLEM?**

28 A. Yes. Insofar as the utilities profits are tied to the volumes of energy used, either gas or
29 electricity, then the utility has a significant positive motivation to increase the volume of
30 energy used and creates a significant disincentive for the utility to aggressively

1 participate in utility sponsored energy efficiency and demand side management
2 programs. In recent years public policy has shifted to a focus on the deployment of
3 robust energy efficiency and demand side management programs which has heightened
4 the “Throughput” problem associated with historic utility rate designs.

5 **Q. HAS THIS PROBLEM BEEN RECOGNIZED BY REGULATORS AND POLICY**
6 **MAKERS?**

7 A. Yes, many state utility commissions around the country have recognized that rate designs
8 that encourage utilities to sell more of their product are fundamentally incompatible with
9 public policy goals aimed at encouraging customers to use less energy. A significant
10 contributing factor is the fact that historic utility rate designs typically incorporate a
11 substantial amount of the utility’s fixed costs into the volumetric rate. In the document
12 cited earlier the authors state that: “One key consideration in assessing the RIM is that
13 there is typically an allocation of fixed costs in the variable \$/kWh rate. The fixed costs
14 included in rates reflect the utility’s existing revenue requirement and do not necessarily
15 reflect future capital costs avoided through energy efficiency.”³

16 **Q. HOW IS THE “THROUGHPUT” PROBLEM TYPICALLY ADDRESSED?**

17 A. There are a number of ways of addressing the throughput problem. The goal should be to
18 remove the disincentive to energy efficiency that is created by the rate design in a simple
19 and understandable way. One method is to adjust the utility’s revenue to account for the
20 fixed costs not recovered due to a utility sponsored energy efficiency program, the so
21 called “Lost Revenue” approach. Under this approach the utility is able to recover the
22 amount of revenue it otherwise would have recovered but for the reduction in use
23 attributable to the energy efficiency program. However, accurately determining the
24 amount of lost revenue attributable to the energy efficiency program can be challenging
25 and administratively burdensome.

26 Another method of addressing the throughput problem is the so called “Revenue
27 Decoupling” approach. Under this approach revenues are completely separated from

³ Ibid.

1 volumes and the utility is allowed to collect a per customer revenue amount regardless of
2 how much of the utility's product the customer uses. Under this approach the utility is
3 insulated from revenue losses of any kind, not just those attributable to the energy
4 efficiency program.

5 A third and perhaps most easily understood and administered approach, is to simply
6 modify the rate design so that fixed distribution costs are recovered in the fixed monthly
7 customer charge and variable costs are recovered in a volumetric distribution charge.
8 Under this approach, as with the other two approaches, commodity costs continue to be
9 recovered through a separate commodity cost adjustment mechanism. This approach is
10 known as the Straight Fixed Variable or SFV rate design approach.

11 **Q. WHICH OF THESE THREE METHODS DO YOU BELIEVE BEST ADDRESSES**
12 **THE THROUGHPUT PROBLEMS WHILE MAINTAINING JUST AND**
13 **REASONABLE RATES FOR CONSUMERS?**

14 A. The OCA prefers the SFV approach for reasons that are more fully discussed in the
15 testimony of Ms. Amy Zamora on behalf of the OCA. However, as it relates specifically
16 to the throughput incentive I believe that the SFV approach best accommodates the goals
17 of eliminating the throughput incentive and aggressive utility sponsored energy
18 efficiency initiatives. The SFV approach has the added benefit of being simple for
19 customers to understand making it more likely that customers will be engaged in their
20 energy consumption decisions.

21 The other two approaches treat the symptom, not the problem. The problem is that a
22 significant amount of a utility's fixed costs are recovered in volumetric rates. Reduced
23 revenue caused by reduced volumes is only symptomatic of the underlying rate design
24 problem. Resolving the underlying rate design problem gives customers clear, simple
25 and understandable price signals about their consumption decisions. It also clearly
26 makes apparent those costs that can be avoided through reduced usage and those that
27 cannot, which in turn rationalizes the development and deployment of energy efficiency
28 and conservation initiatives.

29 **Source Gas Distribution Proposal**

1 **Q. PLEASE DESCRIBE THE ENERGY EFFICIENCY PROGRAM THAT SGD IS**
2 **PROPOSING IN THIS CASE.**

3 A. SGE is proposing an energy efficiency portfolio consisting of five programs containing
4 various measures. Together these programs and measures constitute the portfolio of
5 energy efficiency resources being proposed by SGD in this proceeding. The energy
6 efficiency portfolio being proposed by SGD is fairly typical of the types of programs
7 generally undertaken by utilities and is consistent with the portfolios of other utilities
8 operating in Wyoming, although Wyoming utilities have been somewhat less aggressive
9 on energy efficiency than utilities in other parts of the country.

10 SGD's portfolio consists of the following programs:

- 11 • Heating Equipment Rebate Program
- 12 • Water Heating Program
- 13 • Commercial/Industrial Equipment Rebate Program
- 14 • Commercial Kitchen Equipment Rebate Program
- 15 • Custom Efficiency Rebate Program

16 Within each of these programs SGD is proposing various energy efficiency measures.
17 For example, in the heating equipment rebate program SGD is proposing to offer rebates
18 to induce to customers to switch to more efficient forced air furnaces and boilers, and is
19 also offering a rebate to customers who install a programmable thermostat. In the water
20 heating program SGD is offering rebates to customers who install more efficient standard
21 hot water heaters or tankless hot water heaters, efficient gas clothes dryers and washing
22 machines, and is also offering a water saving kit designed to reduce the usage of heated
23 water.

24 The commercial/industrial equipment program focuses on the replacement of boiler
25 equipment used for heated process water and steam with more efficient equipment. The
26 commercial kitchen equipment rebate program is intended to encourage customers to

1 replace less efficient commercial kitchen cooking equipment, such as broilers, fryers and
2 ovens, with more efficient models. Finally, the custom energy efficiency program is
3 designed for customers that don't qualify for the other programs because of their size or
4 the complexity of the industrial process systems used in their operation. One of the key
5 features of this program will be the evaluation of the customer's process through
6 engineering evaluations conducted both by SGD personnel and outside energy auditors to
7 determine process and equipment measures that are cost effective in reducing natural gas
8 usage.

9 **Q. ARE THERE PROGRAMS OR MEASURES THAT YOU WOULD OR**
10 **WOULDN'T INCLUDE IN SGD'S PORTFOLIO THAT ARE NOT REFLECTED**
11 **IN ITS PROPOSAL?**

12 A. On balance SGD's proposed portfolio of resources is fairly typical for a natural gas
13 distribution company although there is one significant exception. SGD has not included
14 in its portfolio any energy efficiency measures to address weatherization and insulation
15 measures. When I inquired about the absence of rebates and incentives for
16 weatherization and insulation measures the Company responded that:

17 Funds currently are available for weatherization activities (including installing
18 additional insulation) through the American Recovery and Reinvestment Act
19 ("ARRA"). Specifically, income qualified customers up to 200% of poverty level
20 (\$44,000 for a family of four) can access ARRA funds. In addition, Wyoming has
21 money available to middle income customers from ARRA in the ARRA-SEP Middle-
22 Income Weatherization program. Given the availability of these programs in
23 Wyoming, SourceGas Distribution elected to direct its energy efficiency measures to
24 those not covered by ARRA.

25 The Energy Information Administration Reports that on average 41% of residential
26 energy use is consumed by space heating, more than any other component of home
27 energy use.⁴ This is particularly true in Wyoming given its high northern latitude and
28 cold climate. Adequate insulation and weatherization measures, such as sealing
29 windows, doors and heating ducts can substantially and cost effectively reduce home
30 energy use and reduce costs to customers. These measures can be cost effective

⁴ http://www.eia.doe.gov/kids/energy.cfm?page=us_energy_homes-basics.

1 regardless of income level. In my view the American Recovery and Reinvestment Act
2 (ARRA) funds referred to by the Company are not meant to supplant other programs or
3 funding sources and we're not intended to eliminate the need for private investment in
4 energy resources. Rather, those funds were designed to attract and supplement private
5 funding sources such as utility sponsored energy efficiency programs. The Commission
6 should direct SGD to amend its program to include measures directed at achieving
7 savings through insulation and weatherization.

8 **Q. ARE THERE ANY OTHER MEASURES OR PROGRAMS THAT YOU WOULD**
9 **ADD OR SUBTRACT FROM SGD'S PORTFOLIO?**

10 A. No. With the addition of the two measures described above I believe that SGD's
11 portfolio of energy efficiency resources is adequate to capture most cost effective energy
12 savings opportunities.

13 **Q. HAVE YOU REVIEWED SGD'S PORTFOLIO OF ENERGY EFFICIENCY**
14 **MEASURES FOR COST EFFECTIVENESS?**

15 A. Yes. I have reviewed the results of the standard cost effectiveness tests submitted by the
16 Company in this proceeding. These results, which are presented in Exhibit 1 attached to
17 the testimony of Paul D. Smith show the test results for the RIM, PCT, PACT and TRC
18 that I described earlier in my testimony. The tests were conducted in conformance with
19 the California Standard Practice Manual on energy efficiency and are presented such that
20 the inputs and assumptions can be easily identified and understood.

21 **Q. WHAT INPUTS AND ASSUMPTIONS ARE USED IN THESE TESTS?**

22 A. As I described earlier in my testimony, these cost effectiveness tests are basically models
23 designed to measure the net present value of savings over the life of a program or
24 measure. As such some of the data inputs include, but are not limited to, the expected
25 savings per participant, the anticipated life of the program or measure, the total savings of
26 the program or measure over its expected life, the administrative, marketing and
27 incentive costs of the program, etc. A discount rate must also be assumed in order to
28 derive a net present value of the savings stream. Some of the inputs and costs are test

1 dependent as I described earlier. In other words, there is a different assumed discount
2 rate for the PACT than there is for the PCT, TRC and RIM tests. Likewise, some of the
3 costs, either participant or utility, are included in one of the tests and not the others. Each
4 attempts to measure benefits from the perspective of a different set of stakeholders and
5 therefore each is based on a unique set of data inputs and assumptions.

6 **Q. DO YOU BELIEVE THAT THE COMPANY'S INPUTS AND ASSUMPTIONS**
7 **ARE REASONABLE?**

8 Based on my review of the models the Company's proposed data inputs are within a
9 range of reasonableness. While one might arguably quibble with the level of some of
10 those inputs, I have concluded that changing them, within a reasonable range, only
11 affects how cost effective the programs are, not whether or not they are cost effective.
12 For example, one might argue that the inflation rate or discount rate is too high or too low
13 for a specific test. However, changing those inputs only makes the program more or less
14 cost effective, not non-cost effective.

15 I conducted some sensitivity analysis at the program level and determined that even
16 radical changes to the inputs do not make the programs non-cost effective.⁵ Examining
17 the heating equipment rebate program, for instance, if one assumes a gas price of \$3.00
18 (the market price of gas is currently around \$4.50 per mcf) per dekatherm the model
19 produces a TRC value of 1.06 rather than the 2.01 that results from a \$6.00 assumed gas
20 price. Still, there would be a positive benefit to consumers even at this unreasonably low
21 gas price. If the participant discount rate is changed to 22% from 4.39% (reflecting
22 current rates for consumer revolving credit) the PCT drops from 3.81 to 1.72, but remains
23 above 1.

24 **Q. WHAT DO THE TEST RESULTS SHOW?**

25 The test results presented by the Company, consistent with the expectations outlined
26 earlier in my testimony, show that none of the Company's proposed programs are cost
27 effective from the perspective of the non-participant as measured by the RIM test. On

⁵ Only a sampling of the proposed energy efficiency programs were subjected to sensitivity analysis.

1 the other hand, all of the programs and individual measures are cost effective from the
2 perspective of the participant (PCT), the utility (PACT) and the overall perspective of the
3 Company and its ratepayers (TRC).

4 **Q. ARE YOU CONCERNED THAT RATEPAYERS WHO DO NOT PARTICIPATE**
5 **IN THESE PROGRAMS ARE SUBSIDIZING THOSE WHO DO?**

6 A. This is an issue that I've struggled with throughout the course of my investigation in this
7 docket. As measured by the RIM test non-participating customers will see higher bills as
8 a result of the Company's proposal. That is a fact that is defined by the outcome of the
9 RIM test which in all cases produces results less than one. That increased bills will
10 follow is beyond refute. However, asking whether bills will go up or not may be the
11 wrong question.

12 The right question might be; will bills go up as much for non-participants as they
13 otherwise would in the absence of the energy efficiency programs? I have concluded that
14 from the overall perspective including the interests of non-participants, participants and
15 the utility itself, as measured by the TRC that all stakeholders will benefit from the
16 programs. No doubt some will benefit more than others but all constituencies will benefit
17 if the TRC is positive. This view is supported by the previously described EPA
18 document which states that:

19 The TRC may be considered the sum of the PCT and RIM, that is, the
20 participant and non-participant cost-effectiveness tests.⁶

21 **Q. ARE THERE ANY OTHER FACTORS THAT MITIGATE YOUR CONCERN**
22 **REGARDING THE RIM RESULTS IN THE COMPANY'S PROPOSAL?**

23 A. One of the factors that typically influences the results of the RIM test is that historical
24 rate designs tend to recover a significant portion of fixed costs through the variable non-
25 gas rates. To the extent that volumes are reduced then the utility is at risk of not
26 recovering all of its fixed costs as I discussed earlier in my testimony. Since the RIM

⁶ Energy and Environmental Economics, Inc. and Regulatory Assistance Project.
<www.epa.gov/eeactionplan

1 tests accounts for these utility lost revenues it will show an increased impact on non-
2 participants. The larger the revenue loss to the utility the less cost effective energy
3 efficiency is from the view point of non-participants, assuming that the lost revenue will
4 be collected from customers at some point.

5 In this case, however, SGD is proposing and the OCA is adopting a rate design that
6 recovers all of SGD's fixed costs through a fixed monthly customer charge. That means
7 that there will be no lost revenues as a result of the energy efficiency program proposed
8 by SGD. To be sure, there will still be a non-gas volumetric rate and revenues from that
9 rate will decline as volumes decline, but the variable costs will decline as well leaving
10 the Company indifferent to changes in volumes. Because of the new rate design the
11 impact of declining volumes on utility revenues will be greatly reduced, if not eliminated
12 and in turn the upward pressure on retail rates will be mitigated to a great degree. OCA
13 witness Amy Zamora will examine the cost of service and rate design proposed by the
14 Company in her testimony, but it is my understanding that its proposal will move SGD to
15 a full straight fixed variable rate design. This significantly reduces my concern regarding
16 the impact of the energy efficiency programs on non-participating customers.

17 **Q. WHAT OTHER STEPS DID YOU TAKE TO SATISFY YOURSELF THAT**
18 **SGD'S PROPOSED ENERGY EFFICIENCY PROGRAMS ARE REASONABLE?**

19 A. In addition to reviewing the Company's proposal I also reviewed some of the programs
20 that have been recently proposed by other utilities operating Wyoming, both gas and
21 electric utilities. These included Questar Gas' proposal that was adopted by the
22 Commission in Docket Number 30010-94-GR-8, Cheyenne Light, Fuel & Power's
23 (CLF&P) proposed energy efficiency program (Docket Number 30005-140-EA-10) and
24 Rocky Mountain Power's (RMP) energy efficiency program approved by the
25 Commission in Docket Number 20000-264-EA-6.

26 **Q. HOW DOES SGD'S PROPOSED ENERGY EFFICIENCY PROGRAM IN THIS**
27 **PROCEEDING COMPARE WITH THOSE OTHER PROGRAMS?**

1 A. I believe it compares quite favorably on the basis of costs and the benefits it provides to
2 customers. This is demonstrated by comparing the cost per dekatherm saved under each
3 of the programs over the life of the programs. According to SGD's application in this
4 proceeding the first year cost per dekatherm saved pursuant to its energy efficiency
5 program is \$21.93. Translating the first year cost into a cost per dekatherm saved over
6 the life of the program yields a cost per dekatherm saved over the life of the program of
7 \$1.46, assuming an average measure life of fifteen years. According to CLF&P's
8 application in the docket referenced above the first year cost per dekatherm saved is
9 \$26.25 and the lifetime cost per dekatherm saved is \$1.84. By contrast, performing the
10 same calculations for QGC's application shows a first year cost of \$46.96 per dekatherm
11 saved and a cost per dekatherm saved over the life of the program of \$3.13. I note that
12 for comparison purposes I assumed an average measure life of fifteen years over which
13 savings would accrue for all three companies so that the comparison is consistent. I also
14 attempted to make a similar comparison to RMP's program but determined that the
15 application didn't contain enough detailed information to make a meaningful comparison.
16 The calculations supporting these numbers are shown on OCA Exhibit BJB 1.

17 **Q. DO YOU HAVE ANY CONCLUDING THOUGHTS ON THE SUBJECT OF**
18 **SGD'S ENERGY EFFICIENCY PROGRAMS?**

19 A. As I indicated earlier the OCA supports utility sponsored efforts to encourage energy
20 efficiency on the part of utility customers so long as it is cost effective and produces
21 demonstrable benefits for customers. We don't see energy efficiency as a panacea or
22 believe that it is always the least cost resource. Resource decisions must be examined on
23 a case-by-case basis to ensure that they provide the lowest cost option consistent with
24 service reliability standards. Benefits must be tangible and quantifiable.

25 For example, in the instant case Mr. Smith argues that the Company's proposed energy
26 efficiency programs will reduce water use, mitigate air quality impacts, reduce our
27 dependence on imported energy and ultimately reduce the market price of gas. While it
28 feels good to make these types of sweeping statements, I seriously doubt that the 0.2%
29 (0.002) reduction in gas use will have a material impact on any of those issues. Mr.
30 Smith certainly offered no quantification of such benefits in his testimony. Nevertheless,

1 in this particular case I believe that the overall energy efficiency portfolio proposed by
2 the Company will provide direct, albeit modest, benefits to customers and the Company.

3 **Budget and Cost Recovery**

4 **Q. HOW IS SGD PROPOSING TO FUND ITS ENERGY EFFICIENCY PROGRAM?**

5 A. SGD is proposing to include in its expenses an annual amount of \$497,716 which is the
6 budgeted amount of its proposed energy efficiency program. This amount of expense is
7 approximately 4% of its total proposed operating and maintenance expenses, or about
8 6.6% of the overall total requested rate increase.

9 **Q. IS THIS AN UNUSUAL METHOD FOR RECOVERING THE EXPENSES**
10 **ASSOCIATED WITH ENERGY EFFICIENCY PROGRAMS?**

11 A. Yes, at least in Wyoming the utility energy efficiency programs that I am familiar with
12 typically recover the expenses associated with providing energy efficiency through a
13 surcharge, either on customer revenues or customer volumes. The revenues and expenses
14 associated with these programs are then tracked in a balancing account and under or over
15 collections are then amortized over a subsequent period.

16 **Q. HOW DOES SGD'S PROPOSED SURCHARGE AND METHOD OF COST**
17 **RECOVERY COMPARE TO THESE OTHER UTILITIES?**

18 A. As shown on OCA Exhibit BJB 2, if the costs of SGD's energy efficiency program were
19 recovered on the basis of dekatherms sold to customers it would be approximately \$0.065
20 per dekatherm. That is the basis upon which QGC recovers its energy efficiency costs
21 and according to QGC's current tariff the surcharge is \$0.0485 per dekatherm, similar in
22 magnitude to that proposed by SGD. Similarly, CLF&P is proposing to fund its energy
23 efficiency program through a volumetric surcharge of \$0.0847 per dekatherm. RMP
24 recovers its energy efficiency program costs through a bill surcharge which was recently
25 revised (residential customers) downward from 2.04% to 1.87%. The equivalent
26 surcharge for SGD would be approximately 1.09% as shown on OCA Exhibit BJB 2.

1 **Q. DOES SGD'S METHOD OF COST RECOVERY FOR ENERGY EFFICIENCY**
2 **EXPENSES CONCERN YOU?**

3 A. Somewhat. Including these expenses in the revenue requirement analysis in this case will
4 ensure that SGD recovers that amount of revenue annually from customers even if the
5 expenses of administering the program are more or less than the amount of revenue
6 collected. SGD has an incentive to spend less on energy efficiency than it is collecting in
7 revenues since any unspent revenue is retained by SGD to enhance its profitability. It has
8 a disincentive to spend more than the revenue it collects in rates as those excess costs
9 would be the responsibility of shareholders until such time as those costs are reflected in
10 rates as part of new rate case filing. Simply passing-on the cost of energy efficiency
11 expenses to customers through an appropriate tracking mechanism, as is customary,
12 avoids the incentive issues described above.

13 **Q. ARE YOU RECOMMENDING THAT THE COMMISSION DIRECT THE**
14 **COMPANY TO ESTABLISH A MECHANISM TO TRACK AND PASS-ON**
15 **ENERGY EFFICIENCY COSTS TO CONSUMERS?**

16 A. For purposes of establishing the revenue requirement in this case the OCA has assumed
17 that the cost of administering the energy efficiency program is included in the calculation
18 of the revenue requirement. The revenue requirement calculations are presented in the
19 testimony of OCA witness Denise Parrish. Our inclusion of these expenses in the
20 revenue requirement is based on the fact that they appear to be reasonable on a
21 comparative basis, as discussed earlier in my testimony. Including these expenses in the
22 revenue calculation however, will require much more work on the part of the
23 Commission to ensure that they remain reasonable.

24 For example, I would recommend that the Commission direct the Company, among other
25 things, to make an annual filing demonstrating that it has devoted the revenue collected
26 to support the energy efficiency program to that program and is not diverting the revenue
27 to the recovery of other costs. In other words, SGD should show that its annual energy
28 efficiency expenses are consistent with the \$497,716 annual budget amount allowed in

1 the revenue requirement. If they are substantially less the Commission should direct the
2 Company to reduce its rates accordingly.

3 The Commission should also require SGD to annually show that the programs and
4 measures contained in its energy efficiency portfolio remain cost effective and that it is
5 achieving an appropriate savings level with respect to the costs and benefits expected
6 with approval of the program. In view of the added labor on the part of the Commission
7 and parties to ensure that the program operates as anticipated given the Company's
8 proposed cost recovery we would equally not be opposed to the Commission directing
9 the Company to establish a tracking mechanism to recover the energy efficiency costs.
10 At the end of three years of operation the Commission should conduct a comprehensive
11 review of the program, based upon a filing by the Company, to determine whether or not
12 it is serving its intended purpose and should continue and if so what, if any,
13 modifications are needed.

14 **Scope of the Program**

15 **Q. DO YOU BELIEVE THAT THE SCOPE OF THE PROGRAM IS SUFFICIENT**
16 **TO CAPTURE REALISTICALLY ACHIEVABLE BENEFITS FOR**
17 **CUSTOMERS?**

18 A. The program proposed by SGD is certainly modest in its scope. According to a data
19 response provided by the Company it expects to reduce its annual sales volumes by 0.2%
20 (0.002). The work papers and exhibits attached to the testimony of Company witness
21 Smith show that there are far more customers eligible for measures in the program than
22 the Company is actually targeting for participation. For example, SGD shows that 3,740
23 customers are eligible for the heating equipment rebate measure but it estimates that only
24 244 of those eligible will actually participate on an annual basis. Similarly, 4,986
25 customers are eligible to participate in the water heating measure with only 1,382
26 expected to participate on an annual basis. Interestingly, there are 10,000 customers
27 eligible for the custom efficiency measure with only 2 expected to participate on an
28 annual basis. On an overall basis SGD is projecting 1,726 customers to participate with
29 each saving on average about 13 dekatherms of gas annually.

1 However, in comparison with the other Wyoming utility programs I reviewed, the
2 expected participation in SGD's program does not seem out of line. For instance, at the
3 time that QGC's program was approved it expected about 1,012 eligible customers to
4 participate with an average annual savings of 8.6 dekatherms per customer. According to
5 its pending energy efficiency application CLF&P expects 765 natural gas customers to
6 participate in its natural gas focused program with per participant annual savings of about
7 25 million cubic feet (mcf) per customer. One mcf is roughly equivalent to a dekatherm.
8 I could not draw a meaningful comparison with RMP's approved energy efficiency
9 program.

10 The above comparisons show that SGD's expected participation and savings are not
11 outside the range of reasonableness as they fall between the expectations of a program
12 that has been approved and is in operation and a program that has been proposed and is
13 pending Commission action. All of these utilities, including SGD, could theoretically do
14 more energy efficiency. However, any efforts to increase the size and participation of
15 these programs would increase their cost and while they might remain cost effective for
16 participants, increasing the scope and participation would place an added burden on non-
17 participating customers. The Commission must ultimately strike a balance between
18 pursuing cost effective energy efficiency and the interests of both non-participating
19 customers and the utility. With that in mind I would recommend against increasing the
20 scope or budget of the programs proposed by SGD in this proceeding, at least until we
21 have gained some experience with the operation of the program in Wyoming.

22 Use Per Customer Adjustment Riders

23 Q. WHY HAS THE COMPANY PROPOSED AN ENERGY EFFICIENCY 24 PROGRAM IN THIS PROCEEDING?

25 A. According to the testimony of Paul D. Smith on behalf of the Company the program was
26 proposed because the "Commission expressed to the Company a desire for the
27 implementation of energy efficiency programs within its Wyoming service area..."
28 However, in response to a data request posed by the OCA the Company stated that:

29 QUESTION:

1 Referring to the direct testimony of Paul D. Smith at page 3, beginning on line 9,
2 in answer to the question “Why is the Company proposing an EE plan in this
3 proceeding?” Mr. Smith states that “My understanding is that the Commission
4 has expressed to the Company a desire for the implementation of energy
5 efficiency programs within its Wyoming service area and that other Wyoming
6 gas and/or electric companies have done so.” Would the Company have proposed
7 the energy efficiency program contained in this application absent Commission
8 direction to do so?
9

10
11 **RESPONSE:**
12

13 SourceGas Distribution responds as follows: As a general rule, SourceGas
14 Distribution historically has looked to the legislature and utility commission
15 within the States that it does business to determine whether to propose an EE
16 plan within those States. As indicated in the request, SourceGas Distribution’s
17 decision to propose an EE plan in this docket was consistent with the expressed
18 desire of the Wyoming Public Service Commission. The Company likely would
19 not have filed an EE plan in this docket in the absence of that expressed desire.

20 **Q. WHAT DOES THE COMPANY’S RESPONSE TO THIS DATA REQUEST**
21 **IMPLY?**

22 A. The implication is that SGD apparently does not see a benefit to the Company in
23 investing in energy efficiency programs. This could be due to the fact that under the
24 Company’s current rate design it would have a significant disincentive to aggressively
25 seek to reduce customer usage. For example, the current customer charge for residential
26 customers is \$10 per month while the fixed cost of providing residential service is
27 approximately \$26 per month with the difference between these two amounts recovered
28 in the non-gas volumetric distribution rate. This means that over 60% of the Company’s
29 fixed costs are recovered through a volumetric rate. If volumes are reduced the Company
30 by definition will not recover its fixed costs. This is the classic throughput problem that I
31 discussed at length earlier in my testimony.

32 **Q. PLEASE DESCRIBE WHAT THE COMPANY HAS PROPOSED TO ADDRESS**
33 **THE THROUGHPUT PROBLEM?**

34 A. In its application the Company is proposing two separate rate making treatments to
35 address the throughput problem; a straight fixed variable rate design and the use of a
36 “Use Per Customer Adjustment” mechanism, or UPCA. The straight fixed variable rate

1 design, which I described earlier in my testimony, is a recognized method for reducing or
2 eliminating the disincentive to energy on the part of the utility and alters the rate design
3 so that most or all of the fixed costs are recovered in the fixed monthly customer charge.
4 Variable costs continue to be recovered through a volumetric rate. The UPCA would
5 further assure that costs not recovered in the fixed or volumetric charges would
6 nevertheless be recovered after the fact by truing up the revenue requirement approved in
7 this case with the revenue actually received from customers on an annual basis.

8 **Q. WHAT IS YOUR OPINION OF THE STRAIGHT FIXED VARIABLE RATE**
9 **DESIGN OFFERED BY THE COMPANY IN THIS CASE?**

10 A. The OCA favors the straight fixed variable rate design approach to the throughput
11 problem for the reasons I outlined earlier in my testimony. We believe that this approach
12 is the simplest to administer and the simplest for customers to understand. Further, we
13 believe it gives customers the proper information and price signals to understand what
14 costs of providing service can be avoided by saving energy and which cannot. A robust
15 energy efficiency program will depend in large part on the knowledge of customers and
16 their willingness to engage. Giving them the proper information about cost of service
17 and energy use will greatly encourage them to engage in the energy efficiency programs
18 offered by SGD.

19 From reviewing the comments offered already by customers in this docket it is apparent
20 that they do understand this issue. For example, Robert and Barbara Yonts of 931
21 Waterford Street, Casper, write that:

22 ...Maybe the gas company should do what everyone else is doing--cut
23 back on their expenses. They could start with a reduction of employees,
24 buy fewer new vehicles and most importantly STOP printing/distributing
25 literature on cost saving programs. **These programs seems to have the**
26 **reverse effect for consumers---buy new energy efficient appliances,**
27 **use less gas and then pay a higher rate because the gas company is**
28 **making less money.** [emphasis added]. (more).

29
30 David D. Seyfang of Guernsey writes that:

31 I see from an article published in our local newspaper that Source Gas is
32 once again asking for increases in the non-gas component of its rates.

1 Source gas states that one of the reasons for the increase is declining
2 customer usage. **I, like a lot of other customers, are spending**
3 **thousands of dollars on new energy efficient appliances, insulating,**
4 **replacing windows, adding types of solar and turning down the heat to**
5 **reduce consumption costs. Our reward is increases in rates.** [emphasis
6 added]. We are already charged \$13.00 a month just for being their
7 customer which doesn't seem like much but we also pay distribution
8 charges depending on the amount of consumption. (more).

9 Alice Bradley of Casper voiced her opinion in a telephone conversation with the
10 Commission's staff, to wit:

11 "The Distribution Charge should be a flat fee. When this became a
12 category to charge customers, it was a surprise back then. (more).

13 Graham Munn of Wright, Wyoming writes that:

14 It appears to me that Mr. Norm Long is saying that his company needs this
15 increase due, at least in part, to "declining customer usage and energy
16 efficient homes" (his words). So because SourceGas customers practice
17 energy efficiency they have to pay more for their natural gas? Mr.Long
18 also states that "The company is proposing new energy efficiency
19 programs that will increase awareness and reduce gas consumption. The
20 programs will save customers money." (his words again.) How can any
21 energy efficiency program save money for the customer if it results in
22 decreased consumption which in turn prompts SourceGas to request a rate
23 increase because they are not selling enough gas?

24
25 This type of twisted logic is an insult to Wyoming consumers in general
26 and SourceGas customers in particular.

27 I urge the PSC to reject this rate increase. You are after all the Public
28 Service Commission and this rate increase request (and the illogical
29 reasoning behind it) is definitely not in the public interest.

30 These comments are just a sampling of the comments received by the Commission in this
31 docket. But it is apparent from reading them that customers do understand the link
32 between costs and the amount of gas used. They understand that in a properly designed
33 rate structure the reward for consuming less natural gas should not be an increase in rates
34 or revenues. Rather, they should be able to see the tangible results of their efforts to
35 conserve energy in the form of reduced bills.

36 **Q. DO YOU BELIEVE THAT CUSTOMERS UNDERSTAND AND ACCEPT THE**
37 **FIXED MONTHLY CUSTOMER CHARGE?**

1 A. Although I think it is clear from the above cited comments that customers generally
2 understand the link between consumption decisions and energy costs, I think it is also
3 clear from the comments that we will all have a substantial amount of work to do educate
4 customers regarding rate design issues as we transition to a regulatory environment that
5 encourages customers to use less natural gas and electricity. There is a misconception
6 among some customers that utilities are not entitled recover their capital costs. For
7 example, Harvey Reading of Shoshoni writes that:

8 ...It used to be that consumer were not expected to pay companies for
9 their capital improvements or maintenance costs. Those costs were just
10 part of the cost of doing business. (more).

11 Similarly, Melissa L. Grisham of Evansville writes that:

12 ...Why is Source Gas granted and allowed to charge customers for what I
13 feel are normal operation expenses, i.e., meter reading, billing, etc.?
14 Rocky Mountain Power does not charge a customer charge, nor does my
15 local municipality for sewer, gas and water. I feel it is time for the
16 Wyoming Public Service Commission to deny Source Gas the continued
17 charging of the Customer Charge and let them operate as any other
18 business that has expenses in the normal course of operation. (more).

19 Of course all businesses, even those that operate in competitive markets, must be able to
20 recover long term capital and maintenance costs, or they will fail. The difference is in
21 how those costs are recovered. It would be impractical for competitive commodity
22 suppliers to recover fixed capital costs through a fixed charge. Most people would not
23 want to pay a fixed charge for the right to shop in a store, even though the price of the
24 goods that they purchase might be less as a result. Nevertheless, customers do contribute
25 to the recovery of the fixed capital costs of the store when they purchase goods.

26 Unlike private firms, however, utility ratepayers are captive and must purchase the
27 service from the utility. Given the monopoly nature of utility service it is much easier to
28 structure rates so that fixed costs are recovered through fixed charges. Ultimately, this
29 restructuring of the rates does not impact a customer's bill and I am convinced that
30 benefits of a straight fixed variable rate design, once we have made the transition,
31 including simpler administration, fewer intra-class subsidies and fairer cost recovery, and

1 more transparency for customers, will facilitate better consumption decisions by
2 customers.

3 **Q. WHAT IS YOUR OPINION OF THE UPCA MECHANISM PROPOSED BY SGD**
4 **IN THIS CASE?**

5 A. SGD is proposing a full straight fixed variable rate design in this case in which all of the
6 fixed costs are recovered through the customer charge and the variable costs are
7 recovered through a volumetric charge. Although our recommended rates are different
8 from those proposed by the Company due to our recommended revenue requirement and
9 rate base adjustments, we do recommend the adoption of rates that reflect a straight fixed
10 variable rate design. The OCA's rate design recommendations are contained in the
11 testimony of Ms. Amy Zamora.

12 In light of the forgoing described proposal, the audacious request of SGD to further
13 guarantee its revenues through the UPCA mechanism is, quite frankly, outrageous. The
14 UPCA and similar mechanisms in which revenues are decoupled from sales are designed
15 to recover the revenues that are lost when customer usage declines, particularly as a
16 result of utility sponsored energy efficiency programs. Decoupling mechanisms are one
17 way to address the throughput problem discussed earlier in my testimony. In this case,
18 however, since SGD is proposing to implement a straight fixed variable rate design, there
19 will in fact be no lost revenues to recover when customer usage declines.

20 Exhibit 1, Schedule 31 of the Company's application summarizes the various costs and
21 the rates that the Company is proposing. Column A of the exhibit shows the various
22 categories of costs included in customer rates (i.e., storage, transmission, distribution,
23 other) as well as whether the cost is a fixed or variable cost. For example, distribution
24 customer costs shown on line 13 are expressed in dollars per month while storage
25 capacity costs on line 1 are expressed in dollars per therm.

26 Lines 22 through 27 of the exhibit show the aggregate costs that are based on the
27 classified costs in the rows above. Total customer billing related costs of \$26.08 per
28 month are shown in row C, line 25 while the variable costs are shown in the same column
29 in rows 23 and 24. Setting the monthly customer at a level essentially equal to the

1 amount shown on line 25 will recover all of the Company's fixed costs in the monthly
2 customer charge while the variable costs will be recovered on a per therm basis.

3 If the use per customer declines the monthly customer charge will not decline so recovery
4 of SGD's fixed costs is not at risk. On the other hand, if the use per customer declines
5 the revenue produced by the volumetric charges will decline, but so will the costs
6 associated with those revenues. If volumes decline less storage and transmission
7 capacity will be needed and therefore costs will decline in step with the decline in
8 revenues producing no revenue shortfall to be recovered through the UPCA. The UPCA
9 is therefore unnecessary to compensate SGD for lost revenues that might result from
10 implementation of the energy efficiency program.

11 **Q. MR. SULLIVAN ARGUES IN HIS TESTIMONY IN SUPPORT OF UPCA THAT**
12 **THESE COSTS ARE FIXED AND DECLINING USE PER CUSTOMER WILL**
13 **LEAD TO EROSION OF THE COMPANY'S REVENUES. DO YOU AGREE?**

14 A. No, Mr. Sullivan's assertion is based on two faulty assumptions. First, in examining Mr.
15 Sullivan's Exhibit TJS-2 it is clear from the footnote of that exhibit that Mr. Sullivan
16 bases his quantification of revenue erosion due to the decline in use per customer on the
17 weighted average volumetric distribution rate that prevailed over the five year period he
18 examined. That weighted average volumetric rate contains a substantial amount of the
19 Company's fixed costs and therefore it is no surprise that declining use leads to declining
20 revenues. However, on a prospective basis, if a straight fixed variable rate design is
21 adopted in this proceeding, substantially all of the fixed costs will be recovered in the
22 customer charge. If one substitutes the volumetric rates proposed for small and medium
23 general service customers in this case into the calculations shown on Mr. Sullivan's
24 exhibit the revenue erosion claimed by Mr. Sullivan would decline by about 23% to
25 approximately \$961,000.

26 Secondly, it is misleading to characterize the \$961,000 as lost revenue. While it is true
27 that revenue from the volumetric rate would decline with declines in usage, so to would
28 the Company's cost of providing those volume based services. Note on this exhibit that
29 although use per customer on a weather normalized basis have declined over the last five

1 years, total volumes and the total number of customers have increased by about 8% for
2 the small general service class and by about 15% for the medium general service class.

3 While the cost of specific volumes of storage and transmission capacity might be fixed
4 by contract, the cost is not fixed on a per customer basis. As the absolute amount of
5 volumes and customers grow so does the need for additional storage and transmission
6 capacity. However, as the Company acquires additional capacity it anticipates the
7 decline in use per customer and therefore the reduction in total required capacity and
8 decrements the acquisition of additional capacity accordingly. Transmission and storage
9 costs are therefore variable and would decline as revenue declines on a per customer
10 basis producing no lost marginal revenues to the Company.

11 **Q. DOES IT MAKE ANY DIFFERENCE THAT SGD OWNS TRANSMISSION AND**
12 **STORAGE FACILITIES IN WYOMING?**

13 A. No. To the extent that SGD owns storage and transmission capacity that is not needed to
14 serve its Wyoming customers it is free to release that capacity to third parties which
15 produces an incremental income stream for the Company. Those costs would then be
16 recovered from the third party shipper and not from Wyoming retail customers.

17 **Q. MIGHT USAGE DECLINE FOR REASONS OTHER THAN**
18 **IMPLEMENTATION OF THE COMPANY'S ENERGY EFFICIENCY**
19 **PROGRAM?**

20 A. Certainly. Per customer usage has been declining for a number of years even in the
21 absence of an energy efficiency program sponsored by SGD, primarily through price
22 induced customer initiated energy efficiency measures. But, the straight fixed variable
23 rate design concept will address that problem as well. A decline in use per customer for
24 any reason will cause the variable costs to decrease proportionally and at the same time
25 the revenues associated with fixed costs will be fixed for recovery in the monthly
26 customer charge. Even if this were not true, the objective is to make the Company
27 indifferent to declines in revenue associated with the energy efficiency program and not
28 to make the Company whole for declines in usage for other reasons.

1 **Q. DO YOU AGREE WITH COMPANY WITNESS WATSON THAT A**
2 **SUBSTANTIAL BENEFIT OF THE UPCA AND OTHER TRACKING**
3 **MECHANISMS PROPOSED BY THE COMPANY IS THAT SGD WILL NEED**
4 **FEWER RATE CASES?**

5 A. I certainly agree that if the UPCA and other mechanisms proposed by the Company are
6 adopted by the Commission the Company would need less frequent rate cases. In fact, if
7 the Company's case were approved as filed we might not ever see them again because it
8 would be collecting a virtually guaranteed revenue stream from Wyoming customers.
9 That outcome is certainly not a benefit to customers. I believe that SGD should be
10 afforded a reasonable opportunity to recover its prudently incurred costs and earn a fair
11 return on its Wyoming investment. Adopting the OCA's revenue requirement, rate base,
12 rate of return and rate design recommendations will afford SGD that opportunity. SGD's
13 proposal to combine both a straight fixed variable rate design with the UPCA and other
14 cost tracking mechanisms, however, is an unprecedented attempt to ensure that it will
15 earn its allowed return absent customers actually leaving the system. The resulting rates
16 would be unfair, unjust and unreasonable since SGD would be relieved of its obligation
17 to prudently manage its costs.

18 **Peace Billing System Costs**

19 **Q. WHAT IS YOUR CONCERN RELATIVE TO THE BILLING SYSTEM COSTS**
20 **PROPOSED BY THE COMPANY?**

21 A. My concern in this case is that SGD, after having abandoned its failed attempt to
22 implement a third party billing and customer care system, is now proposing that
23 Wyoming ratepayers backstop the cost of that failed attempt. This is not only wrong as a
24 matter of established ratemaking principles, but offensive in light of the extreme
25 inconvenience and distress visited on Wyoming customers as a result of the failure of the
26 Company to act prudently. And, it wasn't exactly a picnic for the Commission either. I
27 will discuss why the OCA thinks that the costs proposed for recovery by the Company
28 should be disallowed more fully in a moment, but first a little context will be beneficial.

1 As the Commission is painfully aware, SGD implemented a third party billing and
2 customer care system in the fall of 2007. The third party billing and customer care
3 provider, Accenture, produced billing information based on meter readings and the
4 approved rates contained in the Company's Wyoming tariffs. Accenture produced
5 similar information for the other states in which SGD operates. This information was
6 then sent to yet another billing contractor which generated and mailed the monthly
7 customer bills. The Company averred at the time it implemented the new third party
8 billing and customer care system that it would be more efficient and less expensive than
9 updating the existing in-house billing and customer care operations.

10 By January 2008 it was clear that something had gone terribly wrong with SGD's third
11 party billing and customer care system. After receiving numerous billing complaints and
12 inquiries the Commission held an initial investigative hearing in Casper to determine the
13 extent of the billing problems and what actions should be undertaken to remedy the
14 problem. Many of SGD's Casper customers attended the hearing and testified about a
15 number of billing issues including late, incorrect and duplicate bills, and the
16 unwillingness of the Company to work with customers to resolve billing issues. Many
17 customers has received disconnect notices after receiving a bill for several months
18 service that they could not pay. Some customers complained that they had paid estimated
19 bill amounts that were not credited to their accounts. There were many other complaints
20 and concerns expressed by customers too numerous to list here.

21 Since that initial hearing in early 2008 the Commission has held many other hearings and
22 open meetings devoted to resolving the billing issues created by SGD when it
23 implemented its third party billing and customer care system. In fact, the billing issues
24 were not fully resolved until SGD dissolved its contract with Accenture and implemented
25 a new in-house billing and customer care system in the fall of 2009. During the interim
26 eighteen month period the Commission issued no fewer than nineteen orders addressing
27 various billing issues and directed the Company to take multiple corrective actions to
28 resolve the billing problems. In short, the Commission did everything within its power to
29 resolve the billing problems created by SGD's decision to implement the third party
30 billing and customer care system. Although the Commission was vigilant in its

1 investigation and diligent in its orders to correct the billing system issues, responsibility
2 for and direct control over the implementation and operation of the system rested with
3 SGD.

4 **Q. IS SGD SEEKING TO RECOVER SOME OF THE COSTS ASSOCIATED WITH**
5 **ITS FAILED THIRD PARTY BILLING SYSTEM IN THIS CASE?**

6 A. Yes. According to the testimony of Dan Watson SGD is seeking to recover the costs
7 associated with various computer hardware and software licensing agreements related to
8 the Peace billing system which he states are used and useful for serving customers.
9 According to the testimony of Olga Odell the amount the Company is seeking to include
10 in rate base is \$2,017,802 which would then be part of the capitalized rate base of the
11 Company on which it is allowed to earn a return.

12 Mr. Watson argues that the functionality of the Peace system was integral in providing
13 natural gas service to its Wyoming customers during the period in which it was in
14 operation. I would simply point out that previous in-house billing system used by SGD's
15 predecessor utility provided the necessary functionality to render bills and maintain an
16 adequate customer information system. The primary driver in outsourcing the billing
17 system was to increase efficiency and reduce expenses. So, although outsourcing the
18 billing function might have been seen as beneficial to the Company, from the customer's
19 perspective it was no more useful or beneficial than the existing in-house system at the
20 time.

21 **Q. IN YOUR OPINION ARE ANY OF THE COSTS ASSOCIATED WITH THE**
22 **FAILED BILLING SYSTEM USED AND USEFUL FOR SERVING**
23 **CUSTOMERS?**

24 A. Absolutely not. The implementation and brief period of operation of the third party
25 billing system was a colossal failure by any standard. The cost and inconvenience
26 associated with this epic mistake on the part of SGD have greatly burdened Wyoming
27 customers. Now SGD is seeking to recover costs it incurred to salvage customer billing
28 information from that system that it argues is necessary to provide continuing service to
29 customers. Yet, Mr. Watson acknowledges in his testimony that the Company is not

1 using the Peace hardware or software to access that data. Instead, as he states in his
2 testimony, the costs were incurred to provide access to the underlying information which
3 SGD then transferred to its own internal computer system. In a data request I asked the
4 Company about this very point. My inquiry and SGD's response appear below:

5 **Data Request 5.9:** Referring to the direct testimony of Company
6 witness Watson, does the Company anticipate that it will not use the
7 infrastructure of the previous billing system in the future and instead will
8 only use the data produced by that infrastructure that is now resident on
9 the Company's computer network?

10 **RESPONSE:**

11 SourceGas Distribution LLC responds as follows:

12 Please refer to page 24, lines 18-24 of the prefiled direct testimony of
13 Daniel E. Watson, as proposed to be adopted by William (Len) L. Mize
14 III. As explained therein, the Company decided to forego the option of
15 continuing to use the infrastructure of the prior billing system to access
16 transaction and other data that were not loaded on to the Company's new
17 billing system because of its concerns over the ongoing reliability of the
18 system for future data retrieval, the Company's lack of experience
19 operating the system on its own and the related cost ramifications.

20 As explained on pages 22-25 of the prefiled direct testimony of Daniel E.
21 Watson, as proposed to be adopted by William (Len) Mize III, the fees for
22 which SourceGas Distribution is seeking rate base treatment were incurred
23 in order for SourceGas Distribution to have continuing access to and
24 ownership of the PEACE software system data, including transaction data.
25 As described therein, the transaction and other data that have been
26 transferred over to the Company's separate computer network rather than
27 to the current billing system will have ongoing usefulness in the
28 Company's regulated utility operations, and the costs that SourceGas
29 Distribution is proposing for inclusion in rate base are reasonable in
30 amount.

31 In order for a utility investment to eligible for inclusion in rate base it must have been
32 prudently incurred and used and useful for providing utility service to customers. The
33 investment in the Peace billing system does not satisfy either one of these requirements.
34 At best it is a onetime expense incurred to give the Company access to billing
35 transaction data that was necessary as a direct result of the Company's decision to
36 implement a third party billing system. That decision was exclusively within the purview

1 of the Company and its management. Moreover, the assets that this investment
2 represents have no ongoing usefulness in serving customers. Including this investment in
3 rate base would essentially require customers to pay the cost of two billing systems
4 simultaneously. I see no reason to force SGD's Wyoming customers to backstop the
5 Company's mismanaged attempt to implement its failed third party billing system.

6 **Q. MR. FREEMAN, WHY IS THIS ISSUE COVERED IN YOUR TESTIMONY**
7 **RATHER THAN THE REVENUE REQUIREMENT TESTIMONY OF MS.**
8 **PARRISH?**

9 A. As I stated earlier in my testimony the billing system issues associated with the
10 abandoned third party billing system have been ongoing since the fall of 2007, although
11 the new in-house billing system seems to have cured most of the problems associated
12 with the Peace billing system. I took great interest in these issues from the beginning and
13 attended many of the hearings and open meetings where resolution of these issues was
14 considered by the Commission. Along the way I and Mr. David McMullian of the OCA
15 staff attempted to be helpful to the Commission in resolving the billing issues. So, while
16 the adjustment removing the Peace related costs from rate base appears as a rate base
17 adjustment in Ms. Parrish's testimony, with my familiarity regarding the Commission's
18 investigation into these issues it made sense for me to support the OCA's position on this
19 issue. Thankfully, and due in no small part to the efforts of the Commission, the saga of
20 the failed billing system is behind us. However, with respect to this last remaining issue
21 the OCA respectfully urges the Commission not to allow the Company to recover the
22 imprudent and useless investment associated with the Peace system.

23 **Q. DOES THAT CONCLUDE YOUR DIRECT PREFILED TESTIMONY IN THIS**
24 **PROCEEDING?**

25 A. Yes, it does.

APPENDIX A

CASES IN WHICH BRYCE FREEMAN HAS PRESENTED TESTIMONY BEFORE THE WYOMING PUBLIC SERVICE COMMISSION AS OF 7/19/2010

<u>Docket Number</u>	<u>Company</u>	<u>Date</u>	<u>Subject Of Testimony</u>
30016-GR-94-8	Pinedale Natural Gas Company	10/26/1994	ROR
70006-TR-94-14	Silver Star Telephone Company, Inc.	12/6/1994	ROR
20002-ER-95-48	Black Hills Power & Light	8/14/1995	ROR, IRP, DSM, AFOR
70000-TR-95-238	U S WEST Communications, Inc.	10/2/1995	TSLRIC
General Order No. 73	Commission Rule Making	4/11/1996	TSLRIC
20000-ER-95-99	PacifiCorp, Inc.	6/17/1996	ROR, AFOR, PBR
70007-TR-95-15	Dubois Telephone Company	8/5/1996	ROR, TSLRIC
30012-GR-96-33	Wyoming Industrial Gas Company	10/16/1996	ROR
70007-TR-95-15	Pacific Telecommunications, Inc.	12/10/1996	TSLRIC
70000-TT-96-301	U S West Communications, Inc.	1/10/1997	AFOR, Jurisdiction
70007-TR-95-15	U S West Communications, Inc.	1/28/1997	TSLRIC, RATE DESIGN
70000-TR-96-323	U S West Communications, Inc.	5/26/1997	TSLRIC, Imputation
30005-GR-97-51	Cheyenne Light, Fuel & Power, Inc.	8/25/1997	ROR
70011-TR-97-15	Tri-County Telephone Association, Inc.	3/31/1998	TSLRIC
70014-TR-97-7	TCT West, Inc.	3/31/1998	TSLRIC
80007-WR-98-6	Vista West Water Company	8/31/1998	Cost of Service
20000-EA-98-141	PacifiCorp, Inc.	7/6/1999	Merger
30010-GR-99-47	Questar Gas Company	10/28/1999	ROR, Revenue Requirement
20003-ER-99-54	Cheyenne Light, Fuel & Power, Inc.	1/18/2000	ROR, Rate Design
30005-GR-99-53	Cheyenne Light, Fuel & Power, Inc.	1/18/2000	ROR, Rate Design
20000-ER-99-145	PacifiCorp, Inc.	1/26/2000	ROR, Rate Design
80007-WR-99-8	Vista West Water Company	3/22/2000	Rate Design
30010-GA-01-56	Questar Gas Company/Wyoming Industrial Gas	6/12/2001	Merger/Acquisition
30012-GA-01-43			
20000-ER-0-162	PacifiCorp, Inc.	7/9/2001	Rate Design
70000-TA-99-482	Qwest Communications	9/6/2001	TSLRIC
70000-TA-01-700	Qwest Communications	3/15/2002	TELRIC
70013-TR-02-17	All West Communications, Inc.	10/28/2002	TSLRIC
70006-TT-00-43	Silver Star Telephone Company, Inc., Teton Telecom	12/17/2002	TSLRIC
70016-TA-02-21			
20000-ER-02-184	PacifiCorp, Inc.	1/7/2003	Power Cost
30022-GI-02-3	Kinder Morgan, Inc.	2/3/2003	Choice Gas
20000-ER-02-198	PacifiCorp, Inc.	1/16/2004	Power Cost
20000-EA-05-226	MEHC/PacifiCorp	12/15/2005	Merger/Acquisition
30022-73-GR-06	Kinder Morgan, Inc.	9/18/2006	ROR
20000-250-EA-06	Rocky Mountain Power	1/10/2007	Avoided Costs
30022-84-GA-06	Source Gas/Kinder Morgan/KMRUH; Knight HoldCo LLC, Knight Acquisition Co.	2/18/2007	Sale/Acquisition/Reorganization
30085-85-GA-06			
30016-41-GR-06	Pinedale Natural Gas Company	3/21/2007	General Rate Case/ROR
10016-47-CR-06	WYRULEC	7/2/2007	General Rate Case
20003-90-ER-07	Cheyenne Light, Fuel & Power, Inc.	10/22/2007	General Rate Case/WYGEN II Prudence
30005-112-GR-07			
70009-294-TT-07	Embarq Communications	11/2/2007	Access Charges/USF
10016-47-CR-06	WYRULEC	12/10/2007	Amended General Rate Case
20000-277-ER-07	Rocky Mountain Power	3/3/2008	General Rate Case/ROR
20000-264-EA-06	Rocky Mountain Power	5/27/2008	Amended DSM Application
70005-24-TR-08	Chugwater Telephone Company	8/21/2008	General Rate Case
70000-333-ER-08	Rocky Mountain Power	3/23/2009	General Rate Case/ROR
30010-GR-94-08	Questar Gas Company	4/1/2009	General Rate Case/ROR
20004-75-ER-08	Montana/Dakota Utilities	4/7/2009	General Rate Case/ROR
300009-48-ER-08	Wyoming Gas Company	5/18/2009	General Rate Case/ROR
20000-342-EA-09	Rocky Mountain Power	9/1/2009	Avoided Costs
20000-352-ER-09	Rocky Mountain Power	4/16/2010	ROR
20002-75-ER-09	Black Hills Power, Inc.	5/10/2010	ROR
30022-148-GR-10	Source Gas Distribution LLC	7/19/2010	Energy Efficiency/Decoupling

ROR = RATE OF RETURN; IRP = INTEGRATED RESOURCE PLANNING;
 DSM = DEMAND SIDE MANAGEMENT; AFOR = ALTERNATIVE FORM OF REGULATION;
 TSLRIC = TOTAL SERVICE LONG RUN INCREMENTAL COST;
 PBR = PERFORMANCE BASED RATE MAKING
 AFOR = ALTERNATIVE FORM OF REGULATION

Comparison of Cost Per Dekatherm Saved

	SGD	CLF&P	QGC
First Year			
First Year Cost	\$497,716	\$278,674	\$411,625
First Year Savings	22,692	9,822	8,765
First Year Cost/dkth	\$21.93	\$28.37	\$46.96
Lifetime			
First Year Cost	\$497,716	\$278,674	\$411,625
Total Lifetime Savings*	340,380	147,333	131,475
Cost per dth Saved	\$1.46	\$1.89	\$3.13

*Assumes an average measure life of 15 years.

Comparison of Energy Efficiency Funding Requirements

	SGD	QGC	RMP	CLF&P
Average Monthly Bill *	\$72			
Monthly DSM Budget	\$41,476			
Number of Monthly Bills	52,991			
Cost per Bill/Mo.	\$0.78			
Surcharge per Bill	1.09%		1.87%	
<hr/>				
EE Annual Budget	\$497,716			
Annual Volumes - Dth	7,599,087			
Dth Surcharge	\$0.0655	\$0.0485		\$0.0847

*Based on 8 dekatherms average monthly use for Casper division small general service customer.