BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

IN THE MATTER OF THE JOINT APPLICATION OF QUESTAR GAS COMPANY, THE DIVISION OF PUBLIC UTILITIES, AND UTAH CLEAN ENERGY, FOR THE APPROVAL OF THE CONSERVATION ENABLING TARIFF ADJUSTMENT OPTION AND ACCOUNTING ORDERS	)	Docket No. 05-057-T01

Direct Testimony of

Howard Geller

on behalf of

Southwest Energy Efficiency Project (SWEEP) and Utah Clean Energy (UCE)

January 23, 2006

Introduction

Please state your name and business address.

A. My name is Howard Geller. My business address is 2260 Baseline Rd. Suite 212, Boulder, Colorado 80302.

For whom are you testifying?

A. I am testifying on behalf of the Southwest Energy Efficiency Project and Utah Clean Energy (SWEEP/UCE).

Please describe the Southwest Energy Efficiency Project (SWEEP).

A. SWEEP is a public interest organization dedicated to advancing energy efficiency as a means of promoting both economic prosperity and environmental protection in the six states of Arizona, Colorado, New Mexico, Nevada, Utah, and Wyoming. SWEEP works on state energy legislation, analysis of energy efficiency opportunities and potential, expansion of state and utility energy efficiency programs as well as the design of these programs, building energy codes and appliance standards, and voluntary partnerships with the private sector to advance energy efficiency. SWEEP is funded primarily by foundations, the U.S. Department of Energy, and the U.S. Environmental Protection Agency. I am the Executive Director of SWEEP.

Q. Please describe Utah Clean Energy (UCE).

A. UCE is a private nonprofit organization dedicated to advancing energy efficiency and renewable energy in Utah. UCE works on state and utility energy policy as well as

promotion of energy efficiency and renewable energy. UCE is funded by foundations, contracts with state agencies and utilities, and contributions. I serve on the Board of Directors of UCE.

Q. **What are your professional qualifications?**

A. I have 25 years of experience working on energy efficiency policy and program design, analysis, evaluation and advocacy. Prior to founding SWEEP in 2001, I served as Executive Director of the American Council for an Energy-Efficient Economy (ACEEE) in Washington, DC. I have authored or co-authored four books on energy efficiency and energy policy, and published dozens of reports and articles on these topics. I have testified before the public utility commissions of Colorado, Illinois, Maryland, and the District of Columbia. Exhibit HG-1 summarizes my professional qualifications.

What is the purpose of your testimony?

A. In my testimony I will discuss the public interest in increasing natural gas energy efficiency, summarize the potential for and performance of gas energy efficiency programs based on studies and experience in other states, provide an estimate of the potential energy savings and economic benefits of gas demand-side management (DSM) programs in the Questar Gas service territory, and comment on the financial disincentives to natural gas DSM programs and the conservation enabling tariff proposed by the applicants.

Q. **Please summarize your testimony.**

A. I first point out that there is a strong public interest in increasing the energy efficiency of natural gas use. I then show that there is considerable potential for more efficient gas use in Utah, and that many other natural gas utilities are implementing cost-effective demand-side management (DSM) programs for their customers. Next I estimate the potential gas savings and economic benefits from gas DSM programs that Questar Gas Company could implement. In particular, I estimate savings potential of on the order of 6.9 million MCF per year and net economic benefits of $210 million from what I view as a reasonable 10-year gas DSM effort. Then I discuss the financial disincentive that gas utilities such as Questar Gas face when considering implementation of gas DSM programs, and I support the proposed conservation enabling tariff (CET) as a way to overcome this inherent disincentive in current regulations.

The Public Interest in Increasing Natural Gas Energy Efficiency

Q. **What is the public interest in increasing natural gas energy efficiency?**

A. Natural gas DSM and energy efficiency programs are in the public interest. Increasing the energy efficiency of natural gas use will provide benefits for Questar Gas Company's customers, the natural gas utility system, the economy, and the environment. Increasing natural gas energy efficiency will save consumers and businesses money through lower energy bills, resulting in lower total costs for customers. Natural gas energy efficiency programs will help mitigate fuel price increases and reduce customer vulnerability and exposure to natural gas price

volatility. Reducing gas consumption through energy efficiency improvements is especially valuable in Utah given the nature of the Questar's gas supplies. In particular, marginal gas savings avoid costly market-based gas purchases, thereby reducing the average cost of gas paid by all customers.[1] Increasing natural gas energy efficiency will also diversify energy resources, reduce air pollution and carbon dioxide emissions, and create jobs and improve the economy. Natural gas energy efficiency is a reliable energy resource that can cost less than other resources for meeting the energy needs of customers in the Questar Gas Company service territory.

There are many opportunities for cost-effective natural gas energy efficiency in the Questar Gas Company service territory in Utah, as evidenced by the gas DSM potential study prepared for the Utah Natural Gas DSM Advisory Group in June 2004 and the gas DSM program experience in other states.

The Potential for Natural Gas DSM and Experience in Other States

Q. **Have there been any recent studies of natural gas energy efficiency potential in the Questar Gas Company service area?**

A. Yes, a study was completed by the consulting firm GDS Associates, Inc. for the Utah Natural Gas DSM Advisory Group in 2004.[2] The study concludes that a comprehensive and well-funded 10-year DSM effort could reduce gas use by

[1] This is due to the fact that approximately 45% of the gas provided by Questar Gas Company comes from its own production which is relatively low cost compared to the remaining gas purchased in the marketplace.

[2] *The Maximum Achievable Cost Effective Potential for Gas DSM in Utah for the Questar Gas Company Service Area*. Final Report prepared by GDS Associates for the Utah Natural Gas DSM Advisory Group, June 2004. http://www.swenergy.org/news/Natural_Gas_DSM_Potential_in_Utah.pdf

residential and commercial customers 20 percent at the end of the 10-year period. The estimated benefit-cost ratio for this overall effort is 2.39 using the Total Resource Cost (TRC) test.

Q. **What is the experience with natural gas DSM programs in other states?**

A. Numerous gas utilities are implementing cost-effective DSM programs that are helping their customers reduce their gas consumption and gas bills. SWEEP recently carried out a survey of gas DSM programs offered by 10 gas utilities with comprehensive DSM programs.[3] The results of this survey are summarized in Exhibit HG-2.

The survey found that as of 2004, the leading gas utilities were spending 1.0-1.6% of their retail revenues on DSM programs and were reducing gas sales by 0.5-1.0% per year. This is the amount of gas savings from programs implemented in 2004 alone. Furthermore, the benefit-cost ratio for these programs as a whole ranged from 1.6 to 5.6, and in most cases exceeded 2.0. Most utilities were using the Total Resource Cost (TRC) test to determine cost effectiveness. And given that natural gas prices have risen significantly since 2004, gas DSM programs would be even more cost effective today.

[3] S. Tegen and H. Geller, *Natural Gas Demand-Side Management Programs: A National Survey.* Boulder, CO: Southwest Energy Efficiency Project, Jan. 2006.

The American Council for an Energy-Efficient Economy also completed a survey of America's leading natural gas DSM programs.[4] Among the exemplary programs identified by ACEEE are the following:

Keyspan Energy, which operates in both Massachusetts and New Hampshire, is investing $12 to 13 million per year on a comprehensive set of gas energy efficiency programs for residential and commercial customers. Keyspan saved 430 million cubic feet of gas from all programs implemented in 2002. Their programs as a whole have a benefit-cost ratio of 2.45.

Xcel Energy implements gas DSM programs in Minnesota. The utility's rebate program for high efficiency commercial and industrial gas boilers saved 168 million cubic feet of gas in 2002 alone and operates at an average cost of $2.50 per thousand cubic feet saved.

In *Wisconsin*, DSM programs are implemented statewide by a third party program administrator. The ENERGY STAR products incentive and promotion program achieved 43% market share for ENERGY STAR clothes washers in 2003, the highest market share in the nation. The clothes washer program saved 40 million cubic feet of gas in 2002 alone with a benefit-cost ratio counting gas savings only of 1.85.

In addition, *California* adopted new energy savings requirements for both gas and electric utilities in 2004.[5] The gas requirements will provide customers relief from

[4] *Exemplary Natural Gas Energy Efficiency Programs*. Washington, DC: American Council for an Energy-

rising natural gas bills by tripling annual gas savings after a 10-year effort, saving 444 million therms per year by 2013, equivalent to the gas consumption of one million households on average. Gas utilities in California were ramping up their DSM programs starting in 2006.

Q. **What types of DSM programs are gas utilities implementing?**

A. Gas utilities typically implement some or all of the following programs as strategies for stimulating cost-effective energy efficiency improvements:

- Rebates for high efficiency gas furnaces and water heaters
- Rebates for high efficiency clothes washers and other appliances that conserve natural gas
- Incentives for home energy retrofit in gas-heated homes
- Support for weatherization of homes occupied by low-income families
- Design assistance and financial incentives for energy-efficient new construction
- Incentives for high efficiency commercial and industrial boilers and related efficiency measures
- Incentives for other gas savings measures in the commercial and industrial sectors

Status of Gas DSM Programs in other Southwest states

Q. **What is the status of gas utility DSM programs in other Southwest states?**

Efficient Economy. Dec. 2003. http://www.aceee.org/utility/ngbestprac/ngbestpractoc.pdf
[5] California Public Utilities Commission. Decision D.04-09-060, September 2004.

A. To the best of my knowledge, no major gas utilities in the Southwest were implementing DSM programs for their customers as of 2005. But this is starting to change. In New Mexico, Public Service Company of New Mexico (PNM) proposed and received approval in December, 2005 to start gas DSM programs in 2006. PNM will implement a set of programs for residential customers at the funding level of about $2.2 million per year initially. PNM plans to expand these programs starting in 2007.

In Arizona, the Southwest Gas Company has proposed implementing a set of nine gas DSM programs for its residential, commercial, and industrial customers. The initial total DSM budget proposed by Southwest Gas Company is about $4.4 million per year. This proposal is now under review by the Arizona Corporation Commission.

In Nevada, Sierra Pacific Resources has proposed starting gas DSM programs in its gas service territory in northern Nevada. This proposal is now under review by the Public Utilities Commission of Nevada. Sierra Pacific Resources already implements electricity DSM programs in both northern and southern Nevada.

Q. **Are gas utility DSM programs still worthwhile and desirable given that gas prices have increased to such a high level in the past year?**

A. Yes, gas utility DSM programs are still worthwhile and desirable. These programs address barriers such as the lack of awareness of energy efficiency measures, the lack of available capital to invest in energy efficiency measures, and the lack of attention

paid to energy efficiency opportunities among some customers.[6] Other barriers include the "split incentives" that exist in the landlord/tenant market (rental property) or in new construction. These barriers exist even during periods of relatively high energy prices. This is why gas DSM programs are starting up or expanding at this time in states such as California, New Mexico, and Nevada.

Savings Potential from Gas DSM Programs in the Questar Gas Service Territory

Q. **How much natural gas might customers save from DSM programs implemented by Questar Gas Company?**

A. Based on the experience of other gas utilities (see Exhibit HG-2), it would be reasonable in my view for Questar Gas Company to spend 0.8% or more of its retail revenues on DSM programs. This means spending approximately $9 million per year or more on these programs given Questar's current level of sales revenue.[7] At the average savings rate of 77,000 MCF of gas per year per million dollars of program expenditures (see Exhibit HG-2), spending $9 million annually would result in 693,000 MCF of gas savings per year. This is approximately 0.7% of Questar's retail gas sales (excluding gas transported for industrial customers). Thus, a 10-year DSM effort of this magnitude would save approximately 6.9 million MCF per year at the end of the effort, assuming no degradation in savings from efficiency measures installed in the earlier years.

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[6] For a discussion of the barriers to cost-effective energy efficiency improvements, see *The Potential for More Efficient Electricity Use in the Western United States.* Report prepared by the Energy Efficiency Task Force to the Western Governors' Association. Dec. 2005. http://www.westgov.org/wga/initiatives/cdeac/Energy%20Efficiency-full.pdf

[7] For comparison, Utah Power is now spending about $22 million per year or about 2% of its revenues on cost-effective DSM programs.

Q. **How much economic savings might result from this level of gas DSM activity?**

A. It is reasonable to assume that gas DSM programs pay for 50% of the full cost of energy efficiency measures through rebates or other financial incentives, on average. Assuming that a $9 million annual gas DSM budget includes $6 million in incentive payments with the remainder of the budget going towards planning, administration, promotion, and evaluation, the total investment in energy efficiency measures would be $12 million per year, and the total program plus measure cost would be $15 million per year. Assuming an average benefit-cost ratio of 2.4 using the TRC test, this would mean approximately $36 million in gross benefits and $21 million in net benefits for households and businesses as a result of DSM programs implemented each year. Thus a 10-year gas DSM effort at this level of expenditure could produce an estimated $210 million in net economic benefits for households and businesses.

Q. **Is a benefit-cost ratio of 2.4 a reasonable assumption?**

A. As shown in Exhibit HG-2, this benefit-cost ratio was exceeded by a number of gas utilities in different parts of the country in 2004, at a time when gas prices were well below those prevailing today. Also, this is the average benefit-cost ratio in the Utah natural gas DSM potential study prepared by GDS Associates in 2004. So it is a reasonable if not conservative assumption in my view, given that gas prices are relatively high today and expected to remain so in the near term.

Q. **Are there advantages to initiating gas DSM programs as quickly as possible?**

A. Yes there are. As noted above, I estimate that spending $9 million per year on gas DSM programs could yield $21 million in net benefits for households and businesses. So every month that passes without Questar implementing cost-effective DSM programs means that consumers as a whole are paying more than is necessary for energy services.

Financial Disincentive to Natural Gas Utility Support of Energy Efficiency

Q. **Does Questar Gas Company experience a financial disincentive to promoting more energy-efficient gas use by its customers?**

A. Yes. As pointed out in the Application, traditional utility regulation links the utility's financial health to the volume of natural gas sold, resulting in a financial disincentive to invest in energy efficiency and other demand-side resources that reduce natural gas sales. For Questar, energy savings by customers result in lower non-gas revenues for the company and threaten recovery of utility fixed costs. In general, this financial disincentive reduces utility support and enthusiasm for energy efficiency programs that minimize the long-term cost of providing energy services. It also can impede utility support for energy-efficiency standards, building energy codes, and other policies that serve societal interests and reduce energy use without requiring any direct utility investment.

The financial disincentive is particularly strong for natural gas utilities that have experienced an overall trend of declining gas usage per customer, which is the situation for Questar Gas Company and other utilities in the Southwest.

Q. **Is the Conservation Enabling Tariff (CET) Pilot Program proposed in the Application a reasonable way to address this financial disincentive?**

A. SWEEP/UCE support the CET Pilot Program proposed by Questar Gas and other applicants. The CET would ensure that Questar Gas Company can collect from customers the allowed revenue per customer, thereby not penalizing Questar Gas financially if gas DSM programs are successful or other energy efficiency initiatives such as cost-effective building energy codes or appliance efficiency standards are enacted. We believe that adopting this tariff, at least on a pilot basis, will benefit customers as well as the utility by stimulating Questar Gas to develop and implement cost-effective gas DSM programs. These DSM programs are called for in part VI of the application. In particular, the application states that, "The programs will be developed and implemented in a timely manner and will seek to maximize gas savings and net economic benefits for customers" (p. 12).

Q. **Have other states adopted mechanisms to reduce or remove the financial disincentive that gas utilities face if they implement effective energy efficiency programs?**

A. Yes. A number of states including California[8], Maryland, Massachusetts, Minnesota, New Hampshire, North Carolina, and Oregon have done so either through adopting some form of gas sales-revenue decoupling mechanism, or a positive financial incentive based on DSM program performance.[9] California, Maryland, North

[8] California Public Utilities Commission. Decisions D.04-05-055, June 2004, for PG&E; D.05-03-023, March 2005, for SDG&E and SoCalGas.
[9] See footnotes 2, 3 and 4.

Carolina, and Oregon all have adopted some form of decoupling mechanism.[10] A summary of the decoupling mechanism adopted by other states, prepared by the American Gas Association, is provided in Exhibit HG-3.

Q. **Have consumer advocates in other states supported decoupling mechanism?**

A. Consumer advocates in both California and Oregon supported the decoupling mechanisms adopted in those states. I am not aware of whether or not consumer advocates supported the decoupling mechanisms adopted in Maryland or North Carolina.

Q. **Do financial incentives for the utility make a difference with respect to gas utility support for energy efficiency programs?**

A. The SWEEP survey mentioned previously (see footnote 3) found that utilities that are eligible for shareholder incentives tend to spend more as a percentage of their total revenues on gas DSM programs than utilities without these policies. Also, utilities with financial incentives tend to save more gas per unit of program expenditures than utilities without incentives.

Does that conclude your direct testimony?

A. Yes.

[10] *Natural Gas Rate Round-Up*. Washington, DC: American Gas Association. Nov. 2005.

Exhibit HG-1
Statement of Qualifications

Howard S. Geller

Dr. Howard S. Geller is the Executive Director of the Southwest Energy Efficiency Project (SWEEP), a public interest venture he founded in 2001. Based in Boulder, Colorado, SWEEP promotes policies and programs to advance energy efficiency in Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming.

Dr. Geller is the former Executive Director of the American Council for an Energy-Efficient Economy (ACEEE). He established ACEEE's Washington, D.C. office in 1981, stepping down as Executive Director in February 2001. He built ACEEE's reputation and influence through technical and policy assessments, advice to policy makers, development of energy efficiency programs, consumer guides, and conferences.

Dr. Geller has advised and conducted energy efficiency studies for utilities, governmental organizations, and international agencies. He has testified before the U.S. Congress on energy issues many times and has influenced energy legislation including the National Appliance Energy Conservation Act of 1987 and the Energy Policy Act of 1992. He has served as an expert witness on energy efficiency and resource planning issues before the utility commissions of Colorado, Illinois, Maryland, and the District of Columbia.

Dr. Geller is author or co-author of four books. His most recent book, *Energy Revolution: Policies for a Sustainable Future*, was published in 2003 by Island Press. In addition to his work in the United States, Dr. Geller has spent over three years working on energy efficiency issues in Brazil. He helped to start and frequently advises Brazil's National Electricity Conservation Program (PROCEL).

Dr. Geller was awarded the 1998 Leo Szilard Award for Physics in the Public Interest by the American Physical Society in recognition of his contributions to national appliance efficiency standards and more efficient energy use in general. Dr. Geller is a member of the editorial advisory board for the journal *Energy Policy*.

Dr. Geller received his PhD in Energy Policy from the University of Sao Paulo in Brazil in 2002. He holds a Masters degree in Mechanical and Aerospace Engineering from Princeton University (1979) and he received a Bachelors degree from Clark University (1977) where he majored in Physics and Science, Technology, and Society.

Exhibit HG-2

Information on Comprehensive DSM Programs Implemented by Ten Gas Utilities in 2004

	Program spending (million $)	% of retail revenues	Gas savings (MCF/yr) (1)	% of gas sales saved	MCF/yr saved per million dollars	Benefit-Cost Ratio (2)
Aquila (3)	2.1	1.4	146,000	0.5	69,000	--
Centerpoint	5.6	0.5	720,000	0.5	128,600	2.6
Keyspan	12	1.0	490,000	0.4	41,000	3.00
Northwest Natural Gas (4)	4.7	0.7	85,000	0.1	18,000	--
NSTAR	3.9	0.8	71,500	0.2	18,000	2.29
PG&E	13.5	0.4	2,000,000	0.7	148,000	2.1
PSE	3.8	0.4	311,000	0.5	82,275	1.93
SoCal Gas	21	0.6	1,100,000	0.3	52,000	2.67
Vermont Gas	1.1	1.6	57,000	1.0	52,000	5.6
Xcel Energy (MN)	4	0.7	663,000	0.9	166,000	1.56
Average (5)	7.2	0.8	564,000	0.5	77,000	2.7
Median	4.4	0.7	400,00	0.5	60,500	2.4

Notes:

(1) An MCF is one thousand cubic feet, and is equivalent to 10.3 therms.

(2) For utilities which report a variety of benefit-cost ratios, we present the value based on the Total Resource Cost (TRC) test.

(3) Aquila uses the societal test for determining the DSM benefit-cost ratio but did not provide a value for 2004 programs.

(4) DSM programs, other than support for low-income weatherization, are now implemented by the Energy Trust of Oregon (ETO) for Northwest Natural Gas Company. Cost effectiveness analysis includes valuation of environmental externalities.

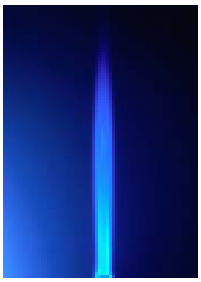
(5) Average weights all utilities equally.

Source: S. Tegen and H. Geller, *Natural Gas Demand-Side Management Programs: A National Survey.* Boulder, CO: Southwest Energy Efficiency Project. Jan. 2006.

Exhibit HG-3

AGA American Gas Association

NATURAL GAS
RATE ROUND-UP
A Periodic Update on Innovative Rate Designs
November 2005



Decoupling Mechanisms

This issue of the *AGA Rate Roundup* describes a rate design method that helps utilities to promote energy efficiency while preventing the erosion of margins that is the usual outcome of customer conservation and utility energy efficiency.

DESCRIPTIONS AND COMPONENTS

Decoupling Programs

Traditional rate designs allow utilities to collect payments from consumers every month to cover the actual cost of natural gas (a pass-through cost, with no utility mark-up), as well as government taxes and the utility's fixed costs. After delivering a sufficient volume of natural gas to cover all of those items, a utility has the opportunity to earn its regulated profit. However, the traditional rate design ties a utility's profitability to the volume of natural gas that customers use. When the amount of gas consumed declines, as it does during periods of warmer than normal weather, and when natural gas consumers become more energy efficient, even a small reduction in natural gas consumption can significantly cut into a utility's profitability. This presents a strong financial disincentive for natural gas utilities to promote energy efficiency aggressively.

To remedy this situation, several natural gas utilities have worked with their state regulators to reform the way their rates are designed, by separating or "de-coupling" the utility's recovery of its fixed costs from the volume of natural gas delivered to customers. The impetus for this rate re-design has been, primarily, the problem of declining use per customer and the fact that weather has been consistently warmer than normal, on average, for many years. These decoupling mechanisms, or margin tracking mechanisms, use periodic adjustments called "true-ups" to move customers' rates up or down modestly to ensure that utilities recover their authorized fixed costs regardless of fluctuations in energy use.

Conservation Components

Regardless of the volumes of gas delivered by the utility, decoupling rate designs provide a better chance of recovery of the utility's fixed costs than do traditional rate designs. Decoupling rate designs remove the disincentives that utilities face in promoting energy efficiency. Conservation tariffs are the rate design components that give consumers an incentive to conserve

natural gas. Not all decoupling programs include a conservation component, and not all conservation tariffs also include a decoupling mechanism.

At least 29 natural gas utilities have tariff provisions that allow recovery of conservation and demand side management program costs, as well as recovery of lost net revenues caused by the reduction in sales. The programs differ in what costs are allowed recovery (e.g., program costs, administrative costs, lost margin costs) and who administers the program (e.g., company, state, or charitable organization). One example is NW Natural, which includes a conservation component in its current decoupling mechanism that is administered by an outside charitable foundation. Another example is Vermont Gas, which does not have a decoupling program, but does have a Demand Side Management and Energy Efficiency program, in which the utility funds a portion of customers' costs of purchasing new, more energy-efficient appliances. Vermont Gas' defers the costs of the program until its next rate case and subsequently amortizes the costs over a three-year period and charges the costs to all ratepayers.

Computational Options

There are several options for calculating the revenue adjustment, or true-up, and while the results are approximately the same, the different options help companies meet unique regulatory preferences and circumstances. The use-per-customer basis makes a rate adjustment that is based on changes in average use per customer and then applies that adjustment factor against unit margins by customer class. The margin-per-customer rate adjustment is based on the change in baseline margin per customer compared to the actual margin per customer. The total margin revenue adjustment is based on comparison of total baseline margin revenues to actual margin revenues.

Variants –Fixed Variable Rate Design

More than one rate design method exists that will break the link between volumes of gas consumed and cost recovery for the utility. Fixed variable rate design places all of the utility's fixed costs, including a regulated profit on the value of the utility's investment in plant and equipment used to provide service to the customer, into a fixed monthly charge called a service charge or a demand charge. This charge is similar to the monthly fee charged by cable TV companies and is unrelated to the amount of gas (or number of TV programs) used by the customer. Several utilities currently utilize a fixed charge type of rate design for recovery of their costs. AGA will further discuss this rate design mechanism in the next *Rate Round-Up*.

Similar Mechanisms – Return Stabilization

Return stabilization, also known as rate stabilization and revenue stabilization, is another rate design mechanism that decouples a utility's profits from its gas throughput. The mechanism works by adjusting the utility's monthly revenues up or down to meet pre-established revenue and return targets. The amount calculated is added to or subtracted from the commodity charge of the utility in the next month and the utility files a revised rate schedule with the regulator. Several AGA members have received approval for these mechanisms. An upcoming *Rate Round-Up* will discuss these related mechanisms in more detail.

CURRENT DECOUPLING PROGRAMS

NW Natural - Oregon

The Public Utility Commission of Oregon approved a decoupling tariff for NW Natural in September of 2002. The PUC said the tariff was designed "to break the link between an energy utility's sales and its profitability, so that the utility can assist its customers with energy efficiency without conflict." The tariff was a partial decoupling mechanism that allowed NW Natural to defer and then amortize 90 percent of the margin differentials for the residential and commercial customer groups. The mechanism contained two components: 1) a "price elasticity" factor that adjusted for increases or decreases in consumption attributable to annual changes in commodity costs or periodic changes in the company's general rates; and 2) a decoupling adjustment calculated on a monthly basis that accounted for deviations in expected volumes. Weather related risks were not covered by the mechanism. The additional company revenues or credits to customers produced by the mechanism were booked to a deferral account that was reconciled as part of the company's annual purchased gas adjustment.

The NW Natural decoupling tariff was put in place for three years on a pilot basis and had a sunset date of September 30, 2005, unless extended by the PUC. In March of 2005, NW Natural asked the PUC to investigate whether the decoupling tariff should continue. As part of the petition, NW Natural submitted the results of an independent study that had been required under the original order.

In August 2005, the Oregon PUC extended NW Natural's partial decoupling mechanism for an additional four years. NW Natural revised the decoupling schedule to provide for 100 percent deferral and amortization of the margin differentials. This change eliminated the non-weather related margin variability related to distribution fixed costs. In addition to the decoupling provisions, NW Natural currently has in effect a weather-adjusted rate mechanism (WARM) that was adopted in an earlier rate case and that lasts until September 30, 2008. The WARM covers all residential and small commercial customers, unless the customers opt out. The 2005 decoupling case dictates that public purpose funding and low-income assistance programs will remain in effect throughout the life of the decoupling program. In addition, industrial customers will not be charged or be eligible for any of the assistance programs.

NW Natural has a conservation component to its decoupling program that provides an indirect efficiency incentive to its customers. The company collects from all of its residential and commercial customers a "public purpose" surcharge of 1.5 percent of their total monthly bills. The funds are then passed on to an independent, non-profit organization, the Energy Trust of Oregon. The Energy Trust, which also receives funding from public purposes surcharges from all of Oregon's electric utilities, then provides grants to promote energy-efficiency and renewable resources among homes and businesses.

The Energy Trust of Oregon disburses approximately $6 million each year to encourage more efficient use of natural gas. Incentives include: $450 - $825 per unit to builders of new home construction if natural gas service is installed; rebates for high-efficiency gas furnaces, water heaters (including tankless units) and other appliances in existing homes; rebates on insulation, new windows and other efforts to reduce home energy use; and rebates on the installation of tankless water heaters, efficient boilers, etc. in commercial buildings.

Baltimore Gas and Electric and Washington Gas Light - Maryland

BG&E's decoupling program began in 1998, while Washington Gas Light's mechanism began in October of 2005. The programs, which are similar in design, are "full decoupling" programs, in that they are designed to recover multiple sources of margin loss, including weather and price elasticity, as well as losses caused by customers' conservation and energy efficiency. The Maryland decoupling mechanism utilizes a balancing account that returns to customers excess margin when revenues exceed authorized levels.

The companies make adjustments to the delivery price of gas under the applicable schedules to reflect test year base rate revenues established in the latest base rate proceeding, after adjustment to recognize the subsequent change in the number of customers from the test year level. Test year average use per customer is multiplied by the net number of customers added since the like-month during the test year. The product is added to test year revenue to restate test year revenues for the month to include the revised values. Actual revenues collected for the month are compared to the restated test year revenues and any difference is divided by estimated sales for the second succeeding month to obtain the adjustment to the applicable delivery price. Any difference between actual and estimated sales is reconciled in the determination of the adjustment for a future month. Details of the calculation of the billing adjustment are filed monthly with the Public Service Commission.

Southwest Gas Co. - California

California has had some variation of a decoupling program in place for most of its utilities for nearly 30 years. The impetus for the program was the enactment of lifeline rates legislation, gas supply constraints, and the adoption of demand side management programs by the state. In its most recent general rate case order, effective April 15, 2004, Southwest was granted authority to implement a decoupling mechanism. The decoupling mechanism utilizes a balancing account to protect customers if base revenues exceed authorized levels, and to protect stockholders if base revenues are less than authorized levels. The program is firmly established and utilizes a long-standing regulatory construct that does not recognize an explicit reduction to ROE.

Future test year system annual revenue requirement (margin) is established in a rate case as a fixed dollar amount on a monthly and annual basis. The difference between billed margins and authorized margins, plus carrying costs, is recorded monthly in a deferred account. The account balance is amortized annually through a uniform cents-per-therm rate applicable to all schedules, except special contracts. The test year margin amount increases each January 1 (between rate cases) according to an established formula.

Piedmont Natural Gas – North Carolina

The newest decoupling tariff, approved by the North Carolina Utilities Commission in November 2005, gave Piedmont Natural Gas permission to implement a Customer Utilization Tracker (CUT). The mechanism is approved as an experimental, provisional tariff for a period of no more than three years and will automatically terminate on November 1, 2008, unless renewed in a general rate case. During the life of the CUT, Piedmont has agreed to contribute $500,000 per year toward conservation programs. Adoption of the CUT also results in the elimination of the company's existing weather normalization adjustment mechanism.

PROPOSED DECOUPLING MECHANISMS

- **Cascade Natural Gas** - The Washington Utilities and Transportation Commission unveiled in May 2005 a proposal to decouple utilities' gas volume sales from their recovery of fixed costs. As part of the proceeding, the commission is considering a decoupling proposal by Cascade Natural Gas. The filing was by petition and outside of a rate case.
- **Cascade Natural Gas** filed a petition with the Oregon Public Service Commission in October 2005 to request consideration of a decoupling mechanism. The filing was not part of a general rate case.
- In 2004, **Citizens Gas & Coke Utility** in Indianapolis, Ind., filed a general rate case with the Indiana Utility Regulatory Commission for the first time in 14 years. Citizens Gas proposed a Volume Variance and Conservation Adjustment (VVCA) mechanism that would adjust rates up or down on a monthly basis to allow the utility to recover its allowed revenue requirement, regardless of fluctuations in customer gas use caused primarily by the energy efficiency efforts of its customers and variations from normal weather. The proposed VVCA is an integral part of Citizens Gas' proposed comprehensive Energy Efficiency Program.
- **Montana-Dakota Utilities (MDU)** in Montana has proposed a mechanism that is identical to the NW Natural decoupling mechanism and has also proposed a weather normalization clause to recover weather-related margin losses. MDU will propose a conservation component in 2006.
- **Southwest Gas Corp.** made a filing with the Arizona Corporation Commission on Dec. 9, 2004, that includes a request to restructure residential rates in order to separate the recovery of fixed operating costs from the volume of gas the utility sells. Southwest noted that while its residential customer growth rate exceeds 5 percent per year, it has experienced a decline in residential average use of approximately 2 percent per year, and has earned its authorized ROR in only one of the last 10 years.

  The program would establish test year residential margin per customer in a general rate case. The monthly authorized margin per residential customer times the actual number of residential customers billed for the month equals the total authorized margin each month. The difference between the billed margin and the authorized margin, plus the carrying costs for the month, would be recorded in a deferred account and the account balance would be amortized annually through a uniform cents-per-therm rate applicable to residential customers.
- **Vectren Energy Delivery** has petitioned the Indiana Utility Regulatory Commission for permission to implement a conservation program, "in order to preserve its ability to provide reliable, low cost service, as well as create the financial stability required to position it to promote gas conservation on behalf of its customers." As proposed, the Conservation Adjustment will consist of two interrelated components: the conservation funding rider, and the decoupling mechanism. The company filed a petition rather than a new rate case for the conservation program.

PREVIOUSLY PROPOSED MECHANISMS

- **NW Natural**'s 2004 rate case settlement in Washington authorized further study. See Cascade Natural gas proposal above.
- **Vectren Energy Delivery** eliminated a proposal from its 2004 Ohio rate case settlement.
- **Xcel Energy** eliminated a decoupling proposal from its Minnesota rate case settlement.

HOW WELL HAVE THEY WORKED?

- **Decoupling programs, which have been accepted for many years in California and Maryland, have protected utilities from margin loss caused by declining use per customer.** These mechanisms compare recent base rate revenue targets against actual revenue, and usually adjust for growth. The use and acceptance of these programs appears to be growing.
- **An independent evaluation of NW Natural's decoupling and conservation tariffs, compiled in March 2005, found the programs to be worthwhile and in the public interest.** Among the conclusions of the evaluators were that: the mechanism is effective in reducing the variability of utility revenues; the mechanism removes disincentives to promote energy efficiency; public purpose funding established in conjunction with the conservation component is beneficial to consumers; negative feedback was limited to complaints questioning the appropriateness and/or the legality of public purpose funding; and the mechanism does not reduce the incentive for good customer service.
- **Additional advantages of the program include: reduction of rate cases, reliance on basic rate formulas that have been utilized for decades, and the ease of audit.**
- **A disadvantage of decoupling is that regulators and advocates may seek a reduced return or other concessions as a trade-off or as a bargaining chip.**

RESOURCES: COMPANIES, RATE ORDERS, WEBSITES, CONTACTS, ETC.

- **Baltimore Gas & Electric – Maryland** – Approved – Maryland Case No. 8780, Feb. 2005, http://webapp.psc.state.md.us/Intranet/CaseNum/NewIndex3_VOpenFile.cfm?ServerFilePath=C%3A%5CCasenum%5C8750%2D8799%5C8780%5C049%2Edoc, *Contact Laurie Duhan @ 410-265-4031*
- **Cascade Natural Gas – Oregon** – Currently Proposed – , October 2005; http://edocs.puc.state.or.us/efdocs/UAA/ug167uaa92146.pdf, *Contact Jon Stoltz @206-624-3900*
- **Cascade Natural Gas – Washington** – Currently Proposed – , May 2005; http://www.wutc.wa.gov/webimage.nsf/34bbcde06f5ab31a8523704d005e98fe/0e699dd89acd5b1858256fdd00681636!OpenDocument, *Contact Jon Stoltz @206-624-3900*
- **Citizens Gas & Coke Utility – Indiana** – Currently Proposed – December 9, 2004, http://www.citizensgas.com/pdf/NewsRelease/baserateincrease04.pdf ; *Contact LaTona Prentice @ 317-927-4529*
- **Montana-Dakota Utilities – Montana** – Currently Proposed –Montana Docket No. D2005.9.148; *Contact Don Ball @ 701-222-7630*
- **NW Natural – Oregon** – Approved - Order No. 05-1041, September 26, 2005; http://apps.puc.state.or.us/orders/2005ords/05-1041.pdf, *Contact C. Alex Miller @ 503-721-2487*
- **NW Natural – Washington** – Rate case settlement authorized further study - 2004; *Contact C. Alex Miller @ 503-721-2487*
- **Piedmont Natural Gas – North Carolina** – Approved – Dockets G-9, Sub 499, G-21 Sub 461, G-44 Sub 15, November 3, 2005; http://ncuc.commerce.state.nc.us/docksrch.html, *Contact: Bill Morris @ 704-364-3120*

- **Southwest Gas – Arizona** – Currently Proposed – December 9, 2004; *http://www.southwestgas.com/news/newsreleases.php?val=AZ&the_year=2004&the_month=12&the_day=09&doc_number=1&p12m=Y; Contact Roger Montgomery @ 702-876-7321*
- **Southwest Gas – California** – Approved – California Application No. 02-02-012, Decision No. 04-03-034; *Contact Roger Montgomery @ 702-876-7321*
- **Southwest Gas – Nevada** – Not approved – Nevada, July 2004; *Contact Roger Montgomery @ 702-876-7321*
- **Vectren Energy Delivery – Indiana** – Currently Proposed – Indiana URC Cause No. 42943, October 25, 2005; *Contact Scott Albertson @ 812-491-4682*
- **Vectren Energy Delivery – Ohio** – Eliminated from rate case settlement – Ohio PUC, Feb 2004; *Contact Scott Albertson @ 812-491-4682*
- **Washington Gas Light –Maryland** – Approved – Maryland Case No. 8990, October 1, 2005, *http://webapp.psc.state.md.us/Intranet/maillog/orders.cfm Contact Paul Buckley @ 703-750-5260*
- **Xcel Energy – Minnesota** – Eliminated from rate case settlement; *Contact Amy Liberkowski @ amy.a.Liberkowski@xcelenergy.com*

ADDITIONAL INFORMATION

If you would like more information about a particular program or would like to speak to another AGA member regarding the details of the program, please contact: *Cynthia Marple*, AGA director of rates and regulatory affairs, cmarple@aga.org or 202-824-7228.

Want to learn more? AGA hosted an audio conference on "Decoupling, Conservation, and Margin Tracking Mechanisms" on October 27, 2005. Copies of the seminar presentations are at: *http://www.aga.org/Template.cfm?Section=Audioconference_Series&Template=/MembersOnly.cfm&NavMenuID=828&ContentID=18221&DirectListComboInd=D*

Coming Up:

The next edition of the AGA Rate Roundup will cover fixed variable rate design programs. If your company offers such a mechanism, please contact Cynthia Marple.

Previous Editions:

The June 2005 *Rate Round-Up* focused on Fixed Bills and Fixed Gas Price Options. Find this Round-Up at: *http://www.aga.org/Template.cfm?Section=Rate_Roundup&Template=/MembersOnly.cfm&ContentID=16904*.

The March 2005 *Rate Round-Up* covered pipeline integrity management cost recovery techniques. Read this Round-Up at: *http://www.aga.org/Template.cfm?Section=Rate_Roundup&Template=/MembersOnly.cfm&ContentID=15950*.

The November 2004 *Rate Round-Up* on Bad Debt Cost rate designs can be found at: *http://www.aga.org/Template.cfm?Section=Rate_Roundup&Template=/MembersOnly.cfm&ContentID=14907*