



House Public Utilities Committee

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TESTIMONY OF JANINE L. MIGDEN-OSTRANDER
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BEFORE THE HOUSE PUBLIC UTILITIES COMMITTEE
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Good morning. I am Janine Migden-Ostrander, the Consumers' Counsel for the State of Ohio representing Ohio's 4.5 million residential households. As you move forward and make decisions regarding HB250 and the ability of the natural gas utilities to use decoupling, I would like to bring to your attention what decoupling could mean to residential utility consumers.

Revenue decoupling – a regulatory mechanism that separates sales from revenues - removes the disincentives that a utility typically faces when establishing and implementing comprehensive energy efficiency programs for its natural gas customers. Decoupling allows the utilities to be made whole by recovering revenues that would be lost if sales are reduced as a result of energy efficiency. This permits the utilities to be indifferent to energy efficiency since they are guaranteed not to lose revenues as their customers use less natural gas.

Why is it important that natural gas utilities are at least indifferent to energy efficiency? It is important because energy efficiency is increasingly becoming recognized as a least cost option to meeting our energy needs. Research shows that there is approximately 67 years of economically recoverable natural gas left in North America. As the United States turns its attention to foreign sources of natural gas, we cannot ignore the fact that we will be competing with emerging countries such as China and India for those supplies from countries like Venezuela, Algeria and Nigeria, which will cause market prices to increase.

Additionally, each year the demand for electricity increases. This in turn creates a greater burden on electric generating plants and specifically the natural gas peaking plants. With the amount of natural gas used for this type of plant rising, projected at 24 percent regionally by 2010 as opposed to 11 percent in 2000, it causes the price of natural gas to increase passing the higher costs on to the end user – the residential consumer. Energy efficiency not only reduces the

amount of natural gas used thereby extending the accessible supply, but lowers the price of natural gas as well.

A recent study by the American Council for an Energy-Efficient Economy shows that if aggressive energy efficiency programs are put into effect, Midwest customers could save approximately \$2.2 billion on electric and natural gas bills over five years. The same study shows that by reducing demand by 1 percent over a five-year period in the Midwest, prices could be reduced in the 10 to 20 percent range. In 2006, I had the honor of publishing an article in “Public Utilities Fortnightly” on natural gas decoupling¹. This article, a copy of which is attached, provides a deeper look into decoupling and what it means to consumers.

In the interest of public policy, energy efficiency is the right way to proceed into the future. If decoupling will help gas utilities offer comprehensive energy efficiency to its customers, and there are protections for consumers to prohibit unreasonable rate increases emanating from the decoupling, then and only then does decoupling makes sense. If it is allowed without energy efficiency, we can be assured of only one outcome – rates will increase. The thinking behind energy efficiency is that it is the best option for customers from a cost standpoint. In order to remove the disincentive for not doing energy efficiency, we need to make the utilities whole. After all, they are in the business of selling gas and not telling customers to consume less. Decoupling is designed to bridge that gap. Thus, the sole reason for granting decoupling authority should be if there is a comprehensive energy efficiency program in effect.

The Office of the Ohio Consumers’ Counsel is proposing several important amendments to HB250 that fall into two categories. The first is to ensure that comprehensive energy efficiency programs are required if a natural gas utility is to receive decoupling approval. Second, amendments are proposed to protect customers from unreasonable increases in bills associated with decoupling.

¹ Migden-Ostrander, Janine L. “A Consumer Advocate’s View: Decoupling and Energy Efficiency.” Public Utilities Fortnightly June 2006: 18-22 (This article has been reproduced with permission of the publication.)

Comprehensive energy efficiency programs provide several ways for consumers to reduce their monthly energy usage thereby reducing their monthly energy bill. These programs can include, but are not limited to:

- Rebates for purchasing energy efficient furnaces and water heaters
- An increase in energy efficient appliances in new homes being constructed
- Assistance with additional energy efficient upgrades to existing homes
- An on-line home energy audit tool that would assist consumers in identifying areas of their home where they can make changes to become more energy efficient

Prior research has shown that consumers who participate in these programs can reduce their bills because they are using less energy. The programs also help decrease overall system demand which will have an impact on reducing rates. Nationwide, natural gas energy efficiency programs return consumers \$2 for every \$1 spent.

Decoupling by itself can lead to even higher customer bill increases. The OCC has proposed several safeguards that will protect customers from unreasonable increases in bills associated with decoupling. The OCC has proposed that:

- It should be clear that decoupling can only occur if a utility embarks on a plan of comprehensive energy efficiency which is defined as a minimum of one percent of its total sales revenue or a reduction in load of at least one-half to percent.
- Adjustments are made to ensure that customers do not compensate the utility for reduced revenues due to weather conditions. In other words, customers should not compensate utilities for lost revenues due to a warmer than expected winter.
- Decoupling should not be allowed unless the utility identifies in its application, prior to commission approval, the total dollar amount of decoupling revenue that it proposes to bill its customers. This provides a mechanism to manage potential increases and to assure that the estimates are close to the actual decoupling revenues requested by the utility.
- Rates are designed to be consistent with promoting energy efficiency and providing customers with the appropriate price signals for the current and future cost of natural gas. In other words, the rates reward those who use less with lower bills than those who use more.

- A review and audit is performed every 12 months of the revenue decoupling mechanism to ensure that it is functioning correctly, that revenues are not being over-collected from customers and that the approved revenue cap is adhered to.
- Consideration should be given to lower the utilities' rate of return since the assurance of revenues irrespective of management practices substantially reduces the utilities' risk.

Within a few weeks, you should be receiving SB221 for review and vote. One of the major concerns in that piece of legislation is the increase in electric rates for environmental improvements, new nuclear construction, and infrastructure improvements, among other issues. Increased rates for natural gas service also are expected due to infrastructure improvements and natural gas riser issues. In fact, every major natural gas company has or is filing shortly, a rate case before the Public Utilities Commission. With consumers facing increased natural gas and electric rates, there needs to be checks and balances to keep energy affordable.

In my 30 years of working in the utility industry never have I been as concerned as I am now about the magnitude of rate increases facing Ohio consumers and ensuring service reliability. We need to be careful about what is given to the utilities *carte blanche*.

The Consumers' Counsel cannot support the proposed decoupling legislation as written. However, with OCC's proposed amendments which links decoupling with comprehensive energy efficiency programs and which includes built in customer protections we could support HB 250. We believe that energy efficiency is the right outcome, but only if it is done responsibly with the appropriate consumer safeguards in place to protect against yet more rate increases. This Office stands ready to provide whatever assistance you may need as this Committee considers this legislation. Thank you and I would be pleased to answer any questions you may have.

A Consumer Advocate's View: Decoupling and Energy Efficiency

Two sides of the same coin.

BY JANINE MIGDEN-OSTRANDER



JANINE MIGDEN-OSTRANDER

When I became the Consumers' Counsel for the state of Ohio in April 2004, natural-gas prices were hovering between \$7/Mcf and \$8/Mcf (thousand cubic feet). In the next year and a half, Ohioans saw gas prices double, peaking at a residential statewide average of \$16.89/Mcf in the month of September 2005.¹ The latter reflects the exacerbation of prices, already high, by hurricanes Katrina and Rita in the gulf region. Residential customers across Ohio struggled to pay their gas bills. Particularly hard hit were customers in the 150th to 250th percentile of the poverty guideline, for whom no federal or state programs were available. These customers, who traditionally struggle, but manage nevertheless to pay their bills and make ends meet, found themselves overwhelmed.

Prior to the upsurge in natural-gas prices in 2004, energy bills for Ohio's low-income customers were \$740 million more than what is generally accepted as affordable.² To say we have a problem on our hands is an understatement.

Although prices might moderate after the Gulf Coast recovers from the hurricanes, the \$3/Mcf to \$5/Mcf lower prices that customers historically had

depended upon in the 1990s probably are gone.³ Given this, policymakers must search for long-term solutions that maintain the affordability of natural-gas service now and in the long run. Supply options such as increased production from drilling and the importation of liquefied natural gas (LNG) are at least five years away, and there is no guarantee that once available, they will in fact reduce the overall price of gas.⁴ These options come to consumers with considerable cost. For example, LNG will be priced on the world market much like oil is today.

Another concern is the long-term availability of supplies to customers. Demand for natural gas in the United States is increasing steadily. In 1990, the United States consumed 19 Tcf (trillion cubic feet). This is expected to escalate to 27 Tcf by 2025.⁵ By 2010, natural-gas-fired facilities will comprise 24 percent of the electric generation fleet in the former East Central Area Reliability Council (ECAR) region as opposed to the 11 percent level it was at in 2000.

Moreover, many large industrial customers use dual fuel, switching from oil to natural gas when the oil prices rise. Inasmuch as oil prices have climbed higher than natural-gas prices, industrial customers periodically have availed themselves of natural gas. All this has added to the demand.

A further concern is how the financial markets adversely have affected the prices that consumers are paying. There is a significant disparity between the cost of gas produced at the wellhead and the Henry Hub index price, for example, and the price that natural-gas companies and suppliers pay. Moreover, the days of supply portfolios with long-term contracts unfortunately are no longer with us.

On the supply side, the American Gas Association estimates only 63 years of economically recoverable supplies left in the United States.⁶ As the United States turns its attention to foreign sources of gas and the importation of liquefied natural gas from countries like Algeria and Venezuela, we cannot ignore that we will be competing with emerging countries such as China and India for those supplies in a global market.

The purpose of this article is not to focus on the national security and energy independence issues that arise from these circumstances, but rather to examine what we can do in the United States to ensure affordable and reliable supplies for residential consumers in both the short and long term.

Given this serious backdrop of events, how do we go about maintaining adequate and affordable supplies now and in the future? Looking only at the short term without planning for the future will leave us in a quandary down the road. We should not leave a legacy of energy problems for our children, but rather a legacy of energy solutions.

Long-Term Solution

Energy efficiency is the best short-term solution. By reducing the demand for natural gas on a regional basis we can accomplish two objectives. First, energy-efficiency programs provide customers with more tools to control their natural-gas use and consequently reduce their bills. Second, to the extent that we can

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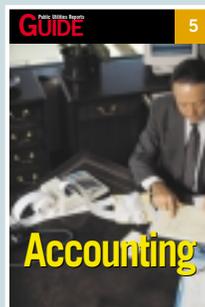
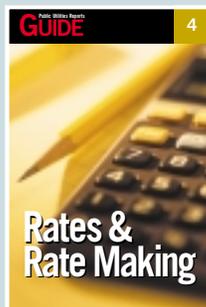
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inculcate the region with a sense of purpose in terms of engaging in serious energy efficiency, we can reduce the overall price for natural gas that customers must pay. For example, a recent study by the American Council for an Energy-Efficient Economy (ACEEE)—which the Office of the Ohio Consumers' Counsel sponsored along with a number of other Midwest state agencies—indicates that a 1 percent reduction in demand over a five-year period in the Midwest could result in a reduction in price in the 10 to 20 percent range.⁷

Moreover, energy efficiency also is part of the long-term solution simply because any sustained reduction in demand benefits customers.⁸ The Midwest Natural Gas Initiative is a commit-

ment from government agencies in eight Midwest states that have pledged to reduce demand by 1 percent per year over five years. If successful, all customers from this eight-state region would enjoy lower prices (in the 10 percent to 20 percent range) than would have been the case without the reductions in demand due to energy efficiency.⁹

The utilities are a logical choice for promoting energy-efficiency programs because of their regular contact with customers through monthly billings, inserts, and other means. Nevertheless, it must be recognized that like any business, the natural-gas companies are interested in selling *more* product—not less. Only an appropriate rate structure can provide an incentive to utilities for

a program that is intuitively inconsistent with their shareholders' interests.

Decoupling Option

Revenue decoupling—a regulatory mechanism that separates sales from revenues so that a utility is economically neutral as to the level of gas sold—can remove the barriers to utility participation in energy efficiency. Under revenue decoupling, the regulatory commission establishes a utility's revenue requirements to ensure that the company can recover its fixed costs plus a reasonable return.

Several approaches can accomplish this objective.¹⁰ For example, in a revenue-per-customer decoupling approach, the revenue requirement is

then transferred into a revenue-per-customer amount. If, at the end of the year, the company under-collects on its weather-normalized, per-customer revenues, a surcharge is added to the customer's bill to make up the difference. This approach protects customers from compensating a utility for lost revenues associated with a warm winter, or with customers leaving a service territory. It also maintains the utility incentive for economic development.

Upon hearing about revenue decoupling, a typical—and understandable—customer reaction is, “You mean I am going to pay the utility for *not* using gas?” Yes, but that decoupling creates a “win-win” solution because the customer still saves money and the utility still has the opportunity to recoup its revenue requirements. Striking a balance between customers and the natural-gas companies is important in making these programs sustainable, and is the best way to ensure customer savings in the long run (see Table 1).

Table 1 is premised on the fact that we are compensating a natural-gas company only for its lost revenues associated with its distribution service that already have been approved by the state commission. By approving a decoupling mechanism, the utilities gain a better opportunity to recover their commission-authorized revenues and nothing more. Decoupling does not increase rates above that already established revenue level.¹¹ Moreover, the distribution service under today's rates represents approximately only 20 to 30 percent of a customer's whole bill, because in most states, residential customers either can choose their natural-gas supplier, or the gas cost is a straight pass-through on which the company is not supposed to make a profit. Thus, while customers are paying essentially the same amount in revenues for distribution services (20 to 30 percent), they

TABLE 1		SIMPLE DECOUPLING + DSM EXAMPLE	
			% Change
Average Annual Customer Use (Therms)	1,000		
Number of Customers	10,000		
Target Sales (Therms)	10,000,000		
Actual Sales (Therms)	9,500,000		
Shortfall (Therms)	500,000		-5.0
Shortfall Due to DSM (Therms)	250,000		
Distribution Margin (\$ per Therm)	\$0.30		
Purchased Gas (\$ per Therm)	\$0.70		
Total Cost per Therm (\$)	\$1.00		
Targeted Earnings	\$3,000,000		
Actual Earnings	\$2,850,000		
Dollar Shortfall	\$150,000		
Energy Efficiency Spending at 3% Dist. Sales Rev.	\$90,000		
Per Unit Cost (DSM Rider)	\$0.00947		
DSM Related Savings (\$)	\$175,000		
Adjusted Distribution Margin Delta	0.0158		
Adjusted Distribution Margin Delta + DSM Rider	\$0.02526		
Adjusted Distribution Margin (including DSM)	\$0.325		8.4
Adjusted Total Cost of Gas	\$1.025		2.5
Customer Savings on Purchased Gas (\$)	\$350,000		
Per Customer Savings on Purchased Gas (\$)	\$35		
Customer Costs on Increased Dist. Margin (\$)	\$240,000		
Per Customer Costs on Increased Dist. Margin (\$)	\$24		
Net Customer Savings	\$110,000		
Per Customer Net Savings	\$11		
5% decrease in Commodity Cost From Reduced Demand	0.665		
New Customer Savings on Purchased Gas	\$0.035		
Total Customer Savings from Reduced Demand	\$332,500		
Grand Total Net Savings	\$442,500		
Grand Total Net Savings per customer	\$44.25		

Source: Customers' Council of Ohio

are saving on 70 to 80 percent of the bill through reduced supply costs. In the chart, the average customer who participates in energy efficiency will save \$44.25 a year, due both to reductions in the customer's consumption and an estimate of a conservative 5 percent decrease in commodity costs as a result of regional participation in energy efficiency.

Distribution Benefits

Decoupling benefits the natural-gas distribution companies by reducing their risk of not recovering their revenue requirements. It only should be permitted as part of a comprehensive energy

efficiency program in which there is a commitment to spend at least 1 to 2 percent of revenues on hard-wire energy-efficiency programs.

No more than 5 to 10 percent of an energy-efficiency budget should be spent on customer education. Customers understand that with the high cost of gas, they need to conserve. Advertising dollars should not be spent to remind customers to turn down the thermostat and put on an extra sweater. Instead, those dollars should promote the actual programs of which customers can take advantage. Publicize the specific rebates—or whatever the program might entail—for purchasing >>

energy-efficient appliances, and customers will respond.

For consumer advocates to guarantee a distribution company's revenue requirements, a robust energy-efficiency program using programs with benefits that exceed their costs (the total resource cost [TRC] test) must be in place. This is the *quid pro quo*. Programs that provide weatherization, especially those that target low-income sectors of the residential population and that provide rebates to customers who purchase Energy Star products, might be especially beneficial. The goal is to present customers with an array of cost-effective programs that provide as many customers as possible with the opportunity to participate.

These programs should be selected with input from consumer groups, and should be monitored and evaluated effectively to ensure they provide the anticipated benefits. This will allow decision makers to increase funding for successful programs and pull back or modify disappointing ones.

Minimum Target

In structuring the decoupling mechanism, consumer protections must be built in so as to mitigate or control potential distribution rate increases that result from decreased consumption or sales. For example, a cap on the level of annual increases could be imposed with or without the option to carry over any uncollected revenue shortfall the following year. Washington and Idaho have caps on the whole bill set at 2 percent and 3 percent, respectively, but the cap could be designed for just the distribution portion of the bill as well. In that case, the cap probably would be higher because only 20 to 30 percent of the bill is affected by the increase. Another option is a price elasticity of demand adjustment to account for the fact that not all reductions in demand are the

result of energy-efficiency programs. Other factors such as price-induced voluntary conservation can produce revenue adjustments. An elasticity adjustment could discount a utility's recovery of lost revenues by 10 to 30 percent.

Energy efficiency simply makes sense. The ACEEE study estimates that participating Midwest customers could save \$2.2 billion on gas and electric bills over the next five years if aggressive energy efficiency programs are put into effect. All customers would save an additional \$760 million through reduced prices. These programs collectively could create more than 5,000 new jobs, adding \$100 million in compensation by 2011.¹²

Policymakers need to address short- and long-term solutions for ensuring affordable and reliable supplies of natural gas. The solutions are multifaceted. Energy efficiency is not the exclusive answer, but it is an important part of the solution. To discount it would be a mistake. ■

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The author expresses gratitude for the expertise and assistance of Wilson Gonzalez, senior regulatory analyst at the Office of the Ohio Consumers' Counsel. His work has helped further the agency's vision of producing benefits for residential utility consumers through energy-efficiency efforts.

Endnotes

1. See U.S. EIA monthly residential gas prices, http://tonto.eia.doe.gov/dnav/ng/ng_pri_sum_a_EPGO_PRS_DMcf_m.btm.
2. From "Energy Efficiency: Ohio's Best Defense Against High Natural Gas Prices," Midwest Energy Efficiency Alliance (MEEA), 2006. Original low-income data from Fisher, Sheehan, and Colton, "On the Brink: 2005, The Home Energy Affordability Gap," Belmont, Mass. Affordability is at the 185 percent of poverty definition. See

<http://www.fsconline.com/work/beag/05/states/ohio.pdf>.

3. City Gate prices in Ohio ranged from \$3/Mcf to \$5/Mcf in the 1990s, see U.S. EIA, <http://tonto.eia.doe.gov/dnav/ng/hist/n3050ob3a.btm>.
4. For example, EIA's *Annual Energy Outlook 2006* (with projections through 2030) indicates that the future will bring increases in energy demand while Alaskan natural-gas production (if authorized), and production from the lower 48 states will not offset the impacts of resource depletion. Another report by the American Gas Association, *Evaluating U.S. Natural Gas Production, 2006*, concurs with EIA by saying that "the net result is that today even record numbers of annual well completions only keep up with the annual declines in more traditional producing wells and production on the whole remains flat."
5. U.S. EIA, *Annual Energy Outlook 2006*, p. 5.
5. American Gas Association Fact Sheet, "Snapshot of U.S. Natural Gas Production," May 2005.
7. Kushler, M., D. York, and P. Witte. *Examining the Potential for Energy Efficiency to Help Address the Natural Gas Crisis in the Midwest*, Washington, D.C.: American Council for an Energy-Efficient Economy, 2005.
8. Energy-efficient appliances and home insulation have lifetimes of 15 to 30 years.
9. Elsewhere, John Baldacci, Maine governor and chairman of the Coalition of Northeastern Governors, is asking other governors in New England to commit to a conservation and energy-efficiency effort aimed at cutting New England's natural-gas use 5 percent over the next 6 years. California's adopted natural-gas goals for gas efficiency programs range from \$50 million in 2004 to \$150 million by 2012.
10. See Eto, J., S. Stoft, and T. Belden. *The Theory and Practice of Decoupling*, Berkeley, Calif.: Lawrence Berkeley Laboratory. LBL-34555, 1993. Another way of decoupling is by going to a straight-fixed variable rate design, where the fixed monthly charge is raised to recover all fixed costs. This approach is politically challenging as it is perceived as a major rate increase and will engender consumer opposition. Moreover, this approach would tend to discourage conservation due to the lower variable charge.
11. This example adds utility energy efficiency expenditures to an example contained in Ken Costello's presentation to the NARUC Natural Gas Subcommittee, "Revenue Decoupling for Natural Gas Utilities: Issues and Observations," NRRI, Jan. 13, 2006.
12. Kushler *et al.*