A Consumer Advocate's View: Decoupling and Energy Efficiency

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Two sides of the same coin.

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 cusromers, 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, naturalgas-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/' 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 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 Mid-west Natural Gas Initiative is a commitment 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 naturalgas 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." 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 naturalgas 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 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 costeffective 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 20II.12

Policymakers need to address shortand 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.

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. Given this, policymakers must search for long-term solutions that maintain the affordability of natural-gas service now and in the long run. Energy efficiency is part of the long-term solution simply because any sustained reduction in demand benefits customers. Utilities are a logical choice for promoting energy-efficiency programs because of their regular contact with customers through monthly billings, inserts, and other means. 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. Decoupling benefits the natural-gas distribution companies by reducing their risk of not recovering their revenue requirements.

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