WAL-MART
CUSTOMER INSIGHT TO DECOUPLING
IN AN ERA OF DECLINING CUSTOMER ENERGY USE

Traditionally utility rate structures have been designed to promote the consumption of more energy by customers. As our nation is taking immense steps in bringing awareness and encouragement to energy conservation, many consumers are becoming better stewards of the energy used while utility companies (utilities) are learning that a reduction on the customer's consumption impacts their revenue collection. As a result, creative proposals are being developed to provide stability to the utilities' revenue collection. One proposal is the concept of separating utilities' level of sales from the level of revenues they are authorized to collect. This process is known as decoupling.

Decoupling is an effort to strike a balance of promoting energy efficiency while giving the utility an assurance that it will be given the opportunity to earn an authorized rate of return on investments. This is accomplished by developing a mechanism that automatically adjusts rates up or down based on the utility's level of energy sales. In theory, when energy consumption is reduced due to measures to improve energy efficiency, consumer rates go up to ensure that the utility is able to collect its' authorized revenue requirements.

Wal-Mart supports the idea that a properly designed revenue decoupling can be in the interest of both consumers and a cleaner environment. There are several important aspects to be considered when designing revenue decoupling programs.

First, there are many causes of variations in utility sales that are not related to the utility's promotion of energy efficiency measures and demand-side resource programs to their customers. Decoupling adjustments should only be allowed to account for the effect of the utility's direct promotion of energy efficiency to its customers. The utility should not be reimbursed or compensated for the normal variances in sales volume and the normal interaction of customers' individual conservation actions and other circumstances not directly related to the utility's promotion of its energy efficiency programs. Allowing rates to be adjusted upwards or downwards when the utility does not produce its authorized revenue requirement to cover its fixed costs presents many issues that need to be resolved before it can be assured that the reduction in sales volume is a direct result of the utility's promotion of energy efficiency.

Some examples of the natural, non-controllable causes for the sales volume to differ from the utility's original estimate are as follows:

- **Individual customer actions**

  Examples of an individual customer's proactive and independent actions not resulting from utility energy efficiency programs are: buying a more energy efficient appliance, going on vacation, changing ordinary light

bulbs to compact fluorescent lighting ("CFL"), improving the insulation level of their dwelling and less cooking at home, etc.

Customers who are very conscientious of their level of energy consumption and exert extensive efforts to conserve energy in order to lower their monthly energy bill will more likely exhibit a lower level of use than the average customer. When rates are automatically adjusted upwards due to the implementation of decoupling, these customers will be penalized because their energy bills will go up. It will be very hard to reconcile the independent actions that customers took to reduce their consumption in order to reduce their monthly bills, only to be subjected to higher energy bills because the utility did not sell enough energy under the decoupling program. The message from the utility and the action by the utility, with the approval of the regulator, are totally inconsistent.

- **Weather variations**

  It is very difficult to predict weather variations. During summer, when the weather is hotter than normal, electricity consumption can be expected to be higher than normal. However, if the weather is cooler than normal in the summer, electricity consumption can be expected to be lower than normal. During the winter season, the exact opposite happens; if the weather is warmer than normal, electricity consumption can be expected to be lower than normal, while if the weather is cooler than normal, electricity consumption can be expected to be higher than normal. Weather variations can wreak havoc on utilities' sales forecasts. If the decoupling mechanism is not normalized by the effect of weather variations, customers will again, receive a conflicting message from the utility. In fact, in certain circumstances the price signal from decoupling can actually harm conservation efforts. For example, during summer, in peak periods that exceed utility forecasts such as an unusually long summer heat wave, the decoupling mechanism will automatically lower rates, therefore, customers will see lower rates per kWh than without the decoupling mechanism because sales volumes will be above normal levels, which provide an incentive to consume more electricity at the time when conservation is most important.

- **Economic conditions**

  The general condition of the economy can also have a devastating impact on the utilities' expected sales volume. Generally, when the economic situation is positive, electricity consumption can be expected to go up. In an economic slowdown, electricity consumption can be expected to go down. Where a general slowdown in the economic condition within the franchise area of a utility is experienced, implementation of decoupling will tend to raise rates when customers are already suffering from the

economic slowdown. Customers are hit in their pocketbooks twice, once suffering through the slowdown of the economy and the second, by being subjected to higher energy prices to ensure that the utility makes their authorized rate of return.

- **Number of customers served by the utility**

  Although it can be normally expected that when the number of customers served by the utility increases, utility sales volumes will also increase. However, there will be circumstances where new customers might have a lower average consumption than the general utility customer, which can lead to a lower overall sales volume per customer. When this happens, the existing utility customers should not be asked to pay higher rates because their consumption patterns and behaviors did not have anything to do with the inability of the utility to earn its authorized revenues. When this situation occurs, decoupling can create an intergenerational inequity, because the older customers are asked to pay for the costs of serving new customers, which can be avoided through a traditional rate review.

- **Force Majeure events**

  Utilities should not be reimbursed through decoupling, for losses sustained due to power outages under the guise of energy efficiency during events of force majeure. A force majeure event causing a loss of power can include, but not be limited to, natural phenomena such as storms, hurricanes, floods, lightning, earthquake, other occurrences such as explosions and fires, acts of war or public disturbances, riots, insurrection, sabotage, acts of terrorism, strikes or labor disputes, and certain actions by governmental authorities.

These and many other variables may have a more significant impact on utility sales volumes than the impact of utility energy efficiency programs. Therefore, extreme care must be exercised to account for these natural causes for sales volume variances before allowing rates to be adjusted through the application of revenue decoupling. The impact of these variables in day to day economic activity cannot be ignored. However, to account for these effects in a decoupling procedure is quite complicated. Only a decoupling mechanism that properly accounts for the effect of these variables can be declared to be just, reasonable, and nondiscriminatory.

Second, when does the need for decoupling mechanisms end? Does the dependence on decoupling revenue from sales promote a healthy business management environment and support a sustainable energy industry in the long-run? Other businesses have to adjust to changing business conditions and customer demands in order to retain their customer base and are forced to keep prices low despite the need to earn enough margins to sustain their business in a fiercely competitive environment. This is something for regulators to consider.

Third, many utilities claim that an aggressive promotion of the implementation of energy efficiency measures and demand-side resource programs is not in their best business interest because the effort will result in a reduction in their customer's use of their products, e.g. gas or electricity, which in turn affects their ability to earn their authorized level of profits. Some utilities claim that in order to compensate them for the potential erosion of their profit levels, they are entitled to additional or extra incentives in order for them to become willing participants in the promotion of aggressive implementation of energy efficiency measures and demand-side resource programs by their customers. These incentives take the form of revenue decoupling mechanisms or some form of payments for energy saved by their customers.

A utility chief executive was recently quoted saying that "The plans in place - - - and in the past - - - have not worked. They have been failures." This article also noted that the executive said the missing ingredient - - - - is profit.[1] Seven other utilities announced that they would join this utility to increase spending on programs under this utility incentive model, which for the first time would financially reward utilities for ramping down demand. Such statements imply that unless utilities are allowed to earn profits on energy efficiency measures and demand-side resources which are fully funded by the ratepayers in the first place, these programs will not succeed.

Since some utilities state that the implementation of energy efficiency measures and demand-side resources have not been successful in the past, and because the utilities' natural business interest is not aligned to convincing utility customers to reduce their energy consumption, it appears that the best way to make the administration and implementation of energy efficiency measures and demand-side resource programs a success is through a separate and independent administrator from the utility. The public administrator (PA) could be made accountable to or report directly to the Public Utility/Service Commission of the state. The details of the responsibilities, accountabilities and compensation of the PA could be developed in a collaborative process with all the stakeholders in the energy industry and approved by the respective Commission. The selection for the public administrator of these programs could be made through a competitive bidding process. A similar approach has been tried and found to be very successful and effective by the states of New York and Vermont.

Fourth, another area of consideration to improve the utilities' ability to stabilize their revenue collection streams is to review the traditional rate design philosophy currently practiced by utilities. One way to stabilize utilities revenue collection is to structure rates in a way that fixed costs are fully recovered through fixed customer charges or size-related demand charges, not through variable energy charges. Instead of declining block rates for the collection of energy costs, energy charges may need to incorporate time-of-use or real-time pricing in order to send accurate price signals to customers so intuitive and economically sound consumption decisions can be made.

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[1] October 2, 2007 – McClatchy – Tribune Regional News, Christopher D. Kirkpatrick, The Charlotte Observer, N.C.

Conclusion and Recommendation

Wal-Mart supports the concept that a properly designed revenue decoupling can be in the interest of both consumers and a cleaner environment. The dilemmas are how to properly design revenue decoupling that will take into account all the random variables that have a substantial effect on utility sales volume and how to measure and evaluate the results claimed. A properly designed revenue decoupling mechanism should take the natural effects of these variables into consideration. Otherwise, the revenue decoupling mechanism will just serve as a revenue collection guarantee for the utility.

Wal-Mart recommends that regulators consider the administration and implementation of energy efficiency measures and demand-side resource programs under the hands of independent administrators. The administrators should be selected through a competitive bidding process, in combination with a review and possible change to the rate design philosophy currently used by the industry. These steps would help to implement a stricter adherence to the costs causation principle and the separation of the collection of fixed costs through a combination of fixed customer charges and per kW of demand charges and the collection of variable costs through dynamic pricing on either a real-time or time-of-use pricing mechanisms.[2]

These proposed changes in the administration of energy efficiency measures and demand-side resource programs and the restructuring of utility rates can make the implementation of energy efficiency measures and demand-side resource programs more cost effective and successful.

These suggestions can correctly and fully compensate utilities for incurred costs while giving customers the price signals they need to make a smart and informed consumption choice. This combination of factors will promote conservation through the efficient use of resources and encourage customers to conserve. We urge that:

1) Changes (up or down) in utility sales be directly related to the utility's promotion of energy efficiency measures by carefully considering such things as individual customer actions, weather variations, economic conditions (national and local), number of customers served by the utility, and force majeure events;
2) Appropriate price signals be given to customers when conservation is needed; and
3) The use of revenue decoupling mechanisms is allowed just long-enough to give utilities time to transition to a new business operating paradigm.

Implemented correctly, a decoupling mechanism will be a win-win for the consumers and the environment.

[2] For more detail see "Wal-Mart Proposed Rate Design Philosophy".