

Comments of
Demand Response and Advanced Metering Coalition (DRAM)
in
Docket No AD05-17-000
Notice Requesting Comments on
Wholesale and Retail Electricity Competition
For the
Electric Energy Market Competition Interagency Task Force and the
Federal Energy Regulatory Commission

November 18, 2005

The Demand Response and Advanced Metering Coalition (DRAM) respectfully submits comments in Docket AD05-17-000 in response to the Commission's Notice Requesting Comments on Wholesale and Retail Electricity Competition dated October 13th, 2005. DRAM is a diverse group of parties that includes providers of advanced metering and other demand response technologies, and providers of demand response services and programs to electricity providers and consumers.¹ DRAM's focus is on education and outreach on demand response and its enabling technologies²

DRAM first wishes to commend the Task Force for its approach to conducting the study of competition in wholesale and retail markets that is set forth in the Energy Policy Act of 2005 in that it has noted that an important focus area in its efforts must be demand response. This follows the Commission's continued emphasis on the importance of demand response to markets as exemplified in its continued guidance to Regional Transmission Operators on the design and implementation of wholesale demand response programs, and by its work to determine the benefits and value of demand response in its former proceeding focused on market design.

¹ Members of the DRAM Coalition include: Landis & Gyr, eMeter, Echelon, E-MON/MeterSmart, DCSI/TWACS, Elster Electricity, Silver Spring Networks, SmartSynch, Hunt Technologies, Electric City Corporation, Invensys, Comverge, EnerNOC

² More information about DRAM, and more information about demand response and advanced metering, can be found at www.dramcoalition.org.

DRAM respectfully addresses the following questions put forth by the Commission in its Notice.

1. What are the critical elements or attributes of competition in wholesale markets that the Task Force should examine?

There are two critical elements of competition in *both* retail and wholesale markets that DRAM urges the Commission to continue to focus on. These elements, demand response and advanced metering, each relate separately to demand response but are also intertwined in a way that synergistically impacts the competitiveness and efficiency of markets.

The critical nature of having demand response included in the dynamics of a market is in a sense obvious. Whether it be thought of a market demand suppressor or a different kind of supply option, or both, demand response is a means of meeting market demand, and to have demand response be absent from a market means that demand is greater than it need be, the competition to serve demand is less than it could be and overall market efficiency is diminished or prevented. Demand response can and does reduce potential for any market participant to exercise market power, increases market liquidity and has been seen as the least cost solution to relieving areas of constrained supply such as in Southwest Connecticut.

The significance of this core concept to wholesale markets was demonstrated by the Commission's work on demand response in its former proceeding on the formation of Regional Transmission Operators (RTO). The Economic Analysis Cost-Benefit Study done in that Docket revealed that on a net present value, approximately \$60 Billion in benefits could be obtained over the 20 year forecast period via a demand response business case versus a base case scenario without demand response.³

A legitimate question to ask is why demand response, i.e. the modification of consumer demand for electricity in response to prices, or reliability events, is not an automatic and naturally occurring component of electricity markets?

³ Economic Assessment of RTO Policy, Prepared for FERC by ICF Consulting, February 26, 2002.

The answer lies in the fact that in order for consumers to respond to prices, they must be exposed to price signals. In the case of demand response, where the focus is on the time-varying value/price of electricity, such price signals can only be provided if there is a way to measure a consumer's usage on a time-varying, or interval basis and thus bill the customer on that basis. That can only be done if the consumer is provided with advanced metering or other demand response technologies.

But the contribution of demand response and the advanced metering to enable it goes beyond the effect of reducing peak demand pressures. These critical elements also help in making basic market transactions more efficient. A commonly accepted definition of advanced metering not only includes the measurement of customer usage on an interval basis but also the communication to utilities and other parties of that data on a timely basis.⁴ Thus, not only does advanced metering serve as the foundation for demand response to be enabled, but it also serves as the electronic "interstate highway" that is required to support timely and effective market transactions, whether they be demand response-related or not.

The measurement and communications of advanced metering systems is crucial to supporting competitive transactions. Advanced metering systems provide the infrastructure and data to enable more accurate and timely settlements of competitive customer transactions. Advanced metering systems are what most marketers say are needed to streamline and make more efficient the transactions that are the foundation of a properly functioning competitive market.

Functioning capacity markets (or bilateral contracts) in which demand response can participate is another key enabler to further developing demand response. With effective capacity markets, many customers will enable a significant level of demand response capacity so that they can be compensated for being the last line of defense against blackouts at a cost that is less than traditional

⁴ The definitions developed by the DRAM Coalition are available at www.dramcoalition.org

peaking plants. This greater capacity bid into capacity markets creates societal benefits.

The benefits of a capacity market include sending appropriate price signals to the market to stimulate demand response participants to invest where capacity is needed and thus eliminating resource adequacy concerns. In addition, capacity markets have been, and very much can be, a critical element in increasing the participation levels of demand response resources. Capacity markets enable predictable payments to end users which serve as an important motivation for initial participation in demand response.

2. What are the critical elements or attributes of competition in retail markets that the Task Force should examine?

DRAM's response to question 1 above is intended to respond to both Questions 1 and 2.

3. What benefits were forecasted and have not occurred?

When electricity markets were restructured in certain states, such a move was seen as not only providing electricity consumers with the ability to choose to obtain basic electricity service from a competitive provider. It was also seen as a move that would lead to new types of electricity offers being made to consumers, including offers such as dynamic pricing and other demand response alternatives.

As other parties will likely explain in greater detail in comments in this Docket, competitive markets have not developed as planned or expected. The concept of market competition leading to lower prices and more choices was adversely impacted by the introduction of market transition rulings that created immediate price reductions for consumers who stayed with their traditional provider. This naturally has made it more difficult for new market entrants to attract such customers. As a result, retail marketers have struggled to compete to provide the basic, traditional type of commodity offering, i.e. flat, average pricing. The further result has been that the expected introduction of different types of offers has not materialized.

On the side of economic efficiency, effective competition improves efficiency and, consequently, reduces costs to consumers. In the context of electricity, improved efficiency means better capacity utilization (among other things). This comes about through demand response during critical peak periods, thus reducing the number of peaker plants required and which operate typically 100 hours per year or less. As we see from airlines, which improved capacity utilization by about 50 percent in going from regulated to competitive markets, price signals to consumers are one of their most powerful tools to improve efficiency.

Another aspect of this issue deserves note, however. As many states were restructuring their electricity market, they were prodded by new market entrants to not stop at the basic commodity offering but to also “unbundle”, restructure and make competitive the provision of traditional utility services such as metering and billing. Several states did indeed proceed to do this.

While it may have been logical as a concept to forecast that a competitive metering regime would lead to faster and broader deployment of the advanced meters that an efficient market requires, the reality has been quite different. The introduction of competitive metering meant that the traditional owner/investor of the meter, the utility, had a disincentive to replace its existing metering fleet with advanced meters. To do so might have created a new, potentially “strandable” asset. Meanwhile, new competitive entities that sought to be a provider of metering found that the costs of providing meters to individual customers on an ad hoc basis were high. Indeed, they found that the costs of serving customers upon request, and undertaking installations at low volumes and in scattered premises were prohibitive.

The result was that very few advanced meters have been installed in the period since restructuring and competitive markets began to be introduced. Utilities have for the most part not moved to do so and the competitive market for metering has not materialized. As a result, states such as New York and Texas, where competitive metering was introduced but where also major commitments

have been made to expand and enhance competitive markets, have pulled back from competitive metering. Texas legislatively rescinded a substantial portion of its competitive metering rules earlier this year and the Staff of the New York State Public Service Commission recently recommended to the Commission there similar modifications to the state's existing policy.

4. What are the major public policy concerns that the Task Force should examine in its review of competition in wholesale and retail electricity markets?

Demand response is one of the most powerful ways to deal with the issue of resource adequacy. Consumers can participate in ensuring adequate capacity through the matching of their usage to price signals that communicate shortage situations to consumers. Vertically integrated utilities have always had interruptible and curtailable programs that have worked reasonably well for this function. However, with restructuring, the number of megawatts of demand response available has declined. One way to address this is to provide the necessary demand response infrastructure, as described elsewhere herein, and then for state regulators to provide load serving entities with appropriate incentives (such as a rate of return bonus for regulated utilities) for actions taken to increase demand response.

Another the major public policy concern that exists relative to competitive electricity markets is market power and the potential for market abuse. The importance of demand response in addressing this concern cannot be overstated. Absent any price signal to the contrary, consumers will not modify/shift their on-peak usage. The vast majority of consumers, large and small, do not receive any price signal to indicate that the cost to serve peak load is greater than the average cost they presently pay. These customers also receive insufficient information about their usage. Thus, there is no demand response "brake" or "governor" on rising demand during peak periods, and there is no modulating demand-side restraint on the market power of sellers during the peak period.

Another policy concern is how to fairly treat consumers in restructured markets in terms of what their options for service are other than entering the competitive market and taking service from a competitive provider. In many states, the only option is the so-called default rate. While this rate may or may not be tied to market dynamics, and if so, to varying degrees, this rate rarely conveys any time-based market signal that the customer can react to. The exception is in states like New Jersey and New York, where default pricing for large customer has become a real time hourly market price. This change to default pricing was made to create a situation where a given large customer would be making a market choice one way or the other, i.e. to stay on the market-based default rate or to choose other options being offered in the competitive market, including the use of hedging instruments.

There is currently much debate about whether such a move could be made with respect to the mass market, a segment where the majority of customers have not chosen to enter the competitive market and take service from a retail marketer. Here the question is not whether to put default customers on “real time” pricing – no party is advocating that. The question is one of whether other forms of dynamic pricing might be appropriate, such as time-of-use or critical peak pricing. However, there is reluctance on the part of state policy makers to make default pricing for mass market customer a time or market-based option based on two primary factors: a belief that such customers will not accept time-based pricing, and a belief that any such offerings must be voluntary for such customers.

As to the first issue, customer acceptance, there is substantial evidence that customers of all types and sizes are indeed price elastic and indeed will respond to price signals. Similar evidence continues to be added to as more dynamic pricing programs and pilots are implemented. This evidence shows that customers like having more information about their energy usage, like having a new way to manage their energy bill⁵, and are disposed toward recommending

⁵ Whereas demand response is often thought of in energy policy circles as a tool for use by the electricity system to ensure system reliability and price competition, demand response needs to also be thought of as a consumer tool, similar to energy efficiency options.

such pricing programs to their friends. DRAM would be happy to provide more information on this topic to the Task Force as it continues its work.

As for the second issue, DRAM believes that it is appropriate to include both the “opt-in” and “opt-out” methods in the definition of voluntary. In other words, placing customers on a time-based default rate but allowing them to opt-out should be considered the equivalent of a customer opting in or volunteering to be on a dynamic price subject to having received an offer.

5. In what significant ways do wholesale and retail electricity markets differ from other energy or commodity markets? What implications do their differences have for public policy?

Electricity markets for the foreseeable future will differ from other commodity markets in that the delivery and transportation infrastructure and support systems will be part of a regulated system that will not involve customer choice. Competitive markets will not function optimally if at all unless that infrastructure is designed and developed to support what competitive markets require.

The implication is that the development of competitive markets cannot be seen as being detached from infrastructure developments in the regulated utility sector. While this pertains to wholesale competitive markets, it is even more essential to retail markets. Thus, state policy makers in states where competitive markets exist need to look at what steps can be taken to support and facilitate regulated infrastructure enhancements and not view the success or failure of such markets absent of that consideration.

Another difference in the electricity market is the potential need for something like demand response products to be introduced to the market via programs that provide the infrastructure and business framework within which load serving entities and other parties can make the necessary capital investments in demand response technology. This has been the experience in introducing renewable energy into the electricity market, including within competitive markets. The success to date of ISO demand response programs as well as

programs implemented by utilities has demonstrated the benefit that such structure can have on getting demand response started. This is not to say that demand response will not be delivered into markets outside of programs as a free-standing competitive offering. It is instead to say that the benefits of demand response to a market should be seized now and the most efficient and effective way to do that, particularly given the role and position of the regulated distribution company, may be to facilitate the deployment of demand response via programmatic mechanisms.

Conclusion:

The Commission and the Task Force must look beyond the conventional parameters of electricity market design, which focus on how to optimize supply on supply competition. It is important to recognize the unique nature of electricity as a product and to acknowledge that the demand side of the market is not unconstrained in its ability to respond. Simply designing and implementing a competitive regime will not ensure that the desired level and type of competition will be take place. Electricity consumers cannot be assumed to be the average type of consumer in the average type of market. Until they are provided with the information provided to consumers in other markets, including price signals and better information on their usage, they should not be expected to behave in an otherwise rational way. Therefore demand response is one of the keys to making markets work and the Task Force should include consideration of it in its work.

We stand ready to work with you further in any way that would be productive.

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