

DRAM

— DEMAND RESPONSE *and* ADVANCED METERING Coalition

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Joel H. Peck
Clerk
State Corporation Commission
c/o Document Control Center
PO Box 2118
Richmond, VA 23218

Re: PUE-2006-00003

Dear State Corporation Commission:

Enclosed is an original and (15) copies of Comments on behalf of the Demand Response and Advanced Metering Coalition (DRAM) pursuant to the Commission's Order of February 6, 2006.

Please contact me if there are any questions on the enclosed comments or on this filing.

Thank you,

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Comments

Of the

**Demand Response and Advanced Metering Coalition
(DRAM)**

To the

Virginia State Corporation Commission

In Response to

Commission Order

in

Case No. PUE – 2006- 00003

The Demand Response and Advanced Metering Coalition (DRAM) is a national organization focused on education and outreach on demand response and its enabling technologies and products. DRAM's members include the leading providers of advanced metering and other technologies as well as the leading providers of demand response capacity. We applaud the State Corporation Commission for its prompt action to consider and implement EPACT Section 1252 and we welcome this opportunity to provide comments.

DRAM believes that EPACT Section 1252 represents an opportunity for the Commission and all stakeholders in Virginia to undertake a thorough and meaningful consideration of the important new business and policy area known as demand response. In establishing demand response as national policy, EPACT 1252 provides direction to states to pursue demand response but yet in a manner that provides a state with flexibility in how and to what degree it undertakes that pursuit. The mandate of EPACT is one of consideration to the extent that a proper finding can be made.

While it does not create a mandate, DRAM believes that Section 1252 does create a rebuttable presumption that demand response and advanced metering should be pursued unless proven otherwise in a particular jurisdiction and in a particular situation. DRAM believes that this presumption can best be examined via a Commission proceeding which looks at the policy and business cases for demand response.

DRAM's assessment is based upon a number of different factors.

Subsection 1252 (a) of EPACT appears to be written from the standpoint of creating a customer right to a choice of time-based pricing options and to the meter that enables such¹. This is reinforced by the language later in Subsection (a)² which states that

¹ Section 1252 (a) (14) (A) states that "The time-based rate schedule shall enable the electric consumer to manage energy use and cost through advanced metering and communications technology"

² Section 1252 (a) (14) (E) states that " In a state that permits third-party marketers to sell electric energy to retail electric consumers, such consumers shall be entitled to receive the same time-based metering and communications device and service as a retail electric consumer of the electric utility".

customers in restructured states not being served by the traditional electricity supplier are nevertheless entitled to receive to have the same choice, i.e. time-based pricing and advanced metering.

While electricity consumers have become used to receiving and having detailed information on their purchases of most other goods and commodities, they still in most cases receive a simple piece of information about their electricity purchases – the total amount of kWh they have used during a billing period and the total amount they should pay.

There is a substantial body of research available that demonstrates that customers will indeed respond to time-varying prices. DRAM recommends two studies among others on this question. One is a survey of the literature and past research efforts on customer acceptance. The other is the final report on the Statewide Pricing Pilot (SPP) recently completed in California.³

In order to provide electricity consumers with time-based pricing and better information about their bill, it is necessary to capture more information about how and when those consumers are using electricity. Through deployment of an advanced meter, with interval measurement and communications capabilities that allow data to be provided promptly and regularly to the electricity provider, the consumer and other appropriate parties, usage is tracked and captured and used to enable a variety of time-based pricing options, ranging from time-of-use (TOU) to Critical Peak Pricing (CPP) to Real Time Pricing (RTP).

³ King and Chatterjee, “Predicting California Demand Response”, Public Utilities Fortnightly, July 1, 2003 (also available at www.dramcoalition.org) and Charles River Associates, California Statewide Pricing Pilot Final Report, March 16, 2005 (available at http://www.energy.ca.gov/demandresponse/documents/group3_final_reports/2005-03-24_SPP_FINAL_REP.PDF).

Customers have demonstrated in many different programs and pilots⁴ that they will modify their usage in response to price, with mass market customers having greater price elasticity than larger business customers. These modifications will come not only in the form of shifts of usage from peak period to off-peak periods, but in overall usage reductions, as some of the usage reduced on peak is not replace off-peak.

For years, mainly in the context of energy efficiency, one has heard the mantra “how can one manage what one cannot measure”. With advanced metering and a variety of time-based pricing options, customers will finally have the information they need to be able to not only practice demand response but also become smarter, more efficient electricity consumers overall.

This customer-centric viewpoint can be particularly important where restructuring transition periods are coming to a close and/or where electricity prices are rising. In these cases, or for that matter in any other case where demand response is being examined, it is important to look at demand response not only from the standpoint of contributing to the reliability of the electricity system or mitigating otherwise unconstrained rises in wholesale prices, but as a new tool for customers to manage their electricity use and their electricity bills. Done right, demand response is all about customer empowerment, whereby customers are finally provide with information about their electricity purchases and provided with options by which they can reduce their bill via modifications in the way that they use electricity.

DRAM believes that it is important to view EPACT 1252 as asking that States take a holistic view of the question of time-based rates. While not all customers may initially choose to be placed on time-based pricing, it is difficult in advance to know which customers will do what. Customers also change their usage requirements and patterns over time; they also move in and out of their dwellings. By enabling all premises with

⁴ Among the sources to be considered include King and Chatterjee, “Predicting California Demand Response”, Public Utilities Fortnightly, July 1, 2003 (also available at www.dramcoalition.org) and Charles River Associates, California Statewide Pricing Pilot Final Report, March 16, 2005 (available at http://www.energy.ca.gov/demandresponse/documents/group3_final_reports/2005-03-24_SPP_FINAL_REP.PDF).

such meters, and enabling any or all of them to choose time-based pricing options, the broadest and fullest range of demand response capability is put in place, and the longest term, institutionalized demand response resource is established. That is why EPACT directs that a holistic consideration of time-based rates and the metering which can enable such be undertaken.

This concept of institutionalization is important. Certain forms of demand response such as emergency load curtailment programs have been in place for a number of years. These programs are still an important part of a complete supply and demand-based portfolio for a utility and/or state, but the new paradigm for including demand side resources is one whereby the demand side becomes part of the day-to-day operation of the electricity system. This paradigm includes demand side options which can be equivalent to dispatchable supply side resources and also price responsive options such as critical peak pricing that can modulate load requirements.

Virginia was one of many states that looked at the introduction of competitive metering as something that would accelerate the introduction of new electricity options including demand response. This was a valid and logical pursuit but one that was ultimately undermined by the economics of advanced metering deployment.

Deploying advanced metering to mass market customers on an ad hoc basis has been demonstrated to cost up to 10 times as much per customer as compared to a mass deployment. The most significant cost differential comes in the installation costs. The costs of deploying manpower and equipment on an ad hoc basis (both temporally and geographically) is significantly higher than the cost (per unit) of installation via a mass deployment. This cost differential is the major factor behind the failure of competitive metering as a framework/system for spurring the installation of advanced metering and demand response in the U.S. Whereas some years ago it was thought that competitive metering would accelerate meter deployment, the opposite has been the case. Retail marketers and other candidates for competitive provision of metering have found such to be cost prohibitive and little to no metering activity has taken place under competitive

regimes. As a result, most of the states which originally pursued competitive metering have rescinded or are in the process of rescinding the regulations and statutes on this.

If utilities are to be the parties that deploy advanced metering, which DRAM strongly believes should be the case, they should be provided with assurance of full rate recovery for the costs of undertaking such. Given the importance of having advanced metering in place, not only to enable demand response but to capture all of the reliability, system operations and customer service benefits – which can in some instances make a larger positive contribution to a business or policy case than the benefits associated with demand response - DRAM believes that it may be appropriate to also consider incentives for utilities to move forward with metering deployments and demand response.

Consideration of demand response and advanced metering can easily bring to mind the well-known tale of the group of blind men each of whom, in groping different parts of an elephant, described the animal they were feeling as being very, very different from that which others described based on their interaction. To a utility, demand response represents a new tool for, among other things, optimizing its operations and introducing new abilities in areas such as outage management and customer service. To a customer, demand response represents a choice of how to take service and a tool for managing their usage and bill. To a policy maker, demand response represents a way to lower overall system costs and prices to customers, to improve and otherwise ensure system reliability, to mitigate the exercise of market power, and to provide and empower customers with information and options to use in managing their energy bill.

One of the reasons that demand response and advanced metering require a more comprehensive treatment than simply a workshop or hearing is that the benefits of advanced metering being in place are not only in the demand response area. Advanced metering, both the functionality it provides and the data it yields, brings with it new benefits to the utility in terms of optimizing the system, deferring expansion costs, reducing theft, enhancing outage detection and restoration, allowing remote connection and disconnection, and reducing costs such as meter reading. It can also open new

opportunities to the utility and the customer whereby the former provides the latter with new products and services. It can be the case, and indeed has been the case with some utilities, that this “bundle” of non-demand-response benefits is almost enough in and of itself to make an advanced metering deployment cost-effective.

There is also the issue of leakage of benefits, which occurs where benefits occurs to parties outside of those who paid for the installation of the metering that created the benefit. This can happen in the case of some of the benefits and beneficiaries discussed above. But it can also happen in the case of customers not participating in demand response options (who benefit by wholesale price dampening resulting from other customers who do participate). It can also happen when parts of an interconnected region undertake demand response and others on the same system benefit as a result.

Policy makers at all levels of government, and from all regions of the country, increasingly signal their interest in, if not desire for, increased levels of demand response. The next step is to begin the work of identifying the benefits and costs to various stakeholders and to examine the technologies such as advanced metering that are necessary for demand response to be implemented. The Demand Response and Advanced Metering Coalition once again commends the Commission for its initiative and looks forward to being of assistance to as it proceeds.

More information on demand response and advanced metering can be found on the DRAM Website at www.dramcoalition.org. For questions regarding this submittal, please contact:

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