DRAM

DEMAND RESPONSE *and* **ADVANCED METERING** *Coalition*

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James McNulty
Secretary
Commonwealth of Pennsylvania
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: Implementation of the Alternative Energy Portfolio Standards Act of 2004 ("Act") Docket No. M-00051865

REPLY COMMENTS OF THE DEMAND RESPONSE AND ADVANCED METERING COALITION (DRAM)

DRAM Reply Comments to Comments of Pennsylvania Department of Environmental Protection

DRAM addresses each of the recommendations put forth by the Department below in the area of demand response. DRAM will use the term demand response to include load management for the sake of simplicity and clarity. The two terms are used to describe the same functionality and program types and there is no need to use both.

PA DEP General Comment:

Load management or demand response – Citation S.12(ii) -- The following recommendations should govern the generation of alternative energy credits related to load reductions and demand response. We recommend that the PUC consider requiring EDCs to provide real-time pricing technology to any customer requesting it. EDCs could recover any costs of providing this technology, over and above the benefits to the EDC of real-time pricing, as part of the cost recovery provisions of Act 213.

DRAM Reply:

DRAM does concur with the Department's call for the PUC to consider providing cost recovery to EDCs for providing technology that enables demand response. Deployment of such technology via EDCs has been repeatedly demonstrated across the U.S. to be a cost-effective option for getting the technology installed due to the scale economies of cost that are introduced. EDCs that so deploy such technology should be provided cost-recovery; because the majority of demand response benefits flow to consumers rather than utilities, it also may be that they should be provided with incentives to help them accelerate the use of such technologies.

DRAM does not agree with the use of the term "real-time pricing technology" as used here. This is not a term of art or a defined term in the demand response or utility industry. Most "real-time" pricing programs, for example, are not "real-time;" they are actually day-ahead, hourly pricing programs. On the other hand, true "real-time" network-based monitoring technologies have been successfully demonstrated in other states. In those cases, diverse residential or small commercial loads are monitored, their state determined, and then the load shift is seen at the premise meter as the control action is taken and aggregated across the set of meters in a real time "snapshot". But there are many types of demand response programs involving many types of technology other than those that operate in true real time.

The key thing is that all demand response programs are designed to reduce peak electricity usage in response to some kind of price or control signal to an end user, appliance, or energy management system. When any demand response program results in a net reduction in demand and/or usage, it should be considered to be eligible to have generated alternative energy credits under the statute.

PADEP Recommendation #1

1. Eligible customer sectors – should focus on larger industrial users with at least 1 MW of load at time of load shift. Only users shifting load voluntary (i.e. that are not part of an RTO or utility compensation plan for interruptible load shifting) can qualify for alternative energy credits under the act.

DRAM Reply:

There is no reason to only focus on industrial users or to have a MW limit on any class. Net usage reductions from any customer or class of customers should be eligible. Demand response research shows that there may be more demand response potential collectively in the mass market, given that customers there have repeatedly shown a greater price elasticity than in the larger customer classes. Given that the Department is not recommending any size delineation for energy efficiency measures, DRAM questions why it would do so in the case of demand response.

The Department also recommends that demand response stemming from customer activities that have been the recipient of some type of incentive or compensation not be eligible for alternative energy credits. Again, there is no reason to create a different standard here for demand response compared to the other possible portfolio options. All of the other options, including renewable energy and energy efficiency can be subject to incentives such as production tax credits, rebates, etc.

PA DEP Recommendation #2

2. Eligible activities – credits earned through this section shall accrue only through load shifting, load reductions and energy efficiency shall generate credits per the

rules set forward above. Shifting load by switching to local backup generation that is more polluting than the generation otherwise displaced (such as uncontrolled diesel generation) shall not be eligible for credits.

DRAM Reply:

DRAM does not disagree with the Department that this is an issue that must be considered. It is the case that some demand response activities involve the use of distributed generation (which can also be sometimes referred to as "back-up generation"). Some of this distributed generation may have a higher or lower emission rate than the central generation being displaced; it will be situation dependent. As one point of reference, a USEPA-funded study of demand response scenarios in the six-state New England region concluded that demand response can lead to emission reductions even if diesel-fueled distributed generation is included.

PA DEP Recommendation #3

3. Measurement and Verification – to be eligible, load shifts must occur during periods of mandatory interruptions. The customer shall provide billing information to the system administrator verifying load shifts to cope with periods of peak demand.

DRAM Reply:

It is not clear why the Department is using the term mandatory interruptions here. In fact, many demand response activities do not include mandatory interruptions or curtailments, but instead involve customers responding to signals to reduce, shift and otherwise modify their usage. Any such activity should be eligible for credits. There is evidence that the deployment of demand response technology, by providing never-before-available information to customers about their bill, can cause those customers to reduce their overall usage – in addition to their activity related to peak period reductions.

In this regard, it is also important to note that there are two fundamentally different types of demand response programs, as recognized by many, including the California PUC: price-based and reliability programs.[1] Price-based programs operate via providing a price signal to electricity users, who then have complete freedom to lower usage via any means they choose, from manual to automated oThese reductions, like all response to prices (rates), are accounted for in the load serving entity's (LSE's) load forecast. Reliability programs, such as interruptible programs, are treated as supply-side resources and dispatched by the LSE or ISO (PJM) in response to system conditions.

PA DEP Recommendation #4

4. Unit of measure – One MWh of voluntary load shifting during a period of mandatory interruption shall count as one alternative energy credit. Alternative energy credits generated through voluntary load shifting shall be aggregated at the end of the reporting period.

[1] - "Interim Opinion Regarding Resource Adequacy," California PUC, D.04-10-035, October 28, 2004.

DRAM Reply:

DRAM again questions why the term mandatory interruption is used here. Any usage that can be demonstrated to have been reduced via demand response programs should be eligible for credits.

PA DEP Recommendation #5

5. Credit ownership – The customer owns the rights to all alternative energy credits and may sell them on the open market to a system aggregator or an EDC or EGC, unless the customer makes other arrangements, such as agreeing to sell the rights to alternative energy credits to an investor that has provided funding to install and/or implement load shifting/demand response technologies.

DRAM Reply:

DRAM concurs with the Department's recommendation. Large customers (above 1 MW or some other threshold) should have the right to manage their alternative energy credits themselves. Small customers, for practical reasons, should have their credits managed by their LSE, and the LSE should be required to pass through the value of the credits to the customers via customer rates.

Additional DRAM Reply Comments:

DRAM also notes the comments of PennFuture as raising some of the same issues as those discussed above. DRAM disagrees with PennFuture that high MW thresholds must be established for eligible customer demand response activities. As noted above, there may be greater potential for demand response and therefore for generation of credits from the mass market customer classes. DRAM recommends that any customer class be deemed eligible and that monitoring and verification should be the focus. DRAM also disagrees that certain technologies should be determined to be eligible. There are a number of different technologies that enable demand response and more are being developed. It is also not necessary to have complex technology to practice demand response and therefore there should not be a requirement for capital investment as PennFuture suggests.

DRAM appreciates the opportunity to comment.

Very truly yours,

Dan Delurey
Executive Director