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Reply Comments of

Demand Response and Advanced Metering Coalition (DRAM)

Regarding

March 23 Implementation Order of the Commission

In the Matter of

Pennsylvania Alternative Energy Portfolio Standard

Docket No. M-00051865

June 23, 2005

In its Order of March 23, 2005, the Commission requested that parties suggest additional topics to be considered by the Working Group in comments filed on the Order. In its comments today, DRAM wishes to highlight such an additional topic. Its comments focus on the valuation of demand response (i.e. load management, peak load reduction, demand side response).

To date, the focus of the AEPS implementation when it comes to valuation of Energy Efficiency and Demand Response has been on how to measure and verify the impact of measures in these two areas. Another area of attention, pursuant to explicit direction in the Act, has been depreciation of credits. What has not been the subject of focus to date is the proper valuation of demand response impacts and the reflection of such in the contemplated rules for awarding credits for impacts achieved under the Act.

Existing Practice and Precedent - Portfolio Standards

Many states have put in place renewable portfolio standards (RPS). These standards are constructed solely on a generation or production concept and thus use a kWh basis for the measurement and validation of impact and the subsequent awarding of credits.

Pennsylvania, to its credit, has chosen an alternate path, as reflected in the name of its standards – Alternative Energy Portfolio Standards. Pennsylvania has chosen to include demand side options among the means by which the standards can be met. In doing so, however, it must recognize that a kWh basis may not be the most appropriate basis for all of the options it has specified. DRAM submits it is not the best way to value demand response.

Characteristics of Demand Response Impacts

The value of demand response to the Commonwealth will come in many different ways ranging from improved reliability to better functioning markets to new choices for customers in how they manage their electricity bill. But much of the overall value proposition for demand response owes not to the number of kWh that are shifted or reduced but to the amount of kW or MW that are reduced during the on-peak period. In some cases, on any given day when peak demand threatens reliability and sets the stage for potential market price run-ups and supplier market power, the MW of demand response have a value far beyond a simple recognition of the kWh that were avoided. Or put another way, the kWh that were reduced on peak had far more value than an “average” kWh produced or saved during the relevant 24 hour or monthly period.

The concept of a time value of kWh as opposed to treating all kWh equal for purposes of impact measurement and valuation is one that the Commission should direct the Working Group to include in its deliberations and its development of rules for treatment of demand response in the implementation of the Act.

Proper Recognition of the Value of Demand Response

DRAM offers a straw-man proposal for how the Commission might ensure proper recognition of demand response value under the standards.

The proposal would increase the number of credits granted for demand response measures beyond a 1:1 ratio. To get the “value multiplier”, it would take the PJM “net revenue stream” for a new entrant Combustion Turbine as it appears in PJM’s State of the Market Report and divide that number by the number of hours that a demand response measure would operate. This multiplier would then be applied to the actual MWh from the measure to get the number of credits awarded.

As an example, if a load control program operated for 75 hours a year, and it includes 100,000 customers at 1kw reduced per customer, that would mean 7500 MW reduced. The multiplier would take the PJM net revenue stream number of \$72,207 per MW and divide that by 75 hours to get \$963 per MWh, which is the value of those peak MWh. Then divide this by the PJM hourly average price (\$42.50 per MWh) to get a ratio of peak to off-peak value and you would have a multiplier of 22.7. You would multiply 7500 MWh reduced by this 22.7 to yield an amount of 170,250 MWh of demand response and this number would be used to grant credits under the AEPS.

The same concept would apply to a dynamic pricing program or any other kind of demand response program.

Conclusion

Pennsylvania is receiving accolades at the federal level in Washington and at the state level in other parts of the country for its development of portfolio standards which go beyond the supply side to include demand side alternatives. In doing so, both opportunities and challenges arise. The opportunity lies in the support for demand response that the standards provide, which should lead to accelerated deployment of demand response and thus accelerated capture by Pennsylvania of the reliability and price benefits that demand response delivers. The challenge comes in the need to

apply new thinking to demand response so that it is properly tracked and measured and – most importantly – properly valued. DRAM stands ready to assist the Commission in this effort.