

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

On

**Oregon Public Utility Commission
Draft Report on Demand Response Programs for
Oregon Utilities**

May 20, 2003

Introduction

The Demand Response and Advanced Metering Coalition¹ is an advocacy organization comprised of utilities, metering and communications companies, and public interest groups that is focused on development of policy to foster and facilitate the growth and utilization of demand response (DR). In particular, DRAM focuses on how to empower and enable mass market customers (i.e. residential and small commercial) to be able to participate in demand response programs, particularly those involving dynamic pricing.

DRAM has been active since 2001 in providing input to federal and state policymakers on demand response and advanced metering issues.

DRAM applauds the Oregon Public Utilities Commission for its initiation of this proceeding on demand response. We commend the Commission Staff for the depth, comprehensiveness and balance of its Draft Report.

Having been in receipt of the Draft Report for only a short time prior to the comment filing date, and not having access to all of the sources cited in the report, DRAM offers limited comment at this time but offers its services and expertise as this proceeding continues so that it may offer additional, more detailed input.

Comments

To the Staff's credit, the report avoids focusing only on the more visible and more prevalent DR programs for large customers. DRAM often finds itself working to make sure that mass market applications of DR are addressed in a proceeding of this type. Therefore, many of DRAM's comments will be an attempt to highlight and affirm the report's treatment of mass market DR.

¹ Members of the Demand Response and Advanced Metering Coalition include SchlumbergerSema, Landis + Gyr, Southern California Edison, eMeter, Pacific Gas & Electric, Echelon, DCSI/TWACS, Puget Sound Energy, EMon/MeterSmart and the Alliance to Save Energy. More information on DRAM can be found at www.dramcoalition.org.

DRAM offers specific comments in the following areas:

1. *Evidence exists that customers will respond to price signals*

The Report correctly concludes that evidence exists that *all* customer classes respond to price signals for electricity. This is an important foundational element for the Commission as it moves forward in this proceeding. With DR still an emerging area, there is often a tendency on the part of policy makers to believe that a key underlying assumption, i.e. price responsiveness, needs to be tested. While delivery of DR is something that is still evolving, the willingness of customers to respond has been demonstrated in the many cases researched and cited in the report.

2. *Metering decisions should be made in the context of an investment that provides flexibility and capabilities in the future as well as the present.*

The report correctly recognizes that an important aspect of a decision to deploy advanced metering is the ability to enable customers to participate in any or all of the various types of dynamic pricing program variants. Simple TOU meters are available that allow recording of data in several different periods per day and thus allow basic Time-of-Day (TOD) pricing. These meters do not, however, allow all of the dynamic pricing options discussed in the report. The Report, in recognition of the fact that metering is an investment that should accommodate future developments and growth, correctly notes that “it may be prudent to install meters capable of measuring and storing at least hourly data to allow flexibility for future rate designs”. DRAM would note that new designs such as Critical Peak Pricing (CPP) already exist and thus in some instances the future is indeed now. Moreover, in the case of simple TOU meters, neither the customer nor the utility gains little in the way of new data about the customer’s usage

3. *Critical Peak Pricing is a dynamic pricing hybrid that offers great potential*

The Report correctly recognizes the value and benefits of Critical Peak Pricing, citing estimates that show that they may be far larger for small customers than traditional time-of-use (TOU) rates and direct load control alone.

4. *Advanced Metering and Automated Meter Reading (AMR) is not the same thing.*

The Report correctly differentiates between Advanced Metering and Automated Meter Reading (AMR). There is considerable semantic confusion over these two different metering options. AMR is an industry term that refers to metering systems that provide remote meter reading functionality, often through the use of mobile reading via a vehicle that reads the meters by driving by the residence or building. Advanced Metering refers to systems that measure and record data in at least hourly intervals each day and which utilize communications technologies that allow customers and utilities to access the data captured by such meters on at least a daily basis.

While Advanced Meters do, by definition, allow the remote, automated reading of meters, the reverse is not true, i.e. a conventional AMR system does not provide advanced metering functionality or benefits. Standard AMR systems do not allow interval measurement and provide no new data or any other benefit to the customer. They do not enable DR and the only direct benefit is to the utility, in terms of a reduction of its meter reading costs; no new or additional data is produced for the utility's use.

5. *Up-to-date costs of advanced metering and communications technologies should be considered and the economy of mass deployments of advanced meters recognized.*

The Report cites utility responses to data requests for the metering cost data it presents. DRAM did not have access to those reports prior to making these comments. DRAM believes the costs cited for the "small customer" meters may be high, and notes that the citations indicate the data for this customer class was collected in mid to late 2001.

DRAM offers to be of further assistance as the proceeding continues to clarify metering costs.

The Report does note, importantly, that mass deployment of advanced meters would reduce installed costs per unit.

6. *DR programs need to be modified as information and feedback is obtained, and the success of specific programs judged according.*

In its Evaluation Section, the Report correctly notes that DR programs take time to be implemented and for customers to understand how they work and how and whether they would benefit from participating in such. Later, in the same section, the Report discusses the significance of rate design to the success of a dynamic pricing program and notes that poor rate design can produce improper incentives. Also, the issue of meter costs is raised as a factor that can adversely impact the savings of a participant.

All of these are noted here because they provide counterweight and balance to the data presented elsewhere in the Report that show that savings have been modest or not existent for many customers who have been participating in programs. With customers never having had price signals in electricity, and with the design of dynamic pricing programs with a DR objective still an emerging area, it is important to look at the core result, as exemplified by the Puget Sound experience and much of the other sources cited in the report (including the cumulative load shift observed in the Oregon programs) – that customers will respond to modest price signals in ways that benefit them and the electricity system.

8. *DRAM supports the Report's recommendations, with these additional comments*

- IRP

The Report is correct to recommend that DR resources deserve to be treated equivalently with other resource options in a utility's Integrated

Resource Plan (IRP). Utilities have been reluctant to do this in the past for any DR programs which have not been under their direct control. However, the experience and case history that now exists, and the new technology-enabled forms of demand response that can now be offered, mean that DR, including dynamic pricing, can be included as a long term resource that can reliably and effectively shape load and therefore constructively impact an IRP. As DR progresses, as customers become accustomed to receiving and responding to price signals, and as program design improves, DR will be able to play an even more vital role in the IRP process.

- CPP

Critical Peak Pricing is rapidly being seen and accepted as a constructive hybrid of different forms of dynamic pricing. The Commission should indeed move forward to implement CPP programs.

- Adjustment of Rates and meter costs

As noted earlier in these comments, it is important that success or failure (or the perception of such) not be judged prematurely. DR programs include a number of different variables where potential changes should be explored. Rate design is a critical variable of this type. Whether the participant should bear any or all of the cost of the enabling technology is also an important question. With benefits from the participant's action accruing to non-participants (via downward pressure on the wholesale market), a rolled-in cost recovery method deserves consideration.

- Metering Investigation.

One of the challenges for demand response and advanced metering is the intertwinement of the two when it comes to cost-benefit analysis and business case planning.

Advanced metering moves metering out of its traditional realm of metrics and measurement and places it in the “boardroom” as a strategic move by a company to establish a major new gateway and interface between it and its customers. Advanced metering brings with it added benefits, as noted by the Report, in areas such as outage detection and restoration, as well as new high value data that allows a utility to optimize the planning and operation of its system. It also allows a company to offer new products and services to its customers.

Whereas many metering business cases focus solely on the savings from Automatic Meter Reading versus the cost of the AMR meter, the case for advanced metering needs to incorporate many different types of benefits that occur in many different ways and which accrue to many different parties. The demand response that is enabled by the advanced metering is a major benefit stream in the context of the business case.

Advanced Metering and Demand Response in many ways represents a chicken-and-egg situation. Demand response requires advanced metering, and cannot happen in its absence. The business case for Advanced Metering improves by adding the many benefits, including DR, which is enabled by the metering. To look at each in isolation does not provide the best analysis in the support of either.

The Report’s recommendation that the Commission open up an investigation on advanced metering displays an understanding of this analytical challenge and lists a number of valid questions that should be addressed in such a proceeding. DRAM does urge the Commission to

adopt an expedited timeframe for this investigation, with a near-term date certain for its conclusion, in order that DR actions stemming from it can occur in a timely manner and be ready for deployment in the near future.

Conclusion

The Commission Staff has compiled a credible document that is based on a diligent and sound research effort. The recommendations are well founded and should be accepted and implemented in a timely manner by the Commission. DRAM stands ready to be a resource to the Commission, the Staff and to other parties in this proceeding as it moves forward.

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