

Pennsylvania Public Utility Commission

Investigation of Conservation, Energy Efficiency Activities, and Demand Side Response by Energy Utilities and Ratemaking Mechanisms to Promote Such Efforts; Docket M-00061984

DSR Working Group Report Draft Outline

I. History and Scope of Investigation

II. Summary of Information Collected

- A. Existing Programs and Level of AMI Deployment – Tables available on PA PUC web site.
- B. White Papers on Metering, Energy Efficiency, Conservation, and Demand Side Response – Available on PA PUC web site.
- C. January 19, 2007 Presentations – Available on PA PUC web site.
- D. December 8, 2006 Revenue Decoupling Presentations
- E. Other Reports
 - 1. Quantifying Demand Response Benefits – Brattle Group 2007 Report to PJM and MADRI.
 - 2. ACEEE April 2004 Report
 - 3. NYSERDA's Annual Energy Smart Reports
 - 4. FERC's August 2006 Report on DSR; Docket AD06-02
 - 5. PA DSR WG 2004 reports
 - 6. Others

III. Findings

- A. A wide array of studies and sources seem to confirm that energy efficiency, demand side response, and conservation programs and technologies can be cost-effective means of controlling the cost of electricity and natural gas.

B. Individual customers can directly benefit through participation in DSR or conservation programs and utilization of energy efficiency technologies.

C. Reduction in peak demand and strategic conservation can favorably impact wholesale energy prices, to the benefit of all retail customers. This is consistent with the Commission's objective of mitigating the effect of future price increases.

D. General education about demand side response, energy efficiency and conservation will be important to heightening awareness about the existence of these programs and building acceptance for programs and technologies as they are offered. Consumer education should involve a variety of tactics, from advertising, media relations and grassroots outreach. Efforts should be measurable with annual surveys of results. Stakeholders should have regular involvement and opportunities for input. Education strategies used should be based on effective programs employed in other states when applicable.

IV. Legal Authority

A. The Commission may order gas and electric utilities to implement load management and conservation programs that it determines to be prudent and cost-effective. 66 Pa.C.S. § 1505(b). This provision is the statutory authority for the LIURP programs.

B. Commission must separately ensure that "universal service and energy conservation" programs are available in each territory. 66 Pa.C.S. §§ 2804(4), 2203(8).

C. The information gathered represents a sufficient foundation for the Commission to direct EDCs and NGDCs to file a DSR, Energy Efficiency and Conservation plan with the Commission for its approval consistent with these statutory provisions.

V. Objectives

A. Nature of Objectives. The Commission initiated a price mitigation proceeding in 2006 at Docket M-00061957. Consistent

with that, the focus should be on developing policies with quantifiable economic benefits for ratepayers. The Commission has previously identified non-quantifiable benefits in reports prepared by DSR WG in 2004. It may be assumed that some of those non-quantifiable benefits will also accrue with implementation of these programs.

B. Many existing programs have as their objective a reduction in peak demand and/or overall energy conservation. This is quantified as a % reduction of overall or peak demand by a certain time period.

Examples

1. Connecticut's energy independence law established a goal of a 10% reduction in peak demand by 2010. *Public Act 05-01, An Act Concerning Energy Independence*. According to January 19 presentation by Enernoc, Connecticut has developed DSR capacity equal to about 6% of peak load at this time.
2. Austin Energy: According to February 9, 2007 presentation, they intend to satisfy 15% of expected 2020 demand with DSM resources.
3. California: 5% of system peak demand MWs enrolled in DSR economic programs by end of 2007

C. Objectives.

1. Develop policies that allow individual customers to take advantage of DSR, energy efficiency, and conservation measures. For reasons of equity, there should be programs available to residential, small business and large commercial and industrial customers.
2. Materially impact wholesale energy prices through DSR, conservation, and efficiency measures.
3. Educate consumers so that they can take advantage of these opportunities.
4. Objectives should be quantified in terms of DSR capacity reduction of peak load and overall conservation:

- a. Develop DSR capacity of ___ % of peak load by 2____.
- b. Strategic conservation of ___ % of kWh and mcf by 2____.

These targets should be measured against PJM's forecasted load for a given period as well as the Commission's annual Electric Power Outlook Report and other sources.

- D. AMI deployment. To develop a robust DSR capacity, additional metering will be required in some service territories. However, we note that many large commercial and industrial customers already have time-of-use meters, even in territories where system wide deployments have not occurred. Approximately 78,000 residential customers in Penelec and Met-Ed's territory are served under TOU rates even though there has not been a system wide AMI deployment.
1. This presents the question of whether AMI should be deployed system wide for all customers, or just certain customer classes.
 2. Is it viable for PA EDCs that have not deployed AMI system-wide to enable medium and small customers who wish to be on TOU rates to be offered such a rate along with the meter to support that rate without deploying AMI technology system-wide? Would this accomplish the objective of enabling medium and small customers of most PA EDCs the opportunity to participate in DSR programs through TOU rates prior to the time when AMI technologies will be available system-wide?
 3. If AMI deployment is appropriate, what is a reasonable time frame for this to occur within?

VI. Implementation Issues

- A. Coordinated vs. Individual Responses: Should EDCs develop and manage their own portfolios of programs? Alternatively, should programs be coordinated by third party administrator or state agency

(e.g. NYSERDA approach)? This is a threshold issue that will impact how programs are designed and implemented.

B. Initiating the Implementation Process: Generic Commission Orders? Or are regulations needed?

C. Timeline: What schedule should be set for the filing and approval of programs, and their effective date.

D. Program plans/lifecycles. Three years, five years, etc. What are the respective advantages and disadvantages of shorter vs. longer plans. Is there an optimal program duration given Pennsylvania's particular situation?

E. Program design.

1. Should program designs be developed solely by EDCs? Alternatively, should they be selected by the Commission or a third party administrator?
2. Do we want to pre-approve a menu of DSR, energy efficiency and conservation programs that has been developed by the Commission or another party? EDCs or the third party administrator can then select from this list?
3. Regardless of the process used, potential programs should be ranked according to the best available data as to their effectiveness. Top ranked programs should be given preference when designing plans for each service territory.

F. Program Evaluation. Who does it? What benchmarks and tests are used? Evaluation should be independent. Example of standard: California cost-benefit test.

VII. Funding and Cost-Recovery

A. Section 1319 of the Public Utility Code, 66 Pa.C.S. § 1319, identifies a cost-recovery standard for programs implemented pursuant to Section 1505(b). Utility may recover all prudent and reasonable costs associated with managing, developing, operating and financing program.

B. Revenue decoupling mechanisms do not appear to be expressly contrary to the provisions of the Public Utility Code. An appropriately designed revenue decoupling proposal may be in the public interest, if approved by the Commission as part of a package of DSR, energy efficiency, and conservation measures (see separate reports prepared by decoupling subgroup).

C. Energy Efficiency and DSR are Tier II alternative energy resources under the AEPS Act. AEPS costs can be recovered through a Section 1307 mechanism on a full and current basis. Should Section 1307 play a role in cost-recovery?

D. EDC vs. Third party administration will drive funding issues. If a third party administrator is used, who hires them? EDCs or the Commission? Does the procurement code apply? Commission would have to approve overall level of budget for programs.

E. A Systems Benefit Charge may be an appropriate mechanism to fund these programs. An SBC is addressed in draft legislation that has been circulated. Advantages and disadvantages.

F. Equity of funding and benefits must be considered. Funds raised from one service territory should be used for projects within that territory.

VIII. Other recommendations

A. Amend Act 213: Amendments to Act 213 are being considered as part of the Governor's Energy Independence Strategy. As part of this review, give strong consideration to the reclassification of Demand Side Response, Energy Efficiency and Conservation as a Tier I alternative energy source.

There is likely to be a surplus of Tier II alternative energy credits for the foreseeable future. Credit prices are very low compared to Tier I. DSR and energy efficiency are unlikely to benefit much from current credit values.

B. Default Service: Allow DSR/EE to bid as part of the default service provider's portfolio. Demand side resources are mentioned in the default service policy statement.

C. Require EDCs to render full cooperation to customers who wish to participate in RTO DSR programs, such as PJM's economic program.

D. Require EDCs to render full cooperation to curtailment service providers in accessing retail customer information.