The Role of State Commissions in Demand Response and Shared Savings

Mid-Atlantic Distributed Resource Initiative
Working Group Meeting
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Overview

How Maryland Views/Uses Demand Response

- Reliability Resource
  - Gap RFP
- Meet EmPower Maryland Policy Objectives
  - Direct Load Control Programs
- Smart Grid Deployment
  - Peak Time Rebate Pricing Construct

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Purpose of the Gap RFP

- In 2007, PJM first reported to the MD PSC the possibility of electricity shortfalls beginning in 2011
- Result was that the MD PSC decided to procure demand response resources to fill the reliability "gap"
- Purpose: insurance against the possibility that certain transmission projects would not be completed on time

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Gap RFP Principles

- Find potential demand response resources that are not currently bid (or are unlikely to be bid in the future without the Gap RFP) into the PJM Reliability Pricing Model ("RPM") auctions
- Find resources that do not consistently participate in PJM demand response programs
- Provide capacity payment certainty or possible premium to RPM to increase the likelihood of finding resources and ensuring their availability to address the potential capacity shortfall

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Contract for Differences

- The approach:
  - The CSP (or the customer acting as their own CSP) receives their RPM-based capacity payment from PJM (this is an ILR payment for 2011-2012)
  - The utility compares the RPM capacity price to the price in the CSP's Gap RFP contract with the utility
  - If the RPM price is lower than the Gap RFP price, the utility pays the difference to the CSP. If the RPM price is higher than the Gap RFP price, the CSP pays the difference to the utility
- Contract for differences is limited to capacity
  - Economic curtailment options and other options that do not involve capacity (ancillary services for example) are left to the CSP and their customers and do not involve the utilities

Gap RFP - Conclusion

- Proposed Gap RFP was informed by the best efforts of utilities, prospective CSP bidders and customer representatives
- Process secured readily available reliability resources that were not otherwise committed to closing a potential reliability gap in Maryland

Gap RFP Results

- RFP yielded cumulative capacity of 106 MW for very low cost, 400 MW for moderate cost and 511 MW at significantly higher cost.
- March 11, 2009 – the Commission ordered the investor-owned utilities to execute contracts for demand response capacity via Curtailment Service Providers for the following total capacity by RPM bid year:

Planning Year	**2011/ 2012**	**12/13**	**13/14**	**14/15**	**15/16**	**16/17**	**17/18**
Total MW Capacity	400.6	400.6	400.6	343.6	53.6	18	18

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Implementation Problems

- Energy Curtailment Specialists ("ECS") and EnerNOC filed motions in the Summer of 2011 to amend their contracts
- Both fell short of their capacity requirements for the 2011-12 delivery year
- Both companies are expecting to have a capacity shortage in the Delmarva service territory in the remaining years

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Implementation (Cont'd)

- On January 5, 2012, the Commission issued a show cause order to require the remaining CSPs to file information demonstrating their compliance with the Gap RFP contracts
- On January 4, 2012, Commission Staff, the Office of Peoples' Counsel ("OPC") and EnerNOC filed a Joint Motion for Approval of a Settlement Agreement
- ECS, Staff and OPC were unable to come to an agreement
- A hearing is scheduled on the ECS contracts for April 17, 2012

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Maryland Direct Load Control Programs

- Four Maryland Utilities Operate Direct Load Control Programs
  - Baltimore Gas and Electric Company (BGE)
  - Potomac Electric Company (Pepco)
  - Delmarva Power and Light Company (DPL)
  - Southern Maryland Electric Cooperative (SMECO)
- All Programs offer the choice of a programmable thermostat or direct load control switch
- All programs offer incentives to participating customers
- To participate a customer must have central air conditioning or a heat pump
- Customers purchasing electricity through a competitive electricity supplier are eligible to participate in their utility program

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DLC (cont.)

- Demand Reductions are bid into the PJM's RPM Capacity Market
- The table lists the amount of utility DLC capacity cleared in the RPM Capacity Market and the amount of revenue PJM paid/will pay to the four utilities

Maryland Direct Load Control Cleared Capacity and PJM Revenue

	DY 2009-2010	DY 2010-2011	DY 2011-2012	DY 2012-2013	DY 2013-2014	DY 2014-2015	Total
Cleared Capacity (MW)	217	415	662	953	803	772	3,822
PJM Revenue ($)	$18,797,723	$26,400,578	$26,579,300	$46,482,622	$67,698,773	$35,851,487	$221,810,482

AMI Enabled Peak Time Rebate

- BGE and Pepco have approved AMI cases that include a Peak Time Rebate Dynamic Pricing Construct (DPL decision pending)
- Smart Grid Work Group developing metrics to evaluate PTR progress and cost effectiveness and customer education plans with relevant metrics
- All customers are eligible to earn a peak time rebate for each event, including customers of 3rd party competitive electricity suppliers
  - The only customer who is ineligible to receive a peak time rebate is a customer who has a competitive electricity supplier that also offers some form of Dynamic Pricing construct

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PTR (cont.)

- Demand Reductions achieved through the Peak Time Rebate will be bid into the PJM's RPM Capacity Market
  - By 2015, BGE expects to achieve 512 MW in Peak Load Reduction
  - By 2015, Pepco expects to achieve 169 MW in Peak Load Reduction
- BGE and Pepco have bid demand reductions from Peak Time Rebates in the 2014-2015 RPM auction

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For more information…

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