

# Blueprint for a DER Action Plan to Be Considered by Mid-Atlantic PUCs

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# “Actionable Options” for PUC Consideration

- 1) A New DER Policy Statement That Reflects Recent Changes in Today’s Market Environment
- 2) Adoption of a 3% DER Goal
- 3) Development of Specific Benefit/Cost Criteria for Determining Which DER Investments Are Appropriate and Which Are Not
- 4) Consideration of and Action on Seven Specific Initiatives For Increasing DER in The Mid-Atlantic Region

# Action Item #1

## New DR Policy Statement (5.30.06 Draft)

Distributed Energy Resources (DER) can provide benefits to electric customers through increased system reliability, mitigation of wholesale energy prices and other wholesale market risks, improved power quality, improved air quality, reduced line losses and avoided wires investments. Many DR options can also provide direct benefits to customers in that they are provided with new tools and means to better manage their electricity usage and bills. Achieving these long term benefits is a valid goal of regulatory policy. DER options may also benefit customers through new tools to better manage electricity usage and bills. DER projects may also stimulate local economic development. DER includes targeted energy efficiency, demand response, storage resources, and distributed generation technologies.

Within the broad context of laws and regulations that affect DER (including but not limited to economic, environmental, land-use, building codes, safety and security), state utility policy makers and regulators should consider changes to encourage cost effective DER programs including:

- removing market barriers;
- developing appropriate regulatory treatment;
- establishing DER program goals;
- providing DER program incentives;
- reducing utility disincentives to accommodating DER; and
- testing solutions at a pilot scale.

State utility policymakers and regulators may consider special studies and pilot programs to evaluate the costs and benefits of DER technologies such as metering and communications infrastructure that enable dynamic retail pricing regimes. These enhancements would allow more customers to see and respond to market prices. Those DER investments that provide a net long-term benefit to distribution system ratepayers should be implemented or encouraged. A portion of such long-term benefits may be used to enhance the economics of installing DER through special tariffs.

In keeping with normal regulatory practice, authorized utility expenses and investments that facilitate DER products and services by any vendor should be treated as other utility costs and afforded cost recovery and an opportunity to earn a reasonable rate of return on investment.

# Action Item #2 – 3% DER Goal

***Require Distribution Companies Located in Transmission Constrained Areas to Develop a DER Plan To Achieve (by 2010) a 3% Reduction\* in Demand During top 20 5-hour Pricing Periods Measured in 2005 - reevaluate after 2 years.***

*\*3% is in addition to the DER response measured in 2005 from customers on dynamic pricing tariffs, PJM Programs and bilateral DER agreements*

# Action Item #2 – 3% DER Goal

## Goal Calculation & PJM Programs

			Actual DER Measured in 2005					
			PJM Programs- Registered			PJM Programs-MWh Participation		
PJM Control Zone	2005 Peak (MW)	3% Of 2005 Peak (MW)	Economic (MW)	ALM Net (MW)	Emergency (MW)	Economic MWh	ALM Net MWh	Emergency MWh
PSE & G	10,977	329	87.4		24.6	2,740		0
PECO	8,771	263	69.4		142.5	1,435		0
DELMARVA	4,174	125	127.8	6.9	17.3	41,557	12.25	0
BG&E	7,157	215	118.7		112.9	13,633		0
PEPCO	6,766	203	35.4		7.5	0		0
<b>Total</b>	<b>37,845</b>	<b>1,135</b>	<b>438.8</b>	<b>6.9</b>	<b>304.6</b>	<b>59,365</b>	<b>12.25</b>	<b>0</b>

(1) Includes load reduction from customers on Critical Peak Pricing and Real-Time Pricing tariffs

(2) The ALM Net MW of Capacity Credit dollars were calculated by multiplying the capacity credits by the weighted average of the capacity auction prices.

# Action Item #2 – 3% DER Goal

## *Goal Calculation, Price Responsive & Curtailment Loads*

			PJM 2005 Price Responsive Load Survey (MW)					
PJM Control Zone	2005 Peak (MW)	3% Of 2005 Peak (MW)	Distribution LSE LMP Based Rates	Competitive LSE Dynamically Priced	Distribution LSE Regulated Interruptible	Competitive LSE Curtailable Load	Competitive LSE Load Respond To Price Other Mechanism	Distribution LSE Direct Load Control (non PJM ALM)
PSE & G	10,977	329	227	755	0.0	0.0	114	0.000
PECO	8,771	263	0	1	0.0	0.0	0	0.000
DELMARVA	4,174	125	0	7	14.0	0.0	50	32.500
BG&E	7,157	215	170	428	0.0	150.0	107	0.000
PEPCO	6,766	203	220	25	0.0	0.0	0	0.000
Total	37,845	1,135	617	1,216	14.0	150.0	271	32.500

(1) Includes load reduction from customers on Critical Peak Pricing and Real-Time Pricing tariffs

# Action Item #3 – Establish Cost Effectiveness Criteria

*Criteria need to be quantifiable and transparent and ensure that DER investments will provide a net long-term benefit to all distribution system ratepayers*

- **Need to Establish:**
  - **Generation Value**
  - **T&D Value**
  - **Energy Value**
  - **LMP Benefit**
  - **Treatment of Externalities**
- **Key Considerations:**
  - **Participants vs Non-Participants**
  - **Appropriate Criteria for Pilots**
  - **Economic Feasibility vs. Financial Viability**

# Action Item #4 – Consideration of “Actionable” DER Options

***Open a proceeding, possibly as part of an EPACT investigation, to identify at least one DER pilot program or DER initiative to be undertaken by a distribution company in 2006 and to review an overall plan for achieving the 3% DER objective***

Actionable DER Options For PUC Consideration
Smart Thermostat Program
CHP Initiative
Pricing Pilots & Models
Internet Platform for Accessing ISO Demand Response Program
Model Decoupling Tariff
Targeted Distribution System Deferral Pilot
Near-Term & Long-Term AMI Initiatives

# Summary - MADRI Support for “Actionable” DER Options

DER Option	Related MADRI Activity
Smart Thermostat	Business Sub-Group/Comverge
CHP Initiative	Business Sub-Group/USCHPA/Mid-Atlantic CHP Application Center/EPA
Pricing Pilots & Models	Regulatory Sub-Group/Comverge
Internet Platform	Business Sub-Group/PHI
Model Decoupling Tariff	Regulatory Sub-Group
Targeted Distribution System Deferral Pilot	Business Sub-Group/Con Edison
AMI Action Plan	Advanced Meter Survey/AMI Workshop/AMI Tool Box/Commission Roadshows
✓ Model Interconnection Agreement	Interconnection Sub-Group