

MADRI CHP Incentive Pilot Program

Rationale and Objectives

- There is a general consensus that distributed resources can provide significant benefits to ratepayers, but the available information is insufficient to:
 - Quantify net benefits to ratepayers.
 - Determine how to promote these options to maximize the benefits to ratepayers.
- The MADRI Business Case Sub-Working Group recommends conducting a series of pilot programs for promising DR technologies to help accelerate adoption and generate the information needed to better quantify benefits.
- Combined Heat and Power (CHP) addresses two pressing current needs:
 - Reducing peak demand during critical peak periods – which is the primary focus of MADRI.
 - Helping mitigate the impact of recent/coming electric rate increases by increasing energy efficiency.
- While CHP provides numerous public benefits, adoption is inhibited by the fact that the economics are marginally attractive under current rate structures in the Mid-Atlantic region.
 - Only 4 of the 20 benefits provided by CHP accrue directly to the user who pays for the system
 - Developing a mechanism to provide a share of the public benefits to the user should increase adoption rates and hence net ratepayer benefit

Pilot Program Structure

Conditions vary considerable across the Mid-Atlantic region, hence pilot program details must be tailored to meet each state's needs. Each utility commission must decide what program structure is best for their state. The main items to be resolved are:

- **Capacity Goals** – The Business Case Working Group recommends a target of 3% of peak demand for all MADRI pilot programs and that 15 to 25% of this amount being allocated to the CHP program (i.e., 0.5 – 0.8% of annual peak). In addition, criteria should be established for prioritizing or ranking applications if the program is oversubscribed. These would include:
 - Type of system/fuel – give priority to systems powered with RPS Tier 1 or Tier 2 fuels
 - Type of application – give priority to applications that can be replicated easily
 - Size – limit to under 10 MW with at least 1 system under 500 kW in each distribution area
 - Location – give priority to systems located in congested areas
- **Incentives** – Incentives are needed to make CHP projects financially feasible and ensure system performance. We recommend the following incentives for the CHP pilot program:
 - Capacity Payment – This payment should be equal the carrying cost for utility investment in comparable conventional utility generation that would be deferred by CHP. Today, this would be approximately \$75/kW-year for a natural gas-fired simple-cycle CT.
 - Energy Payment – This is an incentive payment based on electricity produced whenever the PJM Economic Load Response Program is activated. The payment should be equal to the day-ahead or real-time LMP depending on which program is activated.

5/12/06 DRAFT

- Eliminate standby charges – The performance of all systems approximately 5 years after they start operation to confirm that waiving standby charges is appropriate and reasonable.
- Waive interconnection application fees and expedite the application process
- **Implementation Approach** – The three basic options for implementing this pilot program are:
 - Include CHP in renewable portfolio standards – which would eliminate or reduce the need for a ratepayer-funded incentives and the proposed CHP pilot program.
 - Competitively select a provider (UDC, ESP, or other 3rd party) to recruit participants and install system and have the UDC administer the program.
 - Direct UDCs to implement the program.

Implementation Plan

Separate implementation plans consisting of the following steps would be developed for each state:

1. *Establish a pilot program steering committee to develop all of the program details, oversee implementation, and evaluate results* – Considerable work will be required to finalize the program structure and implementation plan. The first step in implementing a pilot program would be to form a steering committee that will define these details and present them to the utility commission for approval.
2. *Direct participating utility distribution companies to identify locations where installing CHP would alleviate the need for T&D system expansion or upgrades* – UDC participation is needed to identify the locations where these systems would provide maximum benefit and hence where recruitment efforts should be targeted.
3. *Obtain commitment to implement the program from UDC or select a 3rd party provider to implement program* – Conduct a competitive solicitation to select the organization(s) to implement the program. The UDC would be eligible to compete with 3rd party providers.
4. *Determine MW of systems to participate in pilot and identify target applications* – The steering committee would work with the utility Commission to determine MW goal and select targets.
5. *Develop incentive structure & levels* – Establish levels based on the LMP study being supported by MADRI and, if appropriate, other projection of prices during critical peak periods.
6. *Recruit participants and install systems* – CHP, energy services, and curtailment services industries will work with UDCs to implement the program.
7. *Monitor systems and issue periodic reports on public benefits provided by projects* – Reports will be issued every 12 months and an in-depth program review would be conducted at 5 years.