

# Overview of Proposed CHP Incentive Program



Dennis Moran, Director  
Mid-Atlantic CHP Application Center  
June 5, 2006



# Agenda

- Challenge & Issues
- Objectives for CHP Pilot Program
- Program Structure Options
- Proposed Implementation Plan

# Challenge

- CHP can satisfy 2 major needs in this region:
  - Reducing demand during critical-peak periods – which is the primary focus of MADRI
  - Helping to mitigate the impact of rate increases – improving efficiency is the best way to cut energy costs
- CHP provides numerous public benefits, but use is limited because it is marginally attractive with current rate structures
  - 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
  - Provide compensation for services provided to increase usage

# Benefits Provided by CHP

## ■ **Energy Reliability**

- **Business continuity during grid outages**
- **Improved power quality**
- Reduced grid congestion
- Can increase end-of-the-wire supply
- Enables short lead-time, off-the-shelf, modular capacity additions

## ■ **Energy Security**

- Reduced system vulnerability
- Disaster mitigation assistance
- Disaster recovery assistance

## ■ **Energy Efficiency**

- **Improved fuel efficiency (fuel economy)**
- Optimized use of scarce natural gas resources
- Eliminates T&D line losses for load served

## ■ **Economic Development**

- Lower cost for new electricity than new central generation and T&D
- **Improved energy cost predictability**
- No ratepayer investment required (generation or T&D)
- Creates local jobs for installation, operation and maintenance
- Creates new high-tech manufacturing sector, domestic and export
- Supports competitive electricity market structure

## ■ **Environmental Stewardship**

- Reduced emissions per unit of useful output
- Reduces land-use impacts and NIMBY objections
- Reduces fresh water use



# Pilot Program Objectives

We ask that Mid-Atlantic state utility commissions mandate a series of pilot programs to:

- Demonstrate the value of CHP as a distributed resource under current grid conditions
- Obtain the data needed to quantify the value of public DR benefits that typically are not considered – e.g., reliability enhancement
- Develop a process for improved targeting of CHP and other “lumpy” DR technologies
- Determine what share of the public benefits provided by CHP must/should be paid to users to maximize ratepayer benefits

# Pilot Program Structure

- State utility commissions mandate participation
- Steering committees established to define details for each state and oversee programs.
- Three major issues to resolved:
  - Program Goals/Targets
  - Incentives to be Provided
  - Implementation Approach

# CHP Pilot Program – Goals/Targets

## ■ Capacity to be achieved

- Propose allocating 15-25% of the DR pilot program total to the CHP program (or 0.5 – 0.8% of peak with 3% DR total)

## ■ Establish additional screening criteria, e.g.:

- Type of system/fuel – priority for RPS Tier I or II fuels
- Application – priority to applications that can be replicated easily such as: small industrial site, hospital, campus or city CHP system, hotel, chain restaurant, laundries
- Size – limit to under 10MW; at least 1 under 500kW in each area
- Location – focus on constrained or rapidly growing zones



# CHP Pilot Program – Incentives

- We recommend that commissions consider the following options to increase participation:
  - Capacity payment (to ensure project can be financed)
    - Base on CT carrying cost – \$75/kw-yr
    - Pay for 10 year period
  - Energy payment (performance provision)
    - Paid for kWh generated during critical peak periods (i.e., when LMP exceeds a preset threshold)
  - Waive standby charges
  - Mandate expedited processing of interconnection application per MADRI recommended procedure
- Incentive payments would be administered by UDCs and recovered from all ratepayers



# Pilot Program – Implementation Approach

The 3 basic implementation options are:

- Include CHP in the RPS requirements
  - Assigns responsibility to ESPs
  - Requires action by Legislatures
- Competitively select a provider
  - UDCs, ESPs, and other 3<sup>rd</sup> parties would be eligible
  - Rely on UDC to administer program
- Direct UDCs to implement pilots – a firm UDC commitment is required for this approach to be viable

# Proposed Approach

1. Form committee to develop more detailed plan and structure for pilot.
  - Approach
  - Mechanism for identifying target areas/needs
  - Selecting provider to implement program
2. Direct participating utility distribution companies to identify locations where installing CHP would alleviate the need for T&D system expansion or upgrades.
3. Obtain commitment to implement the program from UDC or select a 3rd party provider to implement program.

# Proposed Approach ...

4. Determine number/kW of systems to be installed and identify target applications.
  - Capacity targets
  - Additional screening criteria
5. Develop structure & levels for payments to users.
  - Capacity payments ■
  - Energy payments
  - Waive stand-by charges
  - Expedited IC application processing
6. Recruit participants and install systems
7. Monitor participating systems & issue period reports