2012 IRP
Stake Holder Meetings

DEMAND SIDE MANAGEMENT
Sub-Committee

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

What We Hope To Cover Today

* **DSM Scope and Plan for the IRP**
  - Rick Rodrigue - DEEP
* **The CT Energy Efficiency Fund**
  - Jeff Schlegel - Consultant to EEB
* **Residential Energy Efficiency**
  - Peter Callan - Lantern Energy (HES provider)
* **Energy Saving Performance Contracts**
  - Chris Halpin - Celtic Energy

What I Will Cover

* **Why do an Integrated Resource Plan ?**
  - Legislative requirement

* **What exactly is DSM ?**
  - Energy Efficiency
  - Load Management
  - Distributed Generation
  - Demand Response

* **How does DSM fit into the 2012 IRP process ?**

* **What we are going to analyze for DSM**

DSM Scope and Plan for the IRP

1. Establish the 1st EE resource strategy: “EE Base Case”
2. Identify “All Cost-Effective (ACE) EE” based on the potential study
3. Based on ACE EE and the policy objectives, establish the 2nd EE resource strategy: “Expanded EE Case”
4. Quantify the impacts of the Expanded EE Case
5. Examine alternative policy approaches to achieve the savings from the Expanded EE Case

1. Develop Energy Efficiency (EE) Base Case

- Connecticut
  - Premise is continuation of current funding of utility programs
  - Quantify associated MWh and MW savings, costs (Base Case EE)
  - Compare to historical costs and savings
  - Do not include new approaches to promoting energy efficiency
- Rest of New England (a static variable in our study, but it could affect the load forecast)
  - Identify plans and committed funding; quantify committed savings
  - Compare to historical savings
- Work with Resource Adequacy sub-team to determine adjustments to the load forecast, if any
  - Intend to use CELT gross forecast for peak (treating EE as ODRs on the supply side) and net forecast for hourly energy modeling
  - Determine whether the EE accounted for in CELT (explicitly as ODRs and implicitly from regression results) is generally consistent with our Base EE forecast
  - If not, adjust load forecast accordingly

2. Describe “All-Cost-Effective” EE

- Quantify and characterize the potential, based on the 2009 Potential Study
  - The changes in the economic factors change the level of EE that is cost-effective.
  - KEMA will update the “avoided costs” in the potential study to reflect today’s market conditions.
- Identify whether some aspects of the Potential Study are too outdated to be useful or need to be adjusted
- Identify barriers to achieving all cost-effective EE

3. Develop "Expanded EE" Strategies

- Define policy objectives
  - Aim to achieve all cost-effective EE
    - Recognize and addressing barriers
    - Consider impacts on non-participants
  - Become ACEEE's #1 ranked state
  - Develop/maintain sustainable EE delivery infrastructure
- Define expanded levels of EE consistent with policy objectives
  - Achieve load reductions of 2 percent relative to each year's forecast (i.e., 2% below prior year weather-normalized actual plus a growth rate assuming zero new EE);
  - Alternatively, achieve 2.7 percent; may modify based on findings about the amount of "all cost-effective EE"
- Policy approaches for achieving Expanded EE discussed in later slide

4. Quantify the Impacts of Expanded EE Case

- Energy (GWh) and capacity (MW) savings
- Total resource cost, and avoided energy and capacity costs
- Rate impacts
  - Low case, assuming no reliance on utility programs w/ incentives
  - Medium case, assuming partial reliance on utility programs w/ incentives
  - High case, assuming full reliance on utility programs w/ incentives
- Effects on each customer group
  - Differentiate participant vs. non-participant impacts
  - Account for the fact that “non-participants” can be participants in other years or other programs in the entire EE portfolio
- Emissions impacts
- Impacts on jobs and economic competitiveness

5. Examine Alternative Policy Approaches to Achieve Target Savings

- Assess, at least qualitatively, the applicability, likely effectiveness, and relative rate impacts of alternative policy approaches (some approaches involve participants self-funding more than others)
  - Low-cost, on-bill financing through the green bank
  - Expanded utility programs, including rebates
  - Explore sustainable energy efficiency business models, i.e. shared savings, bonus ROE, etc.
  - Rate structures: capitalize vs. expense program costs; inclining block rates
  - Codes and standards
  - Address inter-fuel switching issues, if relevant