

# **BPA Commercial & Industrial Demand Response Pilot Projects**

## **Brownbag Session**

June 10, 2010

*Presenters:*

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# C&I Demand Response Pilot Projects

## Meeting Agenda

- Background
- Project Objectives
- Pilot Approach
- Next steps



# Background: Why is BPA interested in DR?

- Hydropower system has met needs for years, but has increasing demands on system
  - Want to keep the system
    - Reliable
    - Flexible
    - Cost-effective (i.e. low rates)
- Why now?
  - Better to pilot strategies before capacity issues become critical
  - The 6<sup>th</sup> Power Plan stresses need for BPA to engage pilots; It's possible that the 7<sup>th</sup> Power Plan may have DR targets
  - There are many unknowns needing research regarding how to develop DR as a resource in BPA's control area



# Background: What to expect this summer

- Beginning in June:
  - Draft Project Implementation Plan
  - Stakeholder meetings
  
- Want to learn utility insights/perspectives on DR
  - Integrating renewables
  - Shifting load into night time hours
  - Handling winter/summer peaks or grid disruptions
  - Integrating DR and energy efficiency programs
  - Using DR respond to Tiered Rates



**TRM**



# Background: Utility involvement is key

- Core elements of DR
  - Voluntary change from normal consumption patterns
  - By end-use customers
  - In response to utility or power system needs
  
- What are the local needs/operational considerations?
  - What capacity constraints and/or other DR-related issues are priorities to address at your utility?
  - There are many DR strategies that can be employed
    - Which ones are non-starters in your service territory?
    - Which ones have best potential?
  - What end-users may be viable partners?
    - What needs/considerations are important to them?



# Pilot: Goals and Objectives

- Test DR strategies that provide value to BPA, customer utilities, and end users
- Successfully execute pilot projects with engaged partners
- Increase BPA's understanding about utility needs & considerations in regard to DR
- Share findings with customer utilities and other stakeholders



# Pilot: Overall Approach

- Base Foundation
  - Open framework – not wedded to a single vendor
  - Emphasis on automation, when/where possible
  
- Flexible Options
  - Fast response times 
  - Direct load control 
  - Price-based programs 
  
- Combine the Options to address different situations

# Example Pilot Approach

- Utility wants to Integrate Wind at a Cold Storage Facility



- Wind shifts quickly: Use Fast DR



- Facility has flexibility in maintaining temperature: Use off-peak load building for thermal storage, shifting some load to 12 – 4 AM



- End-use customer responds well to incentives: Use Price-based incentives to encourage participation

- This is just one example. There are literally hundreds of configurations depending on your needs.



# Next Steps: Stakeholder Meetings

- Draft Implementation Plan to be posted online soon after the first stakeholder meeting (in Portland)
- Stakeholder Meetings
  - **Portland: June 23, 10 AM – noon**
    - 625 SW Stark Ave, Suite 300, Portland 97204
  - **Seattle: July 20, 10 AM – noon**
    - 901 5th Ave, 5<sup>th</sup> Floor, Seattle, 98164
  - **Spokane: August 10, 10 AM – noon**
    - 10110 W. Hallett Rd., Training Room, Spokane, 99224
  - *FYI: GoToMeeting will be available for remote participation at all three meetings*
- Formal Q&A on proposal process
  - August, TBD



# Next Steps: Proposal Development

- Support will be available from Global
  - Provide technical assistance
  - Provide insights on choosing optimum scenario
  - Assist in forming proposal
  
- Dates:
  - Proposals due to BPA by Sept 30
  - Selection to be complete by late October
  - Pilot implementation will run from Oct. 2010 to Aug. 2012



# Next Steps: Evaluation Process

- Selection Criteria and Proposal Requirements will be clearly stated in the Project Implementation Plan
  - Selection of pilots will be carried out by BPA's DR Team
    - Global will not participate in selection due to conflict of interest stemming from proposal support efforts
  - Key elements
    - Evidence of utility management and board involvement
    - Customer end-use involvement
    - Rational pilot design and budget
- Based on utility input, BPA will revise and finalize selection criteria in a timely manner



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