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April 1, 2010

## MEMORANDUM

**TO:** Power Committee

**FROM:** Ken Corum

**SUBJECT:** Update of demand response in the region

Although the Sixth Power Plan does not include specific demand response targets, the Action Plan includes direction to monitor progress in the region and elsewhere, evaluate new technologies and applications of demand response, and advocate the inclusion of demand response capability in new appliance efficiency standards. As part of the effort to monitor regional progress, staff is making an inventory of demand response actions and programs around the region. In this presentation to the Power Committee, staff will summarize progress in achieving demand response and planned pilot projects by utilities in the region.

The presentation will not cover demand response components of the Smart Grid demonstration project, which will be covered in the presentation to the whole Council by Battelle and Bonneville.



# Update on Demand Response

Power Committee

Boise ID

April 13, 2010

# What's in the Sixth Plan?

- DR close to efficient frontier, not on it.
- Action Plan included
  - monitoring
  - evaluation of programs and potential
  - advocate DR in appliance standards
  - better modeling of DR

# Milton-Freewater

- Long-time program (since 1985) controlling AC and water heating
- Participant in Smart Grid Demo

# PacifiCorp - 2009

- Utah
  - 156 MW peak reduction in AC and IRR (102 in 2007)
- Idaho
  - 285 MW peak reduction in IRR (50 in 2007)
- Negotiating on aggregator to get DR from commercial and industrial sectors in WA and OR

# Idaho Power - 2009

- 218 MW (up from 61 in 2008)
- New IRP has goal of 367 MW by 2012  
(Old goal 267 by 2013)

# Seattle City Light

- Finished pilot project with Lawrence Berkeley National Lab, BPA
  - Commercial buildings
  - Automated response (“Auto-DR”)
- Proposing pilot to increase and decrease water heaters to balance wind
- Participant in SG demo

# Puget Sound Energy

## ➤ Residential Pilot

- 520 participants
- Space heating, AC, water heating
- 2 years' experience by 2011

## ➤ Commercial Pilot

- 25 C&I customers
- Administered by aggregator (EnerNOC)
- 2 years' experience (1 finished already)



# Bonneville

- Auto-DR pilot with SCL, LBNL completed
- Smart Grid demo project will include several utilities w/ DR
- RFP for residential DR pilot
- RFP for commercial DR pilot

# Portland General Electric

- Commercial Pilot program
  - 1.5 MW
  - 2 trial exercises
- Dispatchable Standby Generators
  - Continued acquisition, ~ 15 MW per year
- Participant in SG demo

# DR as Balancing Resource Pilot Programs

- Seattle City Light
- Possible proposals for BPA's "Innovation and Technology" grants

# Pacific Northwest Demand Response Project

- Restarting PNDPRP April 27
- Reconsider priorities
  - Coordination of multiple pilots to maximize useful information
  - Quantify potential
  - DR as ancillary services/renewable integration resource
  - Delivery (utility vs aggregators)
  - Pricing