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September 4, 2008

## MEMORANDUM

**TO:** Power Committee

**FROM:** Ken Corum

**SUBJECT:** Cost effectiveness workgroup of the PNW Demand Response Project - meeting September 12, 2008

The Council first took up demand response in its 5<sup>th</sup> Power Plan and has since been working with interested parties both in our region and elsewhere to better understand the place this resource has in the region's power planning. A group of participants from the region has been meeting since July of last year, working to agree on how to evaluate demand response programs for their cost effectiveness. The workgroup will meet again on September 12 at the Council central office with the discussion set to primarily focus on proposed guidelines for evaluating cost effectiveness. We hope to reach agreement on a set of guidelines that the group can recommend to utilities and regulators to help them move ahead in the development of demand response. The agenda for the meeting is attached.

Because of the workgroup meeting's proximity to the Council meeting, I will not be able to get you anything before the Power Committee meeting on the 16<sup>th</sup>. I will report the group's progress and where we hope to go next.

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**Pacific Northwest Demand Response Project  
Cost-Effectiveness Subgroup Meeting  
September 12, 2008  
Northwest Power and Conservation Council  
851 S.W. Sixth Avenue, Suite 1100, Portland Oregon**

**Agenda**

**9:00** Introductions and Welcoming Remarks, Overview of PNDRP (Ken Corum, Rich Sedano)

**9:15** Review and Discussion of Cost-Effectiveness Guidelines (Chuck Goldman, Lawrence Berkeley National Laboratory)

Read Ahead: **Guidelines for Cost-effectiveness Valuation Framework for Demand Response Resources in the Pacific Northwest with Appendix**

10:30 Break

**10:45** Cost effectiveness, cont'd

12:00 Lunch (on your own)

**1:00** Ancillary Services and Demand Response (Melanie Gillette, EnerNOC)

**1:30** Review and Discussion of Council Planning Concept Paper Associating Portfolio Analysis with a Cost-Effectiveness Frontier

Read ahead: **Translating Portfolio Analysis of Power System Planning into a Cost Effectiveness Limit for Demand Response with powerpoint file**

**2:30** Break

**2:45** Next Steps for Cost effectiveness and Planning and update of other PNDRP topics

4:00 Adjourn



# PNW Demand Response Group Progress

Power Committee, September 16, 2008  
Astoria OR  
Ken Corum

## Background

- Started process May 2007
- Regional process to encourage demand response
- Primary clients:
  - State utility commissions
  - BPA
  - Representative publics
- Financial support from US Dept of Energy, consultants from Lawrence Berkeley Lab, Regulatory Assistance Project



## Focus

- Cost effectiveness
- Pricing incentives, structures
- DR in transmission and distribution planning

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## September 12 meeting

- Proposed cost effectiveness guidelines
- Experience of DR in eastern ISO markets
- Translation of Council portfolio model results to cost effectiveness frontier

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## Cost Effectiveness - 1

- Costs avoided by DR:
  - Capacity cost
  - Energy
  - T&D
  - Environmental costs
- Costs of DR:
  - Administrative
  - Incentives to participants

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## Cost Effectiveness - 2

- Avoided capacity costs up to 95% of total
- Energy savings generally small, can be positive or negative
- T&D savings depend on specific site
- Environmental savings follow energy, generally small positive or negative

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## Cost Effectiveness - 3

- Costs of DR:
  - Administrative
  - Incentive payments
    - For voluntary participants, incentives at least cover their costs (discomfort, foregone production, etc.)

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## Product of Cost Effectiveness Workgroup

- Guidelines agreed to w/ minor edits
- Intended for “screening” – identify promising programs, focus attention on areas needing further examination
- Commissions, utilities can start evaluation of proposed programs from common point
- Council endorsement (in 6<sup>th</sup> Plan, or?) would add credibility

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## DR in Eastern ISOs

- PJM, New England ISO, ERCOT have significant DR participating in markets to provide emergency capacity, energy, spinning reserves
- w/o formal market here, utilities need to make equivalent arrangements
- PGE Request for Proposals, BPA Request for Information

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## Translation of Portfolio Results to Cost Effectiveness Frontier

- Council staff work interpreting portfolio analysis for cost effectiveness
- Workgroup appreciated approach, questioned numbers
- Provided suggestions for further work

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## Next Steps

- Price Structures
- DR in wind integration