W. Bill Booth Chair Idaho

James A. Yost Idaho

Tom Karier Washington

Dick Wallace Washington



Bruce A. Measure Vice-Chair Montana

Rhonda Whiting Montana

Melinda S. Eden Oregon

Joan M. Dukes Oregon

November 6, 2008

#### **MEMORANDUM**

**TO:** Council Members

**FROM:** Terry Morlan

Director, Power Planning

**SUBJECT:** Report on Status and Issues for the Sixth Power Plan

Chair Booth requested that the Council receive a briefing on the status of the Sixth Power Plan development and some of the important issues involved.

The power staff has been working intensively over the past year to develop the information and refine the analytical tools needed to develop a new power plan. Unlike the Fish and Wildlife Program, the Council does not solicit recommendations for the power plan. Instead the Council is expected to have the expertise to develop the power plan through an analytical process. Public involvement is important, both through public review and comment and working with scientific advisory committees.

I will discuss our schedule, what analysis we have completed so far, major issues identified for the plan, the general structure of the analysis and the document, and some of the important choices that will need to be made in the power plan. Many of you have already received a briefing on the planning process. In addition, the Council has had nearly 20 presentations on topics related to the power plan over the past year. I will try not to repeat these earlier presentations, although there is likely to be some overlap. The analysis is quite complicated and some repetition may be helpful.

I have attached a PowerPoint presentation that I will use for the presentation. I look forward to working with all Council members in developing the Sixth Power Plan. During the process, please feel free to call or email, and ask questions. Let me know if there are ways that we can better communicate with you to be sure that Council members can effectively participate in the plan's development and guide its conclusions and recommendations.

Attachments

503-222-5161 800-452-5161 Fax: 503-820-2370 q:\tm\council mtgs\2008\nov 08\(c-7) power plan status and issues cm.doc

# Developing the Sixth Northwest Power and Conservation Plan: An Introduction

Council Meeting November 18-19, 2008 Coeur d'Alene, ID



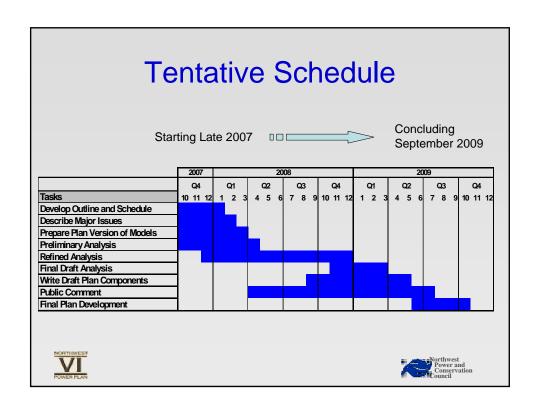


#### Power Planning Process Different Than Fish and Wildlife Program

- Council does not solicit recommendations for the Power Plan
  - Therefore no deference requirements to recommendations of other organizations
- Plan is based on Council's own analysis and recommendations
- Plan development does include substantial public involvement and "scientific and statistical advisory committees".







#### What Is a Power Plan?

- A Resource Plan: The lowest cost/risk mix of efficiency and generating alternatives to meet regional demand growth
- An Action Plan: Actions that need to be taken by various entities in order to achieve the resource plan
- Technical Data: Detailed information on resource characteristics and costs, demand forecasts, fuel prices, and other inputs and assumptions





#### Required elements, 4(e)

- 4(e)(1) resource priorities
- 4(e)(2) implementation plan
- 4(e)(3) required elements
  - (A) conservation program and model conservation standards
  - (B) R&D recommendations
  - (C) method for quantifying environmental costs and benefits
  - (D) 20-year forecast of demand and resources
  - (E) reliability and adequacy requirements
  - (F) Fish and wildlife program





#### What have we already done?

- Issues for the Sixth Power Plan paper
- Developed new demand forecasting models
- · Updated and enhanced integrating models
- Ongoing investigations of generation and efficiency opportunities and costs
- · Refining measures of adequacy
- · Formed scientific advisory committees
- Developed preliminary assumptions for fuel prices, economic growth, financial assumptions, etc.





## Some Big Changes from Last Power Plan

- Fuel prices expected to be higher
- Climate change policies restrict resource choices, increase uncertainty and risk
- Planning for annual energy needs no longer enough; need to address seasonal, daily, hourly, and within hour loads
- Increasing importance of transmission system operation and capability





#### Major Issues

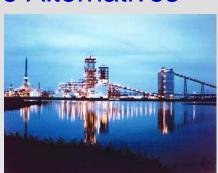
- Climate change regulations and related policies
- · Planning for meeting hourly and daily load
- Expanding resource choices
  - Intermittent, demand response, storage, CCS, smart meters, traded credits, etc.
- Transmission constraints
  - Impact on resource choice, cost, and adequacy
- Appropriate measures of avoided costs
- · Integration with fish and wildlife program





#### **Resource Alternatives**

- Fossil fuel based power
- Renewable power
- Nuclear power
- Hydro power
- Brain power







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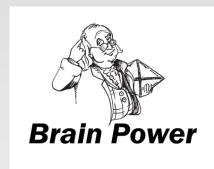






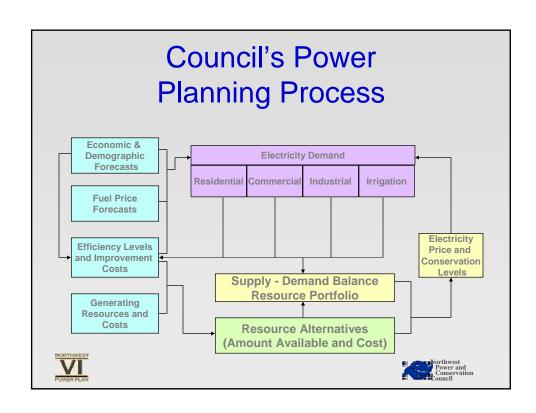
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#### **Key Uncertainties**

- Climate policies and carbon costs
- Natural gas, coal, and electricity prices
- Regional economic and electricity demand growth
- Generating resource and conservation availability and cost
- Hydroelectric conditions





#### **Key Planning Outcomes**

- Council recommendations for conservation and generating resource acquisition (resource portfolio)
- How much insurance should power system buy to reduce risk?
- What actions are needed to implement the Power Plan?
- Bonneville role in power system and conservation acquisition?
- Climate change policies: effects and recommendations





#### Power Plan: Five Levels of Detail

- Press release
- Letter to region (2 pages)
- Executive Summary (30-40 pages)
- Main Body of Plan (100+ pages)
- Appendices (many pages)





#### **Executive Summary**

 Focused on findings, recommendations, and major implementation actions





#### Implementation Plan

- Description of actions needed in region to implement the Plan (20-25 pages)
  - Includes Council actions and recommendations for others in the region
    - Bonneville
    - Utilities
    - State and local government
    - Others





#### Main Body of Plan

- Description of analysis, findings, and recommendations
  - Introduction
  - Background
  - Assumptions and forecasts
  - Resource strategy
  - Climate change issues
  - Capacity and ancillary services
  - Implementation plan
  - Plus sections on Bonneville, adequacy standards, and possibly others





### **Appendices**

- Separate appendices providing details on forecasts, models, analysis, some required elements of the Plan
  - Economic forecasts
  - •Fuel prices
  - Demand forecast
  - •Electricity price forecast
  - Conservation assessment
  - Demand response
  - •Model conservation stds.

- •MCS cost effectiveness
- Smart grid potential
- •Generating resources
- •Climate change issues
- •Fish and Wildlife program
- Model descriptions
- •Others as needed



