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May 31, 2012

MEMORANDUM

TO: Power Committee Members

FROM: Charlie Grist

SUBJECT: Update on Sixth Plan Mid-term Assessment Analysis Plan

Regional stakeholders have been providing input on the Sixth Power Plan Mid-Term Assessment. A panel of stakeholders provided comments to the Power Committee at the April and May Council meetings. Power Committee members and Council staff have also engaged in informal discussions with stakeholders over the past several months regarding the Mid-Term Assessment.

The comments received to date cover a wide range of issues. Many stakeholders requested the Council consider or analyze as part of the Mid-Term Assessment, events that have transpired since the adoption of the Sixth Plan. Others expressed concern about some of the conclusions and analyses contained in the Sixth Plan in light of subsequent events, and have asked the Council to reconsider, or to update, the Sixth Plan as part of the Mid-Term Assessment. Many stakeholders also requested the Council perform technical analysis of new issues in preparation for the Mid-Term Assessment or, if not now, in preparation for the Seventh Power Plan. All the comments and discussions have been useful in informing the Committee and staff of the region's expectations for the Mid-Term Assessment.

At the June meeting, staff will update the Power Committee on the analytical tasks resulting from the stakeholder input. A summary of issues and proposed analysis is attached. The summary describes the analytical tasks which staff believes, based on the input received and on staff review, may best inform the Sixth Plan Mid-Term Assessment. The analysis will be undertaken by staff with the help of the Council's technical advisory committees. The results will serve as the foundation for the Mid-Term Assessment. A draft table of contents for the Mid-Term Assessment report is also attached for reference.

Attachments

Sixth Plan Mid-Term Assessment: Issues and Proposed Analysis

I. Introduction

Regional stakeholders have been providing input on the Sixth Power Plan Mid-Term Assessment. A panel of stakeholders provided comments to the Power Committee at the April and May Council. Power Committee members and Council staff have also engaged in informal discussions with stakeholders over the past several months regarding the Mid-Term Assessment.

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II. Potential Issues to Address or Consider in Mid-Term Assessment

The following summarizes some of the key issues the region's stakeholders have asked the Council to consider during the Mid-Term Assessment.

Events occurring since adoption of Sixth Plan

- Fuel costs
 - low natural gas prices and price forecasts
- Prices
 - low market prices for electricity
- Policies
 - plans to retire Centralia and Boardman coal-fired power plants;
 - California rules eliminating once-through cooling in thermal power plants;
 - no carbon tax
- Loads
 - low load growth and loss of load facing some utilities
- Resources
 - PNW installed generation and construction starts; reduction in solar PV costs
- Other conditions
 - economic slowdown; downturn in new residential and commercial building construction
- Rate pressure impacts utilities are facing

Conservation

- Impact of events occurring since adoption of the Sixth Plan on the Plan's conservation targets
- What is the Region's conservation progress during first 2.5 years of the Sixth Plan
- Cost of conservation acquisition to date as compared to Sixth Plan assumptions
- Expected pace of conservation acquisition going forward
- Amount of conservation achieved through codes and standards adopted since the Sixth Plan; whether recently-adopted codes and standards change the Sixth Plan's forecast of load growth
- Findings on availability of cost-effective conservation in utilities' Integrated Resource Plans versus the Sixth Plan
- Value of increasing the pace of conservation acquisition and the revenue impacts of conservation programs
- Bonneville's (and the utilities it serves) ability to meet or exceed their share of the Sixth Plan's conservation targets
- Impact of Sixth Plan's conservation targets and methodology on utilities having to comply with the Washington Energy Independence Act (I-937)

Resource Strategy

- Impact of events occurring since adoption of the Sixth Plan on the Plan's resource strategy
- What is the Sixth Plan's resource strategy? What does the Plan say about conservation and generation resource development in both the near term and the twenty-year outlook? What does the Plan say regarding Bonneville's resource acquisition?

Power Planning

- Does it make sense for the Council do develop its regional power plan every two-years instead of every five years?
- Is there a way to build more flexibility into the power planning process or the five-year Action Plan?

III. Analysis Proposed for Mid-Term Review

The following describes the analytical tasks which staff believes, based on the input received and on staff review, may best inform the Sixth Plan Mid-Term Assessment. The analysis will be undertaken by staff with help from the Council's technical advisory committees. The results will serve as the foundation for the Mid-Term Assessment.

A. Staff proposes to undertake the following analysis to assess the impacts of changes occurring since the Sixth Plan's adoption.

1. Update load forecasts
2. Review recent actual energy, capacity trends and economic trends
3. Update historic unit energy trends charts
4. Identify new generation added or beginning construction since the Sixth Plan
5. Investigate changes in carbon policy since adoption of the Sixth Plan

6. Investigate potential impacts of the new California once-through cooling regulations and consider any impacts on adequacy and on market price
7. Update Aurora runs to forecast market prices with revised inputs for the factors that have changed significantly such as natural gas price, CO2, new generation added.
8. Analyze resource deployment from the Sixth Plan under futures with conditions similar to today
9. Investigate changes in solar PV cost and prognosis for future costs to determine at what price point solar becomes competitive with wind for meeting RPS requirements

B. Staff proposes to undertake the following conservation-related analysis in preparation for the Mid-Term assessment:

1. Regional Conservation Report (RCP) data collection and analysis covering 2010 and 2011 conservation acquisition
2. Estimate the levelized cost of conservation acquired in 2010-2011 and compare to cost expectations in the Sixth Plan
3. Identify any major conservation initiatives that have exceeded or fallen short of Sixth Plan expectations
4. Examine utilities', BPA's, and NEEA's plans for conservation acquisitions going forward to determine the prognosis for achieving Sixth Plan's targets
5. Estimate the impact of federal standards and state building codes adopted since the Sixth Plan on Sixth Plan projections
6. Estimate the impacts of the economic downturn on expectations for lost-opportunity conservation in new homes, buildings and appliances. Compare Sixth plan expectations for new construction to 2010 and 2011 actual construction
7. Identify the range of conservation acquisitions modeled in the Sixth Plan under a variety of conditions that influence acquisition rates and costs. Compare plan estimates of conservation acquisition rates and costs under low and high gas price futures. Investigate other influential factors such as the cost-effectiveness threshold, no CO2 cost, and a higher annual limit on discretionary conservation. How do Sixth Plan estimates of both lost-opportunity and non lost-opportunity conservation change under different conditions? Compare acquisition rates and estimated costs to reported conservation in 2010-2011
8. Investigate the revenue impacts of by developing a business case analysis for conservation. Examine the economic costs and the benefits of conservation expenditures during times of low market prices. Determine impacts on revenue requirements under a variety of perspectives: the Regional perspective, BPA perspectives including Tier 1, Tier 2, Slice/Block customers, and surplus versus deficit utility perspective
9. Examine the reasons why individual utility conservation plans are finding different results for conservation cost and availability
10. Explore issues in the relationship between the Sixth Power Plan and implementation of the Washington Energy Independence Act (I-937).

Draft Table of Contents for Sixth Plan Mid-Term Assessment

Draft of May 29, 2012

Introduction

- Major Findings of the Sixth Power Plan
- Summary of the Resource Strategy in the Sixth Power Plan
- Summary of Major Developments since Adoption of the Sixth Power Plan
- Purpose of the Biennial Monitoring Report
- Summary of Status of Action Plan
- Setting Foundations for Major Issues in the Seventh Plan

Assessment of the Sixth Power Plan (Comparison of 2010-2011 to Plan Assumptions)

- Key Assumptions
- Demand Forecast
- Fuel Prices
- Electricity Prices
- Resource Costs (both Generation and Conservation)
- Load - Resource Balance
- Utility IRPs
- Regional Adequacy Standards

Policy Developments

- Direct Use of Natural Gas
- Transmission
- Climate Change
- Renewable Portfolio Standards
- Excess Generation
- Capacity and Flexibility Resources
- Joint Optimization of Electric and Gas Systems
- Bonneville Obligation
- Federal and State Energy Policy Developments

Status of Action Plan Implementation

- Conservation
- Demand Response
- Generating Resources
- Future Role of Bonneville
- Ensuring Adequacy
- Demand Response
- Smart Grid

Transmission
Fish and Power
Monitoring Plan Implementation
Maintaining and Enhancing Council's Analytical Capability

Implications for Long-Term Plan and Action Plan

Likely Effects of Major Changes on the Plan
Issues for the Next Power Plan
Timing of the Next Power Plan and Interim Conservation Targets for 2015

Appendices

Action Plan Status
Key Assumptions
Electricity Demand (impact of Federal and State standards)
Fuel Prices
Electric Prices
Resource Portfolio Assumptions (wind)
Other Generating Technologies Assumptions
Summary of Regional Conservation Progress (RCP) Report
Energy Efficiency (impact of standards)
Business Case for Energy Efficiency
Demand Response (Smart Grid)
Utility Integrated Resource Plans
Resource Adequacy Standards
Bonneville Role
Transmission Issues
Environmental issues
Climate Change
Federal and State Energy Policy