

**Bill Bradbury**  
Chair  
Oregon

**Henry Lorenzen**  
Oregon

**W. Bill Booth**  
Idaho

**James A. Yost**  
Idaho



**Bruce A. Measure**  
Vice-Chair  
Montana

**Pat Smith**  
Montana

**Tom Karier**  
Washington

**Phil Rockefeller**  
Washington

February 5, 2013

## MEMORANDUM

**TO:** Council Members

**FROM:** Charlie Black, Power Planning Division Director

**SUBJECT:** Review of Comments on Mid-Term Assessment Draft Report

As you know, the Sixth Northwest Power Plan Mid-Term Assessment draft report was issued for public comment on December 20, 2012 (see: <http://www.nwcouncil.org/library/2012/2012-13.pdf>). Public comments were taken at the Council meeting on January 16, 2013. In addition, as of the end of last week 10 parties had submitted written comments on the draft report (see: <http://www.nwcouncil.org/energy/powerplan/6/midterm.htm>)

Overall, the majority of the comments are quite favorable. In particular, we have received strong support for the Council's active outreach and engagement during the Mid-Term Assessment process.

The written comments include over 33 pages of specific feedback, including many constructive and useful suggestions. A number of the comments provide suggestions related to topics and process for development of the Council's upcoming Seventh Northwest Power Plan. In addition, commenters made quite a few suggestions for clarification and strengthening of points made in the draft report.

At the Council meeting on Wednesday, February 13, 2013, I will summarize the comments received and identify how they will be incorporated in further revisions to the Mid-Term Assessment report. After the revisions are completed, a proposed final report will be submitted for adoption by the Council at its meeting in March.

Enclosure: Summary of Written Comments on Mid-Term Assessment draft report

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Summary of Comments Received  
on the Draft Mid-Term Assessment

**Bonneville Power Administration**

Bonneville appreciates the hard work of the members and staff in producing the report and offers the following:

General comments:

- It is worth monitoring developing energy issues in California (renewable energy policies, cap and trade, RPS requirement) in developing the Seventh Power Plan.
- California may develop large amounts of solar power; if so, its generation profile will affect the wholesale power market and resource adequacy.
- It is important how, and whether, California replaces lost generation as the result of its once-through cooling rule. We're not convinced "a majority of the retiring capacity is being replaced," as the report states.
- Continue your leadership on the issue of flexibility adequacy; account for the work of the Northwest Power Pool Market Assessment and Coordination Initiative.
- In developing the Seventh Plan, continue regional discussions on power and transmission planning and convergence of the power and natural gas systems.
- Expand Figure 6 (Levelized Cost of Natural Gas Combined Cycle Combustion Turbine, Page 29) to compare the costs of all resources, including energy efficiency and renewables and provide perspectives or observations on any changes from the Sixth Plan.

Energy efficiency and demand response

- We agree that changing paradigms for energy efficiency, such as utilities with little or no load growth being required to invest in efficiency, should be addressed in the next plan.
- In developing the next plan, the Council should try to reconcile its efficiency targets as they apply to I-937 utilities in Washington with the targets the utilities set under I-937.
- We would like further discussion with the Council on the cost-effectiveness of energy efficiency measures, which is not explained much in the report.

- The statement that utilities face price signals under tiered rates that reduce short-term economic incentives to acquire efficiency is too strong. If some measures are less expensive than Tier 1, there is an economic incentive to acquire them.
- The paper should mention the regional work group formed to address the challenges faced by small and rural utilities in acquiring energy efficiency.
- As it relates to regional energy efficiency programs and goals, the need for emerging technologies should be emphasized as a major conclusion. We propose adding something like the following to the conclusions section:
 

*Due to economic conditions, the region has focused on retrofit savings to compensate for diminished opportunities in new construction and appliance and equipment replacements. Despite this shift, the costs to acquire efficiency have remained very low. Progress made on federal appliance efficiency standards and state building codes will significantly reduce future load growth. As a result, continued focus on emerging technologies will be increasingly important.*
- The appendix of the report suggests Bonneville’s energy efficiency budget is reduced in the latter years of the Sixth Plan. In fact, the budget was reallocated within the five-year span of the Sixth Plan, not reduced.

Renewable resources:

- This section would benefit from a more detailed summary of key issues and detail about how the regional energy landscape has changed.
- The summary of renewables also could identify issues around regional resource planning that likely will be different than in the past.
- Provide more detail about the problems and issues identified in this section (i.e., the problems that solar and biomass will create for local distribution systems).
- The section on operating reserves could be reworked to be more declarative about what is being explored -- less hypothetical -- including acknowledgement that the long-term efficacy of each alternative still is being evaluated.
- End of first paragraph in Section C(2): It’s not that we “may be” approaching the limits of the hydropower system; in fact we *are* approaching its limits.
- Regarding the discussion about oversupply (Section C(3)):
  - ✓ Second paragraph: Oversupply is not necessarily limited to spring or light-load hours.
  - ✓ Don’t list all the OTOC recommendations, as some were determined to be not viable.
  - ✓ In Section C(4): The scope of future wind development is important as it relates to oversupply, but so is the rate of development (adding a lot in advance of load growth is a bigger challenge than if additions track loads).
- Add the highlighted language to the sentence at the end of the renewable resources section:

The region is likely to be dealing with the challenges of integrating renewable generation for some time to come **and will continue to need a thoughtful and coordinated response to the issue.**

### Other odds and ends

- Add the highlighted language to the situation scan on implementation of BPA’s tiered rates:  
For example, only 34 of BPA’s public utility customers are projected to exceed their Tier 1 allocation by 2015 **and the aggregate above-high-water-mark load is expected to be less than 1 percent of the total load of all Bonneville’s power customers.**
- Change the length of time tiered rates have been in effect to “less than two years.”
- Page 6: Regarding the diurnal shape of regional load, the paragraph needs more context (why will load increase during graveyard hours?)
- The report states that Snohomish PUD’s Youngs Creek project “is the first new hydropower plant to come on line in Washington in 20 years.” It’s not. Cowlitz Falls (70 MW) came online in 1994, and the Tieton Hydro Plant (13.8 MW) in 2006 (at an existing BOR dam).

### **Eugene (Oregon) Water and Electric Board**

From what we have seen and heard, the assessment appears to be a good snapshot of what is going on in the region. Our comments underscore points that are important to EWEB:

- Peak load reductions and load shifting are strategies integral to the region’s successful energy future, and we urge enhanced emphasis of these areas.
- We urge you to include a reminder that individual utility situations can vary greatly. Assumptions in the assessment are not universally applicable to resource planning at all utilities.
- It may be useful to address the divergent retail rate experiences in the region; wholesale prices are down, but some utilities are experiencing different retail rate directions based on whether they are long or short on resources.
- Clarify whether energy efficiency savings in the plan are goals, targets, or ranges of what is likely to occur.
- Due to soft wholesale power prices and flat load growth, it is important to consider what generation resources may be displaced from acquiring more energy efficiency. Spending money on energy efficiency when a utility is not in need of incremental resources has rate impacts that are difficult to rationalize to customers and elected officials and also can raise issues of inter-customer subsidization.
- EWEB supports the inclusion wherever possibly of adaptability to changing circumstances within a plan iteration. For example [at EWEB] the conservation target is a function of load growth. Including this type of flexibility in the methodology by which targets are determined allows the plan to be more meaningful as circumstances change.

### **Northwest Energy Coalition**

Diverse stakeholders throughout the region are praising the Draft Assessment contents and process. There seems to be general agreement that the Draft Assessment does an excellent job of reviewing progress on implementing the Sixth Plan as well as identifying key topics for further research and analysis in the Seventh Plan. This agreement among diverse stakeholders

is testament to the excellent rigorous and participatory work of the Council.

#### Summary of Recommendations for Seventh Plan Analysis

- Examine energy efficiency service infrastructure to better understand the dynamics between conservation acquisition and the energy efficiency industry to enhance the region's understanding about how to maximize energy efficiency resource acquisition.
- Conduct analysis to better understand how energy efficiency helps with peaking capacity and system flexibility needs.
- Expand research and understanding of variability in utility conditions to optimize functional implementation of the Council's regional goals.
- Consider how innovation in energy efficiency implementation and demand response measures can help address regional needs using clean energy and low-cost resources.
- Proceed with the research process to gain better data regarding the patterns of consumer electricity end use. This will help inform the energy-demand components of the Seventh Plan and also how energy efficiency could help meet these needs.
- Highlight the need to diversify renewable energy geographically and by resource type and include in a meaningful way the rapid technological progress being made in solar, geothermal and wave energy.
- Expand the Council's analysis of carbon risk to thoroughly examine the social costs of carbon and other environmental values from a broad state and federal policy perspective.
- Ensure that the Council's modeling and analysis adequately capture the inherent volatility in natural gas pricing.

#### Additional comments on particular topics in the assessment:

- In other parts of the country energy efficiency plays a critical role in meeting capacity demands, and the Council should examine that. Assigning zero capacity value to energy efficiency, as some utilities do, is similar to saying that the risk of future carbon regulation is zero.
- The Seventh Plan should address increased geographic diversity of renewable resources by type of resource, including the increasing potential for solar, geothermal, and wave energy and broader distribution of wind power.
- The Council must take broad and comprehensive consideration of emerging state and federal energy policies to sufficiently represent the likely social and environmental costs of future energy generation in the Northwest.
- The assessment correctly recognizes the importance of coordinating transmission and power planning, which is critical so that we do not end up with stranded clean-energy resources.
- The Council's current forecast captures future natural gas prices well given current conditions, but unexpected excursions are a fact of life in gas prices so fully capturing volatility is very important.
- The Coalition supports further refinement of the already strong Regional Portfolio Model, including disseminating its approach to utilities, regulators, and the public to show how dynamic modeling can more effectively address core drivers like the volatility of natural gas prices and diminish risk in resource decision-making.

## **Northwest Energy Efficiency Council**

The assessment is important work and the Council is to be congratulated for analyzing the region's accomplishments midway through the Sixth Plan. NEEC recommends:

- Add a discussion of the role and general economic health of the business community that manufactures, designs, installs, and operates the products and services that create energy efficiency.
- Analyze and offer observations on the interplay among renewable portfolio standard laws and the capacity and market motivations for utilities to acquire energy efficiency.
- Analyze the potential for new energy efficiency savings in building heating systems (“the thermal side of building end use”), as opportunities for lighting retrofits are nearly maximized.
- Provide more analysis of the energy efficiency cost-effectiveness determination. For example, does the current cost-effectiveness framework encourage near-term implementation of low-cost measures and discourage deeper building infrastructure investments?
- Analyze compliance with energy codes as they have become more stringent in recent years, including whether there is sufficient regional investment in supporting compliance and in understanding the market effect of increasingly stringent codes.
- Analyze whether building owners potentially delay or defer infrastructure improvements because of the high cost of code compliance coupled with reduced or eliminated utility financial incentives.
- The assessment does not call out a significant market trend for energy performance. Information about actual energy use would help substantiate the accomplishments cited in the assessment.

## **Pace, Charles, North Bonneville, WA**

- It would be unlawful for the Council to make *de facto* amendments in the Sixth Power Plan based on its final version of the Mid-term Assessment Report, or even to use the Mid-Term Assessment as a way of delimiting the range of amendments that might be considered.
- However, CONS-1 of the Sixth Plan's action plan calls for a mid-term review of regional progress for the purpose of considering adjustments to the regional conservation target ... (Mr. Pace here references other similar check-in opportunities in the conservation section of the Action Plan).
- As the Council is aware, virtually all of the so-called “expected values” underlying the Sixth Power Plan need to be modified (i.e., the anticipated economic recovery has not been “slower-than-anticipated”).
- It would be appropriate for the Council to make adjustments in the Action Plan's milestones, conservation, and energy-efficiency targets for the balance of the period covered by the Sixth Power Plan.

- The most serious deficiency in the Draft Mid-term Assessment Report is the Council’s failure to consider the likely impacts of Judge Redden’s August 2011 decision regarding the FCRPS Biological Opinion, in which he ordered the federal defendants to consider more aggressive actions including dam removal, additional flow augmentation, and reservoir modifications, but leaving in place until no later than January 1, 2014, certain spill operations.
- Section of Appendix M of the Sixth Plan should be revised and updated in order for the Draft Mid-term Assessment Report to provide an appropriate view of the major changes that have occurred in the legal status of the biological opinions for the FCRPS and the Council’s 2009 Fish and Wildlife Program, which assumed that the biological opinions would survive legal challenges, and the Sixth Power Plan, which, without further consideration, incorporated the program.

**Patterson, Craig, McKenzie Bridge, Oregon**

I am concerned about the goal in the plan to meet 85 percent of new demand with energy efficiency because:

- Modeled savings may or may not be verifiable.
- Modeled savings and paying for conservation on the front end misses the boat in regard to instilling an “ethic” of conservation.
- When the cost of electricity is kept low, the incentives to conserve are minimized. I believe a tiered rate structure that goes up geometrically would be the best incentive to really encourage conservation.
- I don't believe we have done a good job regarding holistic analysis of environmental consequences as they are reflected in our rate structures. If health consequences attributed to the burning of coal were captured in the KW charge [rates would be much higher]. These costs are paid, just not by the responsible party. ... true costs get passed on to future generations. A totally unacceptable reality and consequence, if we are concerned for our children's future.

**Pacific Northwest Utilities Conference Committee**

The draft Assessment does a good job of identifying significant changes in the power system since the Sixth Power Plan was adopted in 2010 and teeing up issues to be considered in the future -- particularly how electric power needs are changing and that utilities are focusing more planning efforts on meeting peak and flexible capacity needs.

PNUCC recommends the following to improve the assessment:

1. Add these items to ensure you provide a complete picture of the state of the Northwest power system:
  - A section on the Columbia River Treaty.
  - A discussion of why and how consumers’ electric power rates and bills have changed in recent years.

- More discussion about the role of natural gas for electricity generation, including FERC's interest in the topic.
2. Improve the assessment as a communication tool by:
    - Being sure it is readable, user-friendly, and free of excessive detail.
    - Being consistent with numbers (i.e., 2006 years throughout) and periods of time (two years or one year)
    - Regrouping some content (i.e., put all background from the past two years in Section II, the situation scan, and the narratives) rather than repeating it in subsequent sections.
  3. Add to the list of issues for future consideration:
    - Scope of the next plan, including what policies and statutes will drive it.
    - A closer examination of hourly shapes and peaks of load forecasts.
    - An investigation of technologies and planning choices that would ensure renewables contribute to the region's peak, dispatchable, and flexible-capacity needs, as well as providing energy
    - Implications of new, existing, and potential state and federal policies, such as the role of renewables with and without production tax credits.
    - Factors that drive utility acquisition decisions, including need, policy, risk, and cost.
    - An examination of different utilities' perspectives on conservation investments and economics.
    - An explanation of the Council's conclusions on conservation savings and whether they comprise a goal, target, recommendation, expectation, or a range of what is likely to occur.
    - A clarification of questions for future analysis; determine whether available tools are sufficient and if not, determine what is needed.

## **PNGC Power**

We thank the Council for leading a highly productive review process. We are very interested in the ways this important Mid-Term Assessment will lead to a more productive Seventh Power Plan. Specifically, we understand that the technical modeling, analysis, and review in the Seventh Plan will be conducted in a more transparent and collaborative format. We are very supportive of such an approach and anticipate it will result in a better Seventh Plan as a result.

- There are many factors beyond the control of an individual electric utility that impact its ability to capture conservation savings, including a stale economy, low natural gas prices, and inadequate program design for rural residential utilities. These and other associated factors should be examined in the Seventh Power Plan.
- The Council should avoid a bias toward renewable resource development statutes and policies that are driven by renewable portfolio standard statutes and draft energy plans in Oregon and Washington. Such goals and objectives may not be appropriate or even feasible for Idaho and Montana.
- The Council should closely examine policies that drive renewable resource development in the region and the impact these statutes and policies have today, and are likely to have in the future, on market price, system reliability, and the ability to provide capacity.



## **Public Power Council**

PPC appreciates the robust check-in the Council has undertaken for the Sixth Power Plan and is hopeful that this will begin a collaborative regional discussion around the Seventh Power Plan, allowing the Seventh to be the most useful power plan the region has seen to date. While the draft report is excellent, some questions and concerns remain:

- Follow through on the recommendations from the review of the Resource Portfolio Model.
- Bonneville did not reduce its capital budget for energy efficiency, as the Mid-Term Review claims. In fact, Bonneville shifted spending to the early years of the five-year planning period but still plans to provide funding to achieve its commitment of approximately 500 average megawatts. In preparation for the Seventh Power Plan, the Council should conduct a process for a full discussion surrounding the creation of the efficiency target range or goal.
- The Sixth Plan assumed a carbon tax of \$45 per ton, but it does not appear that will happen via federal or state legislation. The report acknowledges this, but does so offhandedly and without explanation of the effects that this assumption had on modeling and policy decisions in the Sixth Plan.
- We are concerned with similar carbon-tax assumptions unless the Council can better explain 1) the real magnitude of a carbon tax on utility power supply decisions and rates, and 2) the effect on other elements of the plan including the impacts on cost-effectiveness of energy efficiency or other resource decisions.
- Many utilities are experiencing flat loads. This affects their resource decisions differently than the growth the draft discusses would.
- The draft uses inconsistent time periods for reporting regional economic growth.
- Growth in the electricity sector is affected by improvements in energy efficiency as technology improves. A more robust discussion is needed in the Seventh Plan regarding how growth is defined. The discussion of growth is further muddled as it is confusing to calculate net electricity demand by subtracting energy efficiency gains from total regional demand, as is done in the draft.
- Continue to engage regional stakeholders. This will create stronger power plans and greater stakeholder buy-in of their principles.

## **Tacoma Power**

Tacoma Power wishes to express our gratitude for the open, inclusive process used to develop this assessment report. We are encouraged by this new-found spirit of collaboration -- it gives purpose to utility participation in Council activities. We are genuinely impressed with the breadth and depth of the assessment report. We have the following observations and suggestions:

- A diverse set of mandates and policies is driving up retail electricity rates, and these could impact utility operations in many ways. The Seventh Plan should include a discussion of the likely magnitude of retail rate changes over time and the impact on utility operations.

- The Council’s estimate of regionwide conservation potential has higher numbers for utilities than the utilities’ own estimates. The Council needs to undertake an effort to explain these differences.
- The assertion in the report that the levelized cost of utility-acquired conservation is \$18/MWh is misleading, as given the unexpected fall in actual and forecast wholesale electricity prices it is likely that some portion of conservation acquired in 2010 and 2011 would not be considered cost-effective today.
- The discussion comparing the cost of conservation to the levelized cost of a new combined-cycle turbine was not useful, as the comparison is only relevant for energy-constrained utilities. For utilities that acquire thermal resources for capacity needs, the cost of conservation should be compared to the variable cost of operating those resources. For utilities that are neither capacity nor energy constrained, the proper comparison is the wholesale market.
- The report omitted a discussion of a conservation risk premium. The Sixth Plan had an unusually high risk premium, and as a result the avoided cost against which conservation was assessed was much too high.
- The report also omitted discussion of conservation ramp rates. We question whether the ramp rates in the Sixth Plan accurately reflect the speed at which the public adopts conservation.
- We also question the assumption that all conservation measures top out at an 85-percent adoption rate. The assumption is based on the Hood River project, which was 30 years ago. We recommend that a sub-committee of the Regional Technical Forum review all ramp rate issues for the Seventh Plan.
- The report needs an assessment of the combined effect of the various forces that will affect utilities in the future, such as acquiring new resources for adequacy standards (Finding 6), the emerging need for peaking capacity and system flexibility resources (Finding 7), and declining load growth and wholesale market prices (Finding 3). For example, how will low wholesale prices affect decisions to acquire resources -- conservation versus thermal. The net effect of these regional forces should be addressed in the Seventh Plan.