Public Power Council
825 NE Multnomah, Suite 1225
Portland, OR 97232
503.595.9770
Fax 503.239.5959

Public Power Council
Comments to
The Northwest Power and Conservation Council

Regarding the Draft Sixth Northwest Power Plan

November 4, 2009

Thank you for the opportunity to comment on the Draft Sixth Northwest Power Plan. These comments are submitted on behalf of the Public Power Council, an organization of consumer-owned utilities located in all four states of the Pacific Northwest. Our members buy power from the Federal Columbia River Power System and are currently involved in deciding how to meet load growth under new contracts with the Bonneville Power Administration (BPA) beginning in 2011. For many of these utilities, choosing sources of power supply for the future is an unfamiliar challenge, so this draft plan by the Northwest Power and Conservation Council (Council) comes at the right time.

Summary

We would like to compliment the Council on conducting an open process. The Council members and staff made themselves available to our Executive Committee to answer questions and hear our concerns. They also welcomed our member representatives to speak at Council meetings and to be involved in technical discussions. We appreciate those opportunities and feel that more public participation results in a better Plan. We particularly felt that the early efforts of Council Members to work on the draft Plan were helpful in improving the usefulness and balance of the draft Plan.

From the beginning of the process of developing the Plan, one of our major goals was to encourage flexibility for utilities and BPA in acquiring resources. In the past, the resources needed by utilities were almost exclusively needed to produce energy. In the future, utilities will be much more concerned with resources that help integrate intermittent resources, follow peak loads, and provide ancillary services, as well as meeting Renewable Portfolio Standards and energy load growth. The draft Plan explicitly recognizes that utilities each face different needs in resource acquisition. This is a very important and appropriate aspect of the draft Plan.

In addition to the recognition of the need for flexibility in choosing resources, we approve of the use of a range of conservation levels to allow for the uncertainties of conservation availability. We also believe that the two-year review of conservation achievements will make the Plan more responsive to uncertainties in the marketplace. In spite of these clear improvements in the treatment of conservation, we still have concerns that the lower end of the target range is too high, since the targets include measures which are either not commercially available yet or may be unattainable because of the poor economy. Additionally, we are concerned that the details of how adjustments will be made to the targets after the two-year review are not clear in the draft Plan.

The draft Plan includes an appreciation for the benefits that the region enjoys thanks to the hydro system. Even more analysis of the economic benefits of the Snake River dams in particular would be helpful in the future.

In general we encourage additional future analysis in several areas and we endorse Action Plans toward this end. As an example of the expertise available across the region, and consistent with the Generating Resource action items in the plan, the Council should take note of new work being conducted by RW Beck under contract for the Washington PUD Association analyzing electric supply options for greenhouse gas emissions reduction.

With respect to the Council's plan, it would be helpful if the models used in arriving at a preferred resource plan were reviewed with an eye to increasing the emphasis on capacity, load following and resource integration. And, the modeling of rate impacts from resource decisions would benefit from further review and development.

Finally, PPC applauds the Council for its work over the past two years on quantifying carbon costs and the tradeoffs our region may face in this respect. The Council research on costs and availability of specific types of generating resources should prove to be very useful to the region in planning for the future.

Value of the Plan

The draft Plan fulfills its regional electric power planning purpose, providing guidance and information in meeting the future power needs of the region in a cost-effective and responsible manner. In general, the Plan appears to assess the region's needs in a reasonable way. As noted below, the draft Plan represents some very good work by the Council on many issues. Noteworthy is its appropriate recognition of the enormous value of the region's hydroelectric power system.

The Plan addresses region-wide resource needs, but individual utilities will face local conditions that require particular action. The Plan explicitly allows resource acquisitions that meet utility needs, even if those acquisitions differ from the general regional Plan. This type of flexibility is essential for utilities and BPA in order to meet load serving obligations. We strongly support this aspect of the Plan.

However, in the fish and wildlife arena, the Plan undervalues lost generation due to fish & wildlife actions. This is contrary to economic theory, and inconsistent with how the Plan values conservation. As described below, the Plan should be revised to accurately reflect the value of lost generation.

Conservation Targets

Public power utilities recognize that conservation is typically the lowest cost resource and generally believe it is the best way to meet growing loads. We appreciate the Council's recognition of the inherent uncertainty in the amount of conservation that can be accomplished in the next five years by providing a range of conservation savings instead of a specific target.

While PPC supports the use of a range of values, we are concerned that the bottom end of this range could be unattainable under many scenarios. Though the Plan's reliance on meeting load growth with conservation generally appears reasonable, the Council should note that measure readiness, market willingness to adopt, and economic difficulties for end-users and utilities have made short-term conservation increasingly difficult. Based on extensive analysis by utilities, BPA, and consulting firms presented to the Council's Conservation Resources Advisory Committee and the full Council (see BPA and utility presentations from May 15 and June 19 meetings, available at http://www.nwcouncil.org/energy/crac/Default.htm and the utility presentations from the June 11 NWPCC meeting, available at http://www.nwcouncil.org/news/2009/06/Default.asp), we continue to believe that the more appropriate lower boundary of the range should be no more than 1,000 aMW rather than 1,100 aMW.

In the analysis, 1,000 aMW was shown to be an aggressive regional conservation target. By comparison, the Council's target for the most recent five year period was set at 700 aMW. In light of economic conditions and concerns about preparedness and budgeting that the Council has heard from regional utilities (both public and investor-owned) we suggest the Council reevaluate its target range to account for this uncertainty. It is our view that 1,000 aMW still represents a very aggressive conservation program, but recognizes the uncertainty in the next five years. We suggest that, in consideration of new information, the Council should adopt a range of 1,000 aMW -- 1,400 aMW.

In further support of this request is the uncertainty that the Council's own staff has noted in its work on the Plan since the draft's release. During the brief period the plan has been out for regional comment, Council staff already has adjusted the number of measures that it believes are achievable for inclusion in the draft and has suggested an adjustment for the regional "cost-effective" value for conservation. With the assumptions used to build the regional conservation target already showing volatility, the Council and the region would be well served by accounting for the variability in estimates of achievable conservation and reducing the low end of the target range.

Fish and Wildlife Costs

The estimated cost of fish programs to rate-payers is underestimated in the draft Plan. Clearly, the value of lost generation is the market value, not the PF rate that the Council is currently using to estimate the costs of the fish and wildlife program. Using market values, BPA's cost for F&W is between 21% and 25% of its total power and transmission revenue requirement, not 20% as was stated in the draft Plan. Looking only at power costs, the fish and wildlife program is between 30% and 35% of BPA's PF rate. (pp. 6-15 and M-2) Just as it does in estimating fish and wildlife costs in its Annual Report to the Governors, the Council should work with BPA to ensure its analysis is using the proper rates comparisons and is in synch with BPA estimates and its own Annual Report. Use of the PF rate to value lost generation is also completely inconsistent with the method the Council uses to value conservation savings, which is to use a forecast of Mid-C market prices. Power lost through lost generation should be valued the same way conservation savings are valued.

Need for More Analytical Review and Clarity

The subjects addressed by the Plan are wide-ranging in scope, and therefore it is essential that the Council provide comprehensive documentation of the analysis used to develop the Plan's statements. For example, the Plan over-simplifies the cost of delivering new resources to loads, particularly when the resources are location-constrained. The Plan should detail the technical analysis used to estimate the cost of transmission to deliver resources so that the costs of the resources can be better evaluated and should make greater use of technical analysis regarding transmission constraints and inventory.

Additionally, in future Plans, the Council would be well-served to create greater clarity in the Resource Portfolio Modeling process. The complexity of the model has made its results difficult to interpret and verify. In future Plans, a more transparent model would enable the region to better understand and communicate the Council's analysis.

Lastly, the Appendices containing this documentation have received minimal consideration by the Council. Before being released as part of the final draft, these appendices must receive the same scrutiny by the Council as the policy analysis. In order for the policy conclusions to be valid, the analysis on which they are based must be valid. PPC recommends that the Council lead a rigorous review of these appendices on which its Plan is based.

The Hydro System

The benefits of the hydro system are rightly highlighted in the draft. The draft Plan describes how important the hydro system is in keeping the region's carbon emissions low and notes the significant increase in carbon emissions that would occur should hydro generation be reduced due to dam removal. It also notes the flexibility of the hydro system and how it is used to integrate other carbon-free, renewable resources.

The Plan should, however, be stronger in analyzing the trade-offs between fish mitigation and power concerns. The region needs a strong, independent voice to show how certain fish and wildlife mitigation efforts can affect hydroelectric output, and to provide information that makes it clear that when hydroelectric output is reduced for fish mitigation measures, it is often replaced with carbon emitting resources. Accurate costs associated with fish and wildlife mitigation, a discussion of the hydro system's ability to integrate renewables, and the carbon reduction that the dams provide all are critical aspects to include in the Plan.

Along these lines, the Council should specifically point out the value of the lower Snake River dams. As these dams are consistently a topic of debate, and because a focus of the 6th Plan is how to meet growing load without considerably increasing regional CO2 production, we believe it is appropriate to include a brief section on these projects. These dams provide 1,100 aMW of energy and 3,100 MW of peaking capacity. In its own previous analysis, the Council noted that removing these projects would add 4.4 million tons of CO2 to the atmosphere. The Council should continue to highlight the value of these projects so the region can have informed discussion on how to meet growing loads in an economical and carbon-free manner.

Rising Electric Prices

The Council requested comments on rising electricity prices and how utilities can reduce the effect on customers. As this is an important area of concern, the Plan needs to be clearer about how much higher retail rates are likely to go. The combination of higher resource costs and conservation costs being spread over all other power sales will have a significant impact. This impact should be presented in several ways so that the information is evident to all of the diverse groups that see it. For example, utility analysts may understand and prefer charts and graphs showing "real" power costs, but end-users may better understand displays of nominal retail rates.

The way in which the Council portrays some of its cost scenarios could be improved. Currently, the presentation of some cost analyses appears to understate the impact of costs to consumers due to the fact that it averages costs across time periods, and spreads costs over the entire Northwest, even if only a portion of the Northwest is affected during a particular time. For example, spreading the costs over the entire region ignores the large differential impact that removal of the Snake River dams would have on ratepayers served by public power. This problem is not unique to the Snake River dams: a proposal to shut down all the coal plants serving Northwest ratepayers would also have sizable differential rate impacts not adequately captured by use of a regional average retail rate. The danger in the Council's current approach is that it minimizes the impacts of costly proposals that only impact a portion of the region. A ratepayer facing a 20% rate increase due to an expensive action is unlikely to be comforted by the fact that ratepayers in a different area of the Northwest are not affected by the action. The Council's Plan should trace these differential impacts on differing groups of ratepayers.

The Council also largely understates the impact of taking out the Snake River dams by doing a 20-year analysis that assumes the dams only come out halfway through the time period, thus more than halving the real impact of taking out the dams in net present value terms. There is a weaker, but similar effect in the Council's analysis of shutting down the region's coal plants, since that analysis assumes that the coal plants are phased out, rather than just looking at the impact once all the coal plants have been removed.

Load Growth Projections

PPC previously submitted comments on the demand forecast in response to a Council request. At that time we observed that the forecast assumptions were somewhat out of date and did not fully incorporate the effects of the recession. While the range of forecasts appears to account for future uncertainty, an update that uses the latest data would benefit the Plan.

Meeting Peaking and Capacity Needs

The analysis of capacity and peak load needs and resources has become increasingly important. Historically, the hydro system has been sufficient to meet peaking needs, but that is no longer the case. Between the growth in loads, the derating of the hydro system to assist fish recovery, and the increasing dependence on resources that cannot be dispatched to meet load, we can no longer take capacity for granted. The Action Plan rightly includes several items aimed at improving analytical abilities in this area. The region needs to thoroughly understand the impacts of resource choices on the ability to meet loads at all times. Analysis to inform the region of these needs should begin immediately and be done in cooperation with BPA and regional utilities.

Wind Integration

Wind integration is an area where public policy and technical reality collide. The benefits of clean renewable energy sources are clear, but the problems with integrating the resource are difficult to surmount. We are particularly concerned that the Plan may be overly reliant on wind resources to meet Renewable Portfolio Standards (RPS). The region must continue to investigate how much wind can be brought to the loads of utilities that need RPS resources and also whether the system can integrate the necessary quantities while maintaining reliability. Additional analysis on the impacts of transmission constraints and congestion would be useful to more thoroughly assess the potential and the costs of bringing new resources to meet load. While the region will continue to search for answers to these questions, the Plan should avoid over-reliance on this one resource.

Conservation Deployment in the Action Plan

Conservation implementation is rightly a major focus of the Action Plan. While conservation is a valuable, low-cost resource that utilities will heavily rely on to meet future load, this is another area in which we caution the Council to avoid over-reliance on a particular resource. We believe the Council recognizes the uncertainty of conservation in

the next five years by incorporating a range of potential savings in the Action Plan instead of a single-point target. This is appropriate given the natural uncertainty of loads and generation in a changing world. However, as stated above, we are still concerned that the targets may be unachievable despite our best efforts. Extensive analysis by utility and BPA staffs indicates that the low end of the range should be 1,000 MW. Again, we urge the Council to be realistic in its estimate of conservation so that the region does not end up short of resources.

We appreciate the inclusion of CFL savings and the review of conservation achievements after the first two years.

It is also helpful that the Council has urged BPA to provide special consideration for smaller and/or rural utilities that may have limited conservation opportunities (CONS-10). These utilities frequently have little to no commercial or industrial load and will need assistance and the flexibility to apply creative solutions to meeting their conservation goals.

We endorse actions that make conservation more available to the region. For example, we agree that viable new measures must be developed. Also the Northwest Energy Efficiency Alliance's (NEEA's) market transformation and the implementation of better codes and standards are an important part of the Action Plan.

In addition, the Council should provide a clearer link between the action plans and the chapters. Specifically, while the use of CFLs is explained in the action plan under CONS-14, Chapter 4 does not discuss this. For purposes of BPA's interpretation of the Plan, it would be helpful if the Council reflected CFL usage in Chapter 4.

Adaptive Management in the Action Plan

Adaptive management of conservation is a useful concept to handle the uncertainty of achieving the targets. We support a two-year review of progress in achieving conservation and in bringing new measures to fruition so that adjustments can be made in resource planning, but believe the Council should clarify the way in which this review will be undertaken. The Council should add detail to how its staff will work with BPA, public utilities, investor owned utilities, NEEA and other regional implementers to complete this review. In particular it should be made clear how and when targets will be adjusted if the two-year review shows that the original targets were significantly off-base.

In addition, the Council should note that with utilities responsible for meeting their own load growth, there will be increased focus on conservation and data collection that will be necessary for utilities to understand the potential in their own service territories. Entities like the Council should embrace the use of the new data that will be gathered and employ a regional analysis that begins from a "utility-up" perspective rather than from a "top-down" perspective. Doing this will create a clearer, more accurate picture of the opportunity in the region. Action Plans CONS-20 and CONS-21 are one way to organize data collection and we look forward to a cooperative process to implement these plans. Moving

expeditiously toward a "utility-up" approach also will have the benefit of enabling a more accurate estimate of conservation potential when the Council begins preparations for its next Power Plan.

Generating Resource Action Plans

The draft Plan recognizes that BPA and others will need additional generating resources to provide necessary capacity and ancillary services. Because the existing hydro system has historically met virtually all such needs in the public power realm, the analytical work in this area is at an early stage. It is too late to make vast improvements for the 6th Power Plan but attaining a better understanding of needs in this area is an important Action Plan item for the next five years.

Public utilities encourage the Council's support for small-scale low-impact resources. Since all of BPA's customers will be responsible for meeting load growth, either through BPA Tier 2 purchases or their own resource acquisitions, utilities that have not previously developed resources may need to do so. For some utilities, small-scale resources such as low impact hydro or cogeneration with a local customer may be effective choices. We encourage Council analysis that may aid with these resource decisions.

Smart Grid in the Action Plan

The Action Plan includes Smart Grid projects but there has not been enough background work done to inform appropriate actions. A broader discussion would be useful to show the region what Smart Grid may provide. It would be helpful to begin by developing a regional consensus definition of "Smart Grid", followed by a thorough review of work done and plans in progress around the country. While Appendix K begins a discussion of this issue, more analysis is needed to support the demonstration projects included in the Action Plans. Smart Grid has potential to help control power costs and deserves continued consideration.

BPA-Specific Action Plans

The instructions to BPA are generally reasonable and constructive. We appreciate the collaborative nature of the Council's work with BPA during the development of the Plan and the cooperative approach to improving BPA's ability to meet its various obligations. We encourage the Council to expand on this working relationship as BPA staff has opportunity to review and comment on the draft Plan.

We agree that many smaller utilities will use BPA's assistance in resource development. In order to ensure that smaller utilities truly have a choice between buying Tier 2 power and self-supplying to meet load growth, BPA will likely need to supply integration services, transmission, reserves, and other elements that first-time resource owners may not be able to supply for themselves. This should be done in a way that makes these efforts feasible, rather than ways that create barrier to small utilities' ability to bring in new generation.

Topics that Should be Removed from the Plan

While the Council's voice is a constructive part of regional debates, the Plan is not the appropriate place for comment on some topics. In particular, two aspects of the BPA Action Plan should be amended or omitted from the final as they are outside of the Plan's scope.

First, the Plan should not include directions on how BPA costs are allocated (BPA-2a). The BPA ratemaking process is the right forum to consider such issues as whether conservation costs are allocated to Tier 1 or Tier 2.

Second, if the Plan continues to contain a discussion of DSI service, it needs to clearly recognize the Court's opinions, including the Ninth Circuit's direction that BPA must provide a business case to even consider service to DSIs (BPA-9). More appropriate is the recognition that BPA service to the DSIs is better left as the subject of BPA processes and legal actions, and should be left out of the Action Plan.

Analytical Action Plans

The draft Plan calls for a thorough review of the models used in formulating the 6th Power Plan. We strongly endorse this effort. The regional resource situation has changed over recent years. For the future, as the Plan discusses in Chapter 11, much more emphasis must be put on capacity resources, load following and intermittent resource integration. The traditional energy element of power may not even be the most important aspect of resource planning in the future. In order to meet new analytical needs, a much different type of modeling may be needed. This effort should begin immediately.

Generating Resources and Energy Storage Technologies

In Chapter 6, the Plan properly considers all reasonably available resources, including nuclear and advanced coal, even though the model shows only conservation and renewables required for RPS are needed to meet loads in the near future. Continuing to consider a wide range of resources will help us prepare for long-term changes in the resource landscape and limit risks associated with over-reliance on one type of resource. The Plan also should provide greater detail on its recommendation for a comprehensive assessment of new hydro potential.

It is critical to maintain the output of the FBS, a carbon-free, low-cost resource; we believe the Plan appropriately emphasizes the importance of getting the most out of the existing system. We appreciate the Plan's recognition of the value of the existing hydro system and that there would be heavy carbon cost impacts to eliminating generation at any of the dams. In support of the goal of getting the most value from the hydro system, evaluation of hydro upgrades at existing facilities (6-16 and 6-17) should be included in the Generating Resources action plan.

Renewable resources built to conform to state RPS laws will be an important part of the future power supply. Because these resources have different characteristics than traditional hydro and thermal resources, more analysis of renewable resources is needed. Escalating costs for transmission as more renewables are built, use of less desirable sites, the impact on the system of exporting renewables to California, and the cost of more extensive integration of intermittent resources all need more attention.

As noted above, the impacts of transmission congestion on the availability and cost of new resources needs additional analysis. And, analysis should also be applied to the risks of heavy reliance on wind generation in meeting resource needs.

Recommended Resource Strategy

While the recommended resource strategy described in Chapter 9 appears generally reasonable, the method for getting to this result was not sufficiently transparent. If the region had been in a position where consensus was more difficult to achieve (for example, if large amounts of new generating resources were needed) the lack of transparency might have made the recommended strategy controversial. Transparency could be improved by using modeling techniques that can be easily explained and presenting results with intuitively understandable logic.

Climate Change Issues

We appreciate Chapter 10's use of sensitivity runs to provide information to the region on carbon cost impacts. We caution the Council, however, when it considers employing an average carbon cost of about $50 in the "Plan Case". At this point, the outcome of legislation is purely speculative, and making a speculative assumption could erroneously bias modeling outcomes. The level of future carbon penalties and even the form that they will take is subject to political decisions and the outcome is uncertain. Including a large average carbon cost in the "Plan Case" has real impact on resource selection without a firm factual foundation. Treating various levels and types of carbon costs as sensitivities is more useful at this point in the policy debate.

BPA Obligations

Chapter 12 of the Plan continues to contain the same recommendations on BPA's role that were included in the 5th Power Plan and adds new ones to reflect the Regional Dialogue outcome. We appreciate the Plan's recognition that BPA has many obligations and needs flexibility to acquire capabilities to meet those obligations. These are generally useful guideposts except for the DSI recommendation. As a result of federal court decisions from the Ninth Circuit, it is clear that contracts can only be offered to the DSIs if a business case can be made.

Appendices

Though the Appendices contain the foundations of the analyses that lead to the Plan, the Council Members were unable to devote as much attention to the Appendices as to the resulting Plan. The Plan itself benefited from the Council Members' debate and attention, and it is important that the Appendices also receive an adequate level of scrutiny.

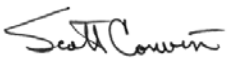
We urge the Council staff to update all of the assumptions included in the modeling, as it appears that many of them are a year old. In these changing economic times, a year's worth of difference in some data could change projections of loads or prices significantly.

Conclusion

Development of the 6th Power Plan has been an important and complex effort. We believe that the region will find the analyses of policy issues and resource planning contained in the Plan to be helpful over the next five years. We also appreciate the Plan's recognition of the changing circumstances that utilities face, and the need for resource flexibility in the future; the region will need various types of resources to meet capacity, load following, and resource integration requirements. The draft Plan acknowledges the need for such flexibility.

Thank you once again for the chance to comment. We hope that our remarks are helpful in producing the best possible final Sixth Power Plan.

Sincerely,



Scott Corwin
Executive Director
Public Power Council