

# **PNWCC** REPORT Council



## **NORTHWEST POWER AND CONSERVATION COUNCIL**

**November 12-13, 2009**

The Council held its November meeting as a “webinar,” plowing through a summary of 750-plus comments on the draft Sixth Power Plan. Staff reported it will take at least 24 days of computer time to run new analyses, and a final plan won’t be ready in December. January or February is now more likely. The region had another banner year for conservation in 2008, chalking up 235 MW in savings. The Council proposes to add plans for the Bitterroot and Blackfoot subbasins in Montana to its fish and wildlife program. Next meeting: December 8-9 in Portland, OR.

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### **THE AGENDA**

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#### **Conservation Gains Climb**

The region gained 235 megawatts of conservation in 2008, according to staffer Tom Eckman. The Regional Technical Forum’s (RTF) survey of utility conservation achievements for 2008 was completed at the end of October, and the results represent 127 utilities and 99 percent

of the region’s load, he said. We saw the largest-ever annual gain in 2008, Eckman said.

We have exceeded the conservation targets in the Fifth Power Plan in each of the last four years, he reported, and the region exceeded the plan’s five-year goal in four years. Eckman noted that the target in 2008 was less than 150 MW.

We have gained over 700 MW in five years, and a preliminary look at what's happening in 2009 indicates we are probably going to exceed 200 MWa again, he said. That will put us at 900 to 1,000 MW of conservation in five years, Eckman added.

He explained the sources of the savings, pointing out that most of the megawatts, nearly 150, were gained through BPA, utility, and state programs. The remainder came from Northwest Energy Efficiency Alliance (NEEA) market effects, as well as "non-program market effects," such as changes in appliance efficiency standards, Eckman said.

In local programs, the residential sector accounts for 48 percent of the savings and the commercial sector for 31 percent, he said. Other contributors include industrial (19 percent); agriculture/irrigation (3 percent); and low-income weatherization (3 percent).

The NEEA savings are weighted heavily by savings in residential lighting (70 percent), primarily from compact fluorescent light bulbs (CFLs), Eckman continued. When you combine the NEEA-related savings with the by-sector savings, the residential category makes up 59 percent, he said.

The region spent at least \$250 million to achieve the 2008 savings, Eckman said, adding that not all utilities in the RTF survey reported expenditures. These savings came at a cost of about \$1.5 million per average MW, he noted. The investments going forward will be significantly higher as we get into more expensive measures, Eckman stated.

Staffer Charlie Grist pointed out that the large success of the residential lighting program kept costs down. We got more from that sector than we anticipated, and "it was very cheap," he said. Since 1978, we have developed nearly 4,000 average MW of conservation in the Northwest, Eckman said. About one-half of that, 2,000 MWa, is from BPA and utility programs, he added.

Conservation is the third largest resource in the Northwest now – only hydro and coal are larger, Eckman said. And going forward, we will see energy efficiency growing as a share of resources, he stated. We're saving more than the annual output of two Grand Coulee dams, Eckman wrapped up.

Council chair Bill Booth asked about the Grand Coulee Dam statement. Grand Coulee is 6,000 MW on peak, he said. Eckman responded that the statement refers to the annual critical-water energy output of the dam. Booth said it is important to talk about capacity and that it should be shown, too.

Eckman pointed out that the RTF website has more data about the conservation savings. We'll be posting the three years of data, and you can see the trends, he added.

Dick Wallace called the results "impressive." And they are built utility by utility, he said. The industrial sector seems to underperform and be underinvested, Wallace continued. Are there programs in the works to advance the industrial programs? he asked.

That's a fair observation, Grist responded. He added that there is an action item in the

power plan that calls for a redoubled effort in the industrial sector, and BPA recently put out a request for proposals (RFP) for industrial customers. Industrial savings require a different approach – it’s more complicated, he added. But “the ball is rolling on that,” Grist said.

Eckman noted that the Northwest Food Processors submitted comments on the Sixth Power Plan that indicate they have established a goal for energy efficiency, aiming to increase efficiency 25 percent by 2020. They are aligned with the idea of more efficiency and cost-effectiveness, he said.

Melinda Eden congratulated the region for its achievement. The 2008 increase came about despite the economy; that should give us confidence the ramped-up targets in the next power plan are achievable, she said. I hope this makes people more comfortable with those targets, Eden stated.

Booth noted the Council put out a news release on the conservation achievement. The results from the CFL program were spectacular, he said. Will that program continue? Booth asked.

Eckman said the CFL program will go forward for another two years, and staff will check in along the way to see if it should continue beyond that. We have a couple of years to transition out of the CFLs, he added.

Grist noted the region has a strong and growing delivery system for energy efficiency. Without these businesses to do the work in the field, this wouldn’t happen, he stated.



## **Flood of Comments Slow Plan**

Staffer Terry Morlan began his presentation on comments the Council received on its draft Sixth Power Plan by stating that participation in the process “has been remarkable” and exceeds that of any other plan. We received 769 comments, many of which were good and useful, and there was a diversity of interests represented among the commenters, he said.

Morlan presented a summary of major issues raised in the comments and the staff’s proposed responses. The following are highlights from his presentation and the Council’s discussion.

### **◆ Carbon Emissions**

Comments said the Council’s draft plan does nothing to reduce carbon and fails to advocate for a specific level of emissions. Morlan said staff rejects the first assertion, noting that the emphasis on conservation and energy efficiency in the plan amounts to carbon reduction. He offered graphs to illustrate how much conservation will reduce future carbon emissions. With regard to the second point, the Council does not set environmental policy, but provides information to inform policy and to help the power system respond to potential policies, Morlan said.

The Council does take positions on environmental issues, Joan Dukes said, citing the inclusion of toxics and climate change in the fish and wildlife (F&W)

program. Staffer John Shurts said the Council’s task is to look across a 20-year horizon and provide information on resources to be added to the power system. It is not our task to set an emissions target, he stated.

Dukes said the Council could offer such a recommendation to those who make policy. It doesn’t seem it would be inconsistent to look at carbon emissions and their effect on F&W, she said. I am challenging us to take a harder look at integrating the F&W program and the power plan, Dukes added.

Morlan said the Power Committee requested an analysis be added to the plan that looks at a particular level of carbon and determines actions that would be needed to meet such a reduction. To determine a carbon level for the analysis, we looked at targets in the renewable portfolio standards (RPS) in Washington and Oregon, the Western Climate Initiative, and the Waxman-Markey bill in Congress and came up with something that is a rough average of the reductions contemplated in those sources, he explained.

#### ◆ **Conservation and Renewables**

Comments said the Council should increase the amount of conservation and renewables and has not been aggressive about forecasting new conservation technologies. Morlan said staff proposes to add text that points out the constraints of section 3(4)(A) of the Northwest Power Act involving “similarly reliable and available” resources. The Council includes new technologies whenever it develops a new power plan, and it is prudent to continue that approach, he stated.

Comments said the five-year conservation target is too high and that the lower end of the range should be 1,000 MW. Morlan said this has been a huge issue, and staff has negotiated with utilities on the target and made changes. He pointed out there would be an interim review of the five-year target. We will look at our assumptions, see if they are too far off, and consider whether we should revise the plan, Morlan said.

Comments said the Council should include better incentives to achieve conservation, including higher prices, improved consumer decision-making, and removal of barriers. Morlan said all are potential approaches to achieving conservation. The Northwest Energy Efficiency Taskforce is addressing this issue, and an action item in the plan supports those efforts.

#### ◆ **Coal-fired Generation**

Comments said the draft plan should call for elimination of coal-fired plants. We have already excluded new pulverized coal from potential new resources, and the plan provides information and analysis on the role of coal in the region’s carbon emissions, Morlan said. We also have scenarios demonstrating the effect of retiring coal plants, he added.

#### ◆ **Lower Snake River Dams**

Comments said the draft plan should call for removing the dams. That is an issue for the F&W program or the Biological Opinion, Morlan said, adding that so far, dam removal has not been seen as necessary for recovery or a cost-effective strategy. The plan provides some analysis to inform further discussions about dam removal, he noted.

Eden said the Power Committee discussed the issue and felt the plan may need to include more explanation of the Council's analysis of dam removal.

#### ◆ Needs Assessment

Comments said the Council should include a simple assessment of resource needs early in the plan. Morlan said graphs would be added to meet this request, and he showed examples of graphs that present the load forecast and existing firm resources.

Eden said the graphs must include a clear explanation of how the utility calculations of existing firm resources differ from the resources available to meet regional load. The Council uses the latter, which includes independent power plants, to determine resource adequacy. Without a good explanation, this will be "ripe for confusion" and misuse, she stated.

#### ◆ Adequacy and Reliability

Comments said the Council should demonstrate the plan will result in an adequate and reliable power system. Morlan said a graphic explanation could be provided of how the plan meets both energy and capacity needs. We intend to build these graphics and include them in the appropriate section, he added.

#### ◆ Wind Exports

Comments said the plan should address the effects of wind generation being exported from the region with or without renewable energy credits (RECs). We agree and propose to include the effect of wind exports on the region's ability to use that power to serve regional load and to meet the RPS,

Morlan said. We will also enhance the action plan to include further study of this issue, he said.

#### ◆ Quantifying Environmental Costs

Comments said the draft plan does not appear to comply with the Power Act's requirement that the Council have a methodology to assess the environmental costs of resources. We agree, Morlan stated, pointing out that such a methodology has not been specifically addressed since the 1986 plan.

We propose to add a new environmental cost methodology as an appendix, Morlan said. The methodology will have four components: existing environmental regulations and their costs; the potential cost of revised or new regulations; consideration of environmental benefits; and recognition of residual environmental costs.

I look forward to seeing what was done in 1986 and how we can improve on it, Wallace said. How we frame this will be important; I see a difference between an avoided environmental cost and an actual benefit, he stated. Staff will circulate the 1986 plan appendix to Council members and draft an environmental cost methodology for Council review, Morlan said.

The plan talks about the environmental costs and benefits of resources, but hasn't explicitly explained the methodology we are using, Shurts added. In response to a question from Eden about whether there would need to be another round of public review, he said he would look at the methodology once it is written, along with other revisions to the plan, to make sure they don't get too far from what's in the draft. I

don't foresee that an additional comment period will be needed, but I'm being cautious – until we see the text of the new sections, I can't be absolutely sure, Shurts said.

#### ◆ Diversity of Impacts

Comments said the plan should recognize that the costs of carbon reductions or dam removal would not be uniform across the region. We agree, Morlan said, adding that investor-owned utilities own most of the region's coal plants. We propose to add a discussion about that, he said.

#### ◆ Display of Power System Costs

Comments said the Council should explore better ways to display future power system costs. Morlan noted that the Council consistently uses net present value for system costs, which is a well-established approach. He agreed there are other ways to display future costs to consumers and offered examples. Tom Karier suggested adding a discussion in the text about using nominal pricing.

Bruce Measure pointed out that with “the green power revolution,” new transmission facilities and renewable resources will be needed. But the graphics show a decline in costs, he said. Morlan responded that the cost of transmission and depreciation of existing plants was not included in the sample graphs.

Booth questioned a graph that tracked rates and customer bills over time. What's happening there? Do we have no new investment? he asked. It's counter-intuitive that rates and bills are going down, as the graph suggests, Booth commented.

Morlan said the graph displays the operating cost of plants and reflects such factors as the declining cost of natural gas. We also have met the RPS in the out years, so expenses are going down, he explained.

#### ◆ Nuclear Power

Comments said the draft plan does not consider nuclear power. Morlan pointed out that the draft includes considerable discussion of nuclear generation, and that it is not cost-effective in the analysis until late in the planning period. There are risks with nuclear power that drive up the costs, and it is capital-intensive, he said. We could clarify that more in the text, Morlan stated. It's a long-term resource, but there are technological advancements taking place, he said.

#### ◆ Cost of Fish Operations

Comments said the cost of fish operations in Appendix M should not be calculated using the priority firm (PF) rate for power. We agree the PF rate is not the way to go, but it is difficult to figure out what the right approach is, Morlan said. He added that the cost calculation has no effect on the plan or the choice of resources, but it is an impact on hydro operations in the future. We propose to remove the calculation of costs, Morlan stated. We could include a conceptual discussion of the costs without a calculation, he said.

Eden said she commended those who commented on the information in Appendix M. We need to increase awareness about the interaction between the F&W program and the power plan, she added. Wallace said he agreed with deleting the numbers. One size does not fit all, and at

the end of the day, it does not have a direct effect on the plan so we don't need to get into "a polarizing discussion," he added.

There is a purpose for calculating the costs in the plan, Karier said. It's appropriate for purposes of the Power Act to use the opportunity costs of power to make the calculation, he said, and added that he did not want the plan to say that all of the ways to calculate the fish operations costs are valid.

#### ◆ **Regional Portfolio Model (RPM)**

Comments said the Council should reconsider its planning model and increase its ability to address capacity and flexibility issues. Morlan said the plan includes an action item on the portfolio model, adding that "we're not ready to scrap the RPM."

#### ◆ **BPA Action Items**

Comments said the Council should delete a statement that conservation should be funded primarily as a Tier 1 cost. Morlan said that was one of the Council's principles for the Regional Dialogue and it should remain. With regard to BPA providing service to the DSIs, he said the item could be dropped since it provides no important guidance.

Karier suggested the item on the DSIs be rewritten rather than deleted. We need to remind BPA of these goals for DSI service, he indicated.

#### ◆ **Long-Term F&W Forum**

Comments said the forum called for in the action plan duplicates existing efforts. Morlan proposed a change to the action item to state the Council would investigate the need for a long-term coordination forum, rather than aim to form one.

Staffer John Fazio said the idea was to have a forum with power planners and F&W managers to discuss planning and how resource choices affect F&W. Wallace said he agreed with the thrust of the forum. I haven't seen a place for this to occur, he said, adding that the Council should keep the discussion of such a forum alive.

#### ◆ **Resources for Balancing Reserves**

Comments said the Council has not included resources for balancing reserves nor reflected the fuel use for such generation. Morlan said the issue of balancing reserves is being addressed in the region. It is not clear how much generation would be involved in providing the reserves, and we don't need to include those resources, he said.

We are already facing issues with this in the region, including in southern Idaho, Booth said. This issue is lightly addressed, and I'd like to see us strengthen it a bit, he added. Morlan said staff would give it more prominence. Staffer Jeff King pointed out that it would not be difficult to run sensitivity analyses in Aurora that target individual areas to illustrate the problem.

## ◆ RPS Analysis

Comments said the Council has not recognized the rate caps in the RPS. Morlan said the effect of the caps would be difficult to predict and probably is not large. Staff proposes to address this issue by reducing the addition of RPS renewables to the power supply by 5 percent, he noted.

There is a good chance that California's decision to boost its RPS will increase the price for renewables, Karier said. That will push utilities to the cap sooner, he added.

At the end of the issues discussion, Booth asked about next steps for completing the plan. Eden reported that staff needs 24 days of computer time to complete the analyses. In December, we will bring forth as much as is complete, she said, adding that it may be possible to vote on pieces of the plan.

The electricity wholesale price forecast will be done next week, and we'll know about any significant changes to the resource strategy by then, Morlan said. By the December meeting, we won't be done with all the scenarios and runs, but "we'll have a lot of information to throw at you," he told the Council.

Morlan asked if Council members want to have what's been redrafted sent to them as it is completed. The sooner, the better, and the materials should be sent to all Council members, Eden said. Karier agreed and asked that numbers "still under construction" be highlighted.

Looking at what staff has brought us so far, I haven't heard too much disagreement or debate, Booth commented. It appears that you still need to make a decision on increasing or decreasing the conservation

goals, he said. There were no objections at the Power Committee meeting this morning to the staff's recommendations on those goals, noted Eden. What is the goal for the first five years? Booth asked. The recommendation is to not change the target, Morlan replied.

Booth asked if staff can proceed with drafting the final plan in most of the major policy areas, and Morlan said yes. At this point, I don't see a major policy challenge or issue that has surfaced, but there is a lot of technical work for staff to do, Karier noted.

It's gratifying to see how much attention people in the region have been paying to the draft plan; we've gotten tremendous value from the comments we've received, Wallace said. We've done a really good job grappling with the big policy questions, and I don't see any major stumbling blocks to keep us from getting this out the door, he added.



## Survival Study Will Gauge BiOp Success

Staffer Jim Ruff reported on a Corps of Engineers study to measure salmon and steelhead passage at three mainstem Columbia River dams: John Day, The Dalles, and Bonneville. The results of the study will be used to measure whether survival meets performance standards in the 2008 Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp), he said.

The study, entitled "Statistical Design for the Lower Columbia River Acoustic-Tag

Investigations of Dam Passage Survival and Associated Metrics” is part of the Corps’ Anadromous Fish Evaluation Program (AFEP), Ruff said. The goal is to evaluate the performance of structural and operational improvements at the dams, he explained. The Corps proposes to use acoustic transmitter tags implanted in juvenile fish to track their movement, Ruff said.

In its review, the Independent Scientific Review Panel found the study proposal to be sound and thoughtfully prepared, he continued. The Corps has experience with the acoustic technology, and the ISRP said the survival model proposed is grounded in standard statistical methods and incorporates advances that have recently appeared in scientific literature, Ruff said.

Based on the ISRP review, staff recommends the Council approve the study design for 2010 and 2011, he stated. Ruff noted that while the study plan was to include all three dams, an outage at the second powerhouse at Bonneville Dam makes it problematic to start the test there yet.

The ISRP was concerned about the sample size, and although it was established by researchers at the University of Washington and had been reviewed and deemed adequate, the project sponsors are adding 25 percent more tagged fish than originally proposed, he said.

Brad Eppard of the Corps said the sample size is just over 20,000 fish and would be made up of three species. He also pointed out that the fish released for the study will be used for the Pacific Ocean Shelf Tracking (POST) study. It is a cost savings for the

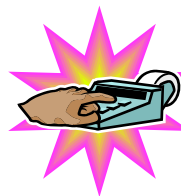
project and adds value in terms of the fish that are tagged, Eppard said.

This is a sophisticated and expensive project, Karier commented. And it underscores what the ISRP has called for in terms of overlapping studies when possible to increase their cost-effectiveness, he said.

Ruff pointed out that because of the logistics and expense, structural improvements at the dams need to be complete and operations in place before the study begins. If the spill wall at The Dalles Dam isn’t complete, for example, we’ll postpone at that site, Eppard agreed. Right now, work on the wall is two or three weeks ahead of schedule, he added.

Wallace said the ISRP responded quickly in making its review. And he suggested that it would be useful to get the Corps in on the monitoring and evaluation discussions.

The Council approved a motion to support the study design.



### **Credit for Organizing a Wildlife Forum**

Staffer Peter Paquet gave an update on planning for a Wildlife Mitigation Crediting Forum to resolve issues about accounting for habitat units acquired and developing a database to track them. Staff has discussed the forum with potential participants and sent out formal letters of invitation to tribal, state, and federal F&W managers, as well as to BPA and its customers, he reported.

We received three responses – from Parametrix, DS Associates, and Bob Lohn –

to the RFP sent out in mid-September to facilitate the forum, and we will have a facilitator selected by next week, Paquet said. The first meeting of the forum will be right after the first of the year, and we anticipate holding about eight meetings, he added.

Everyone is on board “to participate in good faith,” Paquet stated. And he said BPA is working to pull together information so the forum members will have a complete ledger of acquisitions when the process begins. It’s an important function, and it is moving along – that’s great, Dukes commented.



### **More Subbasins for F&W Program**

The Council received subbasin plans for the Bitterroot and Blackfoot subbasins in September, according to staffer Lynn Palensky. The Montana Water Trust recommended the Bitterroot subbasin, and Trout Unlimited recommended the Blackfoot as amendments to the Council’s F&W program, she said. Staff recommends opening a narrowly focused program amendment process to consider the plans, Palensky reported.

If the Council approves, we will post the plans and start taking recommendations, she stated. Palensky pointed out that the Council would take comments for 90 days and that only recommendations pertaining to the two Montana subbasins would be accepted.

Rhonda Whiting said it had taken significant work to put the subbasin plans together, and she thanked the staff for its efforts. Measure said the tribes had done a lot of work on the plans and that he supported the letter.

Shurts clarified that the Council would be voting to open its F&W program amendment process. The draft subbasin plans are already submitted and most comments will likely focus on what we have, he said.

On a motion from Measure, the Council voted unanimously to open the process and begin taking comments on the Bitterroot and Blackfoot subbasin plans.

### **END NOTE**

**A Nod for F&W Funds.** The Council voted to support a Columbia Basin Accord project related to research and monitoring for Deschutes River fall chinook. The project is sponsored by the Warm Springs, with a total project budget of \$1.9 million. Initially, the project was given a “qualified” rating by the ISRP, but the outstanding issues are being addressed.

The Council also approved adjustments to funding for three F&W projects, including \$50,000 in capital funds for monitoring a well field at the Cle Elum Hatchery. Other funds will cover \$129,474 for Grand Ronde tribal participation in regional and local F&W processes, including those associated with the Willamette BiOp, and \$243,059 for an Idaho Office of Species Conservation project to support FCRPS BiOp habitat work in the Lemhi District.

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## **Mark your calendar!**

### **Northwest Power & Conservation Council 2010 Meeting Calendar**

January 12-14	Portland
February 9-11	Portland
March 9-11	Portland
April 13-15	Boise
May 11-13	Portland
June 8-10	Missoula
July 13-15	Portland
August 18-19	Spokane
September 21-23	Bend
October 13-14	Portland
November 17-18	Portland
December 14-16	Portland