

Joan M. Dukes
Chair
Oregon

Bruce A. Measure
Montana

James A. Yost
Idaho

W. Bill Booth
Idaho



Rhonda Whiting
Vice-Chair
Montana

Bill Bradbury
Oregon

Tom Karier
Washington

Phil Rockefeller
Washington

**Council Meeting
Skamania Lodge
Stevenson, WA**

April 11, 2012

Minutes

Council Chair Joan Dukes called the meeting to order at 10:35 am and adjourned it at 3:20 pm on April 11th. All members were present, except for Tom Karier, who participated by telephone.

Reports from committee chairs:

Phil Rockefeller, chair, fish and wildlife committee; Jim Yost, chair, power committee; and Bill Bradbury, chair, public affairs committee.

Phil Rockefeller reported that the Fish and Wildlife (F&W) Committee reviewed several projects and discussed the staff recommendations for project funding based on the Independent Scientific Review Panel's (ISRP) Review of the Ocean Synthesis Report. Tom Scribner of the Yakama Nation gave us an update on their successful efforts to reintroduce coho, he said. The committee also had a presentation on hatchery and supplementation policies and activities from representatives of the Washington Dept. of Fish and Wildlife and Chelan PUD, Rockefeller stated. We heard a request for Council support for a draft conservation agreement for Pacific lamprey, and we discussed High-level Indicators for monitoring diversity, he said. We also had updates on the Fish Tagging Forum, which is making progress "on time and within budget," and we discussed program-level monitoring with BPA staff, Rockefeller reported.

Jim Yost reported that the Power Committee discussed an analysis of some specific futures from the Sixth Power Plan's Regional Portfolio Model. We also had an update about electric plug-in cars, and how they hook up to the grid, he said. The committee had an update on the charters for the Council's advisory committees, Yost noted. We had a discussion with about a dozen interested parties about the issues they would like to have the Council consider during its mid-term review of the Power Plan, he said.

Bill Bradbury reported the Public Affairs Committee discussed the Congressional staff visit that will take place this August, starting in Seattle and continuing to central and eastern Washington. We reviewed the 2011 fish and wildlife expenditures report, which will go out for comment in

May, and we recommended the Council give a \$10,000 contribution to support the upcoming Fourth Symposium on the U.S.-Canada Treaty, he said.

Public comment on any issue before the Council

Dan James of PNGC Power and Bo Downen of the Public Power Council (PPC) presented comments on the ISRP's Review of the Ocean Synthesis Report. In light of recent rate increases and struggles with BPA's borrowing authority, we urge the Council to consider reducing its Research, Monitoring and Evaluation (RM&E) costs, James said. He referred to a recent letter from Northwest RiverPartners to the Council, noting that it calls for prioritizing the use of BPA customers' dollars and focusing more on projects that have a direct link to the Federal Columbia River Power System (FCRPS). We would welcome the opportunity to work with the Council to help reduce RM&E costs and to redirect that funding to on-the-ground projects, James said. The PPC also wrote a letter to the Council, which recommended "taking a hard look" at the Council's RM&E projects and culling some of them out in favor of on-the-ground projects, Downen stated. We have a hard time seeing the nexus to the FCRPS for some of these ocean research projects, he added.

The Council should look for cost-sharing for the ocean projects, and if that can't be found, the Council should consider phasing the ocean projects out, according to Downen, and using the money to pay for on-the-ground projects that more directly meet the F&W program's mitigation objectives.

I thought the ocean research projects were being phased out, Bradbury said. The Council has decided to go forward with two of the three ocean projects, Rockefeller responded. The third project, coastal ocean acoustic salmon tracking, is being phased out, he noted. We are also planning to look at refocusing the research and finding efficiencies in the two other projects, Rockefeller said.

Bill Booth thanked James and Downen for their comments and "active participation." Our goal has been to take a hard look at RM&E, and now we are on the cusp of a new phase in which we expect there will be more opportunities to achieve RM&E savings in the Council's program, he said. We will be able to implement that as a result of our Monitoring, Evaluation, Research and Reporting (MERR) work, Booth stated. So stay involved with us and help us find efficiencies -- that's our goal, he said.

Rafael Queahpama of the Warm Springs Tribes made a brief statement to the Council that expressed support for research and efforts under way and planned in the region to improve lamprey survival.

Charles Pace, a resident of Washington, commented on several topics. He said there are problems with in-lieu provisions with respect to a wildlife mitigation project at Albeni Falls Dam. There are impacts to fish, especially salmon and steelhead, from system operations for load following, power peaking, and wind integration, Pace said. Avian predation on juvenile fish is a big problem, and flows have a great deal to do with that, he stated. The ocean synthesis report hasn't addressed wind integration effects at Bonneville Dam, which cause huge ramp rates up and down daily, and sometimes hourly, according to Pace. He said he prefers that the Council's mid-term Power Plan review be a straight-up amendment process.

1. Status report on power oversupply recommendations to the Wind Integration Forum:

Ken Dragoon, manager, system analysis and generation.

“It’s oversupply season,” and our growing fleet of wind generation projects is adding to the concerns, staffer Charlie Grist told the Council. One of the Council’s roles is to bring people together to address emerging issues like oversupply and to explore solutions, he said.

Council staff convened an Oversupply Technical Oversight Committee (OTOC) at the request of the Wind Integration Forum (WIF) Steering Committee, and the OTOC has now agreed on a set of measures that merit further study, staffer Ken Dragoon reported. The OTOC operated by consensus and “was a very positive experience,” he said. The committee had 19 members, as well as some work groups, and its report will be sent to the WIF Steering Committee in the next week or two, Dragoon noted.

One of the measures the OTOC recommends to help with oversupply is finding more commercial and industrial loads that can shift their demand into nighttime hours, in return for a “price break,” he explained. Examples of entities with that potential include municipal water pumping facilities, pulp mills, server farms, irrigation loads, and refrigerated warehouses, according to Dragoon.

Rate tariff provisions may be preventing some of this load-shifting from happening, he said. We think there is a need to raise awareness about this issue with utilities and regulators, Dragoon stated. If we could save 10 percent of our peak generation through load-shifting to nighttime, that could save the region up to \$200 million a year, he said.

Another committee recommendation involves increasing the liquidity of intra-hour trading, which could reduce the need to hold so much reserve generation and give the system more flexibility during these relatively infrequent oversupply events, Dragoon explained.

We considered measures like increasing transmission or adding energy storage using compressed air or batteries, but those are very capital-intensive solutions, he said. We discussed trying to change dissolved gas limits, but that seemed quite involved, Dragoon added.

Bill Booth asked for an explanation of “resistive load banks,” which Dragoon’s presentation identified as a measure with “high potential and feasibility.” It’s a fancy term for an outdoor space heater and is derisively called “the toaster,” said Dragoon.

It is a dynamic stability device, and there is one at Chief Joseph Dam, he noted. They are very inexpensive, Dragoon said. District heating systems with dual fuels are something else we could look into, and residential water heaters hold some promise, he added.

Bill Bradbury compared the discussion about encouraging load-shifting to help with oversupply to the role DSI interruptibility played in the region in the past. We should look at ways that industries can take this on and not get rate penalties, he said.

We need to talk more with utility rate personnel to understand why rates are the way they are, responded Dragoon. We have talked with some utilities about this and have found there is some flexibility to do load-shifting, but we need to talk to more utilities and utility commission staff, he said.

This oversupply issue really shouldn't be more complicated than having generation shut off in these instances, Jim Yost stated. The region is being required to build more wind generation even though it doesn't need any more energy in the spring, he said. That doesn't make sense, but "it comes from politicians, and they don't have to make sense," Yost added.

It's painful to hear about this when the region is spending more and more for conservation measures, he said. We ought to just write something about oversupply situations into new wind contracts, Yost stated.

2. Briefing and summary of Corps of Engineers Columbia River Fish Mitigation Program funding, actions and accomplishments:

Rock Peters; Mike Langeslay; Derek Fryer, U.S. Army Corps of Engineers.

Staffer Jim Ruff introduced a panel from the Corps of Engineers to brief the Council on the agency's Columbia River Fish Mitigation (CRFM) program. It is an ongoing, congressionally authorized program to develop and evaluate fish passage improvements at the Corps' eight mainstem dams and at its Willamette Basin projects, he noted. The program is additive to the Council's F&W program, Ruff said.

Rock Peters of the Corps said the "real focus" of the CRFM program is to prioritize actions aimed at achieving performance standards for juvenile fish dam passage survival, specified in the NOAA 2010 supplemental Biological Opinion (BiOp) and the Columbia Basin Fish Accords. We also gather scientific information to help inform fish passage configuration and operation decisions for Corps facilities, he stated.

Peters described fish passage improvements completed since 2008 at Bonneville Dam and said that the first year of spring performance standard testing was done in 2011. Preliminary estimates for yearling chinook survival were 95.7 percent, and 97.6 percent for steelhead, Peters reported. Summer testing in 2011 was canceled due to high flows, he noted.

At The Dalles Dam in 2011, yearling chinook survival was 97.2 percent and steelhead survival was 99.2 percent, at 40 percent spill, according to Peters. At John Day Dam, the first year of spring performance testing was completed in 2011 at 30 and 40 percent spill levels, he said. The results for yearling chinook were 96.7 percent and 97.8 percent survival, respectively, and for steelhead, they were 98.4 percent and 99 percent, Peters said. Spring and summer performance standard testing is planned at both spill levels this year, he reported. Peters noted the Corps is adding features at John Day to improve lamprey passage.

At McNary, the first year of spring and summer performance standard testing is planned for this year, he said. That is also the case for Lower Monumental Dam, Peters stated. At Ice Harbor, a single spill operation has yet to be determined for performance standard testing, he reported.

Spring and summer performance standard testing is planned for this year at Little Goose Dam, while at Lower Granite, there are more actions to be done before testing takes place, Peters said.

Since testing began, our estimates indicate the survival of spring migrants is nearing or exceeding the performance standards specified in the BiOp, he told the Council. With yearling chinook and steelhead, “we are seeing fairly dramatic results” in higher survival from the improvements we have made at the projects, Peters noted.

These are precisely the kind of results, showing before and after, that we are looking for, said Booth. We asked the Corps to show these survival improvements, and this is their first cut at doing that, noted Ruff.

Rockefeller asked about the testing at 30 percent and 40 percent spill levels. Are you measuring nitrogen changes, and do your survival figures reflect those? he asked. There are checks at the dams for gas bubble trauma, replied Peters. But we haven’t been able to detect indirect effects of slight changes in spill on the long-term survival of fish, he said.

Peters explained what the Corps has done recently to assess its juvenile fish transportation program and efforts to decrease avian predation by Caspian terns and cormorants on fish. We reduced the available nesting area for terns on East Sand Island from six acres to two acres as of last year, he noted. Since terns only nest on bare sand, we can just let the vegetation grow up, replied Peters. We can build fences to try to dissuade cormorants from nesting, but it’s more complicated, he added.

3. Presentation on Smart Grid Road Map:

James Mater, Quality Logic and Chairman, Smart Grid Oregon; Michael Jung, Silver Springs Networks and Smart Grid Oregon Board Member; and Tom Foley, Vice Chair, Smart Grid Oregon.

The Sixth Power Plan requires Council staff to monitor the development of technologies and policies related to changes in the electricity grid and its operations, said staffer Charlie Grist. Such changes often go under the name of “smart grid,” he noted. Grist introduced a panel of representatives from Smart Grid Oregon, a trade association, to make a presentation on “accelerating grid modernization.”

James Mater of Quality Logic, who is the chair of Smart Grid Oregon, described challenges facing the Pacific Northwest grid, with integrating renewable resources at the top of the list. We’ve done a wonderful job stimulating the development of renewable resources, but we have to deal with the new needs and problems that have arisen as a result, he said.

Another issue that we are now dealing with is “peakier” demand, with summer peaks getting higher and higher, Mater noted. He said other grid challenges include: reduced BPA power system capacity and flexibility due to fish operations; reducing greenhouse gas emissions; electric vehicles; and the scaling of traditional control systems.

The smart grid applies new digital technologies to help manage our electrical system, Mater stated, comparing the dashboard of a car today, which can show energy use, speed, and other

data instantaneously, to a conventional power meter, which only shows total kilowatt-hours, and only once a month. He offered examples of smart grid applications, including using new technological tools to monitor energy use by cryogenic refrigerators, which could save \$75 million a year, or to set up plans for charging all the electric vehicles in a single neighborhood at different times to smooth out the charging cycle and save wear-and-tear on the neighborhood's transformer.

"Why is the smart grid important?" Because it can be a major component in solving regional power issues, Mater said. For example, it can help the region use demand management to match wind generation variability, shift demand to reduce peak loads, and protect fish by increasing generation flexibility, he explained.

There are over 20 smart grid demonstration projects in the Pacific Northwest, and hundreds nationally, and many were funded as a result of the Recovery Act of 2009, Mater noted. In this region, we are investing over \$400 million in smart grid applications, he said. The Pacific Northwest Regional Smart Grid Demonstration project, managed by Battelle, with the participation of BPA and a number of Northwest utilities, went into operation this year, Mater reported.

He pointed out that the Council's Sixth Power Plan calls for evaluating smart grid demonstration projects and developing additional ones, as well as developing a methodology for evaluating demand response used for ancillary services. We would like to see the Council identify and carry out additional smart grid-related actions, Mater said.

Smart Grid Oregon is dedicated to supporting Northwest companies that build and market smart grid products and services, he continued. We'd like to see versions of Smart Grid Oregon in Washington, Idaho, and Montana, but until those come along, we'll work on behalf of the region to advocate for public policies that promote and grow the smart grid industry and infrastructure, Mater stated. We think it would be useful for the region to develop a "smart grid road map" that would set forth a common vision of desired outcomes and priorities for Oregon and the region through 2030, he said. From that, we could create a policy road map to achieve the vision and then design and carry out an action plan, according to Mater.

"The smart grid is here," and it can help solve regional power issues, and the Council can be a leader in accelerating smart grid benefits for the region, he concluded.

"What can we do to be more of a leader in accelerating smart grid benefits?" Bradbury asked. We think your Seventh Power Plan should have a lot of focus on the smart grid as an adjunct to what you are doing with conservation and demand response, replied Mater.

The Council has several advisory committees, said Tom Foley, vice chair of Smart Grid Oregon and a former Council staffer. You could set up a Council advisory committee on the smart grid, he suggested.

Demand response is an application of smart grid technology, said Mater. Integrating demand response with the smart grid and with energy efficiency holds a lot of promise, and as you integrate them, you get more benefits, he noted.

Good real-time energy markets are one of the enablers of grid modernization, according to Mater. You could take a look at how to build a real-time electricity market in the Northwest, he told the Council.

There have been attempts in the past to get an organized market, but they have failed, mostly due to conflicts between public and private utilities, Foley stated. GridWest was the last attempt, but it just blew up, he said.

Consumer behavior plays a part in this, said Yost. There have to be time-of-day varying charges in order to do demand response and benefit the consumer, he stated. What you need is a way to incentivize customers, said Mater. Some utilities are paying customers to let the utilities control their water heaters, and in Kalispell, the utility is subsidizing customers' smart appliances, he noted. It is not necessarily about price, but price is often the easiest way to change behaviors, Mater added.

When are we going to see the results of the pilot projects and their possible applications? Yost asked. We'll have some real results from the projects in the region in 2014, replied Mater.

There have been concerns expressed by some homeowners about security issues related to smart meters, and some people are saying they want their old meters back, Yost said. Traditionally, utilities haven't had to do much more than get their rates past their boards or their regulatory commissions, Mater said. Utilities "just don't have a clue" how to deal with customers on this, he added. Some of the best jobs are being done by small utilities, Mater said.

4. Report on final Independent Scientific Review Panel reviews of Resident Fish, Data management and Coordination projects:

Rich Alldredge, ISRP; and Dennis Scarnecchia, ISRP.

Rich Alldredge, chair of the ISRP, presented the findings of the science panel's final review of 71 Resident Fish, Data Management, and Regional Coordination Category fish and wildlife project proposals. A comment period on the report will be open until May. Alldredge said the ISRP reviewed the projects to see if they are based on sound science principles, benefit fish and wildlife, have clearly defined objectives and outcomes, and contain provisions for monitoring and evaluation of results. The ISRP found that 14 of the proposals met scientific review criteria, and 37 met the criteria with some qualifications, he noted.

Dennis Scarnecchia, vice-chair of the ISRP, explained comments and recommendations the ISRP made about resident fish. He said, for example, the ISRP recommended that all resident fish activities be described in one master planning document. As climate change models improve, they should be incorporated, Scarnecchia said. All the proposals for management of stocked salmonid fisheries should have performance metrics, and economic and social benefit measures should be developed for these programs, he stated. The ISRP recommended better coordination among the agencies and tribes on sturgeon projects, Scarnecchia said. Two key issues are poor passage through the hydro system and lack of recruitment of young fish, he noted.

Among comments about monitoring and evaluation, Alldredge said the ISRP recommends monitoring angler satisfaction, and he said many proposals did not justify sample size adequately. All project reports should go through some kind of peer-review process, Alldredge added.

As for regional coordination projects, those should have more emphasis on outcomes, he stated. Our report says the scientific analysis of regional coordination, including the development of meaningful indicators to measure success, could provide ways to effectively and efficiently carry out the objectives of the fish and wildlife program, Alldredge noted.

Each project proposal should have at least one regional coordination question, for example, does regional coordination result in more effective and efficient use of fish and wildlife program funds? Alldredge said. The Council's next fish and wildlife program amendment process should emphasize regional coordination more, he added.

Bradbury asked about having more programmatic monitoring and evaluation of projects. We are in a state of transition, Alldredge said. In the past, each project was expected to do its own evaluation, but now we are looking for a balance between that and something broader, he stated. As the ISRP, what we want to know is how a project is going to be monitored for effectiveness -- is the project itself going to do it, and if not, who is going to do it? Alldredge said.

The MERR process envisions a new blueprint for monitoring that would include some broad, landscape-type templates for project monitoring, Booth said. We need more clarification about how regional coordination can be transformed, stated Rockefeller. We would like you to give us your thoughts on how to do a better job with it, he told the ISRP members.

5. Council decision on high level indicators:

Mark Walker, director, public affairs division; Tony Grover, director, fish and wildlife division; and Stacy Horton, Washington staff member.

This item was deferred to a later date.

6. Council business:

– Adoption of minutes

Rhonda Whiting moved that the Council approve the minutes of the March 7, 2012 Council meeting held in Portland, Oregon. Bruce Measure seconded, and the motion passed.

– Council decision on advisory committee charters:

Staffer John Shurts said the charters for four Council advisory committees need to be renewed. Staff discussed the matter with the Power Committee and is proposing to make a few revisions in the charters, he stated. Staffer Sandra Hirotsu explained the changes that would be made for all four committee charters. The first involves changing to more generic language where it says that the chair and vice-chair of the committees are to be selected by the Council's executive director,

she said. The second change would revise language about the list of potential members that could be recruited to serve on the committees, Hirotsu noted.

Dukes said the appointment and replacement process for the Council's advisory committees is "messy." Staff is working on changes to improve the process, Hirotsu responded.

Whiting moved that the Council approve the renewal of the charter for the Conservation Resources Advisory Committee for two years, as presented by staff, with changes approved by the Members at today's meeting. Yost seconded, and the motion passed.

Whiting moved that the Council approve the renewal of the charter for the Generating Resources Advisory Committee for two years, as presented by staff, with changes approved by the Members at today's meeting. Yost seconded, and the motion passed.

Whiting moved that the Council approve the renewal of the charter for the Demand Forecasting Advisory Committee for two years, as presented by staff, with changes approved by the Members at today's meeting. Yost seconded, and the motion passed.

Whiting moved that the Council approve the renewal of the charter for the System Analysis Advisory Committee for two years, as presented by staff, with changes approved by the Members at today's meeting. Yost seconded, and the motion passed.

Approved May ____, 2012.

Vice-Chair

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