

Bruce A. Measure
Chair
Montana

Rhonda Whiting
Montana

W. Bill Booth
Idaho

James A. Yost
Idaho



Joan M. Dukes
Vice-Chair
Oregon

Bill Bradbury
Oregon

Tom Karier
Washington

Phil Rockefeller
Washington

Council Meeting Spokane Washington

August 9-10, 2011

Minutes

Council Chair Bruce Measure called the meeting to order at 1:40 pm on August 8th and adjourned it at 11:15 a.m. on August 10th. All members were present.

Joan Dukes moved that the Council meet in Executive Session to discuss matters related to civil litigation at 8 a.m. on August 10, 2011. Tom Karier seconded, and the motion passed unanimously on a roll-call vote.

Reports from Fish and Wildlife, Power and Public Affairs committee chairs:

Bill Booth, chair, fish and wildlife committee; Tom Karier, chair, power committee; and Rhonda Whiting, chair, public affairs committee.

Bill Booth reported that the Fish and Wildlife (F&W) Committee talked about the upcoming categorical reviews for data management, program coordination, and resident fish/blocked areas and also discussed some F&W projects. The committee reviewed topics for future Council discussion, including sturgeon management, salmon jacks, and sockeye returns, he said. We had a briefing on the judge's order on the Biological Opinion and how it affects the Council's F&W program, and we discussed follow-up actions to the Wildlife Crediting Forum, Booth added.

Tom Karier reported that the Power Committee hosted a utility panel with representatives from Avista Corp. and Inland Power and Light to discuss their integrated resource planning and how it relates to the Council's plan. Both utilities said conservation is their priority resource, as it is in our Power Plan. We received an update on the Direct Use of Gas study and talked about how we will do the mid-term review of the Sixth Power Plan that will take place next year, Karier said. We also reviewed revisions to the Surplus Energy paper.

Rhonda Whiting said the Public Affairs Committee would meet that day to finalize plans for the Congressional staff trip, which will take place in Idaho.

1. Presentation on Lower Clearwater Exchange Project (LCEP) water exchange/watershed restoration proposal:

Jerry Klemm, Lewis Clark Valley Chamber of Commerce; David Johnson, Nez Perce Tribe; and Barney Metz, Lewiston Orchards Irrigation District.

Jerry Klemm of the Lewis Clark Valley Chamber of Commerce kicked off a panel presentation on the Lower Clearwater Exchange Project (LCEP), a collaborative effort of the Lewiston Orchards Irrigation

District, the Nez Perce Tribe, the city of Lewiston, Nez Perce County, and the Lewis Valley Chamber of Commerce, that was started in 2008.

Barney Metz of the Lewiston Orchards Irrigation District described the location of the project and the watersheds affected. David Johnson of the Nez Perce Tribe explained the LCEP aims to permanently resolve three problems in the lower Clearwater River basin, including adverse effects on Endangered Species Act-listed Snake River steelhead, inadequate water for the Irrigation District, and adverse effects on the Nez Perce Tribe.

The key concepts of the LCEP include the development of a high-efficiency piping system from the mainstem lower Clearwater River and enabling the Irrigation District to obtain new water rights to meet its needs, according to Johnson. Flows would be restored in the Sweetwater/Webb/Lapwai watershed for ESA-listed steelhead, he said. Metz pointed out that the Irrigation District serves 18,500 people and has experienced water shortages over the past decade. The Nez Perce Tribe has been subject to historic and ongoing injustices, including the adverse take of water, Johnson noted.

The LCEP is an ideal “climate change” project because it would restore cool-water refugia for fish, he said. In addition, we have had contact from BPA about contracting with small pump storage projects that could help integrate BPA’s wind facilities, Metz noted. The LCEP complements the Council’s F&W program and will help achieve objectives of the Clearwater Subbasin Management Plan, Johnson added.

The LCEP is doing an appraisal study of alternatives under the Bureau of Reclamation’s Rural Water Program, Klemm said. The LCEP partners plan to seek funding from Reclamation to complete a feasibility study, he stated.

Karier asked about the costs and benefits of the project. The appraisal study is nearing its end, and a draft should come out this month, replied Metz. If we do the feasibility study, that will provide more cost-benefit information, he said.

During public comment, a representative from the Columbia River Inter-Tribal Fish Commission expressed support for the LCEP project and the vision it presents.

2. Council decision on Project Reviews:

Mark Fritsch, Manager, Project Implementation

– Quarterly Review of Within-year Project Funding Adjustments for Implementation.

Staffer Mark Fritsch presented a funding adjustment request for a wildlife mitigation project sponsored by the Burns-Paiute Tribe. He said the request is supported by the F&W Committee and that it had been reviewed by the Budget Oversight Group. The request is for an additional \$174,473 in expense funds to cover costs associated with the replacement of a diversion dam on the Malheur River that was lost due to an ice-flow event, Fritsch explained. The Tribe was told by F&W agencies, after the initial estimate of the costs to replace the dam, that the replacement structure had to be designed to pass fish at all flow levels, explained staffer Tony Grover. The new engineering design will handle the wide range of flows, he said.

Dukes moved that the Council recommend to BPA the implementation of a budget adjustment of an additional \$174,473 to replace the diversion dam on the Malheur River, project 2000-027-00, as recommended by the F&W Committee. Bill Bradbury seconded, and the motion passed.

3. Presentation by the Northwest Energy Efficiency Alliance:

Claire Fulenwider, Executive Director, NEEA.

Claire Fulenwider, executive director of the Northwest Energy Efficiency Alliance (NEEA), briefed the Council on the organization's accomplishments in the past year. NEEA helps the region "capture efficiency better, faster, and cheaper," she said. NEEA champions emerging energy-efficiency technologies, accelerates the market adoption of efficient products and practices, and leverages regional advantage to reduce risk and achieve economies of scale so utilities can meet their energy-efficiency goals, Fulenwider explained.

NEEA "spends money inversely," putting a lot of dollars upfront while the savings from those investments don't come until later, she said. Utilities work directly with customers, BPA works more regionally, and we try to work upstream with stores and manufacturers, Fulenwider stated.

Since NEEA began in 1997, we've achieved over 700 average MW in energy savings, she reported. In 2010, we achieved over 100 aMW in savings and exceeded our targets, according to Fulenwider.

She explained NEEA's current initiatives, including research and pilot programs involving solid state lighting. Solid state lighting improves safety on streets and in parking lots, but it still costs too much. We will try to launch a regional "relight the streets" campaign, Fulenwider added.

Fulenwider described her organization's success in getting retailers to stock high-efficiency televisions and NEEA's pilot projects to accelerate the adoption of ductless heat pumps in electric heat homes. We think the heat pump program could deliver a 100-MW block of power at less than \$4.28 cents/KWh and do it within two years, she said.

Other NEEA programs involve efficiency in food processing, building renovation, and northern climate heat pump water heaters, Fulenwider noted. These water heaters can be installed anywhere in the Northwest, from Seattle to Bozeman, she said. The price is dropping, and we expect it will get to under \$2,000 a unit, Fulenwider pointed out. We will have an extensive pilot on this later in the year, she added.

The challenges NEEA faces today, according to Fulenwider, are that "there's less low-hanging fruit" and opportunities are more complicated and costly. Also, focusing just on our own region can result in missed opportunities, Fulenwider added. We've been successful in bringing benefits to the Northwest, and we now have some opportunities with BC Hydro, Colorado, and California, and that work could bring benefits to this region, she noted.

Utilities are getting a lot of value for their investment in NEEA, said Karier. Your organization is an incredible partner to the Council, as well as to utilities, agreed Joan Dukes. Are there policy issues state legislatures need to address to help remove the barriers you mentioned for IOUs, and to make it safer for utilities to move forward with this work? Phil Rockefeller asked. We have a policy advisor working on that, and we would like to talk further with you about it, replied Fulenwider.

4. Presentation on Carbon Dioxide Sequestration Demonstration:

Peter McGrail, Pacific Northwest Laboratories.

Pete McGrail of the Pacific Northwest National Laboratory gave a presentation on carbon capture and sequestration (CCS) and its potential, focusing on a pilot CCS project at the Boise paper mill in Wallula, Washington. Drilling to store CO₂ underground at the site began in January 2009, and the Washington Dept. of Ecology granted a CO₂ injection permit to the project in March of this year, he said. It is the first permit to do CO₂ injection in flood basalt, McGrail reported.

We are planning to do an injection at Wallula in late fall or early winter, he noted. The project, which aims to confirm the feasibility of permanently and safely sequestering large quantities of CO₂ within deep flood basalt formations, is unique in the world, McGrail said.

Rapid development of wind resources is overtaking the capability of the Northwest power system to integrate and balance intermittent wind generation, McGrail told the Council. High spring runoff and federal limits on spill at dams have led to generation curtailments on wind developers, he said.

The question is whether it is possible to use what we've learned from studying CO₂ sequestration to develop subsurface energy storage solutions to the overgeneration problem, McGrail stated. The fact that geologic structures being studied for CCS are located near wind farms in eastern Washington and eastern Oregon has given us ideas for Compressed Air Energy Storage (CAES) and for underground thermal energy storage, he noted.

CAES involves storing compressed air underground until it is needed to run turbines, according to McGrail. CAES uses 40 percent less natural gas for the same power output as a standard natural gas combined-cycle plant, he reported. McGrail also said there is good potential for CO₂-enhanced geothermal systems.

This seems like it is quite experimental, said Bradbury. How close are you to the reality of implementing this? he asked. It's not that difficult, replied McGrail. We know the geology and could do an economic analysis in a relatively short period of time, he added.

Do you have any economic data now? Karier asked. Sequestration is a policy issue, and because the United States has no carbon policy, emitting CO₂ is free, replied McGrail. We are looking ahead to have projects ready if the U.S. adopts a carbon policy, he said.

What would a coal plant that took advantage of this technology look like? Rockefeller asked. At a coal plant, the engineering would be straightforward, except for the chemical separation process which would enlarge the footprint of the plant, so there would be a question of available land, replied McGrail.

5. Presentation by Itron Inc.:

Arun Sehgal, Engineering Advisor.

Arun Sehgal of Itron Inc. said his company, an offshoot of Washington Water Power of Spokane, started in 1977 as a meter-reader company to improve billing accuracy. Since then, "we've morphed" into a global company in the forefront of the discussion on the smart grid and energy and water resource management, he told the Council. We now serve 8,000 customers in 130 countries, and we are dedicated to supplying products and services for measuring, optimizing, and analyzing utility information, Sehgal said. There are 300 million electric, gas, and water metering points in the country, and we need to better manage and collect information from all these points.

The key to managing our aging energy and water infrastructure is much better monitoring, according to Sehgal. Global water demand is projected to increase by 53 percent by 2030, and water pipe systems are old, and some leak, he said. "We are living on borrowed time with this infrastructure," and if we don't manage it well, we'll run into rationing with these key resources of energy and water, Sehgal stated.

By 2030, it is estimated there will be 50 million electric vehicles on the road, he told the Council. Those vehicles are going to be on the grid, as well as the road, Sehgal said.

The ability of the grid to handle this is still uncertain, he noted. The key point is that we must monitor and measure electric vehicles' use and impact, and if electric vehicles are going to be treated as a generation source, we need a smarter grid, Sehgal added.

The smart grid, he said, will be influenced by three fundamental drivers: supply advantage, operational improvement, and consumer engagement. As vendors of technology, we want to help consumers take responsibility for the way energy resources are being used and make it effortless, Sehgal stated. Energy and water conservation should be part of everyday life -- you shouldn't have to do something special to make it happen, he said.

Bill Booth asked what equipment Itron makes and how it has changed over the years. We manufacture smart meters and communications technologies, and we also do forecasting and consulting, Sehgal replied. Our scope of activities has gone from a focus on operational efficiencies to a true smart grid, he said.

Are you involved in pilot projects in the Northwest? Karier asked. We are running projects "shoulder-to-shoulder" with utilities, Sehgal replied. When will we see the results? Karier asked. The results of some of our projects, such as our home energy use project with CenterPoint Energy in Texas, are available now, Sehgal said.

6. Update on Surplus Energy Paper:

Ken Dragoon, Senior Resource Analyst.

We received 17 "robust responses" to our draft paper, "The Effects of an Increasing Surplus of Energy Generating Capability in the Pacific Northwest," staffer Ken Dragoon said. We've revised the paper and responded to those comments, and we have made some clarifications suggested by Council member Jim Yost, he noted.

We have also added a discussion of recent events, including passage of California's higher renewable portfolio standard and BPA's wind curtailments under the high spring runoff this year, Dragoon explained. The Council gave the go-ahead to post the paper on its website.

7. Presentation by EnerNOC on Third Party Facilitation of Demand Response:

Brad Davids, Vice President for Utility Solutions.

Brad Davids, vice president for utility solutions at EnerNOC, told the Council that interest in demand response -- voluntary temporary changes in energy use by customers when the power system is stressed -- is growing. The surge in interest stems from the region's need for peaking capacity and the increasing number of renewable resources on the grid, he said.

EnerNOC is a "demand-response aggregator" that manages the recruitment, compensation, and deployment of customers who are willing to adjust their electricity use, Davids said. Our company has over 6,650 MW of commercial and industrial demand response under management across 10,700 customer sites and over 100 utility and grid operator clients, he reported.

The fundamental driver for demand response, according to Davids, is that the top 10 percent of a typical utility system is only needed 60 to 80 hours, or about 1 percent of the year. The idea then, is to use the demand side, not the supply side, to meet that peak demand need, he stated.

While energy efficiency is part of long-term system planning, demand response is a shorter-term solution, Davids explained. Our business model involves "outsourcing negawatts" -- it's similar to the

independent power industry that has grown up to deliver power to utilities, but we are an industry that delivers “negawatts,” he said.

EnerNOC has dozens of demand response partnerships with utilities, both investor-owned and publicly owned, Davids noted. Our largest program is with the Tennessee Valley Authority and involves 560 MW, he said.

Davids explained that customers who sign up with EnerNOC typically receive quarterly payments for availability and event-based payments based on energy reductions. Curtailment options, he said, are tailored to avoid negative impacts on business operations, and customers have access to a web portal displaying real-time and historical information on energy use, which they can use to improve efficiency.

We work with diverse customers, including office buildings, schools, hotels, hospitals, dairies, grocery stores, and recreational facilities, Davids continued. Different customers can provide different resources, including emergency power, peak-shaving power, non-spinning reserves, and load-following, Davids noted.

Council Chair Bruce Measure asked about demand response arrangements with hotels. We tie into a building’s management system and program a script into it in the event certain events occur, explained Davids. Parking lots are good places where the heat can be turned down for a few hours, he added.

Davids described the project his company is doing with Idaho Power. IP’s FlexPeak Management Program, launched in 2009, provides the utility 65 MW to help manage peak load demands in the summer, he said. Demand response programs require active, engaged management over time, much like operating a power plant, Davids pointed out.

Our new wind integration pilot project with BPA is designed to explore how demand response could be used to balance both spikes and dips in wind supply, he said. EnerNOC is helping BPA investigate the use of aggregated commercial and industrial end-use loads to provide a load-following resource to mitigate wind intermittency, Davids explained.

Among the parameters for the pilot are direct load control, both up and down; 24/7 availability; and dispatch on 10 minutes notice, he said. We are initially focusing on cold storage facilities for this project, and we have four or five warehouses signed up, Davids noted. We expect to have some results from the project this fall, he added.

This offers great opportunities, said Tom Karier. What’s the potential for this? Is it unlimited, and are we just beginning to make use of this capability? he asked. We have a good sense now that if done with the right incentives and structure, commercial and industrial demand response can contribute up to 10 percent of utilities’ peak demand, and we are achieving that in our projects in the East, replied Davids.

In the Northwest, we are just getting started, he said. We are nowhere near that level, Davids added. In our Idaho Power program, we are at about 1 percent, he said. These kinds of programs haven’t been done that much in the Northwest because the region has been long on capacity, Davids noted.

8. Update on category reviews for Data Management, Program Coordination and Resident Fish/blocked area reviews:

Lynn Palensky, program development.

Staffer Lynn Palensky gave an update on the upcoming category reviews for resident fish/blocked areas, data management, and program coordination. There are 81 projects in the reviews with a total budget of \$46 million, she said. The review process will launch on September 1, and we anticipate it will take

nine months, Palensky stated. The Council's decisions are expected in June 2012, she said. We are discussing a delay in the due date of one category of projects, requested by the Kalispel Tribe, Palensky noted.

Karier said BPA puts out principles in advance about what they are trying to accomplish with projects and later goes back and tries to see if the goals were accomplished. I'll be looking for something like that with this review, he told staff. Karier asked that the principles and goals be easy to find in this review process.

9. Presentation on Invasive Northern Pike in the Pend Oreille River:

Deane Osterman, Executive Director, Natural Resources; Joe Maroney, Director of Fishery and Water Resources; and Jason Connor, Fisheries Project Manager, Kalispel Tribe of Indians

Deane Osterman, natural resources director for the Kalispel Tribe, said the northern pike, a species illegally introduced to the Clark Fork River, Montana, are threatening resident fish in northeastern Washington and beyond. They have emigrated to the Box Canyon Reservoir on the Pend Oreille River and become firmly established, he stated. They are rapidly expanding, and we estimate there are over 10,000 of them reservoir-wide, Osterman said. Angler harvest alone can't control or reverse this expansion, he added.

Northern pike threaten to undermine significant investments by the Tribe, utilities, BPA, state agencies, and the Corps of Engineers to restore native species, including ESA-listed bull trout, Osterman said. And they pose significant risks to the anadromous fisheries of the Columbia River basin and the fisheries of the lower Columbia River tribes if left to emigrate further downstream, he pointed out.

The Kalispel Tribe is proposing a diverse set of measures to combat northern pike proliferation in the Columbia Basin, Osterman said. They include monitoring, designation of the northern pike as an invasive species, changes in fishing regulations, education and outreach, promoting harvest through derbies and tournaments, and securing funding for a long-term mechanical control and suppression program, he explained.

It sounds like you think you can't solve this problem by adding more angler days, Dukes said. The scale of the problem means we can't get enough anglers, but the real issue on the Pend Oreille River is that we are starved for angler opportunities, Osterman responded. It's a long-term environmental justice problem for the Tribe, he added.

Do you have a long-term plan to solve this problem? Dukes asked. My staff says that if we did a suppression program, we could knock back the population to manageable levels in three to four years, Osterman replied.

What is the prospect for limiting the spread of the northern pike downstream? Phil Rockefeller asked. We need to start by suppressing the population on the Pend Oreille River, and I think we can be successful, Osterman replied. If we start seeing the pike population downstream, we need to eradicate it when we see it and to act fast, he added.

Has the Washington Dept. of Fish and Wildlife (WDFW) taken the threat seriously? Rockefeller asked. We have their support and they are moving as rapidly as they can, replied Osterman.

10. Presentation on Habitat Improvements in the Tucannon River:

Steve Martin, Executive Director, Snake River Salmon Recovery Board.

Steve Martin of the Snake River Salmon Recovery Board briefed the Council about the results from habitat investments in the Tucannon River watershed in southeast Washington. He explained what the recovery board does and noted that it has been meeting monthly since 2002. Our funding partners, Martin noted, are BPA, the Washington Salmon Recovery Funding Board, the U.S. Dept. of Agriculture, and U.S. Dept. of Energy.

He said the results of their “aggressive” habitat restoration work and intensive monitoring in the Tucannon Subbasin have yielded encouraging results for the fish species there. We have “quite a list of accomplishments,” including riparian planting and protection on 1,100 acres, installing 44 fish screens, and removing three fish passage barriers, Martin reported. One shortcoming is that we have a lot of floodplain to reconnect, and that’s very expensive, he said. We have also increased instream flows by 10 cfs, as well as riparian improvements. We are moving towards the abundance goal, and there have been four consecutive years where the Tucannon River natural origin spring chinook have increased, and that’s encouraging, he noted.

Booth asked if they have been able to separate out effects of the ocean and the entire system on the fish versus the habitat improvements being made. We are endeavoring to measure trends and effectiveness, and we are using an intensively monitored watershed to try to determine whether the habitat improvements are the reason we are seeing the increases in fish runs, replied Martin.

Yesterday, the Independent Scientific Review Panel gave us a favorable response to the habitat project we submitted last year, he reported. Martin summed up his report by saying that improvements have been validated by empirical data, intensive monitoring is under way to track the status and trends with habitat and fish, and that durable partnerships and landowners’ support are key to continued improvements.

During public comment on the presentation, Chase Davis of the Upper Columbia United Tribes asked Martin about the effects of WDFW impoundments in the watershed. The impoundments all have surface water diversions, replied Martin. We have monitored them, and we don’t think they are increasing water temperatures, but they are infrastructure in the floodplain, he said. We can’t reconnect the lakes and floodplain with all this infrastructure, Martin added.

11. Update on RTF Policy Advisory Committee meeting:

Terry Morlan, director, power division.

Staffer Terry Morlan reported that the first Regional Technical Forum (RTF) Policy Advisory Committee meeting was held on July 28 and that it was “very lively.” The committee discussed the scope of RTF activities, and there was substantial agreement on the basic scope of the RTF and its focus on science, he said.

There wasn’t so much agreement on funding allocations for the RTF, according to Morlan. Some objected to the suggestion that NEEA allocations be used, so the committee decided to form a funding allocation subcommittee, he said.

We suggested that the Council’s contribution to this effort may have to be reduced, but it’s not clear how to do that, Morlan added. At the committee’s next meeting on September 30, we’ll get a report from the funding allocation subcommittee, review a draft RTF charter, and talk about long-term funding alternatives, he said.

I attended the meeting, said Bradbury. The funding allocation subcommittee is made up of people who objected to the funding allocation, so it's "an interesting situation," he commented. Coming up with a solution for stable long-term funding is critical, and if the advisory committee can't do that, I don't know why we have it, said Morlan.

The Policy Advisory Committee is scheduled to meet again at the end of October, and after that, we think the substantive policy issues will have been addressed, he stated. The Committee would then only meet once a year, Morlan added.

At the end of Morlan's presentation, Craig Patterson commented by telephone about measuring conservation savings. He said we need to measure conservation savings at the end-user meter. Ultimately, that would be good, but the technology to do that is still in the future, Morlan said.

12. Update and approval of revised fuel price forecasts:

Terry Morlan.

Morlan said that changes in the outlook for natural gas supplies in the last year appear to qualify as a fundamental shift in expectations about future natural gas supplies. The availability of new technologies to develop natural gas trapped in shale formations cost-effectively has changed the view of natural gas supplies from declining and constrained, to plentiful and adequate for many decades to come, he said.

The price of natural gas has gone down significantly since the Sixth Power Plan and so, working with our Natural Gas Advisory Committee, we have proposed a downward revision of our range of fuel price forecasts, Morlan reported. Because several organizations use the Council's price forecasts, it is important the Council make them available to the region, he said. We are requesting your approval to post the revised forecasts for natural gas, oil, and coal on the Council's website, Morlan told the Council.

Dukes moved that the Council approve the staff's recommendation to post on the Council website the updated forecast of fuel prices. Bradbury seconded, and the motion passed.

13. Council Business:

– Approval of minutes

Dukes moved that the Council approve the minutes of the July 12-13, 2011 Council meeting held in Portland, Oregon. Karier seconded, and the motion passed.

– Review of Financial Disclosure Forms

This item deferred until a later date.

Approved September 14, 2011

/s/ Joan M. Dukes

Vice-Chair

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