



Northwest Power and Conservation Council

Meeting Notes

September 13-14, 2016

Spokane, WA

Newly appointed Council Member Guy Norman of Vancouver, Washington, was welcomed to the Council, taking the seat of recently retired Council Member Phil Rockefeller. Norman was the regional director for Washington Department of Fish and Wildlife (WDFW) before retiring earlier this year, having also spent time with the Oregon Department of Fish and Wildlife during his career.

The next Council meeting will be in Portland, Oregon on October 11-12, 2016.

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The Agenda

Coordinated operations help mitigate sockeye mortalities

The summer of 2015 found the region experiencing higher than normal water temperatures and higher fish mortalities, especially among sockeye and sturgeon. This year, through increased communication and active management by regional stakeholders, early action was taken to mitigate a similar situation.

This effort, led by a regional coordination forum made up of fish and wildlife managers, the U.S. Army Corps of Engineers, the Fish Passage Advisory Committee and other technical team members, evaluated mainstem conditions, temperature modeling, harvest management and cold-water refuges.

Michael Garrity, Washington Department of Fish & Wildlife, said pumping cold water onto fish ladders at Lower Granite on June 9th and Little Goose on July 1st, when water temperatures approached 68 degrees, cooled the water. As a result, there was no emergency for sockeye and no trucking of adults, according to Garrity.

At Bonneville Dam, there were slightly warmer than average temperatures at the beginning of the year — right when sockeye were passing. Garrity said that the Corps did an outstanding job maintaining temperatures with releases from Dworshak. These actions improved sockeye survival and PIT-tag data confirms it, he said.

This year's water temperatures were less extreme and sockeye salmon and other fish experienced more normal survivals and conversion rates between dams. Monitoring will continue through September to ensure they reach their spawning destination.



In addition to the value of improved regional communication, the lessons learned include:

- Improved understanding of a decision-making framework for implementing emergency actions.
- Actions taken by the Corp at Dworshak, Lower Granite and Little Goose were effective in reducing risk and improving migration conditions.

Council Member Norman commended the team on their timely work. Two years in a row of high fish mortalities would have been a travesty, he said.

Inland Power & Light goes green with renewables and conservation programs

Inland Power is enthusiastic about finding the best route forward in promoting renewables and meeting the needs of their customers through conservation measures.

When Inland Power constructed its new building in 2009, it decided to do a study on the cost effectiveness of wind versus solar power. “We spent \$20,000 on each system and, when the test ended two years ago, we found that solar had out-produced wind by a factor of 4-1,” said Chad Jensen, Inland Power chief executive officer. “The wind turbine had a five-year life and no longer operated after its bearings seized up.”

Serving 11 counties in eastern Washington and two in eastern Idaho, Inland participates in state-mandated and utility developed programs. Inland currently has 152 net-metering locations, one company-owned solar facility and two community-owned solar facilities in its service territory.

High levels of interest in community solar resulted in 88 participants signing



up the first day. At a cost of \$300 per unit, the Geiger project which has a total of 526 units, sold out quickly. Inland installed its second community solar project, West Plains, and held a lottery for that system.

John Francisco, Inland's chief information officer, described the utility's efforts in designing a ductless heat pump program for low-income members. "There's a disproportionate benefit to those who can afford the upfront costs," he said. "So how do we use the low-income provisions for those who don't have the capital to get in the game?" The answer was to create a program that covers the costs for qualified low-income members, he said.

After removing the requirement to be a homeowner, a customer could qualify by meeting the federal poverty level and being a member of Inland Power. Community Action (CAP) agreed to qualify the applicants and local HVAC companies agreed to install the equipment on a lower margin, he said. Internal resources provided referrals when people called with high bills, and some were referred through the CAP agency and word of mouth. "Contractors were responsible for entire installation," Francisco explained. "We continued to provide pre-and-post inspection."

The program was popular and fully allocated when the first of 66 units were installed in October 2015. A moratorium has been placed on it until the savings can be analyzed, he said. "Most of these are manufactured home installations, and it's the first time these customers have had cooling," he said. "We're looking to do more next year."

Inland also informed Council members that they hope to have similar success in the near future boosting demand for electric vehicles with a refueling infrastructure. "Carbon is a clear focus of the regulatory environment, but 40 percent of carbon in Washington is from the transportation sector," Jensen said. "We're fortunate to have a robust hydro system and our fuel mix has very low carbon."



"We're going to offer an EV charger incentive," Jensen said. "We think it's the right thing for the state and a great value to our members. Traveling 15,000 miles per year, you can save \$900 on your fuel bill. It's a good way to add load back to our utility."

When asked by Council Chair Henry Lorenzen if Inland favored utility self-funding of conservation instead of sending the money to BPA, Jensen replied he did.

"I'm on the energy efficiency advisory council working (BPA Administrator) Elliot Mainzer," Jensen said. "We've been aggressive through conservation, but it's time for utilities to step up and self-fund it. Either way, we pay through our rates and I'd like to take a more active role in controlling it."

Natural gas fracturing has huge impact on U.S. supplies

Steve Simmons, staff senior economic analyst, reprised his recent presentation to the Council's Power Committee with an expanded look at the techniques and impacts of natural gas extraction and hydraulic fracturing. Technological advancements in digital imaging, horizontal drilling and

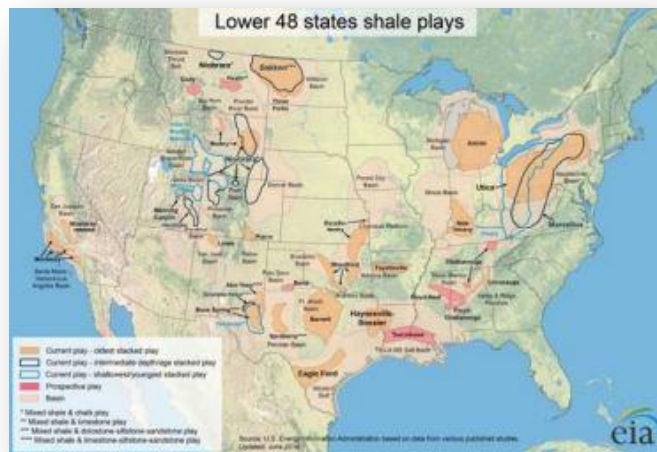
hydraulic fracturing have resulted in a “shale boom,” Simmons said.

There were 25,000 to 30,000 wells drilled and fractured annually between 2011 and 2014, so the technology has taken off in a short period of time. After eight years, the U.S. has moved from expecting a constrained natural gas future to one of abundance. It has altered the nation’s domestic energy picture dramatically resulting in lower prices, increased stability, increased power production, and declining imports – with increased exports to Mexico and liquid natural gas shipments, he said.

While there is no shale gas in the Pacific Northwest, in areas where it is being extracted, there is community pushback due to increased noise, traffic, air pollution, and water use — and some communities are passing moratoriums against fracking.

He added –additional concerns have been raised about methane leaks from increased gas production; potential impacts to drinking water resources; and small earthquake activity, which is tied to increased underground injection of oil and gas-related wastewater.

Council Member Jennifer Anders echoed the community concerns: “One thing we’ve seen in Montana is the societal impact of this industry to communities that are rural —all of a sudden there are 100,000 people who weren’t there before,” she said. “It presents issues of housing and law enforcement. So it’s not an impact that should be overlooked. We have personal experience with that in our state.”



Avista says utility help needed to boost consumer electric vehicle adoption

The Washington Utilities and Transportation Commission approved an electric vehicle (EV) charging pilot program for Avista to install EV charging stations and study their impact on energy delivery. Over the next two years, Avista will install 120 EV charging stations in homes, and 80 stations at workplace and public locations in Eastern Washington.

Rendall Farley, Avista’s electric transportation manager, told Council members that while he expects to see a strong movement to electrified mass transit, forklifts and possibly freight trains, their initiative is for passenger cars.

Some of EVs current barriers include public awareness, less vehicle choice (which is changing), upfront costs, range anxiety and low infrastructure investment. Avista’s working to change that. There’s very little cost needed to build infrastructure compared to fuel cells, Farley said. That’s why the pilot project is needed. When charging is available at work, it’s a tremendous catalyst to the growth of EVs.

In this pilot, Avista will provide and install an AC Level-2 charger for the first 120 Avista Washington electric residential customers who qualify. Qualifying customers will receive a reimbursement of 80 percent of their installation costs up to a maximum of \$1,000.

Qualifying business customers will be provided with an AC Level-2 charging station. These public charging stations must be available to the public and within a five-minute walking distance of a major park, shopping area, restaurants, entertainment center and/or en route to a longer distance destination.



There are also plans to install DC Fast Chargers at seven locations in Eastern Washington. DC Fast Chargers greatly reduce charging times to as low as 15 minutes to significantly recharge the battery to make longer-distant driving more convenient. The DC Fast Chargers will be in close proximity to major arterials and driver amenities, such as in Pullman, Rosalia and Spokane.

Council briefs

GENESYS to get a reboot

Power Committee Chair and Council Member Tom Karier talked about the need to upgrade the GENESYS model, which has been the workhorse in the Council's modeling process for 15 years. While it does a really good job of modeling the hydrosystem, it does have some limitations. It will be upgraded based on staff's recommendations of what needs to be improved. The process and budget still have to be worked out.

Council's Congressional Staff Tour a success

The Council's Congressional Tour in August had substantial participation from the Congressional offices. About 22 people from all four states attended. They discussed fish and wildlife topics, and took a tour of Grand Coulee Dam. They looked at a Whoosh salmon cannon and a mussel inspection station. The tour had the support of area tribes and several agencies.

Stan Gregory and Alec Maule appointed to ISRP

The Council voted to appoint Stan Gregory to the Independent Scientific Review Panel (ISRP) for a first term, from October 1, 2016 to September 30, 2019. It also renewed Alec Maule's appointment for a second to the ISRP for a second term, ending September 30, 2020.