Northwest Power and Conservation Council

Council Meeting
Seattle Washington

July 9-10, 2013

Minutes

Council Chair Bill Bradbury called the meeting to order at 1:36 pm on July 9th and Vice- chair Jennifer Anders adjourned it at 4:15 pm on July 10th. All members were present.

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

Phil Rockefeller, chair, fish and wildlife committee; Jim Yost, chair, power committee; and Henry Lorenzen, public affairs committee.

Phil Rockefeller reported that the Fish and Wildlife (F&W) Committee discussed the F&W program amendment process, including a framework for monitoring, evaluation, research, reporting, and information management, and the staff's work on biological objectives. We also approved a draft charter for the Ocean Forum and adopted recommendations for the Fish Tagging Forum, he said.

Jim Yost reported the Power Committee discussed Washington State's Solar Partnership program. Staff gave us an update on the recent Western Electricity Coordinating Council's reorganization and briefed us on the power plan provisions of the Northwest Power Act, he said. The committee talked about demographic and economic drivers to be used for the Seventh Power Plan and the updated natural gas price forecast, Yost added.

Henry Lorenzen reported the Public Affairs Committee would meet that day to discuss finalizing arrangements for the Congressional staff tour to be held in August in Montana, and he said the tour would have 17 or more participants. Lorenzen noted that the committee will soon take up the question of updating the Council's logo.

1. Progress report on joint projects with Columbia Basin Trust:

Greg Deck, Chair, Columbia Basin Trust; and David Raven, Council liaison, Columbia Basin Trust

Staffer John Harrison gave an update on the Columbia Basin Trust (CBT), noting the CBT is the closest counterpart agency to the Council in British Columbia. CBT was created in 1995, and the Council has had a Memorandum of Understanding with them since 2000 to pursue projects of mutual interest, he said. CBT board chair Greg Deck introduced David Raven, who was recently appointed to be the CBT liaison to the Council. Deck told the Council he appreciates the years he has spent working with them, and he urged the Council to keep the relationship "as warm and useful as possible."

Raven, who is the mayor of Revelstoke, B.C., said much of the CBT and Council's work relates to animals, water, and trees, and they don't recognize political boundaries. He announced the CBT is going to carry out a $3 million wildlife enhancement and compensation program in and around the Koocanusa Reservoir.

We are also working with the Council on the fifth transboundary conference on Columbia River issues, Raven said. We hope to have it organized by spring 2014, and we will look for your support for it, he told the Council.

Raven explained what the CBT does, pointing out its investments in several hydropower developments. With respect to the Columbia River Treaty, we are helping people to understand the issues and background, but we don't take a position, he noted.

This relationship with the CBT has been unique and beneficial, and we look forward to continuing collaboration with you, Bradbury said. Anders said she is now the Council's liaison to the CBT and that she looks forward to working with them.

How close to the border is the Koocanusa project? Bill Booth asked. It goes right to the border, replied Deck. And it will impact both sides of the border, added Raven.

The CBT has helped us understand what's going on on the other side of the border, said Tom Karier. I am pleased to hear about the Koocanusa project, stated Pat Smith. We'd like to collaborate on that, he added.

2. Remarks by Governor Jay Inslee, State of Washington:

Introducing Washington Governor Jay Inslee, Tom Karier called him a "nationally recognized expert on clean energy," and Phil Rockefeller said Inslee's book, "Apollo's Fire," is a key to understanding the governor's "highly energetic commitment" to clean energy, efficiency, and fighting climate change. Inslee told the Council the aggressive conservation targets in the Sixth Power Plan were "impressive" and said the plan provided a vision for the region, and "the region came through." Thanks for your leadership, he added.

Inslee said nearly one-fifth of the country's renewable energy comes from Washington state, but "there's more to be done." The region had 22 percent higher emissions from electricity

generation from 1990 to 2010, he reported. When the water in the river is down, we buy electricity from coal plants, and emissions go up, Inslee said.

Climate change and ocean acidification are the greatest challenges we face, he stated. Climate change is affecting our state, Inslee said, noting that reduced snowpack affects water supplies for farmers in eastern Washington, forest fires are worse, and shellfish growers are moving some of their operations due to ocean acidification.

The most costly approach to climate change is to ignore it and "let it swallow your major industries," he stated. "We are a can-do people in the Northwest, and we can step up to this challenge," Inslee told the Council. Boosting homegrown clean energy in the Northwest will strengthen and expand our economy and create jobs, he said.

In the recent legislative session, we established a Clean Energy Fund that will invest $40 million in energy efficiency and renewable energy technologies, Inslee reported. The fund will help electric utilities develop new technologies that can cut the cost of integrating renewable energy into the grid, he said.

We also extended tax incentives for renewable energy, and we are going to fund a Clean Energy Institute at the University of Washington, Inslee noted. We established a legislative work group to recommend ways to reduce greenhouse gas emissions in our state, he said. We need to embark on a comprehensive program to reduce emissions across all sectors, Inslee recommended, including new transportation strategies that rely on more efficient cars, and using natural gas as a bridge fuel for heavier vehicles. We need to build new energy-efficient buildings, and for existing buildings, efficiency retrofits have to be seen as the norm, he said.

Our electricity sector is one of the cleanest in the world, Inslee stated. But we need to take the final step, which is decarbonizing our power system, he said. When river levels are down, I'd rather we import wind or solar power from anywhere in the West, rather than import coal, Inslee stated. It's time to re-assess the long-term viability of Northwest coal plants, he added.

Inslee asked that the Seventh Power Plan address how the Northwest will reduce carbon pollution from electricity "further and faster" and in the most efficient way possible, and accelerate the transition from coal. The plan should lay out "a clear and date-certain path" to an electricity system that is 100 percent carbon-free and renewable, he said. This will be an historic achievement and a great legacy, he told the Council.

We have made significant progress in moving past coal in Oregon and Washington, and that gives us a good foundation for what you are talking about, said Council Chair Bill Bradbury. You have given us a great challenge, stated Karier.

3. Report on Northwest Power Markets Symposium:

Charlie Black, director, power division.

Staffer Charlie Black reported on the Power Markets Symposium the Council hosted July 8. It was the third of a series the Council is holding on key energy issues to provide information and

promote discussion of issues for the Seventh Power Plan, he noted. The topic was Northwest power markets, and the symposium attracted about 80 to 90 people, Black said.

Some highlights, he reported, included presentations on the role of FERC in the marketplace and on energy imbalance markets, as well as panels on hedging and risk management strategies and on generating project development in the region. The session closed with remarks from Robert Kahn who summed up the challenges faced by independent power producers, Black said, adding "it was a good, productive day."

In September, we will host a symposium in Portland on California's power markets and the relationship between the Northwest and California, he stated. One person told me yesterday's symposium was like "Northwest energy markets, A to Z," said Karier. The symposium provided valuable insight into what utilities face managing their resources and financial portfolios, Karier said.

4. Presentation on efforts to reintroduce extirpated coho, sockeye and summer Chinook in the Yakima subbasin:

Dave Fast, Yakama Nation.

David Fast of the Yakama Nation gave a presentation on work being done by the Yakima/Klickitat Project to reintroduce coho, summer chinook, and sockeye salmon into the Yakima Basin. He described the basin and said its development and agricultural successes have come at the cost of fish living there. Fast described the historic fish runs and the status of the fish today.

Coho were extirpated in the 1980s, and the Yakama Nation began reintroduction in 1985, he reported. We have been working on this species the longest, and our program goal is to re-establish a self-sustaining naturally spawning population of coho in the Yakima River, Fast explained. He described the tools they are using, including adult out plants, mobile acclimation, and parr plants. Survival of coho in Tanuem Creek has gone up since we started our program, Fast said. Ultimately, success will be evaluated by juvenile fish surviving to the ocean and adults returning to the tributary, he added.

Fast said the monitoring techniques they use include redd surveys, electro-fishing, snorkeling, and Pit-TAG detectors. For Upper Yakima coho, we have gone from fewer than 1,000 returns in the 1980s to over 10,000 combined hatchery and natural-origin adults, he reported.

Summer chinook went extinct in the 1970s, and the goal of our program is to initiate investigation of the feasibility of establishing an early-run fall chinook population, Fast said. He described what they are doing and said that returns look good for this year.

Fast described the Lake Cle Elum Fish Passage Project for sockeye reintroduction. Historical runs of sockeye were around 200,000, but they were extirpated in the early 1900s, he said. Fast explained what they have been doing and said that sockeye salmon adults that were naturally produced in the Cle Elum watershed are now returning to the Yakima basin for the first time in over 100 years. He said the Tribe is also starting to work on enhancing the threatened bull trout population and to restore populations of lamprey.

Are there examples of reintroduction of extirpated species that have recovered and lasted through two or three life-cycles? Lorenzen asked. There have been successes in other areas, but the key is to remove the obstacles that extirpated the species in the first place, Fast replied.

5. Briefing on Safeco Field Energy Efficiency Program:

Scott Jenkins, Safeco Field Operations Manager.

Scott Jenkins, Safeco field operations manager and chair of the Green Sports Alliance, described conservation investments at the ball park, which have resulted in savings of over $1.75 million in electricity, natural gas, and water and sewer charges since 2006. Conservation is a huge opportunity for us, he said. We have taken the approach that you can modify behavior and operations at our ball park like you do at home to save energy, Jenkins stated.

We saved $275,000 the first year of our "better way to play" efficiency effort by actions such as weather-stripping, he said. We have retrofitted the lighting in our garages and replaced incandescent lights in our suites with LEDs, Jenkins reported. Our new scoreboard display uses LEDs and saves 1 million KWh per year, he said. We installed solar panels on a passageway to the garage, and those supply 17 percent of the power for the garage, Jenkins noted.

One of our biggest efforts involves waste disposal since the ball park has 1,000 tons of waste a year, he said. In FY 2012, we saved $125,000 by starting recycling programs, composting, and converting to all-compostable service ware, Jenkins added.

We have an energy dashboard that displays data on hourly and average energy and water use at Safeco, he noted. This is a valuable tool that's being rolled out across all MLB parks, Jenkins said.

What's on deck? We are talking about recovering waste heat from sewer pipes, he noted. That's being done in Vancouver, B.C., Jenkins said.

People see the opportunity that sports brings to elevate the conversation about conservation, he stated. The Green Sports Alliance, formed two years ago and stretching from Vancouver, B.C. to Portland, is a way to share best practices and make the business case for conservation, Jenkins concluded.

What do you do to keep the beer cold? Jennifer Anders asked. We are putting a new type of thermostat in our coolers, and they can cut electricity use by 30 percent, replied Jenkins.

When you did a large LED changeout, was it difficult to find suppliers? Karier asked. A few years ago, it would have been, but now there are lots of suppliers, replied Jenkins. We are about to do a complete relamping of our home clubhouse, he noted. We will be able to change LED light colors before the game to "rev our players up" and change them after the game to be more relaxing, Jenkins said. We will be the first MLB team to do this, and we plan to swap the lights out at the All-Star break, he added.

6. Briefing on Regional Technical Forum annual report for 2012:

Nick O'Neil, Regional Technical Forum manager.

Staffer Nick O'Neil presented the Council with the 2012 Regional Technical Forum (RTF) annual report and 2013 progress update, "hot off the press." 2012 was really busy for the RTF, he noted. Among the highlights, O'Neil said, were updating the guidelines for estimating energy savings and cost; reviewing and categorizing the existing library of measures and protocols; developing an RTF Policy Advisory Committee (PAC) dashboard; creating a business case for a new End-Use study; and expanding RTF contract staff and instituting a third-party review of RTF work.

We reviewed over 80 measures in 2012, he reported. The dashboard for the PAC quantifies how and where we are spending our money, O'Neil said. The RTF has a $1.5 million budget, and in 2012, we spent $1.43 million, he noted.

In 2013, the RTF provided orientation for new members, created an online proposal form for new measures, continued to review existing measures and set research priorities for measures, O'Neil reported. We are digitizing all the elements of BPA's End-Use Load and Consumer Assessment Program (ELCAP), continuing to support small and rural utilities, and using a third-party quality control process to make the RTF's work more transparent, he said.

Rockefeller asked if the data from the RTF is useful to other regions, and if the Council should be the only one financing this. Staffer Tom Eckman said the RTF is funded by utilities, BPA, and the Energy Trust of Oregon, and that the Council's contribution is in-kind. Outside parties do make use of the data, he stated. Should we be recovering our costs? Rockefeller asked. This is a voluntary contribution of BPA and the utilities that get the benefits, said Karier. There aren't free riders in the Northwest -- all utilities are getting value, he added.

Karier said it would be a good idea to get partners like California and the Dept. of Energy (DOE) to contribute funds for the ELCAP revisions. We might look at subscriptions, he suggested.

The RTF's ability to measure the amount of savings reliably is really a phenomenal effort, and one that requires relatively little funds, stated Karier. DOE is very interested; we are light years ahead on this, he said.

7. Council Business:

- **Approval of June 2013 minutes**

Pat Smith moved that the Council approve the minutes of the June 11-12 2013 Council meeting held in Missoula, Montana, and the minutes of the June 21, 2013 Council meeting held via conference call. Booth seconded, and the motion passed.

- **Adoption of Council Draft Fiscal Year 2015 and Fiscal Year 2014 Revised Budget (Council document 2013-06)**

Staffer Sharon Ossmann reported that the Council released its draft FY 2015 and FY 2014 revised budget for public review in May and that two oral comments were received, as well as one written comment. The written comment came from Charles Pace, she noted.

Staffer John Shurts said that Mr. Pace had made similar comments to the Council last year and that the issue involves a difference of opinion about BPA firm power sales forecasts and their relation to the Council's budget. Last year, BPA staff met with Mr. Pace to discuss this issue, but they couldn't resolve their differences, Shurts reported. Also, by voting on the budget, you are not making a decision on the right way for BPA to do the power sales forecast, he told the Council. It is BPA's forecast, and BPA provides it to us, Shurts said.

Anders moved that the Council adopt the Fiscal Year 2015 Budget and Fiscal Year 2014 Revised Budget and that the Council authorize the staff, if and when necessary, to reprogram available Fiscal Year 2013 funds from one budget category to another to cover unanticipated Fiscal Year 2013 costs. Karier seconded, and the motion passed.

– Support for Quagga/Zebra Mussel Declaration of Cooperation

Staffer Jim Ruff recounted that the Council co-sponsored a workshop in May with the Pacific NorthWest Economic Region, the Pacific States Marine Fisheries Commission, and Portland State University titled "Preventing an Invasion: Building a Regional Defense against Quagga and Zebra Mussels." One outcome of that was the writing of a Declaration of Cooperation to advance the next steps in preventing an invasion of the mussels in the Pacific Northwest, he said. The Northwest is one of the few areas on the continent that doesn't have these mussels, and we want to keep it that way, Ruff stated.

Rockefeller thanked Ruff and others who worked on the declaration. Unfortunately, there are no easy fixes once these mussels are established, so prevention is critical, he said. We have a common purpose in trying to prevent this invasion, especially after all the investments in hydropower and irrigation and infrastructure that BPA ratepayers and others have made, Rockefeller stated. Idaho continues to lead this effort regionally, he added, thanking Yost for his efforts in that regard.

Anders moved that the Council support the regional Declaration of Cooperation in the Northwest Defense Against Quagga and Zebra Mussels by authorizing the Chair to sign the declaration on behalf of the Council. Rockefeller seconded, and the motion passed.

– Approval of Resource Adequacy Advisory Committee

Staffer John Fazio presented a proposal to charter the Resource Adequacy Forum, an ad hoc committee created as part of the implementation of the Council's Fifth Power Plan, as an official advisory committee to the Council.

Anders moved that the Council authorize the creation of, and approve the charter for, the Resource Adequacy Advisory Committee for a period of two years. Karier seconded, and the motion passed.

– Approval of Resource Strategies Advisory Committee

Black presented a proposal to create a Resource Strategies Advisory Committee as a new advisory committee to the Council, noting such a committee would provide an additional means for the Council to have discussions about policy and resource strategy matters during the development of power plans. We have received broad support for having this committee from stakeholders in the region, he noted.

Anders moved that the Council authorize the creation of, and approve the charter for, the Resource Strategies Advisory Committee for a period of two years. Smith seconded, and the motion passed.

8. Panel presentation on reducing toxic contaminants in the Columbia River Basin:

Paul Lumley, CRITFC; Deane Osterman, Kalispel Tribe; Tracy Collier, Science Director, Puget Sound Partnership; and Dennis McLerran, EPA Regional Administrator.

Paul Lumley of the Columbia River Inter-Tribal Fish Commission (CRITFC) led off a panel presentation on reducing toxic contaminants in the Columbia River Basin. He said the ceded lands of the four CRITFC tribes are 66,591 square miles and more than 25 percent of the basin. The Council's F&W program has a water quality strategy that addresses toxic contaminants, and there are some BPA habitat projects to reduce toxics, but additional work is needed to better understand the impact of contaminants on the recovery of key species and food webs, Lumley stated.

The federal agencies should evaluate whether toxics adversely affect anadromous or resident fish important to the F&W program and carry out actions to reduce toxics, he said. Lamprey and sturgeon are particularly vulnerable to the bioaccumulation of toxics, Lumley pointed out. State water quality standards are tightening, he said, noting that Oregon has the highest water quality standards in the nation and that Washington is revising its current standards.

The federal reservoirs are increasing contamination of the aquatic food web, according to Lumley. In 2011, we started the Columbia River toxics reduction working group as a collaborative effort to reduce toxics in the basin, Lumley stated. Toxics are not only a human health issue, but also have adverse impacts on species important to the Council's F&W program, he said. Lumley urged the Council to take an active role, through cooperation with regional partners, to ensure monitoring of toxics and that an evaluation of their effects on F&W will get done.

Fish have been affected by the FCRPS, and toxic contamination is an often disregarded obstacle to fish recovery, he stated. Toxics that affect fish recovery come from hydrosystem components and other sources, and mitigation to address toxics is legally appropriate, Lumley said.

CRITFC recommends including the recommendations of the Independent Scientific Review Board and Independent Scientific Review Panel in the F&W plan and that the plan include an analysis of the impact of toxics contamination, particularly for white sturgeon and lamprey, he stated.

Deane Osterman of the Kalispel Tribe Natural Resources Dept. said toxics are affecting the health of Kalispel Tribe members. It's all about protecting the beneficial use, which is fish consumption, he stated. There is a need to determine who to protect, an acceptable risk threshold, and the amount of fish to be consumed, Osterman said.

EPA's 2000 Guidance created a national default standard, but it has shortcomings, and it is insufficient to protect subsistence fishermen, women of childbearing age, and children, and it excludes user groups who benefit the most from eating fish and thus there is a disproportionate impact on Indians, he stated. This is a regional-scale issue, Osterman added. EPA published its national default standard 13 years ago, but there's been a delay in further action resulting from losing sight of the underlying beneficial use and an obsession with data, he said.

We want to focus our energy on collaboration with industry, regulators, and others to "turn the ball in the right direction" and actually start the cleanup process, Osterman stated. We'd like the Council to have increased leadership on this issue to make sure the fishes it is working to protect and restore may be safely eaten, he said.

Tracy Collier of the Puget Sound Partnership described the work being done at NOAA Fisheries' Northwest Fisheries Science Center. He talked about the effects PCBs, DDTs, flame retardants, and emerging contaminants like environmental estrogens are having on juvenile salmon. There are mortality effects on coho associated with urban streams that receive stormwater, Collier said. Motor vehicles are a common source of oil, grease, copper, and other metals in stormwater, he noted.

Threatened salmon stocks are being exposed to multiple classes of toxics at concentrations that cause impairment and likely reduce survival, Collier said. Pesticides have synergism, and that enhances their toxicity for fish, and with climate change, if temperatures rise, the synergy gets worse, Collier added. The Council is in a position to provide leadership on this issue, he stated. Toxics reduction will contribute to salmon survival, Collier said. It will be very expensive, and you will get a lot of resistance, but you need to increase public knowledge on this issue, he concluded.

Dennis McLerran, EPA Regional Administrator, also urged collaboration. EPA has focused on the human health risk, and we are trying to bring folks together and focus on these issues, he said. Toxics on our lands and waters ultimately find their way into all of us, McLerran stated. We think water quality standards should be focused on the highest fish consumers, he said, noting that tribes and Asian and immigrant communities eat the highest amounts of fish.

There is litigation going on, and there's a lot of concern about whether the state standards will be implementable, McLerran continued. Oregon has set the bar on standards, and Idaho and Washington will be following that, he said.

We are grateful the Council has been a member of the Columbia River toxics working group since its beginning, McLerran said. We encourage you to continue your efforts, he added.

Smith asked if there has been mapping of the overall situation. More work needs to be done on that, McLerran replied. We are trying to get federal legislation passed to address the problem, Lumley added.

This is a matter of risk management for humans and fish, Rockefeller stated. He asked how habitats could be maintained if they are restored to acceptable levels. You have to do base-level monitoring of fish, and it's not an easy problem, replied Collier. To be successful, you need to have upstream source control so you aren't recontaminating after you've done a cleanup project, added McLerran.

The Council can be a convener, but what should we be focused on? Rockefeller asked. There needs to be a strong regulatory structure, replied Osterman, adding that the collaboration over the past years has been voluntary. Public education is also needed, he said.

Lumley recommended four things: an overall monitoring program in the basin; expansion of the Council's role as a convener; more of a programmatic approach to toxics reduction and F&W projects; and more prevention.

The Council hasn't been indifferent to toxics over the years, said Karier. Our authorizing legislation to protect and enhance fish populations doesn't mean contaminated fish populations, he stated. We need information on the condition of the fish populations the Council supports with respect to toxic contamination, Karier said. We could update our monitoring and research plan, and that could be the vehicle to answer the questions about toxics, he suggested.

9. Overview of implementation of conservation in Washington and the role of I-937:

Howard Schwartz, Washington Council staff; and Nancy Hirsh, Northwest Energy Coalition.

In Washington, almost all electric energy efficiency is acquired through utility conservation programs, including the Northwest Energy Efficiency Alliance, said staffer Howard Schwartz. I-937 and BPA drive utility programs, and most conservation programs link back to the Council in one way or another, he stated. Schwartz explained the I-937 framework in which utilities covered by the law have to estimate their 10-year conservation potential and set a two-year target to achieve a pro-rata amount of that potential. They have to use the Council's methodology to develop their conservation potential and report annually on their progress, he said.

Preliminary results from a Washington Dept. of Commerce analysis of reports submitted by utilities for 2010-2012 show the 17 utilities covered by the law are on track to collectively meet "their share" of Sixth Power Plan targets, with some utilities above, and some below their share, Schwartz reported.

Nancy Hirsh of the Northwest Energy Coalition said BPA recently released a paper, "The Case for Conservation," which found that the agency's costs would have been $750 million to $1.3 billion higher over the past 20 years if the region hadn't done conservation. I-937 utilities achieved 229 aMW of conservation in 2010-2011, surpassing the target of 172 aMW, she reported. The target for 2012-2013 is 194 aMW, and we are optimistic utilities will meet and perhaps achieve more than that, Hirsh said.

She offered the Council four suggestions for the Seventh Power Plan: 1) do a new analysis of the value of conservation to the region, including such factors as energy and capacity,

transmission, distribution, and air quality; 2) take a fresh look at the discount rate, which can affect cost-effectiveness determinations; 3) use a portfolio approach that looks at, for example, all the efficiency measures used in a building as a package, as well as looking at measures individually; and 4) continue to support the Regional Technical Forum (RTF).

What are the principal points of opposition or distress from utilities since I-937 went into effect? Rockefeller asked. The principal concern relates to setting targets on a two-year basis, Hirsh replied. Utilities are judged on whether they met the two-year target, and that can limit them from "going full speed" to get beyond the targets, she said. We are sympathetic to that -- we don't want utilities pulling back in the last part of the biennial period, Hirsh added. Another issue involves how targets are set, and whether the conservation calculator lets utilities set lower targets, and so we think that should be updated in the new plan, she said.

10. Panel on utility implementation of conservation:

Charlie Grist; Chris Robinson, Tacoma Power; Bob Stolarski PSE; Jim West, Snohomish Public Utility District; and a representative from Seattle City Light.

Staffer Charlie Grist introduced a utility panel whose members he called the "conservation illuminati" of the region. We asked the panel to address four questions, he explained: 1) the biggest conservation challenges you face; 2) notable successes and promising approaches; 3) conservation issues the Council should look at in the Seventh Power Plan; and 4) other key policy or program issues that need to be addressed.

Lori Moen of Seattle City Light said one challenge is the erosion of savings in retail and commercial lighting due to federal efficiency standards. "How much more water can you squeeze out of that sponge?" she said.

Another challenge is deciding on future approaches for new construction and retail, given the increased stringency of energy codes and appliance standards, Moen noted. Also of concern to SCL are: agility to assess market conditions and penetration; staying current on technologies when they are changing so rapidly; and the ability to pursue innovation under the mandate of achieving I-937 targets, she said. Moen added that the issue of lost revenue "is starting to come up on our radar."

She listed successful achievements in data center and IT energy efficiency, calling those "a great new opportunity." Another is our "pay for performance" approach with commercial building pilot projects and our work with the energy-innovative Bullitt Center in Seattle, Moen said.

The Seventh Power Plan should address the effect of lower avoided costs and load forecasts on regional potential, she recommended. Another topic is load reduction, including the value of capacity to the region, efficiency's contribution to peak-load reduction, and potential tradeoffs between efficiency and demand response, Moen said. There is a need to look at the type and amount of potential that can be acquired by utility programs, given the connection of I-937 target-setting to the Council's methodology, she stated. Moen also recommended updating assumptions about the timing and magnitude of carbon regulation.

Henry Lorenzen asked about the lost revenue issue. "It's the elephant in the closet for a lot of utilities," Moen replied. With some of these innovative programs, if we enable customers to achieve savings, there is the question of how it affects our revenues and how we should structure rates and our business to stay whole, she said.

Chris Robinson of Tacoma Power said the process leading up to the Seventh Power Plan "feels more collaborative" than it has in the past. Conservation is critical for Tacoma Power -- it's the core of our resource strategy, he noted. Our biggest challenge is that "we've picked the low-hanging fruit," and now our programs are more expensive and difficult to administer, Robinson stated. We will replace our focus on lighting in the residential sector with weatherization, but there's less bang for the buck in it, compared to lighting, he said.

It is getting harder to get customers to participate, Robinson reported. As the economy picks up, commercial and industrial firms have become more focused on production, rather than on saving dollars through conservation, he said. And rate pressures from conservation programs are another challenge, according to Robinson.

As for successes, he pointed out that ductless heat pumps "have been a terrific technology for us." Robinson explained how after doing some research, Tacoma negotiated with contractors to do installs at a lower cost. As a result, in the last 18 months, we installed 500 heat pumps at an average cost per unit of $3,489, lower than the standard price, he said. It's an example of the kind of creativity needed to do these programs, Robinson added.

As for issues needing attention, we are starting to see a divergence between utilities' targets and the Council's target, with the Sixth Power Plan saying one thing and real-world acquisitions looking different, he said. We need to think more about the assumptions that will be in the Seventh Plan, and we need to have "a meeting of the minds" between utilities and Council staff, Robinson stated.

Conservation banking is another issue, he said. With I-937's biennium target, utilities slow down once they hit the target to save acquisitions for the future, Robinson noted. It would be better if we had more flexibility under I-937 so we could "allow conservation folks to go gangbusters," he said.

Bob Stolarski of Puget Sound Energy noted that PSE also offers a gas efficiency program, and he said that cost-effectiveness is a huge issue for their conservation programs. Another challenge is public awareness, he said. We are in a marketplace where the homeowner doesn't care if the furnace is efficient as long as it produces heat, Stolarski stated. There needs to be more awareness of energy efficiency and why we do it as a region, he said. The public doesn't understand the whole region benefits when one household installs efficiency measures, Stolarski added.

Talent is becoming a problem, he told the Council, urging more support for energy-efficiency career education. Another challenge is that I-937 brought a lot of required oversight, and we want to spend money on consumer education, not oversight, he stated. Energy use feedback is a powerful tool for people, and we need to get more aggressive about it, Stolarski recommended.

On the successes list, he mentioned the resource conservation manager program, where you "embed a champion for conservation" in an industrial setting or at a school district. That model should be considered in the next power plan, Stolarski said. Other important focuses for the plan are data centers, ductless heat pumps, the question of demand response versus capacity, and the portfolio approach to evaluating conservation measures that Nancy Hirsh recommended, he stated.

Stolarski said Puget "relies on the RTF a lot," adding that "I can't say enough about expanding their role." He pointed out that the lack of synching between Council plans and utility IRPs is "hard on us."

Jim West of Snohomish PUD topped his list of challenges with "split incentives," explaining it is hard to convince a landlord when a conservation measure will benefit a tenant, but not the building owner. Also, he said, the decline in lighting savings changes the business model for the PUD and its customers. Utilities have found it necessary to expand their reach through third parties for conservation programs, but it lessens the "direct customer touch," West stated.

One of Snohomish's notable successes has been the ability to do multi-family deep retrofit measures by brokering "shovel-ready" bids, he reported. We've also had success with community and neighborhood door-to-door energy assessments, West said, pointing out that in six months, they were able to contact 1,000 small business customers. Another accomplishment has been expanding installation of ductless heat pumps to manufactured homes, he noted.

The Council's Seventh Power Plan should identify and quantify "non-measure" savings, such as strategic energy management and behavior-based energy efficiency, West recommended. The plan should build in a checkpoint and connection for utility planning cycles and the Council's plan, he said. There is a need to recognize the self-sufficiency of large public utilities with respect to conservation and to "reconcile the bookkeeping" with the real-world marketplace within which utilities operate, West added.

The Council's plan should focus on a range for conservation, rather than have a single target, and the plan should acknowledge uncertainty with respect to how much conservation the region is going to acquire, advised Robinson. Karier asked if the Council is doing enough in the realm of research. It isn't enough -- we have to move technologies through the pipeline faster, replied West. We should let the marketplace do the research, said Stolarski. When a technology is found to be good, our role is to get that technology to the consumer, he stated.

11. Briefing on Washington's approach to answering critical questions through monitoring:

Jennifer O'Neal, TetraTech; Amy Windrope, Washington Department of Fish and Wildlife; Bill Ehinger, Washington Department of Ecology; Keith Dublanica, Governor's Salmon Recovery Office.

Keith Dublanica of the Washington Governor's Salmon Recovery Office kicked off a presentation on Washington's approach to habitat and salmonid monitoring. In Washington, he said, the critical science questions we are trying to answer are: did the restoration treatments have the intended effects; are the fish populations changing over time; are fish populations

increasing because of our restoration actions; and can we improve the efficacy of our restoration efforts.

Our program can be characterized as a "three-legged stool," Dublanica said, consisting of action/project effectiveness monitoring, fish in/fish out to see if populations are changing over time, and intensively monitored watersheds (IMWs). He said the three categories help us answer the question: are wild salmon increasing as a result of our investment?

Jennifer O'Neal of TetraTech discussed monitoring goals and gave an overview of the Salmon Recovery Funding Board's (SRFB) effectiveness monitoring program that has been under way since 2004. She explained the monitoring efforts and said that data collection would be completed in 2020 for the entire program.

Since 1994, Washington's monitoring program has cost $3.91 million, O'Neal reported. Our monitoring, she said, covers 87 projects in Washington and Oregon, and we seek to answer this question: did this restoration treatment have the intended effect? We also try to determine if some project types are more effective than others, O'Neal stated.

We use the same protocols so we can add all the data together, she noted. What we've found so far is that yes, projects have been effective at achieving habitat outcomes and that habitat is responding, but further work is needed to document fish response, O'Neal said. And we have seen that some project types are more effective for specific goals and species, she added. The future of monitoring is in partnerships, with local entities and others, O'Neal said.

Bill Ehinger of the Washington Dept. of Ecology talked about the IMW program and explained where the IMWs are and what kind of monitoring is being done. One of the things we've learned is that bigger fish survive better regardless of when they leave the river, he noted.

Our take-home messages so far are, according to Ehinger: Westside IMWs are strategic investments built on the existing monitoring infrastructure using fish in/fish out, and they allow policymakers and the public to know if the investments have paid off. Our work has already allowed restoration to be more strategic, he said.

One of the things we are looking for in our F&W amendments is whether we can gain some more effectiveness in our monitoring programs, said Booth. The policy question is, at what point do you decide a culvert works, and whether we need to do monitoring on every stream where there is a culvert, he stated. I'd argue we could do less monitoring on culvert projects and free up those dollars for other projects, and you've showed us proof of that, Booth told the panel.

Dublanica discussed the monitoring that the SRFB is funding. The state created a multi-agency forum to set monitoring standards and general strategy, he said. Among the questions our contractor looked at are whether funding levels for monitoring are appropriate, and how does the SRFB monitoring fit into related monitoring being done by federal and other agencies, Dublanica stated. Our final report with recommendations is now in draft, and we will present it to the SRFB in October, he said.

Dublanica said the SRFB is always looking for opportunities for partnerships and economies of scale by working with other agencies like BPA and the Council. He suggested setting up a workshop with the Council on monitoring programs and approaches.

In Washington, we've focused on getting results out, said Karier. The question of "is it working" is key to all of us, but the results in the Columbia Basin haven't been coming out in an organized way, he said. The Council needs to dig into this and ask whether we need to keep measuring things like culverts and decide where we want to put our resources, Karier stated. Washington has done its work on a fraction of our budget, and we haven't gotten the quality of responses Washington did, he said.

TetraTech's role as an independent contractor is critical, said Rockefeller. TetraTech gives an independent assessment and that can be different from having a project sponsor conduct monitoring, he stated.

Many of our projects are very entrenched, said Booth. Every time you try to jump in and find efficiencies, it's difficult, he stated, adding "we could benefit from fresh approaches." There have to be some places where we could "cut the old and do the new," Booth added.

In answer to the question "are wild fish populations increasing," he said: in Idaho, they are. Are they in Washington? Booth asked. Some basins show increases, and some show decreases, and some are status quo, replied Dublanica.

12. Briefing on Seattle City Light's Strategic Plan:

Jorge Carrasco, Superintendent, Seattle City Light.

Jorge Carrasco, superintendent of Seattle City Light since 2004, described how and why the utility developed a long-term Strategic Plan. Since I've been at this job, I've learned that hydro systems provide great benefits, but can be unpredictable and can affect rate levels, he said. Our planning was often derailed by a bad water year or low energy prices, Carrasco stated. So we decided to put together a six-year strategic plan that would result in a firm investment plan funded by predictable rates, and to use a public process in drawing up the plan so it would be something that the public and our policymakers support, he said.

We selected a nine-member review panel made up of individuals representing all our customer classes to help us develop the plan, Carrasco noted. We hired an independent facilitator to work with the panel and spent a year educating them on the utility, the industry, our strengths and weaknesses, and issues and needs, he said. We spent a summer conducting forums, and phone and online surveys to get customer opinions, Carrasco stated. We came up with a proposal with different alternatives, sent it out for public review, and then formulated a plan that we presented to the mayor and city council, he said.

The council adopted it unanimously in 2012, including a rate path with a 4.7 percent annual increase for the next six years to finance the improvements called for in the plan, Carrasco said. The council asked for two items, he explained: a commitment to provide the community annual reports on the plan's implementation and more outreach to low-income customers. The plan

provides predictability so that in 2014, for example, our city council knows what will happen with rates and what our priorities and investments will be, Carrasco said.

He turned to the topic of rate design, pointing out that 46 percent of the utility's costs are fixed and 54 percent are variable, and 93 percent of the utility's revenue relies on energy charges. We need to figure out how rates can recover more of our fixed costs than they have in the past, Carrasco told the Council. With more distributed generation and aggressive energy efficiency programs, it is critical to figure out how those can be supported while ensuring rate stability, he said. We are examining our demand charges to make sure they are sending the right signal, and we are looking at time-of-use rates, Carrasco added.

Through our strategic plan, we have changed the way we do business, and policymakers are more comfortable with the direction we are taking, he summed up. We plan to invest in smart meters, reduce our reliance on surplus power revenues, and make major investments in our people, Carrasco said. Half of our employees today could retire if they wanted to, he noted.

To fulfill our commitment to run our organization as efficiently as possible, we hired an outside firm to take an independent look at our operations, and as a result, we committed to saving $18 million per year in the first three years of our strategic plan, Carrasco said.

Under our strategic plan, City Light will continue to be a leader in energy conservation and environmental stewardship, and we will meet all our load growth with conservation, he stated. We are 100 percent carbon-neutral and have been since 2005, Carrasco added.

We are hearing more and more from people around the region about the way rates are structured and whether they provide incentives for demand response and conservation, said Karier. The Northwest has a long history of low rates and great resources, and we've been dependent on energy charges, but we need to do something different, and we intend to define a way forward on that, Carrasco said.

Rockefeller asked about the utility's environmental stewardship. Our hydro plants satisfy 50 percent of our load, and we operate them so they do not adversely affect fish, Carrasco said. Fish returns on the Skagit River are among the highest of any river system in the western part of the country, he added.

When the consultant recommended making cuts, where were those targeted? Pat Smith asked. Some were work practices, some were technology changes, and there were reductions in fleet, and crew size changes, among other things, Carrasco replied.

13. Briefing on comprehensive evaluation of the first five years of Federal Columbia River Power System Biological Opinion Implementation:

Sarah McNary, Bonneville Power Administration; Rock Peters, U.S. Army Corps of Engineers; and Kate Puckett, Bureau of Reclamation.

Representatives of the Federal Columbia River action agencies briefed the Council on their draft comprehensive evaluation of the first five years of implementation of the Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp). The FCRPS is operating under a

BiOp issued in 2008, and there will be a new BiOp coming out at the end of this year, said Sarah McNary of BPA. We are presenting a retrospective look at accomplishments in implementing the BiOp from 2008 to 2012, she said.

Rock Peters of the Corps of Engineers reported that most interior Columbia Basin fish populations have significantly increased in abundance since the first Endangered Species Act (ESA) listings in the 1990s. Surface passage systems are now operational at all eight lower Columbia and lower Snake FCRPS dams, and surface passage makes spill more effective, he said. All the projects we have tested to date are on track to meet the 96 percent (spring migrants) or 93 percent (summer migrants) juvenile dam passage survival performance standard, Peters noted.

Forty to 60 percent of juvenile fish are using spillway weirs for passage, and fish are passing the dams in one to two hours, he said. The proportion of juvenile fish transported has declined in recent years with the addition of surface passage at collector dams, Peters reported. Smolt-to-adult (SAR) data obtained in the next few years should provide further information on the benefit of transport under the current system configuration, he added.

Estimated survival of adult Snake River fall chinook, Upper Columbia spring chinook, and Upper Columbia steelhead met or exceeded adult performance standards specified in the BiOp, but survival of adult Snake River steelhead and spring/summer chinook has declined below BiOp standards, Peters said.

Kate Puckett of the Bureau of Reclamation reported that, with the Council's help, hundreds of habitat improvement projects have been done. She said 31 fish populations had already achieved BiOp targets for habitat improvements and that the agencies expect to meet or exceed BiOp targets for the rest of the populations by 2018. "We are pleased with this level of accomplishment," Puckett stated.

We have protected over 177,000 acre-feet of water for salmon and opened up over 2,000 miles of habitat for fish in the basin, she noted. The fish have moved into the re-opened habitat very quickly, spawned in greater numbers, and increased in abundance, according to Puckett. Habitat status and trend monitoring programs are successfully providing information, and the Intensively Monitored Watershed program is "well staged" to provide information about project effectiveness by 2018, Puckett said.

McNary talked about habitat restoration efforts in the estuary. She described how projects evolved and were improved over the years to increase the pace and quality of habitat restoration. We have found that fish growth increases following habitat improvements and that salmon and steelhead have moved quickly into off-channel and floodplain habitat, she said. Reconnected tidal wetlands are improving the food web to benefit fish in the mainstem Columbia, McNary noted. In the estuary, we are in a good position to meet 2018 targets, she said. McNary described actions taken with respect to hatcheries and said that by 2018, the agencies expect to meet the hatchery reform goals set in the BiOp.

Peters went over results from three programs to stop predation: the pikeminnow management program, Caspian tern management, and marine mammal management. He also said they are

working with the U.S. Fish and Wildlife Service on a management plan for double crested cormorants.

In sum, Puckett said the agencies have accomplished a tremendous amount of work from 2008 to 2012. Solid partnerships and sound science have put us well on the path to achieving BiOp goals by 2018, she told the Council.

Is this report what you will give to the court later this year? Rockefeller asked. We will give the report to NOAA Fisheries, but we decided to put it out for public comment first, McNary said. This is a retrospective report, but there will also be another implementation plan that will spell out actions to be taken in the next five years, she noted. What will be filed with the court will be the BiOp itself, McNary added.

Anders asked if this BiOp addresses resident fish. This is for anadromous fish, but there are two BiOps for resident fish, McNary said. Anders asked if those BiOps require similar compliance reports, and McNary said no.

Smith asked about areas of concern or disappointment. We are "very, very pleased with this report," but there are three areas that are a challenge, replied McNary. Tributary habitat projects have been challenging, and in the estuary, we had to redesign the earlier program to target certain river areas and bring in the needed science tools, she said. The third problem is the increase in cormorant predation, McNary stated. "It seems like there is always some new predator out there," she said.

Overall, the picture is very positive, said Karier. The agencies are working very well together, and some of the best work has been done in the last couple of years, he stated. I hope you keep the momentum going, Karier added.

14. Presentation on relicensing and upgrades at hydro projects:

Patrick McCarty, Generation Manager, Tacoma Power.

Pat McCarty of Tacoma Power gave an update on the Cushman hydro project on the Skokomish River near Hood Canal in Washington. Cushman No. 1 dam was completed in 1926 and has two 22-MW generators, and Cushman No. 2 was completed in 1930 and has three 27-MW generators, he said. The Tacoma Narrows crossing was the world's longest electrical crossing when it was built in 1926, McCarty noted.

Construction of Cushman No. 1 took just two years, and the Federal Power Commission gave it a 50-year license in 1924, he said. President Coolidge hit a telegraph key in Washington, D.C. to start the dam's turbines, McCarty stated.

Getting Cushman relicensed was "the most contentious relicense in FERC history," he said. McCarty explained how that process took place, pointing out the Skokomish Tribe appealed issuance of a new license, alleging past damages, and the case went to the Supreme Court. The Supreme Court denied the petition, but eventually a settlement agreement was reached, and a new license was issued in 2010, he said.

The settlement involved the Tribe, federal agencies, and two state agencies, McCarty noted. The settlement took effect in 2011, and we held a celebration with the Tribe, he said. We paid $1.6 million to the Bureau of Indian Affairs and $11 million to the Office of Special Trustee for American Indians for distribution to tribal members, McCarty noted. We transferred over 1,000 acres of land, and every year we pay a portion of the value of the power from Cushman No. 2 to the Tribe, he said. The project's current license expires in 2048, McCarty added.

The license provided for a North Fork powerhouse to be constructed, he said. It became operational this February and provides 3.6 MW of energy that helps us meet I-937 requirements, and it has an innovative fish passage system, McCarty stated. Clean renewable energy bonds and federal stimulus funds allowed the project to be cost-effective for us, he said. Also, we plan to build two hatcheries, make recreational facility improvements, and we purchased 750 additional acres for wildlife habitat, McCarty added.

In summary, he said the Cushman project was a key component of the growth of the city of Tacoma and in the 1920s, it was seen as an "engineering marvel." But its development and subsequent relicensing was fraught with challenges, and at that time, was viewed by groups like American Rivers as an "environmental disaster," McCarty stated. The settlement agreement ended the contention and resulted in a new direction for the Skokomish watershed, he said.

How much will you pay annually to the tribe? Rockefeller asked. In the first 20 years, it is a $300,000 floor and a $500,000 ceiling, replied McCarty. Overall, what has it cost you to do the settlement? Rockefeller asked. It will be in the range of $50 million in capital costs, but it's "a happy story with a happy ending," McCarty said.

15. Briefing on Puget Sound Energy Integrated Resource Plan:

Philip Popoff, Manager, Integrated Resource Planning, Puget Sound Energy.

Phillip Popoff of Puget Sound Energy said he had been asked to tell the Council what his utility would like to see in the Seventh Power Plan. One of the most valuable things related to the plan for us is the relationship we have with Council staff, he noted. "We are quite short on capacity and energy," and to deal with that, we will try to adapt the Council's Genesys model to find some answers, Popoff said.

One issue that is getting the attention of utilities and PNUCC is the need to do some estimates of the marginal cost of CO2 abatement, he stated. That's important for cost/benefit decisions, and PNUCC is talking about doing that analysis on a regional level, Popoff noted.

He described PSE's 2013 Integrated Resource Plan (IRP), which was filed with the Washington Utilities and Transportation Commission in May. PSE has over 1.1 million electricity customers and about 760,000 gas customers, Popoff said. Our current resource stack includes 823 MW of wind, 1,000 MW of hydro, 677 MW of coal, 1,868 MW of natural gas, 1,400 MW of shorter-term import capability, and 800 MW in long-term contracts, he reported.

Popoff discussed three key findings of the IRP, starting with concerns about long-term reliance on the market for capacity. In the shorter term, that looks to be reliable, but we have concerns for the longer term, he said.

Coal is a concern, especially the question of what happens when coal plants that are planned to retire, retire, Popoff stated. The IRP contains a lot of analysis about the Colstrip coal plant, which is one of the least expensive coal plants in the country, he said. We are focused on understanding the factors that could affect the economic viability of Colstrip, but at this point, we think there are no major near-term investment decisions to be made regarding the plant, Popoff said. We think we've got time to figure out how regional haze issues will shake out in Montana, he added.

Infrastructure challenges are another key area, Popoff said. Our electricity IRP calls for purchasing gas storage, and as the region gets tighter on capacity, the system will be less flexible, and there will be a need to make sure the right infrastructure is in place, he stated. PNUCC and the Northwest Gas Association have sponsored regular meetings on gas-electricity issues, Popoff noted. A lot of electric utilities don't understand the gas industry, he observed.

As for renewables, we have our requirements covered until 2022, Popoff said. Our analysis of our winter capacity need shows that we'd need to be building a power plant now if we weren't doing the conservation we plan to do, he reported. We have a resource need, but it's not until 2020, and then it's about 100 MW, Popoff said. One question facing us is whether to renew the transmission contract that enables us to purchase surplus from the Mid-Columbia utilities or not, he added.

Rockefeller noted that Washington has greenhouse gas reduction goals and Governor Inslee told the Council he is committed to moving us toward "decarbonizing" the power system. Why doesn't your IRP have any cost assigned to CO2? he asked. It would take a price of $30/ton and up to make Colstrip units 1 and 2 close to the margin, replied Popoff. That's a big CO2 price number, he added.

We don't have operational control of Colstrip, Popoff noted. PPL has operational control, and the plant "runs when it's in the money," he said. If Puget were to sell its share of the plant, the plant would still run if it is economical to do so, Popoff added.

Two representatives of the Sierra Club offered comments about the IRP's lack of a carbon price, and PSE's current plan to continue to use Colstrip as a resource. Doug Howell of the Sierra Club said Colstrip is likely to face hundreds of millions of dollars in costs to meet environmental standards in the next five to 10 years and that the utility should be transitioning to cleaner energy resources.

The Council Meeting adjourned at 4:00 p.m.

Approved August ___, 2013

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Vice-Chair

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