

PNWCC REPORT Council



NORTHWEST POWER AND CONSERVATION COUNCIL

August 18-19, 2010

In Spokane, the Council contemplated the dramatic surge in natural gas supplies, Washington State's no-nonsense approach to fish and wildlife project monitoring, and Columbia Colstor's exemplary record on industrial energy conservation. Millions of dollars in fish spending were also approved. Next Meeting: September 21-23 in Bend, Oregon.

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THE AGENDA



Not Your Father's Gas Supply Outlook

Dan Kirschner of the Northwest Gas Association titled his presentation on the latest outlook on supply and prices "the winds of change" because, he said, so much is changing in the natural gas world today. We used to talk about constraints on supply, but now "we are at the front end of a tidal wave of supply," he said.

Two years ago, the price of natural gas was \$14/MMBtu, while today it has dropped to \$4.17, Kirschner reported. You can buy natural gas for the next 12 months for less than \$5, and under \$6 for the year after that, he said.

NWGA represents six gas utilities and three gas pipelines, Kirschner noted. While we've lost some demand due to the recent economic doldrums, there's been a growth in gas use for power generation, he said. Forty-six percent of energy consumption in the Northwest is natural gas, Kirschner pointed out. Our latest demand forecast projects an annual growth rate of 1.3 percent from 2010 to 2020, compared to 1 percent last year, he said.

Industrial demand has dropped by 30 percent in the last two years, and we expect that to be permanent or at least last for the next 10 years, according to Kirschner. In the paper and timber industries, we've lost plants, and "some are hanging on by their fingernails," he said.

Pacific Northwest gas comes from the Western Canada Sedimentary Basin and the U.S. Rockies,

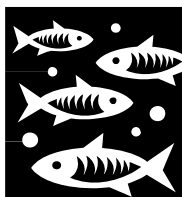
Kirschner stated. There's been robust growth in production from the Rockies over the last five years, he noted. In 2007, production from the Western Canada basin was declining, but today "projections are rosy due to this phenomenon called shale," Kirschner said. Gas shale plays are an industry-changing breakthrough, he stated. We now have 100 years of supply, and there's been a 40 percent increase in available gas, Kirschner added.

Bill Booth asked about the production cost of shale. We first heard \$5.50 to \$6 for shale, compared to \$4.50 for conventional gas, but now most shale is produced for a lower cost than conventional gas, Kirschner replied.

We also expect dramatic increases in supplies from British Columbia, he said. As for peak capacity, we need to pay attention – the system isn't overbuilt, Kirschner added. On December 9, 2009, we got close to a problem when it was cold everywhere and a brand-new compressor at a storage facility didn't start, he stated. We need to build some additional capacity to serve the region, Kirschner told the Council.

When you consider natural gas is used to back up wind, the question becomes "how do we serve an increasingly peaky load shape?" Kirschner said, adding that NWGA is talking to its electric utility colleagues about that. Are you looking at new underground storage? Booth asked. Yes, that's the best solution, and it's being analyzed, replied Kirschner.

What If F&W Monitoring Actually Worked?



Ken Dzinbal of the Washington Forum on Monitoring Salmon Recovery and Watershed Health discussed a large-scale fish and wildlife (F&W) monitoring effort aimed at evaluating the success of habitat restoration actions. He said the

work is funded by Washington State's Salmon Recovery Funding Board (SRFB).

The SRFB thinks monitoring should be an independent evaluation, rather than having project sponsors do it themselves and that monitoring should use a standardized approach, Dzinbal said. Evaluations should ensure accountability for expenditures, look at the cost-effectiveness of actions to assure future dollars are efficiently spent, and produce results that can be used to improve the design of future projects, he stated.

Jennifer O'Neal of Tetra Tech said prior to 2003, project sponsors in Washington conducted their own monitoring, and when a survey was done to assess the compatibility of the data being collected, there was none. In 2004, Washington State hired Tetra Tech to conduct statewide reach-scale monitoring aimed at quantifying project performance, she stated.

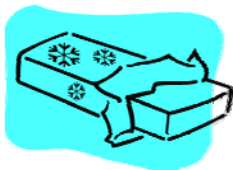
Tetra Tech uses "before and after" controls to look at project impacts, and with a sample size of 90 projects, there is no need to monitor every project, O'Neal said. The 90 projects represent 10 percent of projects per category, and categories include fish passage, riparian plantings, diversion screening, livestock exclusions, and habitat protection, she noted.

We've had significant results in the first five years of our monitoring, O'Neal reported. For fish passage, we've found significant increases in juvenile coho and positive trends for all species of juvenile fish, she said. For livestock exclusion projects, we've detected significant decreases in bank erosion, and our assessments have confirmed that diversion screens are working, according to O'Neal.

One of the strongest elements is the use of consistent methods and metrics across the program, she said. That improves data analysis and helps detect statistical significance in a

shorter time frame, O’Neal stated. This approach also allows for the assessment of project categories, removing the need to monitor every project, which reduces costs, she said.

This is a different approach than most of what’s been done in the Columbia Basin, observed Tom Karier. You have addressed a lot of the problems the Independent Scientific Review Panel (ISRP) has called to our attention over the years, he said. Your program is an impressive model, Karier stated. What’s your annual budget? he asked. About \$400,000 to \$560,000 per year for 90 sites, O’Neal replied. This is not just low-cost – this program is getting results, Karier said.



Cold Storage Conservation Saves a Cool \$10 Million

Joel Sandberg, an engineer at Columbia Colstor, headquartered in Moses Lake, Washington, described his company’s energy-efficiency accomplishments. He said Columbia Colstor, a family-owned cold storage business, is the 10th largest in the United States and 13th largest in the world. We have warehouses in six Washington cities and provide leased space for frozen food products, Sandberg told the Council.

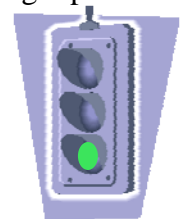
Our major energy users are ammonia refrigeration, lighting, and battery chargers, he said. Colstor began its energy-efficiency work in 1993 when its Woodland facility participated in a BPA energy-savings plan through Cowlitz PUD, Sandberg noted.

Since then, we’ve spent over \$4 million on energy-efficiency upgrades, achieved annual cost savings of \$800,000, and cumulative cost savings of nearly \$10 million, he reported. We have received over \$2.5 million in utility incentives, Sandberg said. Colstor’s current strategy involves lighting, refrigeration, and door upgrades; energy-efficiency considerations in new construction and expansions; and energy

“tune-ups” and tracking of facility energy performance, he said.

We are participating in BPA’s Energy Smart Industrial “Track and Tune” program, Sandberg stated. That makes it easier to have utility involvement, “which is good because all these tune-ups are very expensive,” he said. We typically consider efficiency when the simple payback is less than five years, and regional utility energy-efficiency programs are critical to our success, Sandberg added.

Since you’ve been so aggressive, are you running out of new opportunities? Karier asked. Our Woodland facility is our most efficient, replied Sandberg. After we entered BPA’s Track and Tune program, we were skeptical we could squeeze out another half million in savings, but we did, he said. New opportunities arise as technology improves, Sandberg added. Are you doing more efficiency than your competitors? Karier asked. We are at the top of the pack in our industry, if not at the head, Sandberg replied.



Willamette Wildlife Projects Get the Greenlight

The Council approved two large wildlife property acquisitions in the Willamette Subbasin, which has the largest existing mitigation debt for wildlife in the Columbia Basin, according to staffer Mark Fritsch. The staff’s recommendation for both projects is conditioned on BPA and the Oregon Dept. of Fish and Wildlife (ODFW) concluding an agreement on overall Willamette wildlife mitigation obligations, he said.

The first project, Willamette Basin Mitigation, is a request from ODFW for \$4,750,000 to acquire a conservation easement on 1,310 acres of land near the town of Lafayette, Fritsch stated. The request includes a pre-schedule of \$3 million in BPA’s FY 2011 capital funds and \$2 million in

BPA's FY 2010 capital budget for a total cost of \$9,750,000, he said.

The other project, according to Fritsch, is a request from The Nature Conservancy for \$11,065,105 to acquire a 1,271-acre parcel near Springfield. The request includes a pre-schedule of \$6,400,000 in BPA's FY 2011 capital funds and \$5,928,265 in BPA's FY 2010 capital budget for a total cost of \$23,443,370.

These are substantial expenditures, noted Council Chair Bruce Measure. How do they relate to the overall Willamette wildlife settlement? he asked. Staffer Tony Grover said some loss calculations for the Willamette were as high as 47,699 acres, while BPA's position was 17,791 acres. After negotiations with ODFW, 26,537 acres was settled on, he said. We think that number is biologically justifiable and a reasonable compromise, said staffer Karl Weist. This settlement was a long time coming and represents substantial concessions from all parties, said Melinda Eden. It will save BPA ratepayers a great deal of money in the long run, and it's a good deal, she added.

The Council also approved two Columbia Basin Fish Accord projects. The first is for \$1,666,933 to re-establish a sockeye run above the Pelton Round Butte hydro project, and the second is \$6,298,848 for Pacific lamprey restoration.

END NOTES

RM&E Review Attracts 158 Proposals. The Research, Monitoring and Evaluation (RM&E) categorical review launched June 1 produced 158 proposals, which have been sent to the ISRP for review. We are counting on the ISRP to help us meet our goals of more efficiency, less duplication, and more on-the-ground work, Booth said.

Dollars for Wind Balancing. The Council approved a \$25,000 contribution to a pilot program to test using controllable load to provide wind balancing services to BPA. The project will be funded by BPA and other participants.

NorthWestern Energy Acquisition. John Bushnell, energy analyst for the Council's Montana office, is leaving to take a job at NorthWestern Energy in September.

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Council 2010 Calendar

September	21-23	Bend
October	13-14	Portland
November	9-10	Portland
December	14-16	Portland