Making the Case for Conservation

With the release of its Fifth Power Plan and call for an aggressive and sustained investment in conservation, the Council has been urging the Bonneville Power Administration to use the full extent of its authority to reach the plan’s conservation targets.

Still recovering from the 2000-01 energy crisis and resulting price spikes in the wholesale electricity market, Bonneville’s customers are reluctant to increase their investment in conservation at a time when their rates are already high. But in its development of a regional energy plan, the Council found that improved energy efficiency is the least expensive path to ensuring that the Northwest will have the power it needs with the least risk to the environment and economy.

The Council’s latest power plan is recommending that the region achieve 700 average megawatts between 2005 and 2009, and 2,500 average megawatts during the 20-year planning period. Bonneville has proposed a target of 280 average megawatts for the 2005-2009 period as its share of the regional target. But in reviewing Bonneville’s proposal for conservation funding, the Council found that it would be very difficult for the agency to achieve its share of regional conservation with the agency’s proposed budget.

The Council believes the budget gap stems in part from the flawed assumptions Bonneville used to reach its conclusions. “Based on our review of historical data,” says Conservation Resources Manager Tom Eckman, “we believe the agency’s cost-efficiency goals for conservation are overly optimistic.” According to the Council’s analysis, in order for Bonneville to meet its proposed goal at the budget it has set, it would need to acquire savings at a 25 to 35 percent

Power Supply Adequate Despite Dry Conditions and Reduced Hydropower

A low water year will bring hardship for much of the Northwest as farmers, fish managers, and the forest service contemplate the possibility of drought conditions this summer. For the power supply, however, it appears that the region will have enough electricity, and without the extreme wholesale price spikes experienced in 2001.

Normally, the mountains hold the region’s “energy reserves” in the form of snowpack that feeds the Columbia River and, in turn, the hydrosystem. This year’s snowpack is between 25 to 50 percent of normal in many parts of the Northwest; consequently, the January to July runoff forecast is only about 70 percent of normal, assuming normal precipitation through the end of August.

The loss of about 3,000 average megawatts of demand (mostly from the shutdown of aluminum smelters) and the build-up of new generating resources in the region since the 2000-2001 energy crisis has helped to maintain an adequate power supply for

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Making the Case for Conservation

(continued from front page)

cost-efficiency improvement over historical achievements. “We would like Bonneville to come up with a detailed strategy showing how it would accomplish the Council’s targets, and a ‘back-up’ strategy to meet the targets if it is unable to do so at the budget level it is proposing,” says Eckman. In a letter sent in April, the Council asked Bonneville to increase its conservation budget, document its success, and develop a contingency plan to assure that the agency acquires its share of conservation by 2009.

Another troubling sign for the Council is that Bonneville’s measurement for cost-efficiency seems to be the lowest first-year cost per average megawatt. But, notes, Eckman, “The cost of conservation resources is upfront; you pay more for savings and benefits that are realized later on.” Measuring the effectiveness of conservation acquisition programs based on their cost per first-year savings is, according to Eckman, misleading. The Council’s analysis found that although lost-opportunity conservation resources (conservation available only when new buildings are built or new appliances purchased) have a high cost per average megawatt initially, they are still cost-effective over the life of the measure. The Council’s plan recommends achieving half of its targeted amount of conservation through lost-opportunity resources.

The Council believes that Bonneville’s rate discount program could be an effective tool to achieve cost-effective conservation. Properly designed, this program encourages utilities to acquire conservation. Expanding this program would reward those customers that share in the cost and responsibility for acquiring conservation, and it also gives Bonneville a way to make up any shortfalls without imposing those costs on other utilities.

The Northwest’s past record on achieving conservation is impressive: between 1980 and 2002, Bonneville and utility-funded programs achieved about 1,500 average megawatts of savings. The cost for this conservation was 60 percent of the cost of power from new power plants. Another 1,000 average megawatts was achieved through better building codes and appliance standards.

Perhaps one of the best arguments for a sustained investment in conservation is that it will simply be there when it is needed. This year’s unusually low precipitation is yet another reminder of the importance of planning for the unexpected downturn. “Conservation costs less than new resources and even protects consumers from drastic rate increases,” says Council Chair Melinda Eden. “We would be failing our responsibility to the public if we didn’t fight for it.”

Power Supply Adequate Despite Dry Conditions

(continued from front page)

the region. The Northwest has about 1,200 average megawatts of surplus energy generating capability, and according to John Fazio, senior power systems analyst, “The regional power supply looks good, but it’s likely the poor water conditions will reduce the Bonneville Power Administration’s revenues from spring and summer energy sales.” This means electricity prices are also likely to rise, although consumers probably won’t see the increases until next year.

Although reservoir levels should be at the levels prescribed by the federal government’s guidelines for hydropower operations by the end of summer, the biological opinion flow objectives (intended to assist the migration of threatened and endangered salmon and steelhead) will not be met.

Another possible consequence of the poor water year may be in transmission bottlenecks. Because the Northwest relies on the hydrosystem for much of its energy, the normal transmission pattern centers on electricity flowing from dams. When the hydrosystem generates less electricity than usual because of lower runoff, other generation, at different locations, would be tapped, perhaps stressing the transmission system and affecting its transfer capability.

The Bonneville Power Administration is in the process of evaluating its financial status with regard to the dry year and expects to complete the results of its analysis sometime this spring.
Council Analysis: Raising the Price of BPA Power to Market Rates Would Cost Region’s Ratepayers $1.7 Billion

If the Bonneville Power Administration is forced to sell electricity at average wholesale market rates, as the Bush Administration proposed in January, Bonneville’s rates would jump up 65 percent and cost the region’s ratepayers about $1.7 billion, according to an analysis by the Council’s Power Division staff.

“The impacts on consumers’ electricity rates would be similar to those of the West Coast energy crisis of 2000 and 2001, and those rate increases bludgeoned the Northwest economy,” Council Chair Melinda Eden of Oregon said. “Our economy has not rebounded, and to impose a rate increase that amounts to a penalty on Northwest ratepayers would be ill-advised and unfair.”

Bonneville, a division of the federal Department of Energy, sells electricity generated at 31 federal dams and one non-federal nuclear plant. The power is sold at a price equal to the cost of its generation. The Bush administration’s proposal would force Bonneville, a self-financing agency, to raise its rates to nearly the wholesale market price of electricity. The additional revenue would flow to the Treasury to help balance the federal budget, according to Energy Secretary Samuel W. Bodman in testimony before the House Energy and Commerce Committee on February 9.

According to the Council’s analysis, a 65-percent increase in the price of electricity sold by Bonneville translates to an average 39-percent increase in the rates paid by consumers. That is because electricity is just one component of electricity rates, and there is no similar proposal to raise the cost of other components such as the cost of power transmission and distribution.

The 39-percent increase for consumers translates to an average increase of $24 per month in residential electricity bills for customers of public utilities that buy their power from Bonneville and $10 per month for customers of investor-owned utilities.

The result would be a $1.7 billion increase in the cost of electricity to the region’s consumers, a corresponding $1.3 billion decrease in regionwide personal income as consumers spend less on other goods and services, and more than a $300 million decrease in federal and state personal tax receipts. Other effects include the potential loss of 13,000 jobs throughout the region, particularly in energy-intensive industries. Because of high energy prices and low metal prices, only three Northwest smelters are operating currently, and those are at limited production.

The analysis is based on calculations of the increased cost of electricity and calculations of how changes in expenditures for electricity filter through the economy. The analysis points out that Bonneville is in a unique position with its legal responsibility to serve all of the load that public utilities choose to place on it, and also being a regular participant in the wholesale market as a seller of low-cost surplus electricity and a purchaser of market-priced power on behalf of its customer utilities. If Bonneville were forced to raise its rates, it may lose sales to other power providers. That would mean Bonneville would have more power to sell into the wholesale market, where prices are deregulated. This could have a significant impact on prices. According to the analysis: “Private participants in the market would see increased competition from a huge supplier that is an agency of the federal government and has enough market power much of the time to influence prices to its own advantage. This likely would be a serious setback to the viability and competitiveness of the very market that the [Bush administration’s] proposal is relying on to price Bonneville’s power.”

The Northwest congressional delegation and other influential members of Congress continue to express strong bipartisan opposition to both the rate-increase proposal, and a companion proposal to limit the amount of money Bonneville can borrow for construction projects (see related article).
Low Spring Chinook Run Vexes Columbia Fish Managers

With the spring Chinook salmon return to the Columbia River Basin running at less than half its forecasted amount by the middle of May, fish managers were going back over the calculations they made last winter and searching for clues to the low return.

While the Northwest Power and Conservation Council has no direct fish management or river operations authority, the Council promulgates a program to mitigate the impacts of hydropower dams on fish and wildlife, a program implemented by federal river and power authorities, and has been receiving regular monthly updates on run-size forecasts, inner river harvest and actual returns since January. In mid-May, Peter Hassemer of the Idaho Department of Fish and Game continued his monthly briefings for the Council, as did John Fazio of the Council staff who has been monitoring and analyzing the impacts to electricity generation from the below-average precipitation and river runoff so far in 2005.

Through May 11, about 54,000 spring Chinook were counted at Bonneville Dam, compared to the 10-year average of 123,941 through that date, Hassemer said. The run had been forecasted at more than 250,000 fish, but it appears the run will be between 74,000 and 89,000 fish. Fazio said the mid-May Columbia River runoff forecast at The Dalles Dam was 74.7 million acre-feet, or about 70 percent of average. He said power shortages will not be a problem, however, because the Northwest has an ample supply of electricity from sources other than hydropower. In fact, the region has a 1,250 average-megawatt surplus — enough for a city the size of Seattle.

“The issue is price, not supply,” Fazio said. Most of the surplus is at thermal power plants, primarily those that burn natural gas, and it is more expensive than hydropower.

Hassemer said the 2005 return of spring Chinook and steelhead is unusual in several respects in addition to the low numbers of fish. For example, the bulk of the run entered the river about two weeks later than usual — mid-April instead of late March — and a significant segment of the run — predominantly five-year-olds that return in the first 10 or so days of May — are virtually non-existent. As well, returns to the Willamette River and other lower-Columbia tributaries appear to be a little closer to forecasted amounts than upriver fish — those that spawn in tributaries of the Columbia and Snake rivers.

The annual return of three-year-old spring Chinook “jacks,” usually a reliable predictor of the next year’s return of four-year-olds, which typically make up the bulk of the run, appears to have failed in 2004 as an indicator of the size of the 2005 run. Fish managers in Washington, Oregon and Idaho are reviewing their modeling techniques in light of the apparently inaccurate forecast, Hassemer told the Council. He added that the jack count so far this year is ominously low — just one-fifth of the 10-year average, and that could indicate another low return next year.

One segment that always is a reliable indicator of the overall size and timing of the spring Chinook run, fish returning to the Rapid River Hatchery in Idaho, have come and gone on their usual schedule — in low numbers, he said. “That’s telling us there is not a large number of fish stacked up somewhere” in the estuary or ocean, he said. This suggests the run is not merely delayed, as some have speculated.

It is not clear why the run is so low this year. Some have suggested that ocean conditions deteriorated, but Hassemer said he was not aware of any noticeable shifts in the ocean environment. Poor habitat conditions in the drought year of 2001, when the parents of the wild fish returning this year would have spawned, could be a factor. Hassemer said biologists will have to wait until the run is completed — typically that is in mid-June — to learn where the fish returned before speculating further on causes.

It is likely that the inability to pinpoint a cause or causes for the low return of 2005 will be a factor in Council decisions on future salmon and steelhead research and monitoring efforts.

Partnership Will Coordinate Aquatic Research Monitoring

Officials representing the Northwest Power and Conservation Council, regional federal agencies and Columbia River Indian tribes gathered in March to praise a first-ever agreement to coordinate environmental monitoring of hundreds of projects to improve fish and wildlife habitat and survival in the Pacific Northwest.

Better coordination of monitoring among the state, federal, and tribal projects will lead to better understanding of project results and improved decisionmaking.

The 19 member organizations of the Pacific Northwest Aquatic Monitoring Partnership were honored at a Council meeting by Council Chair Melinda Eden, Rob Walton, assistant regional administrator of the National Marine Fisheries Service, and Olney Patt, Jr., executive director of the Columbia River Inter-Tribal Fish Commission (CRITFC).

“By improving communication and sharing resources, the scientific credibility of our efforts on behalf of fish and wildlife will improve and the use of limited amounts of funding will become more cost-effective and credible,” Eden said.

Walton said he, too, appreciated the potential cost-effectiveness of the partnership, and said such volunteer efforts among agencies and tribes “can be particularly effective when they focus on common goals and objectives.”

Patt said the CRITFC tribes “are very happy that this effort has come to this point.” He said the tribes “have long seen the value of shared information and collaborative efforts in the fish and wildlife recovery business.” He said effective monitoring is crucial to effective subbasin planning, referring to the tributary plans developed by citizens, agencies, tribes and the Council to direct implementation of the Council’s Columbia River Basin Fish and Wildlife Program in the future.

The partnership website is www.reo.gov/pnamp.
Before the building of the Grand Coulee (1941) and Chief Joseph (1955) dams, the country in north central Washington State was an open and lonely country. Relatively primitive and isolated in many places, its human demands consisted mainly of limited ranching, historical and cultural Indian use, and modest recreation. But its diverse habitat sustained a rich variety of wildlife. With the construction and operation of the dams, over 88,000 acres of wildlife habitat bordering the Columbia River and its tributaries were essentially destroyed forever.

While these losses can never be fully recovered, the Colville Confederated Tribes’ Wildlife Mitigation Program works to protect and maintain some of the few remaining portions of grassland, shrub-steppe, mixed range, riparian, and conifer forest/savanna habitat that are still in fair-to-good condition. Their goal is to preserve an area large enough to protect larger wildlife species, with additional surrounding land to act as a buffer and provide connection to other habitat.

Development of the hydrosystem changed approximately 151 miles of the free-flowing Columbia River to an 80,000 surface-acre lake for Grand Coulee Dam, and 51 miles of the river into a regulated reservoir for Chief Joseph Dam. The area lost to some anadromous fish species represents approximately 10 percent of the spawning areas for steelhead, Chinook, coho, sockeye, and chum salmon in the Columbia River Basin. The loss of salmon runs to the upper Columbia River following construction of Grand Coulee and Chief Joseph dams was devastating to the Colville Tribes. In addition, the reservoirs flooded critical, low elevation habitat for deer and many other wildlife species vital to the tribes’ livelihood.

In 1990, the Council recommended funding the mitigation program as part of its fish and wildlife program. The Bonneville Power Administration directs a portion of its electricity revenues toward the Council’s fish and wildlife program to mitigate the losses from hydropower development. Since then, the land acquired by the tribes has grown to include four separate ranches and several separate parcels of land. All the lands—approximately 25,501 acres—are similar in habitat type to those inundated by the dams. The tribes are currently working to acquire an additional 18,360 acres in an easement on the west side of the Colville Reservation. The lands are managed to protect, restore, and enhance the critical winter habitat for big game, sharp-tailed grouse, and other wildlife.

“We began with modest acquisitions of land and we’ve grown to manage over 42,000 acres of land,” says Matt Berger, project manager. “Our goal is to continue to acquire suitable lands to mitigate hydropower impacts for the preservation of the tribes’ and region’s wildlife resources.”
Administration Proposal to Limit Bonneville’s Borrowing Authority Could Result in Higher Power Rates

The Bush administration, which proposed in February to force the Bonneville Power Administration to increase its electricity rates to generate more money for the federal Treasury, also proposes to increase the types of financial transactions that would be counted against Bonneville’s federal Treasury borrowing authority debt limit. Ironically, in addition to restricting Bonneville’s access to capital and decreasing its ability to make system improvements, the effect also could be to force Bonneville to raise its rates — in this case to help pay down existing debt in order to make room for new borrowing, according to an analysis by the Council’s Power Division staff.

Not yet a formal proposal, the vague language of the administration’s announcement in its budget overview document refers to “certain non-traditional financing transactions” that are “similar to debt-like transactions.” The target apparently is debt issued by nonfederal parties and backed by Bonneville. By including this so-called third-party debt under the federal borrowing cap, Bonneville could be forced to retire portions of its existing debt more quickly in order to make room under the cap for necessary new investments, particularly in the transmission and hydropower systems. Raising additional revenues to retire the debt likely would mean raising rates, according to the analysis.

Bonneville’s existing third-party debt totals $6.5 billion. The majority of it — $6.1 billion — is the remaining debt for construction of nuclear power plants — completed and uncompleted — that began in the 1970s. Bonneville also has used third-party debt to finance transmission lines, energy conservation and renewable power resources.

The $6.5-billion third-party debt is the largest component of Bonneville’s $13.1 billion debt total. The other components are 1) $2.9 billion in U.S. Treasury debt for capital projects, primarily for construction of the regional high-voltage transmission system, energy conservation, and construction projects related to fish and wildlife mitigation, and 2) $3.7 billion in federal appropriations debt that is reimbursed, with interest, by Bonneville to the federal Treasury on long-term repayment schedules. The Treasury debt, which comprises bonds issued by Bonneville to the U.S. Treasury, is intended to finance investments in the power and transmission system. This Treasury debt is limited by law to a total of $4.45 billion. Federal appropriations, on the other hand, are funds that Congress provides to federal agencies, usually on an annual basis, that finance their operations. In this case, Congress appropriated funds to the U.S. Army Corps of Engineers and the Bureau of Reclamation to finance the construction of the federal hydropower dams in the Columbia River Basin, and Bonneville is obligated to pay back most of that cost — on average, 77 percent, which represents the hydropower portion of the authorized purposes for the multiple-purpose federal dams. This appropriated debt was refinanced in 1997 at then-current market interest rates of about 7 percent.

Apparently, the administration proposes to include new third-party debt in the $4.45 billion Treasury debt limit. Bonneville currently has $2.9 billion of this Treasury debt outstanding, which reduces the available new debt to $1.55 billion.

The available amount of borrowing authority also is affected by Bonneville’s repayment schedule. Bonneville pays off a portion of its debt every year while also issuing new debt. Before the administration announced its intention, Bonneville planned to spend $228 million per year between 2005 and 2010 to pay down its existing debt while issuing new debt of $517 million per year. At this rate, Bonneville will reach its debt ceiling between 2009 and 2010. For the past several years, Bonneville has accelerated the repayment of its existing debt in order to create more room under the cap. Bonneville already has refinanced some of its third-party debt, and a total of $1.1 billion of its Treasury debt has been retired early. The savings from refinancing are being used to pay down the bonded Treasury debt in order to make more room available under the debt cap. Bonneville has plans for early retirement of another $461 million through 2012.

Perhaps in recognition of the fact that its proposal would squeeze Bonneville’s debt limit, the administration also proposed to add $200 million to Bonneville’s Treasury borrowing authority. But given Bonneville’s current borrowing plans and repayment schedule, this would add only one year to the date when the borrowing authority would be exhausted, according to the Council’s analysis. Successful refinancing of existing debt could push the date to 2013, Bonneville has stated.

The practical effect of the administration’s proposal would be to limit Bonneville’s future investments and increase competition for increasingly scarce funding at a time when substantial investments are needed in the aging transmission system, in renewable resources and conservation, and in capital projects to improve fish and wildlife survival. According to the Council’s analysis, if the administration is successful, Bonneville’s access to capital would be restricted, capital investments would decline, and the agency might have to raise its rates in order to pay cash for some investments that otherwise would have been financed through borrowing.

If so, then investments that don’t produce revenues for Bonneville, such as investments in projects to increase fish and wildlife survival, likely would be the first cut. Needed investments in transmission and the hydropower system, which have been delayed in recent years, could be delayed further, and that could affect the reliability, adequacy and efficiency of the Northwest power supply and increase its cost in the future, according to the analysis.

The administration’s proposal for Bonneville’s third-party debt, like the proposal to force Bonneville to charge market-based rates for its power, was roundly criticized by members of the Northwest congressional delegation.
## Calendar

Calendar of Council Meetings and Other Events:

<table>
<thead>
<tr>
<th>Date</th>
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<th>Information Link</th>
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<tbody>
<tr>
<td>June 19-26</td>
<td>International Forest Vegetation Conference. Corvallis, Oregon.</td>
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<td><a href="http://www.outreach.cof.orst.edu">www.outreach.cof.orst.edu</a></td>
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<tr>
<td>July 21-22</td>
<td>Columbia River Inter-Tribal Fish Commission. Lapwai, Idaho.</td>
<td></td>
<td><a href="http://www.outreach.cof.orst.edu">www.outreach.cof.orst.edu</a></td>
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<tr>
<td>August 2-3</td>
<td>Columbia Basin Fish and Wildlife Authority members meeting.</td>
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<td>503-229-0191</td>
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<tr>
<td>August 4</td>
<td>Public Power Council Executive Committee meeting. Sheraton Inn at the</td>
<td>8235 N.E. Airport Way, Portland</td>
<td><a href="http://www.ppcpdx.org">www.ppcpdx.org</a></td>
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## Council Decisions

### Conservation

**February 2005**

The Council adopted a model conservation standard for commercial buildings that either are new or that undergo major remodeling or renovation. The standard is intended to capture energy savings equivalent to the better of 1) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., Standard 90.1-2001 or 2) the most efficient, cost-effective and economically feasible provisions of existing commercial building energy standards in the four Northwest states. The standard will have to be adopted by local building code-setting jurisdictions before it could go into effect, but its adoption would lead to both energy savings and cost savings in the future.

### Habitat Projects

**March 2005**

The Council gave conditional approval to two habitat-improvement projects proposed by the Bonneville Power Administration. The projects are included in the Updated Proposed Alternative of the 2004 Biological Opinion on Hydropower Operations to protect threatened and endangered salmon and steelhead populations. The Council conditioned its approval on a positive recommendation of the projects by the Independent Scientific Review Panel. The two projects are part of a group of nine that Bonneville hopes to undertake in the Wenatchee, Entiat, and Methow subbasins of north central Washington to improve the survival of spring chinook salmon and steelhead. All nine projects are being reviewed by the independent scientific panel, but a quick decision is needed on the habitat projects, which involve construction that needs to begin this spring, Bonneville representatives told the Council.

### Grid West

**April 2005**

The Council voted to become a member of Grid West, which will allow the Council to participate in developing the regional transmission organization.
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