

Winter 1997

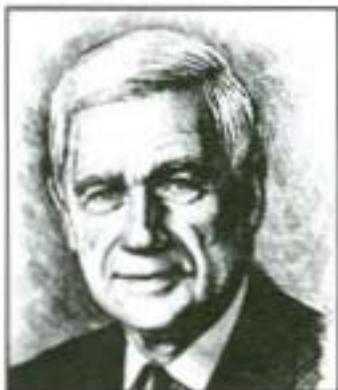
# NORTHWEST ENERGY NEWS

Volume 16, No. 1

Northwest Power Planning Council



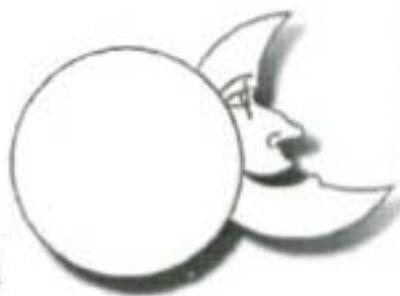
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Interview:

Oregon Senator

Mark

Hatfield

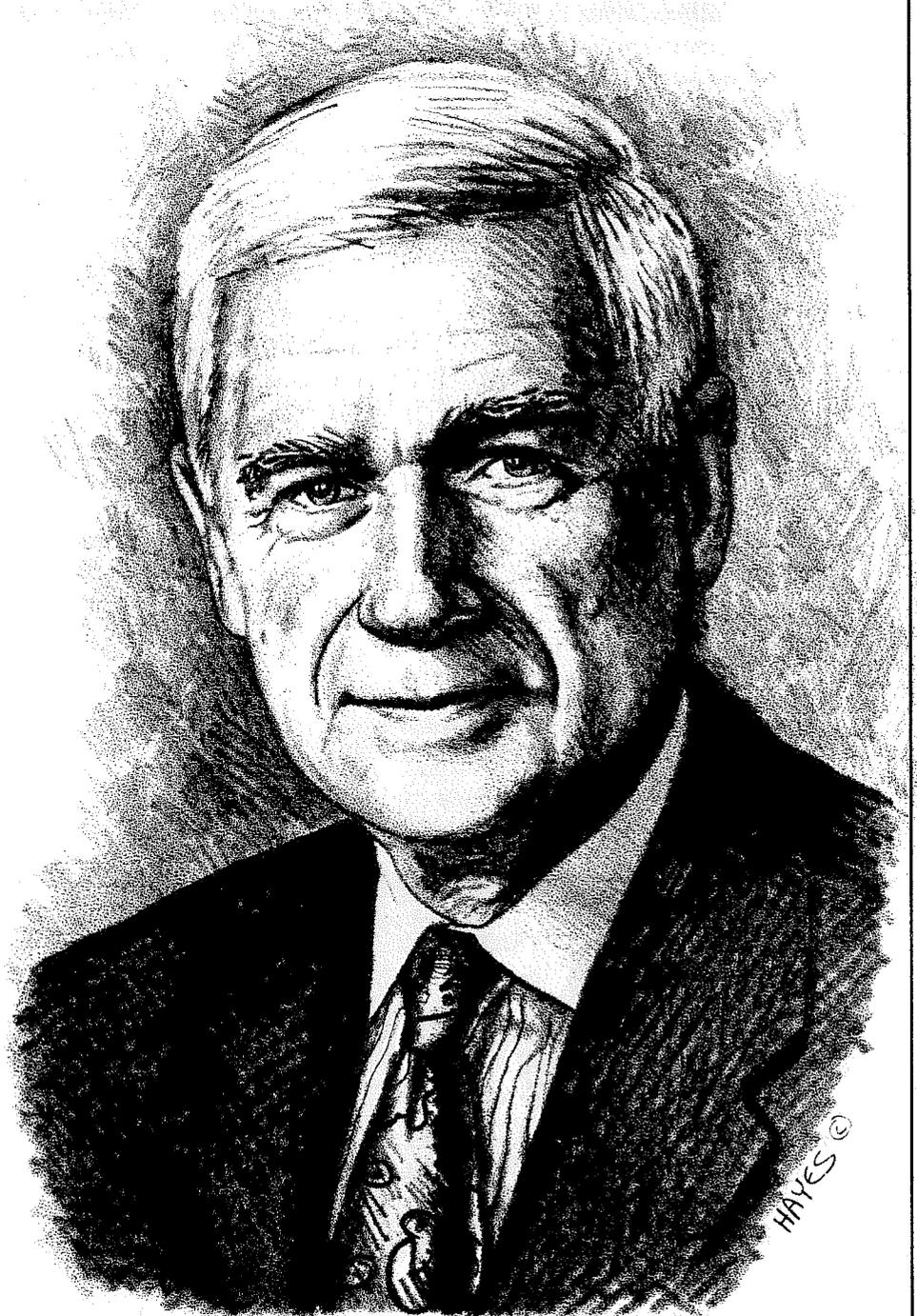
with Carlotta Collette

The retiring Senator looks to the past and to the future.

Oregon's senior Senator Mark O. Hatfield is a teacher again. After nearly a half-century in electoral politics, the Senator (he will always be "the Senator" to Oregonians) has returned to his first career — educating young people about the events and consequences of history. He will be teaching on several Oregon campuses, including a course at George Fox University about the "event" that established his national reputation as a statesman — the Vietnam War, which he vehemently opposed.

In 1966, the citizens of Oregon sent Mark Hatfield to the Senate to bear witness to their anger over the United States' involvement in Vietnam. He had already earned his reputation in Oregon as a man of conscience.

He had served six years in the state's legislature (two terms in



Portrait by Stephen Hayes

the House of Representatives and two years in the Oregon Senate), had been the state's youngest Secretary of State (he was 34 at the time) and was the first two-term governor in Oregon in the 20th century. His was the only dissenting vote, in 1965 and 1966, when then-President Lyndon Johnson asked state governors to support the U.S. policy in Vietnam. Oregonians trusted that he could sustain his independence, as well as his beliefs, in Congress.

Senator Hatfield's strongly held moral principles were not a product of the Vietnam War. They were molded by a religious childhood and fired in the crucible of the Second World War. Naval Lieutenant j.g. Mark Hatfield was a landing-craft commander in the battles of Iwo Jima and Okinawa, and one of the first U.S. soldiers to enter Hiroshima after the bombing. What he saw there left him fiercely critical of nuclear armament and of war in general, and steadfastly supportive of human rights and improved health care.

In Congress, the Senator could be counted on to direct federal funds away from weapons programs and toward public works projects, particularly ones that benefited his home state. His Senate biography describes his approach as moving the nation's focus away from life-destroying and toward life-enhancing endeavors.

Within the region, he has been described as one of our greatest "assets." When federal feeding frenzies seemed interested in feasting on the Northwest's natural resources, the Senator repeatedly fought them off. Since 1967, for example, he has introduced and seen passage of legislation that quadrupled the amount of federally protected wilderness area in Oregon.

As one of the sponsors of the Northwest Power Act, and as a member of the Senate Committee on Energy and Natural Resources, Hatfield has been a steward of the region's Columbia River Basin hydropower system. He has consistently advocated regional management of this critical Northwest resource.

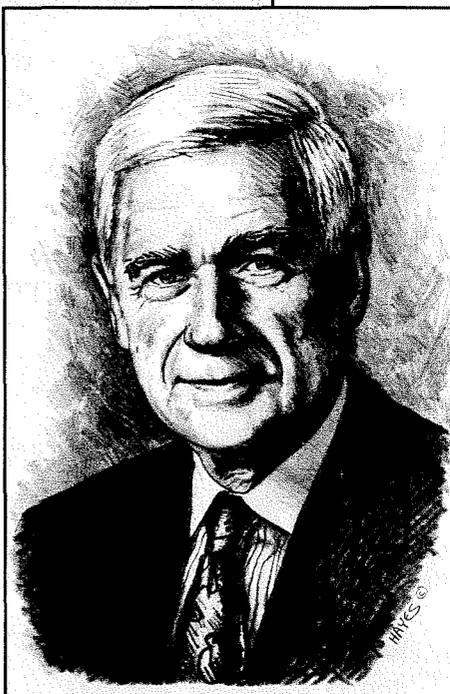
With his retirement this winter, after serving in the Senate longer than any other Oregonian, the Senator returns home to Oregon with his wife, Antoinette. The couple has four children and three grandchildren.

**Q.** *During your 30 years in the Senate, you played a major role in nearly every decision made by the federal government regarding management of the Northwest's federal hydropower system and the Columbia River Basin's resources. Of those many events and decisions, which are the most significant, in your opinion?*

Looking back on it, there is a clear evolutionary trend in the development of our federal policy toward the Columbia River Basin. At each point in time, the major decisions and pieces of legislation addressed needs and issues that were relevant at that particular time. As the hydro system grew and became more complex, the federal reaction to it became, by pure necessity, more complex. Each legislative decision was of the utmost importance when it was made, and each was a springboard for later actions.

And, of course, when you look back in time 20 or 25 years, it is important to remember that the public's way of thinking, and the public's interest in what was im-

portant is much different from how we view things today. For example, when we debated and wrote the 1974 Columbia River Transmission System Act, which made Bonneville [Power Administration] a self-financing agency



**The point was not to protect Bonneville, per se, but to protect the advantages and benefits Bonneville represented to the Pacific Northwest.**

and provided the financial mechanism for the expansion of the transmission system, fish and wildlife and energy conservation issues were not major parts of the debate. At that time, our goal — the predominate public goal — was to continue expanding the economic benefits of the hydro system to the region.

**B**y 1980, when the Northwest Power Act was passed, the prevailing attitude had changed greatly. The WPPSS [Washington Public Power Supply System] nuclear plant debacle, the 1970s' oil crisis, and the continuing declines in the basin's salmon runs all worked to change the public's attitude toward the operation of the river system.

It was during the Power Act debate that I offered the amendment making energy conservation equal in importance to acquiring new electrical generation. I am especially proud of that measure for how it helped change the way we now think about energy in the Northwest. And, my timing was good. Had I offered that amendment in 1974, it probably would have failed.

More recently, I've been pleased at being able to settle a long-standing battle I've had with the Office of Management and Budget [OMB]. During the 1980s, thanks to President Reagan and his budget director, David Stockman, we wasted time nearly every year fighting with OMB over proposals to either sell off Bonneville and the other power marketing administrations or to arbitrarily increase Bonneville's annual debt repayment to the Treasury because the "green eyeshade" crowd at OMB couldn't stand the fact that many of our older project loans were at very low interest rates.

It became a yearly dance of sorts, where OMB made the proposals and claimed the "savings" in their budget submissions, and then we flatly rejected the proposals through the overwhelming support of the regional delegation and with the help of regional and national public power interests.

The most interesting aspect of that whole ordeal was that the budgeteers at OMB became increasingly clever in their proposals, especially during the Bush Administration. Every year the proposals got more and more reasonable, at least to an outside observer. While it was not very difficult to convince my colleagues on the Appropriations Committee to reject a proposal to sell off Bonneville to the highest bidder, it became increasingly challenging to explain why Bonneville's debt payments shouldn't be calculated at current market rates. It was these later proposals that began to make me uneasy, and made me realize that if the game was going to be to increasingly isolate Bonneville from the other power marketing agencies, that was a battle we could eventually lose.

**I**t was for that reason that back in 1991 I made the appeal to public power to willingly draft a proposal to refinance, at current market rates, Bonneville's long-term appropriated debt of about \$7 billion dollars. At first, most of public power in the region didn't see any need to do that. The congressional delegation had always been able to fend off attacks in the past. Tom Foley was Speaker of the House, and was a strong Bonneville supporter, and both houses of Congress were controlled by the Democrats.

Fortunately, public power realized that the Northwest's clout would not last forever and decided

to draft the proposal. Eventually, thanks to a lot of help from Department of Energy Secretary O'Leary and others in the Clinton Administration who supported the concept — providing the region was willing to pay a \$100-million "transaction fee" — the proposal gained a footing and was passed by Congress a year ago.

When I look at the situation facing both the executive and legislative branches as they strive to balance the budget by 2002, I am very thankful that the refinancing package was enacted. If it hadn't been, the region would surely be facing renewed attacks from both the Administration and Congress.

But, oddly enough, what I consider to be one of my most difficult and most important contributions was not legislative in nature. It was last year's fish and wildlife budget agreement with the Clinton Administration. That was a real case study in the non-legislative role and actions of a legislator. It was a monumental agreement that has brought a measure of peace to the region for the past 14 months. Sometimes the most productive path for a legislator is not to legislate, or at least to know when you may get more through continued negotiation than through legislation. I think that is what we got last year.

We could have tried to legislate a solution, and we probably could have passed a provision. However, the agreement with the Clinton Administration, which gave Bonneville a six-year stable and predictable fish and wildlife budget of about \$435 million per year, plus an emergency contingency fund in the amount of about \$325 million, was a great deal. Better than we could have gotten otherwise. And I think it defused a lot of anger, especially in the environmental community.

**Q.** *For the past 15 years or so, you have been recognized as the Bonneville Power Administration's leading advocate in the Congress. You were always there to defend Bonneville from the Office of Management and Budget, the Department of Energy, or from members of Congress from outside the Northwest. What are your thoughts and feelings about Bonneville, as you leave office, knowing it may now be more vulnerable than ever to outside attack?*

There was never any question that I was going to go to the mat over Bonneville issues. In fact, Jim Baker, who served as both President Reagan's Chief of Staff and Secretary of the Treasury, and later as Secretary of State under President Bush, nicknamed me "Bonneville."

One of my favorite stories was when former Congressman Al Swift was asked about the impact of yet another Administration proposal to alter Bonneville's repayment schedule, and was quoted in the newspaper as saying that "every year at the same time a little troll comes out from beneath his bridge at OMB and chews on Mark Hatfield's leg." I always thought that was very funny. I remember that representatives from public power even gave me a "Troll Buster" award. It was one of those little troll dolls that you can buy in toy stores. That was great fun.

But, I never viewed myself as Bonneville's only advocate in the Congress. There were many from the Northwest. Tom Foley, Al Swift, Jim McClure, Peter DeFazio and Ron Wyden all come to mind. Another is Bob Smith, who, as the new chairman of the House Agriculture Committee, will be in a very influential position

to work on Bonneville issues in the House. And of course, all of the current Northwest delegation is deeply interested in Bonneville issues and the hydroelectric system. Bonneville will still have many effective advocates after my departure.

Over the years, the point was not to protect Bonneville, per se, but to protect the advantages and benefits Bonneville represented to the Pacific Northwest. I think that is the way Scoop Jackson saw it, as well. For more than half a century, what was good for Bonneville was good for the Northwest. It may seem to some as a simple philosophy, but it was largely accurate.

Just try to imagine what the Northwest would be like today had there not been a strong Bonneville. If there was no history of regional preference. No provision for major industries to purchase their electricity directly from Bonneville. For that matter, if Bonneville were not a self-financing agency, where would the money for salmon recovery come from today?

Conversely, I think it's important to remember that if there had been no aggressive nuclear power plant program in the Pacific Northwest, there would be far less concern now over Bonneville's future. Bonneville never even had a rate increase until 1965. Without the nuclear debt Bonneville assumed, that agency's power rates would still be unmatched anywhere. It's just another facet of the destructive nature of nuclear power.

But more to the point of your question — of course I am concerned about Bonneville's future in the new deregulated, competitive environment. It is quite evident that changes in the structure of Bonneville are now

inevitable, but in the end, I think Bonneville will be around for a very long time. The Northwest congressional delegation will not stand around idly while outside groups try to sell off Bonneville or try to purchase its power for a princely sum — leaving the Northwest high and dry. As I said earlier, the history of Bonneville is the history of the region's evolution. The advent of competition spells a new chapter, not an end to the story.

**Q.** *You have called for expanding the scope and authority of the Northwest Power Planning Council. Could you elaborate a little on your thoughts about this?*

Unfortunately, this is part of my unfinished agenda for the region. It could be that it is an idea whose time has not yet come. But, I think that it will ripen as time goes on, especially as the governors, the administration and the congressional delegation continue to grapple with securing the benefits of our power system, protecting the environment, recovering our salmon runs, addressing future endangered species listings, and resolving other highly controversial issues. It became clear to me quite some time ago that the existing management structure for the Columbia Basin does not — cannot — work in its current form.

I think the late Dr. Don Bevan, chairman of the Snake River Salmon Recovery Team, said it best when he said that the problem is that there is no one in charge. He was right, there really isn't anyone or any one body in charge here. You have several entities that are in charge of a piece of the system, and others who think they should be in charge, but really are not, but there is no single institu-

tion that can look broadly at the whole basin and make decisions. There is no one institution that can sort out the truth from the fiction — and believe me there is a lot of fiction out there, especially with regard to salmon recovery.

I have been an advocate of the ecosystem management approach for the past several years. Our experience in managing our national forests during the late 1980s taught me a great deal about the importance of recognizing how everything relates to everything else in an ecosystem. We can't "fix" one piece of a complex ecosystem without addressing the rest of the system. Unfortunately, there is no one organization with the power to make decisions about this region's whole ecosystem. The closest thing we have to that concept right now is the Northwest Power Planning Council.

The Council was established as a regional energy and fish and wildlife planning body that would recognize the resources of the Columbia Basin as environmental and economic assets of all four states in the Pacific Northwest — Idaho, Montana, Oregon and Washington. It was a radical concept for its day because it provided mechanisms to facilitate decisions on a regional level, not the state level. Although we did not call it "ecosystem management" back in 1980, it was, in ret-

spect, a precursor to that concept.

Now, 16 years later, the Pacific Northwest's electricity industry is in the midst of its greatest turmoil. The transition to a more competitive electricity industry has its advantages and its dangers. Competitive markets result in economic efficiency, not fairness or other social or environmental goals. To ensure that such activities as providing low-cost electricity to rural areas, furthering energy conservation and renewable energy development, and providing funding for fish and wildlife recovery are continued, the region will likely have to provide special mechanisms that achieve these goals.

While many in the region, including the four governors, realize the gravity of the situation, the political tools necessary to manage the basin effectively do not exist. At the heart of the problem lies the fact that there are few clear lines of authority for making decisions that are in the region's best interest. This is magnified by the large number of federal and state agen-

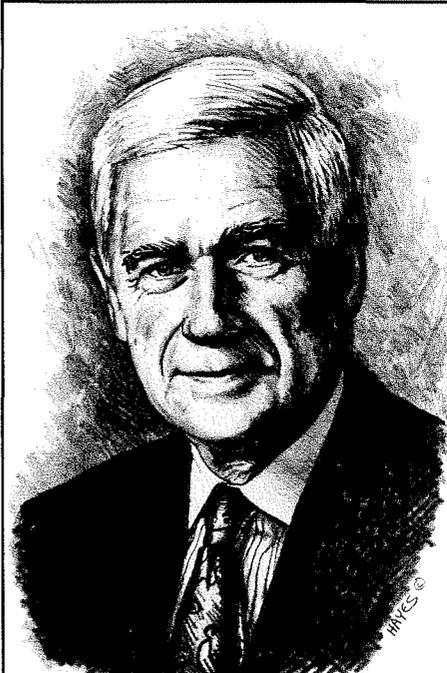
cies, Indian tribes, and interest groups with a stake in how the decisions are made. Add to that mix two international treaties with Canada, and you have one of the most complex resource management puzzles in the world.

**Q. What about the federal government managing the hydro-power system?**

While a strong federal presence in all Columbia Basin issues is both desirable and inevitable, the region's governors and Indian tribes should at least be on equal footing with the federal government when defining what is in the region's best long-term interest. This is especially true considering that the Bonneville Power Administration's electrical ratepayers pay for the vast majority of fish and wildlife activities in the basin, including most of those required by the National Marine Fisheries Service (NMFS), the federal agency charged with managing the nation's ocean fisheries.

Currently, NMFS has the most say in the operation of the Columbia River Basin. This is because

NMFS is the federal agency charged with administering the Endangered Species Act as it relates to listed salmon runs. Although the Council has statutory authority to develop a plan protecting all fish and wildlife in



**The Northwest congressional delegation will not stand around idly while outside groups try to sell off Bonneville or try to purchase its power for a princely sum.**

the basin, this mission is subservient to NMFS's Endangered Species Act responsibilities, which focus only on those salmon runs that have been declared threatened or endangered.

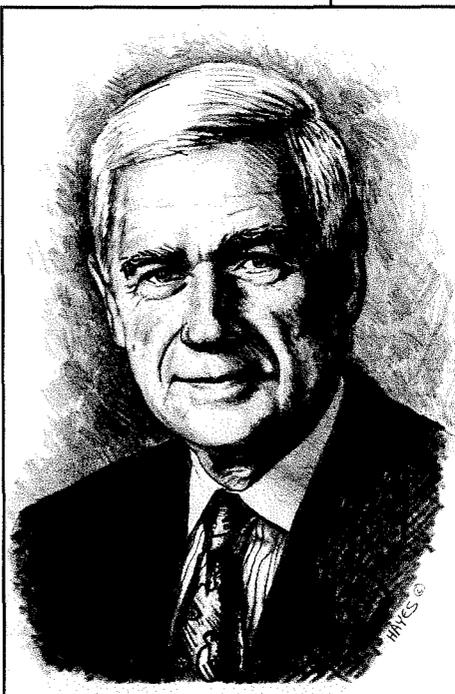
So while the establishment of the Northwest Power Planning Council in 1980 was a visionary act, we failed to provide it with sufficient decision-making authority to ensure that this region's resources would be managed by regional leaders, not federal bureaucrats. In this time of shrinking federal spending and partisan political wrangling, it is unlikely that the federal government can do a better job of managing the basin's resources in the long term.

I'm convinced that a single planning body with jurisdiction over the operations of the river system as well as other resources in the basin would provide greater management continuity and protections than the disjointed operations of myriad federal agencies ever could. Unlike the federal government, which can swing radically from one perspective to another every four years, a regional body like the one I envision is more insulated from such political rhythms and can chart a more moderate course.

I would change the name of the Council to the "Northwest Resource Planning Council" to emphasize the ecosystem aspect

of its mission. A new Northwest Resource Planning Council, comprised of regional Council members, with the authority to manage the basin using ecosystem concepts, and with the authority to make its decisions and program stick, could make a real difference in the Northwest.

It is absolute fiction to think that the federal government, especially in this time of declining budgets and highly partisan decisions, can do a superior job managing the basin over the long term. The sheer size and complexity of the hydro system and the basin's resources suggest that a regional body with real clout would be much preferable. ■



**A new Northwest Resource Planning Council, with the authority to manage the basin using ecosystem concepts and make its decisions stick, could make a difference in the Northwest.**

# WATER for SALMON



# LAND for RANCHERS

by John Harrison

## Water conservation projects improve salmon habitat and ranchland in Eastern Oregon.

**H**ere, along the impressive northern front of the Strawberry Mountains, the John Day River meanders through a broad valley bordered on one side by a wilderness forest and on the other by dry, rolling hills studded with juniper and pine. Spongy meadows of shallow topsoil border the clear, cool river, home to one of the strongest remaining runs of wild spring chinook salmon in the Columbia River Basin.

The river that nourishes salmon

also nourishes livestock and irrigates fields of hay and alfalfa. It is a place where agriculture and salmon coexist — increasingly peacefully. That's because the federal Bureau of Reclamation, in cooperation with the Grant Soil and Water Conservation District and the Oregon Department of Fish and Wildlife, is undertaking some 20 projects in the John Day River Basin to demonstrate how improved water management practices benefit ranchers and

salmon at the same time.

In its 1991 Strategy for Salmon, and again in the 1994 Columbia River Basin Fish and Wildlife Program, the Northwest Power Planning Council called on the Bureau of Reclamation to undertake water conservation demonstration projects in tributaries of the Columbia and Snake rivers where salmon spawn. In addition to the John Day efforts, projects are under way in Idaho's Lemhi River, Washington's

Yakima River and Oregon's Grande Ronde River. In the John Day Basin, the projects primarily address problems of water diversion, fish passage and water temperature.

**R**ancher Darrel Holliday was one of the first to participate in the projects. The cattle ranch he operates with his two brothers and his father, Clyde, sprawls across 30,000 acres and is bisected by four miles of the mainstem of the John Day River. To Holliday, it is good cattle country. To Ken Delano, district engineer for the Conservation District, it is also good salmon country. With the assistance of Reclamation and the District, Holliday will improve his crop production and use his irrigation water more efficiently, while also improving salmon passage at his diversion dams and lowering the temperature of the river.

"When people cooperate, everybody wins," Holliday says. "The fish win, and I win."

It hasn't always been that way. According to a salmon and steelhead production plan for the John Day River, written in 1990 by the Columbia Basin Fish and Wildlife Authority, land use practices have hurt the fish. According to the report, salmon and steelhead production in the river "is limited primarily by existing rearing conditions. Livestock overgrazing, water withdrawals for irrigation, clearing by landowners, road building, logging, mining and channelization create fish habitat problems by disturbing or destroying riparian vegetation and destabilizing streambanks and wa-

## *The river that nourishes salmon also nourishes livestock and irrigates fields of hay and alfalfa.*

tersheds. The results are wide, shallow channels; low, warm summer flows; high, turbid spring flows; high sediment loads; and decreased fish production."

With landowner cooperation, the water conservation demonstration projects are addressing those problems. Such cooperation is vital in a part of the country where natural resources mean business. Where an outsider sees a peaceful river winding through stands of cottonwood studded with egret nests, a local sees the economic lifeblood — water.

**W**ater is a precious commodity in an area that depends on agriculture, and where rainfall averages 12 to 16 inches per year. It was a hard area to settle, but it settled rapidly in the 1860s with the discovery of gold. Where the miners flocked, the farmers followed. They found much of the shallow topsoil soggy, thanks to an underlying layer of clay. So the farmers dug ditches to carry river water to their fields, and more ditches to drain the subsurface water — irrigation return flows — back to the river. Today, many of those ditches are still in use.

"They dug with horse-drawn Fresno plows, and where the horses couldn't go, they dug by hand," Holliday said. "They must have been incredibly tough people. When the ditches filled up, they had to dig them out. What I can do in a day with a backhoe must have taken them weeks."

Like the neighboring ranches, the Holliday Ranch dates to pioneer times; it has an 1874 water right to the John Day River. Clyde Holliday bought the place in 1951.

**T**he Hollidays have two diversion dams in their stretch of the river. Each has a fish screen to intercept juvenile salmon and return them to the river. These dams, like many irrigation dams elsewhere on the river, consisted of gravel and rocks pushed up from the river by tractor. The biggest potential problem for these dams — for both salmon and ranchers — is that they can wash away. If that happens, sediment from the dam can cover salmon spawning gravel downstream, and the rancher loses valuable irrigation time, and incurs considerable expense, rebuilding the washouts in the spring or summer.

Holliday replaced one of his dams on his own, in consultation with Reclamation, the Conservation District and the state Department of Fish and Wildlife. He opted for cost-sharing to replace the second dam. He is frank when asked what got him interested: "I figured we'd be stopped unless we did something."

The National Marine Fisheries Service is considering a petition to protect all West Coast steelhead, including those in the John Day

River, under the Endangered Species Act. If the Fisheries Service goes ahead with such a listing, farmers could be forced to change their practices to conform to a recovery plan. It makes sense to change water practices voluntarily to help the fish, particularly if his ranch benefits, as well, Holliday said.

“This is my river. I consider these four miles of the river mine,” he said. “I want to take care of it.”

**T**oday, the dams on the Holliday Ranch, and others like them elsewhere in the river, are built of concrete and steel anchored firmly in the river. A low, small island splits the river into two channels. During the irrigation season, gates are placed in one of the channels, diverting the flow into irrigation ditches that carry the water to fields. Fish screens remain in place. Meanwhile, the river flows free on the unobstructed side of the island, allowing adult and juvenile fish to pass on either side of the island. Another advantage of the new dams is that they are lower in the river — as much as three feet lower — than push-up dams, and so are less disruptive to river flows and habitat.

Elsewhere on the Holliday Ranch, the historic ditches that carry higher-temperature field



Darrel Holliday stands near a drainage ditch on his ranch. The ditch will be filled in around the pipe to keep water cooler in the pipe.

runoff and subsurface water back to the river are being fitted with perforated plastic pipe and covered with gravel and topsoil. This will improve crop production by improving drainage and turning small fields bisected by ditches into large fields, Holliday said. These new fields will be leveled so that flood irrigation will be more efficient.

**O**n other nearby ranches, Reclamation's projects involve similar drainage improvements, and also switching traditional flood irrigation to pumps and sprinklers. For example, Dick Field, who farms along the mainstem of the John Day River a few miles east of Prairie City, plans to plant alfalfa and specialty crops on parts of his farm that are too soggy to farm efficiently now. “I’ll gain better control of my water and be able to

use it more efficiently,” he said. “I anticipate my production will increase by 25 percent, even if I don’t add new crops.” Similarly, Roger Ediger, whose farm is 29 miles downriver near Mount Vernon, anticipates his switch from flood irrigation to sprinklers will increase his alfalfa crop by a ton per acre — not bad in a county where the average yield is three tons per acre — and he will use water more efficiently.

**F**or salmon, filling drainage ditches means the seepage flowing into the river is considerably cooler. Salmon thrive in cool water — 68 degrees or warmer can be lethal.

“Before, with open ditches, the sun would bake the water, and in the summer it would enter the river as high as 78 degrees,” Delano said. “Now the return flows are much cooler.” For example, Delano measured the temperature of the water flowing into the river from an open ditch on the Holliday Ranch on July 15, 1995, at 2:40 p.m. It was 76 degrees — 7.3 degrees warmer than the river. Exactly one year later, after the ditch had been replaced with buried pipeline, water flowing from the pipeline at the same time of day was 67.2 degrees, 3.6 degrees cooler than the river. That’s a difference of 8.8 degrees.

**F**or Holliday, sun-warmed irrigation water is best for his crops. "We take our water off the top of the river," he said. "So we get the water we need, and the salmon get the temperatures they need in the return flows."

The project also has benefits for the Bureau of Reclamation, said engineer Jeff Peterson of Boise, who oversees the projects for the agency. Boosting the quantity of return flows and lowering the water temperature improves irrigation efficiency and addresses one of the key salmon habitat concerns — water quantity and temperature, Peterson said.

While the water conservation projects have obvious benefits for farmers and the fish, some John Day ranchers remain skeptical. Historic practices are hard to change, especially when change is expensive.

"Yes, this has been expensive, and cow prices aren't keeping up with our budget. Right now, if you can pay your taxes and keep your employees around, you're doing well," Holliday said. "It's not that people don't care about the fish; they do. It's the money that scares them."

It helps to share the costs on a roughly 50-50 basis with the Bureau of Reclamation, and it also helps to have the Conservation District involved, Holliday said. Holliday built one of his new dams with his own money and equip-

***"Every project has to have benefits for the ranchers and for the fish."***

ment, for about \$23,000. He shared the cost of the other dam with Reclamation. He paid \$14,000, and Reclamation paid \$17,000.

"Every other agency has regulatory authority, and you have to watch your backside," Holliday said. "The Conservation District plays a strong role, and you're not afraid to use them."

That's a point Delano, the District engineer, likes to make. The water conservation demonstration projects are carefully designed with each landowner, and the Bureau of Reclamation and the state's Department of Fish and Wildlife give their approval before construction begins. "We can't force landowners to do these things. So every project has to have benefits for the ranchers and for the fish.

We've had excellent cooperation from Reclamation and the Fish and Wildlife Department." As for Reclamation, "our primary goal is to benefit the fish, and we don't want to lose sight of that," Peterson said. "But we also understand that a lot of people are distrustful of government, generally, and so we give them as little government as possible."

**H**olliday knows his neighbors along the river are watching for signs of success — particularly those neighbors who aren't participating in similar projects. "I think they can see the benefits," he said. "The only negative thing I have heard is that by doing this we are forcing them to do the same thing. We aren't. For me, the benefits far outweigh the negatives." ■



A sampling of competitive utility conservation strategies in the Northwest.

by **Ted Flanigan**

*Editor's Note: Last fall the Northwest Power Planning Council asked Ted Flanigan, former director of The Results Center, an organization that tracked and highlighted utility conservation efforts nationwide, and Jim Nybo, a consulting economist formerly*

*with the Council's conservation staff, to survey and report on creative ways Northwest utilities are continuing to support energy efficiency in the context of a more competitive industry. The Council will release Flanigan and Nybo's full report, "Competitive*

*Energy Services Strategies in the Northwest: A Partial Eclipse of the Moon," this spring (order publication # 97-1). What follows are sample programs selected from the full report. They reflect utility efforts in every Northwest state. — Carlotta Collette*

**C**ompetitive Energy Services Strategies: A Partial Eclipse of the Moon," is about constructive responses to competition in the electric utility industry in the Northwest. It covers a wide spectrum of intriguing energy services being employed by Northwestern utilities and agencies as key elements of their competitive strategies. Far from being paralyzed by the threat of oncoming competition, the case studies in the report highlight a range of approaches that are used to differentiate utilities' product offerings and garner maximum customer loyalty. With the advent of full retail choice only a few years away, these utilities are seizing the window of opportunity to prepare for retail competition. The primary focus of the report is on energy conservation. After years of implementing some of the nation's premier energy conservation programs and initiatives, there has been a marked concern in the Northwest about losing "the conservation momentum."

For years, the Bonneville Power Administration provided a solid foundation for conservation in the region, designing programs and funding them as well. Now that Bonneville funding has dropped off, some programs will be curtailed and key competencies may be lost.

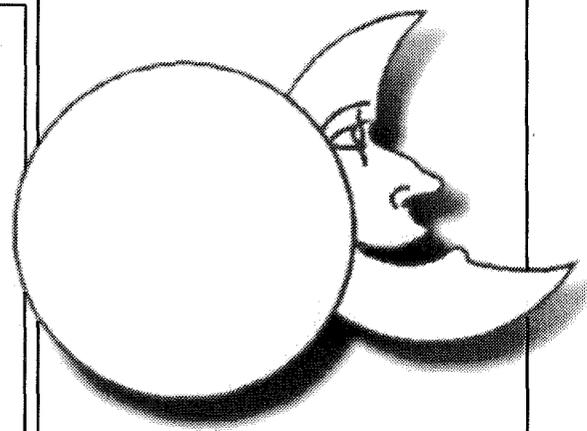
The Northwest Energy Efficiency Alliance featured below will address regional initiatives designed to transform the market for efficient supplies and services, but there is still a hole left in the wake of Bonneville's significant acquisition of the conservation resource. The region's utilities will now bear primary responsibility for delivering conservation

"The strategies hold promise for small to mid-size utilities that face extinction due to competition."

to their customers. The vast majority of these are small municipal and cooperative utilities. Some advocates fear that without centralized program design and funding, conservation efforts will falter, leaving the Northwest's bright conservation legacy in the dark.

The energy services featured in the report encompass customer energy-efficiency initiatives as well as complementary strategies involving diversified power supplies, power brokering, power generation, green power initiatives and organizational development.

The strategies hold promise for small to mid-sized utilities that face extinction due to competition and potential industry consolidation. These utilities have a window of opportunity to design their own competitive energy service strategies. Their survival may indeed be based on their ability to continue to serve their customers with locally delivered services uniquely tailored to local conditions. Through the repeated interactions that energy services afford, local providers can align their services with the specific demands of their long-held customers, assuring their viable role in the future.



## Northwest Energy Efficiency Alliance

On January 1, 1997, all of the public and private utilities in the Pacific Northwest joined forces — both creatively and financially — to improve the energy efficiency of products and services in the region. What was originally called the Market Transformation Trust, then the Northwest Conservation Collaborative, and later yet the Northwest Energy Efficiency Partnership, had been formally inaugurated on October 30, 1996, at the Lighting Design Laboratory in Seattle as the Northwest Energy Efficiency Alliance. New Year's Day marked the official startup of the Alliance, which is designed to sustain the Northwest's efforts to use electricity as efficiently as possible.

What's really noteworthy about the Alliance is the cooperation among the region's utilities to spur such an initiative. On behalf of its customer utilities and itself, the Bonneville Power Administration has earmarked \$15 million per year for the next five years to the project. Its stipulation is that its commitment be

matched proportionately by the region's six major investor-owned utilities. The utilities agreed.

Dave Hauser, from Montana Power Company and chair of the Alliance Board of Directors, says the Alliance was formed "so Northwest utilities could preserve their public purpose initiatives as the industry becomes more competitive. Conservation, for example, is less attractive to utilities in this new industry," he says, "unless they work together."

The Alliance's full budget for 1998 is set at \$26.2 million; the budget for 1997, the ramp-up year, is \$13.1 million. These figures represent maximum electric utility contributions. Actual expenditures will be determined as projects are adopted by the Alliance's Board.

While Bonneville was able to commit to funding a five-year initiative, the region's investor-owned utilities' have committed funding for only three years because they support adoption of a statewide charge that would show up in consumer's electric bills and could be used to fund efficiency in the region by the year 2000. Such a charge, and an organization like the Alliance, were recommended in the Comprehensive Review of the Northwest Energy System, conducted in 1996. If this type of funding mechanism is adopted, conservation funds will be earned on every kilowatt-hour sold in the region. In such a scenario, the Alliance might be directly funded through those funds rather than by individual utilities.

"Even with the regional charge coming in about three years, we wanted something that would bridge the gap during the interim," says Hauser. "We wanted to make sure those conservation initiatives are continued through the transition."

Technically, the Alliance will be a non-profit corporation funded jointly by Bonneville and its customers and the investor-owned utilities of the Northwest. Ultimately, the non-electricity benefits of these market transformation activities, such as reduced maintenance costs and increased productivity, may allow for an even broader base of support. Water and gas suppliers, for example, have been partners in past efforts and may be called upon again. Ironically, the region's utilities have found that cooperation in this instance may be one of the best ways to address competition.

Early in 1997, an executive director and staff will be hired, (staff from the Northwest Power Planning Council have coordinated the effort to date) checks can be cashed, and what participants consider "the smart way to attack the market" will get in full swing.

### *Defining market transformation*

The notion of concentrating on market transformation to improve the efficiency of available goods and services is not at all new. The Northwest, in fact, has long been the nation's leader in such market transformation endeavors. Northwest utilities and state energy agencies worked collaboratively, for example, to adopt more efficient building codes that transformed the market for housing, both site-built and manufactured, throughout the region.

While all conservation programs transform markets to one degree or another, there are a number of distinguishing features of those efforts labeled "market

transformation." For one, unlike rebate programs that provide ongoing incentives, market transformation strategies are designed with phasing out utility financing as a goal. Once the more efficient product or service is readily available and affordable, the utilities' job is done, and they can move their focus to other markets.

Another feature is the recognition that combined forces provide more impact than isolated activities, resulting in more permanent changes in the production and marketing of cost-effective energy-efficient goods and services. Market transformation also is a way for utilities and their regulators to address the whole customer base rather than just individual customers. For select technologies, market transformation is an effective means to provide a better, more efficient, product for a lower price by coordinating and aggregating procurement for products that meet similar standards.

### *Proposed projects*

The Northwest Energy Efficiency Alliance is intended to build upon the impressive level of expertise with conservation that organizations and individuals have developed in the region. Some existing programs are likely to be continued by the Alliance. These include initiatives with compact fluorescent lamps, efficient clothes washers and premium efficiency motors. These and other efforts will be developed by staff for approval by the 18-member Alliance Board of Directors. The Board represents three primary groups: Bonneville and its public utility customers; investor-owned utilities; and a non-utility segment

made up of the Northwest Power Planning Council, state and local government, public interest groups and trade allies.

The Alliance will be involved in market research, technology assessment, planning, brokering collaborations, monitoring and evaluation, and implementing market transformation strategies. It will look first at ventures already in various stages of development, including working with residential and commercial building energy codes, industrial systems, residential appliances, residential space conditioning and irrigated agriculture.

For residential customers, the Alliance will likely continue to work with codes and standards for homes and appliances at the regional and national levels. The existing compact fluorescent lamp initiative (LightWise) and horizontal-axis clothes washer program (WashWise) have been adopted by the Alliance. Certification of operations and maintenance procedures within commercial buildings — a process known as building commissioning — is on the agenda. In the industrial area, the Alliance may work with national groups to promote more efficient packaged compressed air and pump systems, as well as industrial fan and blower systems. It will address motor efficiency through the existing regional premium motors project and industrial motor repair activities.

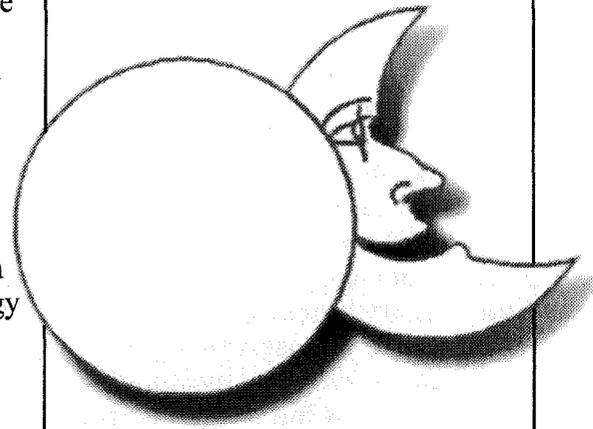
Another potential set of opportunities involves the region's burgeoning microelectronics industry. International microelectronics plant design experts have demonstrated that it is possible to build new clean rooms that save up to 50 percent of the HVAC energy requirements at a lower first cost. This and other

energy-saving opportunities have been overlooked by an industry driven by the time it takes to get products to market.

#### *Prospective future roles and collaborations*

Another important dimension of the Alliance will be its synergy with both regional and national market transformation efforts. The Alliance plans to work with the Northeast Energy Efficiency Partnerships, Inc., which has been established in New England. The Alliance will also try to work with the Energy Center of Wisconsin; initiatives in California; and on a national basis with the Consortium for Energy Efficiency, the U.S. Environmental Protection Agency, the U.S. Department of Energy and the American Council for an Energy-Efficient Economy. These groups and others provide means for the Alliance to be involved in national collaborations to create standards and codes that move national markets.

Linking its efforts with similar initiatives in other parts of the country will be a key strategy to shift national markets. For example, the Northwest only represents about 4 percent of the electric motor market in the United States. However, by combining forces with the New England and Southern California markets, the share increases to 25 percent, enabling far greater leverage for change. Through these and other collaborations, the Alliance can further the ultimate goal of all market transformation initiatives — making efficiency standard practice.



## The Eugene Water & Electric Board

“Eugene’s Board and entire executive management would be replaced if we completely stopped investing in efficiency and renewables,” claims Matt Northway of the Eugene Water & Electric Board, the public utility that serves Eugene, Oregon. Citizens of Eugene want, expect and will demand, if necessary, that their utility continue to do the right thing.

Taking stock of the competitive era, the Eugene utility is reinventing its conservation programs. Its energy management staff is searching for new means to get maximum return for their investments, shifting from a menu of grants and direct incentives to financing packages and creative marketing alliances.

#### *Reshaping energy services*

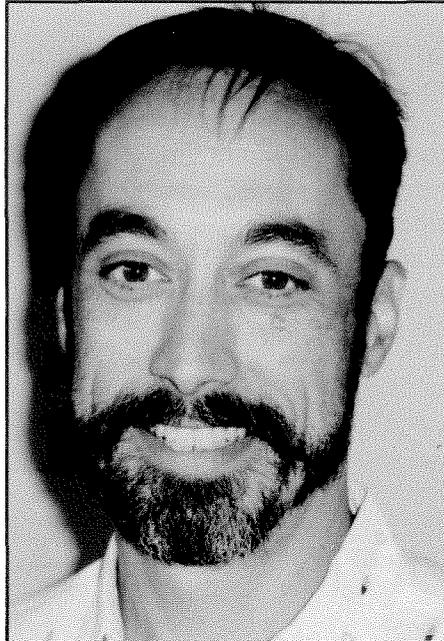
Contrary to popular perceptions, the Eugene utility does not have unlimited funds for conservation. In the absence of Bonneville funding, staff are recrafting programs. In the past, the utility reinvested 3 to 5 percent of its annual gross revenues

in customer energy management. With Bonneville funding, this value increased to about 9 percent. Now the Eugene utility plans to spend up to 4 percent of its gross revenues using its own money, but with comparable savings. Thus a key objective is to get a "bigger bang for the buck," an objective that staff believe is very doable. In fact, the utility's goal is for conservation to be self-funded by 1999.

"We used to give away stuff that customers value," commented Northway. Now he and his able staff are figuring out what they can charge for specific services. They are honing in on what customers are willing to pay, and inversely, what types of measures must be subsidized. According to Northway, "We're looking at the most we can charge while still providing a bargain to customers."

The Eugene utility has recently modified the original Bonneville home weatherization program, in which the utility paid three-quarters of the cost of insulating and weatherproofing homes. Now low-interest and no-interest loans that cover the entire cost of retrofits are being used to reduce program costs.

Eugene's successful solar water heater program also addresses the utility's evolution with energy services. The program has been effectively linked with trade allies; staff also assist participants applying for the state tax credit. With the help of rebates, more than 600 solar water heaters have been installed. Last year, when the Eugene utility added the option of a loan to the program, participation shot up. Now the utility has licensed the program design to the City of Ashland, Oregon. While it may sell the design to others for a fee, it is also con-



*"Eugene's Board and entire management would be replaced if we completely stopped investing in efficiency and renewables."*

Matt Northway,  
Eugene Water & Electric Board

sidering offering program participation to anyone as a stand-alone energy service, including customers outside of its current service territory.

"Duct doctoring" of mobile homes has also set a new direction for the Eugene utility. Repairing leaky heating and cooling ducts costs about one-tenth as much as full weatherization while delivering half the savings. Full weatherization through the Bonneville weatherization program can

cost more than \$2,500 per home, while duct sealing can cost as little as \$250. The program also provides important indoor air quality benefits.

The Eugene utility continues to offer rebates for energy-efficient refrigerators, freezers, clothes washers, dishwashers, water heaters and clothes dryers. The appliance program is dovetailed with local vendors who label qualifying appliances as "Eugene Water & Electric Board Certified."

Eugene also initiated a "power quality" program. Energy management staff developed partnerships with contractors and retailers of products to stimulate local markets for power-conditioning equipment. The utility sent customers announcements in monthly bills, describing surge protectors and identifying stores that stocked them. Engineers perform diagnostics to solve problems, reinforcing the utility's responsiveness to customers' needs. The utility has been able to dramatically increase customers' quality of electrical service. Ultimately, Eugene intends to charge for power quality solutions.

#### *Enhancing organizational design*

In response to competition, the Eugene utility has reorganized its internal accounting system into four business lines including retail sales and services. Within this line are energy management, marketing, key accounts, billing and metering. Its key objective is to make energy services more responsive to what customers want through a market-oriented approach.

For example, in retail applications, businesses want better lighting to increase sales — that

sells shoes. Homeowners are concerned with comfort, safety and property values.

The Eugene utility also realizes the growing importance of customer interaction. Its new retail sales and services division is the venue for customer contact through meter reading, billing and energy management. This business line will lead the charge toward enhancing relationships with customers, serving on the front line of invaluable customer interaction.

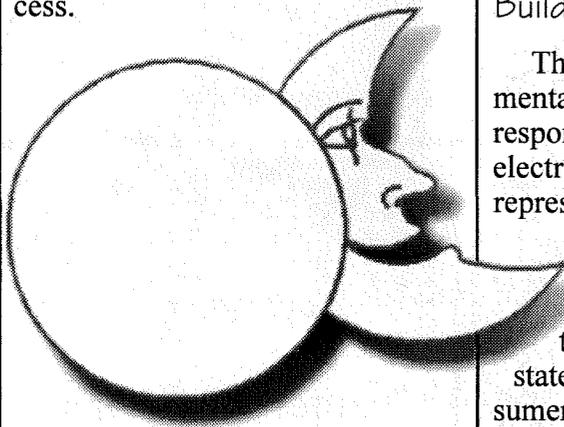
### *Embracing the coming competition*

Matt Northway is confident that his utility is well positioned for retail competition. He believes that customers want high quality services, that customers need an agent to provide all forms of energy services, and that his utility is likely to be the agent of choice. To become the utility of choice, Northway believes that Eugene can and will venture into new, exciting and potentially self-supporting energy services.

The utility is already taking bold steps. To take advantage of wholesale markets, it is building a trading floor to buy and sell power. It plans to expand the use of its engineering expertise for local industries. The utility also is stepping up the intensity and frequency of its customer interviews, asking the basic question, "What do you want your utility to provide?"

Eugene has tapped into the wealth of customer contact that conservation has provided. While there is a dearth of information on what customers want overall, energy services are recognized as key market research tools. Northway maintains that, "There is a window of opportunity for

utilities to act now, to learn to compete effectively, and to learn to act like a retail business where customers can walk away when they want." Maintaining this humble and receptive stance and finding out what customers truly want and value may well be Eugene's key to continued success.



## Montana Department of Environmental Quality

In 1989, the Montana Department of Environmental Quality (DEQ) approached its State Legislature for approval of a retrofit program for state buildings. Approval of the proposed "State Buildings Bond Program," with the millions of dollars needed to start the effort, required a two-thirds vote of each legislative branch. To the Department's pleasant surprise, the Legislature voted unanimously in its favor.

Since then, the Department has been required to earn reapproval for the program each year. Remarkably, out of 1,500 possible votes, the program has only had two negative votes in its history!

The Department's Administrator Van Jamison explains why: "We have a program that costs less than doing nothing." In fact, the program has become a profit center for the state, with savings being spent on deferred maintenance in state facilities.

### *Building on experience*

The Department of Environmental Quality's actions are not in response to competition in the electricity industry, per se. They represent constructive adaptations to an increasing competition in general.

Montana's DEQ plays two pertinent roles in that state: one as a major energy consumer and the other as a public agency responsible for the state's long-term interests. So, while it seeks low gas prices for state facilities, as a policy matter, it also strives to ensure that environmental costs are incorporated into the costs of energy.

The Department is not concerned about competition in the electric industry because it has already taken advantage of competition in the gas industry. In fact, Montana's DEQ endorsed gas industry deregulation in testimony before the state's Public Service Commission. When the Commission made its decision, the DEQ worked with other state agencies to put out a proposal for a state facility gas purchase and got an overwhelming response. Because state-run facilities include four of the top 10 gas users in Montana, 50 to 60 different firms showed immediate interest in selling gas to the government. By aggregating its loads and soliciting a new supplier, the state has been able to save nearly a million dollars each year, with \$4.5 million in savings to date.

The state's direct access natural gas procurement program is limited by the amount of gas facilities use. Only facilities that use at least 60 million cubic feet per year can be aggregated to solicit the best overall price from suppliers. The universities at Missoula and Bozeman, the Boulder Hospital, and the state prison are among the seven big state customer accounts that meet the cutoff.

"Quite frankly, there's no difference between gas procurement and what's going on in the electricity business," noted Van Jamison. Just as with natural gas, state facilities are big electricity users. Montana seeks to leverage its experience with gas procurements to garner greater cost savings in purchasing electricity.

#### *Revolving loans for retrofits*

The State Buildings Bond Program concept was formally approved by the 1989 State Legislature and funded with \$1.95 million in oil overcharge funds. It was originally conceived as a revolving loan program, but staff quickly recognized that the appropriated funds would be insufficient to sustain the large project volumes necessary to address \$2 billion worth of potential retrofits. Staff were particularly attracted to a similar program developed in Iowa that used state bonding authority to raise low-cost capital for efficiency retrofits. Montana sought to use general obligation bonds to seed the program. The Legislature responded with an initial \$3 million.

The Department operates like an energy services company, helping to identify candidate projects, and providing analysis and capital for turn-key project services. Department staff work within



*"We have a program that costs less than doing nothing."*

Van Jamison,  
Montana Department of  
Environmental Quality

financial guidelines to select cost-effective measures for each project so savings slightly exceed costs. A memorandum of understanding is then signed between the Department and the applicant agency. The agency agrees to repay its project's debt service and the program's administrative costs using the energy savings. With this financial model, the program has included projects that have had a six-to-seven year average payback.

So far, \$8.5 million in lending authority has been authorized, in addition to \$2.5 million in oil overcharge funds. The Depart-

ment has financed and completed nearly 30 projects, and there are another 20 in the works. The program has leveraged total savings of about \$1 million. Program intensity is increasing, and staff hope it will level off with gross savings of approximately \$700,000 per year and net savings of \$200,000 to \$250,000.

Montana has been able to use its low-cost capital to structure impressive retrofits. In one case, the Department was able to reap 60-percent savings in a public facility, a level staff doubted any private energy service company could deliver. Staff say it would be hard for private-sector firms to find such attractive sources of capital for their prospective clients and to provide them with lower-cost project management. The Department has issued bonds three times, first at 4.5 percent; then at 5.4 percent; and most recently at 4.3 percent. These rates have enabled program staff to arrange highly favorable retrofit terms for constituent agencies.

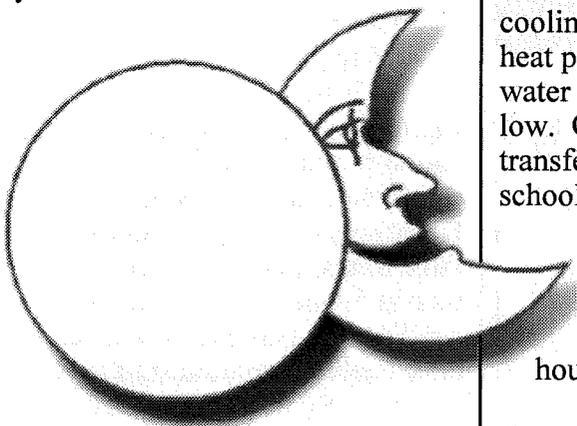
When asked where the program is heading, staff report they expect more of the same. However, given falling energy prices and less utility interest in conservation, fewer higher-cost measures may be installed. Staff also warn that there may not always be positive cash flow in future projects.

Adjusting to these changes, the Department has a set of new strategies. For instance, it seeks to minimize project transaction costs by looking for facilities already needing changes for other reasons. That helps defray capital costs.

Fully cognizant of its limited resources, the Department is executing a deliberately staged process to fulfill its ultimate goal of implementing cost-effective measures throughout the building stock in Montana. The Depart-

ment initially focused on state buildings. More recently it became involved in schools. Its third priority involves other public buildings, such as city, county and federal facilities.

Staff also are examining ways to integrate water and waste management in their assignments, as well as issues such as indoor air quality and productivity. Through such an integrated resources approach, the Montana Department of Environmental Quality plans to further its successful model in the coming years.



## Kootenai Electric Cooperative

This past year Kootenai Electric helped to promote and install a major, state-of-the-art water-coupled heat pump in a new high school in its service territory just north of Coeur D'Alene, Idaho. No recent project at Kootenai better illustrates this cooperative's competitive posture: Through the demonstration, Kootenai Electric, which is based in Hayden, Idaho, has shown its customer/owners how to tap into the area's rich renewable energy resources to provide long-term benefits to the school and community alike. The system is working so well that the

school district will use a similar system in its new middle school.

The overall configuration bore the same cost as a more typical gas boiler and cooling tower combination, saved a lot of space, and will provide energy and cost savings for the school for years to come. The school was originally designed to have a conventional gas boiler and cooling tower and 105 individual classroom water-source heat pumps that would tap into a primary loop.

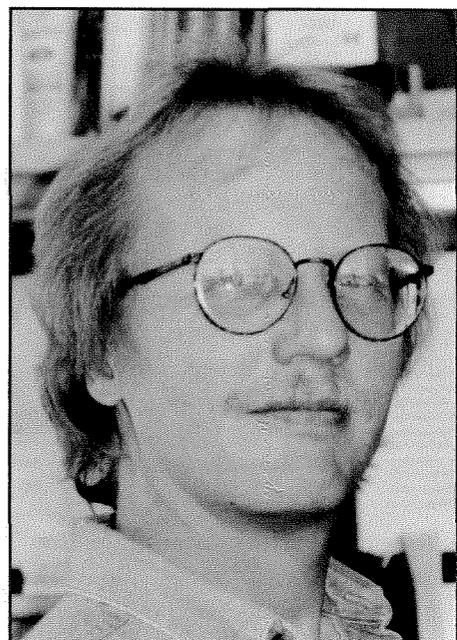
The innovation that Kootenai Electric promoted was to substitute the traditional boiler and cooling tower for a water-coupled heat pump drawing energy from water in an aquifer 350 feet below. Given efficient interior transfers, whereby part of the school can be in the heating mode while other rooms are cooling, the pumps drawing from the aquifer often run for as little as a single hour per day.

### *Power supply diversification*

To prepare for competition, Kootenai's highest priority has been to lower its rates. This focus has led Kootenai to negotiate a special power sales contract with the Bonneville Power Administration. While the utility still gets all of its power from Bonneville, it does so now in a two-tiered schedule: it pays the going price for 70 percent of its requirement and gets the balance for the low price of 12 to 15 mills per kilowatt-hour, about half the going rate.

### *A new class of energy services*

Conservation is necessarily taking new form at Kootenai in the absence of Bonneville-designed programs and funding.



*"Our customers have come to expect conservation services."*

*Peter Anderson,  
Kootenai Electric Cooperative*

But conservation and energy services will invariably be a large part of Kootenai's competitive strategy because they are at the core of its philosophy and values. Kootenai's Energy Services Director Peter Anderson remarked that "our customers have come to expect conservation services." This has been reinforced in customer surveys.

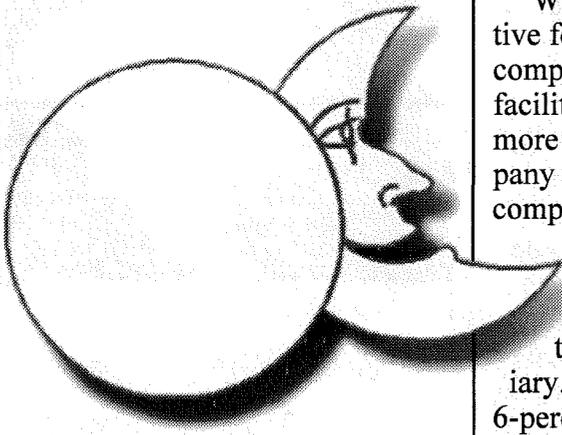
Kootenai has reformed its energy services to cement relations with customers. Staff are working with Bonneville's regional office in Spokane to develop an energy-efficiency plan that features new programs and new strategies. Far from curtailing its efforts, the cooperative is building

upon past programs and focusing more on customer information. It will use rebates judiciously, while shifting to loans as a primary funding source. Recently, the cooperative introduced its new 5-percent loan program for existing residential and commercial customers. The co-op will "seed" the loan pool with money it borrowed from the Rural Utility Service at 2 to 5 percent interest. Kootenai then can defer a percentage of its capital loan payments for customer loans. This low-cost source of program capital will provide up to a quarter million dollars per year for loans.

Working with key accounts has also become very important to Kootenai. Its largest customer draws 10 percent of its load. Fully 17.8 percent of Kootenai's load is consumed by its 24 largest customers, one of which is the U.S. Navy Research and Development Center, where the Navy uses a deep lake for hull testing of submarines so that they can slip through the water quietly. Similar tests are used for propulsion systems as the Navy searches for the perfect "stealth submarine." Kootenai staff are providing lighting and energy audits to the base at no cost and have stepped up efforts to work with all key accounts.

Thanks to the redesign of its programs and the introduction of its loan program, Kootenai's conservation budget for 1997 may be equivalent to its historical \$400,000 per year budget that was supported by Bonneville. While the Bonneville portion has dropped off precipitously, between ratepayer-funded activities (\$40,000), the loan pool (\$250,000), and \$100,000 in

carryover Bonneville funds, Kootenai plans to spend \$390,000 in 1997, just shy of prior levels. Thus Kootenai has risen to its challenge of maintaining conservation as a valued customer service while finding new and clever ways of minimizing rate impacts and positioning itself for increased competition.



## Washington Water Power

After getting a feel for the corporate culture at Washington Water Power, it's not surprising that the company's new unregulated subsidiary has an exciting Internet site. Surfing for energy solutions? Find them at [www.wwpco.com](http://www.wwpco.com) — the "home" of Water Power's new subsidiary, "Energy Solutions." Interested in what Water Power can do for you? Simply fill out the electronic response form and soon you'll get a phone call from a receptive specialist.

The themes from the popular book "In Search of Excellence" are embedded at Water Power today. The utility has bucked the stigma of being a large bureaucracy. Management has fostered creativity and innovation by focusing on topics such as trust and values at company retreats. Job titles have been de-emphasized,

the number of managers has been decreased, and there is a sense of urgency among the staff to reposition the company for the changing market. "We have thrust ourselves forward with experiments," says Thomas Dukich, manager of rates and tariff administration. "It's been a form of self-imposed exposure to the future".

Water Power has been innovative for some time. In 1989, the company sold off its headquarters facility, then leased it back at a more favorable rate. The company did the same thing with its computer systems. Some years ago, Water Power developed a meter reading company known as Itron that it spun off as a subsidiary. Water Power maintains a 6-percent ownership in the firm. Recently, the company developed and sold the Spokane Industrial Park, providing both an income stream while supporting economic development.

### *Creating new business opportunities*

Energy Solutions was formed as an unregulated subsidiary in 1996. Under the direction of Gary Crooks, strategic manager, Energy Solutions is marketing its services nationwide. It has already signed up a number of clients including the U.S. Bank of America, the Northwest Mining Association and a group of 220 hospitals under the umbrella of Share Plus in California.

Like other subsidiaries seeking to provide "wrap-around" services, Energy Solutions offers an array of energy management services including bill reviews, power quality and energy-efficiency services. It also does metering and diagnostics within member facilities. A flagship of

its service is natural gas procurement. For interested customers, it provides in-plant equipment ownership and leasing. Future services will encompass electric power brokering and supply.

Energy Solutions has focused thus far on providing valuable information to large customers. By aggregating bills, for example, Energy Solutions can flag specific facilities' unusual usage to customers and make suggestions accordingly. Then, customers can determine whether to take advantage of Energy Solutions' energy management capabilities. The goal of Energy Solutions is to be an advocate for the customer, to be objective and to find the best commodity and service arrangements for each customers' unique situation. By listening to customers and providing them with the services they want, Energy Solutions is getting clear on what kinds of solutions customers truly value so it can nurture the relationships today that will lead to prosperity in the future.

#### *Positioning for retail competition*

Water Power has faced the reality that, as its current customers acquire greater choice, the utility's 100-percent "market share" can only go down. Thus it has already sought and gained new business outside its service territory. By mid-year 1996, wholesale revenues had exceeded retail transactions, and this trend is expected to continue.

At the same time Water Power has taken steps to open its service territory to retail competition. In early 1996, the company filed for permission to allow its largest customers retail access. By September, it had announced an experiment that will allow recep-



*"We have thrust ourselves forward with experiments."*

Thomas Dukich,  
Washington Water Power

tive customers of all sizes a choice of electricity suppliers. Water Power plans to restrict power marketers to other utilities with similar pilot programs. In addition, the company plans to charge these utilities a fee for the opportunity to market electricity to Water Power's customers.

Despite projected excess capacity well past the year 2000, Water Power's management is committed to efficiency as a customer service. The company developed a prototype distribution charge long before many others were aware of the concept. The distribution charge provides a pay-as-you-go mechanism for continuing energy-efficiency

efforts in an openly competitive environment. It will keep Water Power's electric rates easily comparable with competitors' rates. Now the utility's initiatives to open up its territory to retail wheeling fills out the model because the cost of all kilowatt-hours sold within its service territory will include the distribution charge.

Water Power's distribution charge, formally known and approved by its regulators as "the demand-side management tariff rider," is the most sophisticated model of its kind. Water Power has not only implemented the first non-bypassable systems benefits charge, but is also the first utility to provide results on the success of the model's implementation.

Concurrent to the introduction of the distribution charge was a complete overhaul of Water Power's approach to energy services. The utility is working to transform markets — inducing manufacturers to produce and consumers to purchase more-efficient products — as a constructive response to regional and national competitive pressures. The company's staff and advisors created new efficiency program designs to maximize program effects while minimizing expenditures through a new emphasis on becoming technical consultants and customer-focused energy service providers. ■

# Building a Framework for Recovery

by John Harrison



## Key elements to be added to fish and wildlife program.

**A** building can't stand without a framework. In the same way, a program to rebuild fish and wildlife populations needs a supporting framework.

Rather than steel beams and rivets, however, the framework of a recovery program is built on goals, objectives and scientific knowledge. It is a vision of the future, of the desired results. To be effective, actions must complement the goals and objectives in the framework, and be based on a clear scientific foundation.

This year, the Northwest Power Planning Council will be building a new framework for its Columbia River Basin Fish and Wildlife Program. Construction will begin in February when the Council releases a paper on framework issues for public comment. Following release of the issue paper, the Council will engage the public in a discussion of framework issues, either through a workshop or through some other public process.

Developing a new framework for the fish and wildlife program is the first step toward a complete

revision of the program in the future. The program last was amended in December 1994.

**T**here are four key elements of a framework: 1) goals and objectives that articulate a regional vision of the ecosystem, in this case, the Columbia River Basin ecosystem; 2) a conceptual foundation consisting of the facts, assumptions and hypotheses relating to the functioning of the ecosystem; 3) strategies that are consistent with the conceptual foundation; and 4) research, monitoring and evaluation.

For example, a goal could state a management objective, such as double the salmon and steelhead runs in the Columbia River Basin. Or, a goal could describe an ecological condition, such as improved resting and feeding habitat for juvenile salmon and steelhead in the Columbia River. In either case, the conceptual foundation states the science that relates to the goal. It is an instruction manual, in a sense, that defines the conditions that must be present to attain the goal. Strategies turn the conceptual foundation into actions; and research, monitoring and evaluation help determine whether the actions and strategies are effective and improve the conceptual foundation over time.

**T**o return to the construction analogy, the goal is a building of a particular design. The conceptual foundation is like a set of blueprints. The strategies equate to the actual construction. The research, monitoring and evaluation provide an ongoing analysis during and after construction to ensure that the final product achieves the goal and is consistent with the blueprints.

Following the public process on framework issues, the Council

## **The framework of a recovery program is built on goals, objectives and scientific knowledge. It is a vision of the future.**

likely will proceed with amending the program. The amendments could focus solely on the framework, or they could include the framework as well as new and existing measures in the program. That hasn't been decided.

**W**hat is clear, however, is that the Council's fish and wildlife program needs an improved framework. In 1996, the Independent Scientific Group completed a report, commissioned by the Council, on the science underlying the program. At the Council's request, the nine scientists analyzed the structure, content and development of the program. The scientists concluded that the program does not represent a cohesive, logically consistent approach to fish and wildlife restoration, said Chip McConnaha, the Council's senior fisheries scientist. McConnaha is writing the Council's framework issue paper.

"The Independent Scientific Group said the program's underlying logic and scientific basis are unclear," McConnaha said. "In addition, the program's goals and expectations are vague and imprecise. Consequently, evaluation of the program's success is difficult."

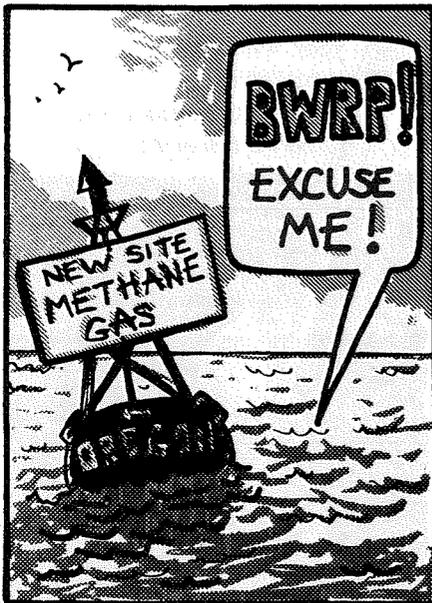
**T**o address these shortcomings and improve the program, the Council should develop a conceptual foundation, according to the scientists' report. "Developing a framework doesn't ensure success," McConnaha said. "The substance of the framework is what determines success. Goals, objectives, scientific basis and strategies will determine which measures actually are carried out and how conditions are changed to encourage the recovery of fish and wildlife."

The message from the Independent Scientific Group is that the Council's program needs to change. While it would be possible to construct a framework that continues the status quo, the status quo has been roundly criticized in recent scientific reviews, McConnaha said.

"The framework is a tool to help the region develop and implement a fish and wildlife recovery program," McConnaha said. "It will not be easy to develop because we will have to address some hard questions of regional objectives and priorities. Creating a logically consistent framework that connects regional goals to a scientific foundation and a set of strategies will force us to confront many of the longstanding disputes that we've tried to put off in the past. It will force a level of honesty between what we want to do and what we are willing to do." ■

# SHORTS

## Northwest



**Huge potential source of methane found off Oregon Coast.** Methane hydrate — a gas-filled stone formed in deep, cold water — has been discovered on a ridge under 2,000 feet of water in the Pacific Ocean about 50 miles west of Newport, Oregon. If a mechanism for mining and processing the white stones is developed, it could provide a significant new source of natural gas. World deposits of methane hydrates have been estimated to be more than double the world's known coal, oil and natural gas supplies combined. At the same time, however, the methane in the hydrates would be another source of so-called "greenhouse gasses," potentially causing even more global warming than carbon dioxide. The Oregon deposits were discovered by an international team of scientists, including several from Oregon State University, as well as from Germany and Canada. (Source: *Seattle Post-Intelligencer*.)

**Bull trout decision ruled "arbitrary and capricious" by U.S. District Court judge.** In 1994, the U.S. Fish and Wildlife Service decided that Columbia Basin bull trout were warranted for listing under the Endangered Species Act, but chose not to list them because other species

were higher priorities. Environmental groups in Montana filed suit against the agency. The agency responded by elevating the trout's priority, but still refrained from listing. After a series of legal skirmishes between the Fish and Wildlife Service and the environmentalists, District Court Judge Robert Jones ruled in favor of the environmentalists and ordered the federal agency to reconsider its 1994 decision within four months. (Source: *Clearing Up*.)



## Nation

**Twenty-three years of public polling confirms growing support for renewable energy sources.** Dr. Barbara Farhar of the National Renewable Energy Laboratory (NREL) has analyzed 700 different public opinion polls, conducted over the past 23 years, and concludes that a majority of the public is concerned about the environment to the degree that they favor energy efficiency and renewable energy sources over conventional energy sources. Dr. Farhar found this attitude is on the increase. In a December 1995 poll, for example, 55 percent of the respondents argued for more federal support for renewables and efficiency, and only 9 percent selected nuclear energy for more federal support. This compares with polls from the 1970s, where people were more evenly divided — only about a third of the respondents in those earlier polls could be described as supportive of environmental issues. In 1996, a majority of people polled said politicians' interest in protecting

the environment would influence their votes. (Source: *Renewable Energy Policy Report*.)

**New book on the sources of everyday things warns: "Consuming too much Stuff at one time can be bad for you."** *Stuff: The Secret Lives of Everyday Things*, a recently released book from Northwest Environment Watch, packs a wallop of guilt trip. The book follows an average consumer through an average day,

tallying up the raw material and energy inputs that make up the things we all encounter, most every day. Morning cup of coffee? This book will tell you where the beans were probably grown and how, the number of beans and, over a year of coffee, the number of trees that were planted for your consumption, how the beans were processed, how much the farmworkers were probably paid, how the beans were

shipped, etc., even what went into the shipyard where the ship might have been built. A wry sense of humor throughout keeps this book lighter, and as a consequence, more likely to be read, than the subject would suggest. That's good, because this is an important little book. It is part consumer guide, part geography lesson, part history lesson and, part how to; how to have less of an impact on the environment by reconsidering the *stuff* you consume. (Source: Available for \$9.95 from Northwest Environment Watch, 1402 Third Avenue, Suite 1127, Seattle, Washington 98101-2118.)

**Lower ozone levels give Californians cleanest air in 50 years.** Thanks in large part to the nation's most stringent controls on gasoline emissions, residents of the South Coast air basin (Los Angeles area) experienced ozone levels that were 18 percent lower than in 1994 and 1995 during the summer of 1996 — the area's peak smog season. Bay Area and Sacramento

# SHORTS

residents had smog reductions around 10 percent. (Source: *Western Energy Update*.)

**Arizona utility industry restructuring includes mandated solar.** The Arizona Corporation Commission, that state's utility regulatory agency, has adopted its proposed restructuring plan, which includes a rule that half a percent of all commercially sold electricity be supplied by new photovoltaic or solar-thermal sources. The outcome is expected to be rapid construction of between 75 and 200 megawatts of solar facilities over the next six years. The top figure would amount to more than the currently installed utility-scale solar in the United States. In 2001, the requirements could be increased to a full percent. (Source: *Photovoltaic Insider's Report*.)

**March 6-7 The Fourth Annual Power Industry Forum**, LaCosta Resort & Spa, San Diego, California. The topic for this year's Forum, "A View Toward the New Energy Company," will address such key issues as: industry consolidation; gas-electric convergence; retooling and recapitalization for competition; and the acquisition of critical marketing skills. For more information, contact Infocast at 818-902-5400 or FAX 818-902-5401.

**March 11-12 Restructuring: Lessons of Experience**, Princess Resort, San Diego, California. This conference will feature experts from European and other markets that have already been deregulated, who will share what they have learned from the transition. For more information, contact Resource Management International at 610-667-2160 or FAX 610-667-3047.

## World

**Solar "chimney" to be tallest manmade structure in the world.** The giant stack will be 3,000 feet tall and 250 feet in diameter, and it is expected to generate 200 megawatts of electricity for India's northwestern state of Rajasthan. The tower relies on simple technologies, which were tested in a smaller prototype in Spain. Heat at the remote desert site will be augmented by a nine-square-mile array of horizontal mirrors to create an updraft that will turn 36 turbines inside the enormous chimney. Water-filled tubes near the tower will store heat so the plant can continue to generate even at night. The plant is expected to cost about \$600 million.

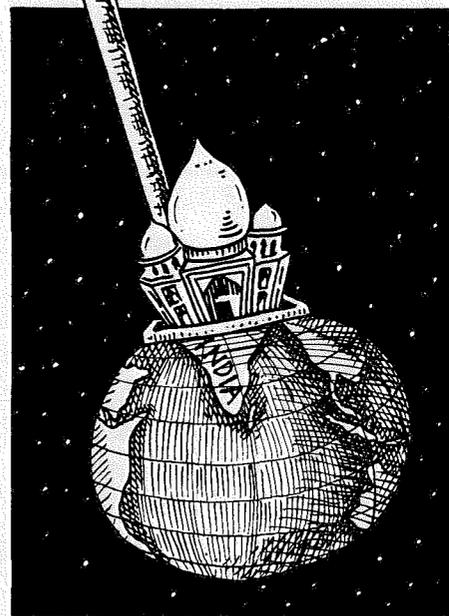
## CALENDAR

**March 12-15 Building Energy: Ensuring a Sustainable Future**, Radisson Hotel and Conference Center, Cromwell, Connecticut. Sponsored by the Northeast Sustainable Energy Association, this meeting features three events: Building Strategies for Managing Risk: A Symposium for Insurance; Renew '97: Promoting a Renewable Energy Future; and the 13th Annual Quality Building Conference. For more information, contact Northeast Sustainable Energy Association at 413-774-6051 or FAX 413-774-6053.

**April 1-2 Northwest Power Planning Council Meeting**, in Oregon. For more information, contact the Council's central office at 800-222-3355.

**April 28-30 Fifth National Conference on Building Commissioning**, The Waterfront Hilton Beach Resort, Huntington Beach, California. The

The New Delhi government is planning to begin construction in about a year, with completion expected in about five years. (Source: *Engineering News-Record*.)



host co-sponsor is Southern California Edison. For more information, contact PECI at 503-248-4636.

**May 13-14 Northwest Power Planning Council Meeting**, The Quality Inn, Pullman, Washington. For more information, contact the Council's central office at 800-222-3355.

**June 22-27 National Conference of Regulatory Commission Utility Engineers**, Kellogg Center on the campus of Michigan State University in East Lansing, Michigan. This is the 75th consecutive conference of NCRUCE. The theme is "The Role of Regulation in Making Utility Services More Cost Effective," and will include sessions on cogeneration in a deregulated market, local alternative telecommunications providers, energy efficiency and partnerships between utilities. For more information, contact Dave Berquist or Ron Choura, 75th NCRUCE at 517-334-7196 or FAX 517-882-6745.

—Compiled by Judi Hertz



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The Northwest Power Planning Council is required by an Act of Congress to develop a program to protect, mitigate and enhance the Columbia Basin's fisheries and a regional electric energy plan that provides a reliable electricity supply at the lowest cost. For further information, see Pacific Northwest Electric Power and Conservation Act—Public Law 96-501.



Northwest Energy News is printed with soy-based inks on recycled paper that is 30-percent de-inked fiber, including 10-percent post-consumer waste.



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## COUNCIL PUBLICATIONS ORDER FORM

Please send me a copy of the following publications of the Northwest Power Planning Council. Not all publications are available immediately, but they will be sent to you as soon as possible. Nearly all Council publications are also available at <http://www.nwppc.org> or use the new automated information service: call 1-800-222-3355 and ask for extension 700.

### Publications

- (97-1) Competitive Energy Services Strategies in the Northwest: A Partial Eclipse of the Moon (prepared for the Northwest Power Planning Council by Jim Nybo and Ted Flanigan, November 25, 1996)
- (96-13) Council By-Laws
- (96-12) Fiscal Year 1998 Budget and Fiscal Year 1997 Revisions
- (96-11) 1996 Annual Report
- (96-10) Report to Congress: Fish and Wildlife Governance and the Columbia River Hydropower System
- (96-9) Draft Results of the Fish and Wildlife Managers' Review and Assessment of Fiscal Year 1997 Projects
- (96-7) 1996 Directory of Organizations
- (96-6) Return to the River: Restoration of Salmonid Fishes in the Columbia River Ecosystem (report by the Independent Scientific Group requested by the Northwest Power Planning Council)
- (96-CR28) Verbatim transcript of the December 12, 1996, meeting of the Comprehensive Review Steering Committee
- (96-CR27) Comprehensive Review Meeting Summary: December 12, 1996
- (96-CR26) Final report of the Comprehensive Review Steering Committee

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- Northwest Energy News* (this quarterly magazine)
- Update* (public involvement newsletter)

Please **delete** my name from the mailing lists for the following publications (please include the 12-digit number next to your name on the mailing label).

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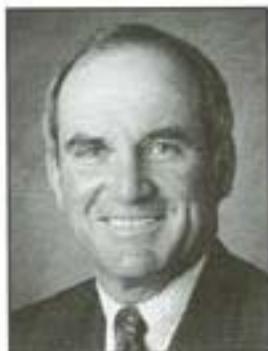
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## *from the* CHAIR

**S**ome weeks ago, we Council members held our semi-annual retreat — an opportunity to talk in private about the coming year and critique the past one. This year we invited a few people to join us and share their observations about the Council and its future. Among them was Chuck Collins, whose exceptional leadership of last year's Comprehensive Review of the Northwest Energy System has put the entire region in his debt, as far as I'm concerned.

At our retreat, Chuck reminded us that the Northwest Power Act was written, and the Council exists today, because, in this part of the country, there are important *state* interests that can only be achieved if our four states work *together*. If we work as a region, seeking consensus among our varied interests, we can establish and maintain a balance of natural and electrical resources. If we do not work



together, if we cannot achieve a consensus, we will not find that balance, and we may forfeit resources we could otherwise have secured. Of course none of this is easy. The Council is not a federal entity, but it has responsibilities that are sanctioned by Congress. It is not a state entity, but it provides a forum to further state goals. What the Council is is a *regional* entity, formed through the mutual consent of our four states to protect and rebuild resources we all share.

Also on the subject of regional values and shared resources: I would like to take this opportunity, on behalf of the Council, to offer our gratitude and best wishes to retiring Oregon Senator Mark Hatfield. Senator Hatfield, in his devotion to the Pacific Northwest throughout his life and political career, has inspired us all. He is the model of regional stewardship we could all do well to emulate. While I regret the loss of his presence in Washington, DC, I am

happy to hear he has returned home to the Northwest and to his first profession, teaching. When we are very fortunate — to paraphrase an old expression — those who can, do, and then they teach us how.

*John H. Eckhart*