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10 CFR 72.80(b)

February 6, 2012 GO2-12-020

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, DC 20555-0001

### Subject: COLUMBIA GENERATING STATION INDEPENDENT SPENT FUEL STORAGE INSTALLATION DOCKET NO. 72-35 2011 ANNUAL FINANCIAL REPORT

Dear Sir or Madam:

In accordance with 10 CFR 72.80(b), enclosed is a copy of the Energy Northwest 2011 Annual Report for the subject facility.

There are no commitments contained in this letter or its enclosure. Should you have any questions, please call Zachary Dunham at (509) 377-4735.

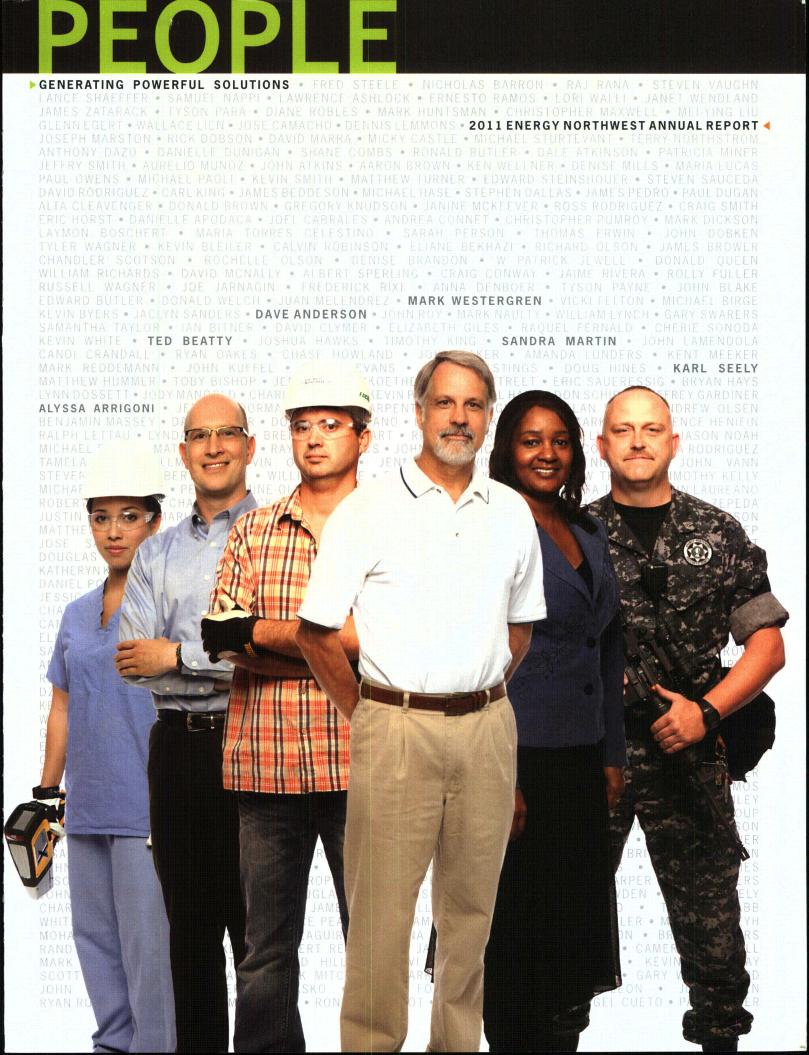
Respectfully,

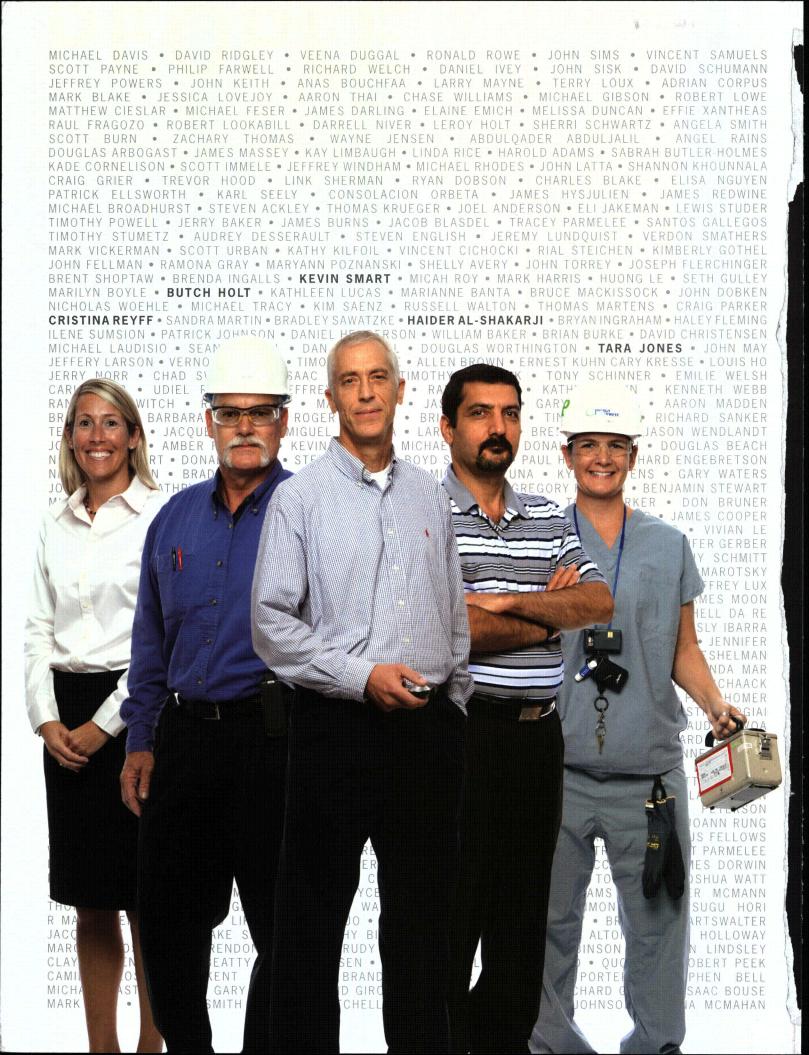
DW Gregoire Manager, Regulatory Affairs

Enclosure: As stated

cc: NRC RIV Regional Administrator w/o NRC NRR Project Manager w/o Director, Spent Fuel Project Office – NMSS w/o NRC Sr. Resident Inspector - 988C w/o RN Sherman – BPA/1399 w/o WA Horin – Winston & Strawn w/o

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### • A MESSAGE to our stakeholders

2011 will always be viewed through the lens of the earthquake and tsunami that struck Japan on March 10, both unprecedented in their ferocity. We cannot forget the thousands who died in these disasters and we continue to offer our support and prayers to the people of Japan.

In the days that followed, the Japanese people demonstrated resilience despite tragedy, as the world watched events unfold at the Fukushima Daiichi nuclear energy facilities. In our country, we watched - and we acted. The Nuclear Regulatory Commission re-verified the continued safe operation of the U.S. commercial nuclear energy fleet, including Columbia Generating Station.

Nuclear workers throughout the United States, including all of us who work at Columbia Generating Station, have an unwavering dedication to safety. Ask any member of the Energy Northwest team, "Who s responsible for nuclear safety?" and the answer will be "I am." Those two words will never change.

e are committed as an industry to further strengthen nuclear performance and safety across the spectrum. Our continuous efforts to reach the highest levels of

excellence are why the nuclear energy industry remains our nation's safest industry.

ing this fiscal year, work on Columbia Generating Station's license renewal continued in earnest. We anticipate the culmination of this effort to result in Nuclear Regulatory Commission approval of Columbia's 20-year operating license extension in summer 2012. This will allow the facility to continue providing clean, low-cost power for the Northwest through 2043

> A key initiative to ensure the longterm viability of Columbia was the condenser replacement project, along with other significant maintenance activities, accomplished during Columbia's 20th refueling itage. On April 6, following the longest operational n in Columbia's history - 505 days outage work can.

We ended the fiscal year amid a challenge with the contractor for our new condenser. Several weeks into the

MARK REDDEMANN

SID MORRISON

outage, the contractor presented us with a revised work schedule for the 53-day project. We received multiple revisions during the course of the contractor's work, ultimately resulting in a 143-day project and much longer-than-planned outage duration. We consistently stated our disappointment in their contract breach. Although their performance remains an ongoing issue, the new condenser will provide enormous benefit to Northwest ratepayers, essentially paying for itself over time through increased generation efficiency.

Despite outage challenges at Columbia which impacted the capital budget, the Energy Northwest team took measures to reduce the operations and maintenance budget, to remain within our long-range plan commitment, ending the year \$3.4 million under budget, underscoring our dedication to fiscal discipline and responsibility, and our promise to the region's ratepayers.

Additionally, bond sales in March and June translated into approximately \$220 million in reductions for ratepayers during the 2012-2013 rate period. This also enabled Bonneville Power Administration to use the cash freed up by these sales to pay off its higher-interest U.S. Treasury bonds, resulting in savings for the region and restoring BPA's Treasury borrowing authority. Through this partnership with BPA, debt on Columbia, which was scheduled to be paid off in 2012, was extended into the future.

Among our other projects, the agency's first generation resource at Packwood Lake had an incredible year. A high-water season helped Packwood Lake Hydroelectric Project yield nearly 108 gigawatt-hours, the dam's highest output in 12 years.

Energy Northwest people also offered powerful solutions through the contribution of their time and skills to support the needs of our communities. In December, we marked the 30th anniversary of our support to Head Start. We're still honored to lead this heartfelt holiday effort that has brought much needed joy to more than 10,000 underprivileged children in the Tri-Cities and surrounding areas since 1980.

The greatest strength of Energy Northwest is our remarkable people, who have shown they can rise to any challenge. We continue to progress in the long process of returning Columbia to top performance. To achieve this, safety and accountability must remain at the core of everything we do. And we must manage our risks, develop our leaders and continue to demonstrate fiscal responsibility.

We define our success by the enduring value we create for our stakeholders, employees and communities. We are confident that as we continue to focus on the mission of providing our public power members with safe, reliable and cost-effective power, Energy Northwest will emerge a stronger agency benefiting our stakeholders, employees and communities for many decades to come.

#### Respectfully,

Mark Reddemann Chief Executive Officer Sid Morrison Chairman, Executive Board



SID MORRISON Chair Outside Director Zillah, Wash.



JACK JANDA Assistant Chair Inside Director Shelton, Wash.



KATHY VAUGHN Secretary Inside Director Lynnwood, Wash.



DAVE REMINGTON Assistant Secretary Gubernatorial Appointee Spokane, Wash.

### EXECUTIVE BOARD

he Energy Northwest Executive Board sets the policies that govern the operations of the organization. It is made up of 11 members, five elected from the board of directors, three outside members appointed by the board of directors and three outside members appointed by Washington's governor.



MARC DAUDON Gubernatorial Appointee Seattle, Wash.



DAN GUNKEL Inside Director Goldendale, Wash.



LARRY KENNEY Gubernatorial Appointee Seattle, Wash.



SKIP ORSER Outside Director Raleigh, N.C.



WILL PURSER Inside Director Sequim, Wash.



LORI SANDERS Inside Director Kennewick, Wash.



**TIM SHELDON** Outside Director Potlatch, Wash.



ANN CONGDON President Commissioner Chelan County PUD Manson, Wash



TERRY BREWER Commissioner Grant County PUD 2 Soap Lake, Wash.



LINDA GOTT Vice President Commissioner. Mason County PUD 3 Shelton, Wash

TOM CASEY

Commissioner.

Aberdeen, Wash.

Grays Harbor County PUD



BILL GORDON Secretary Commissioner, Franklin County PUD Pasco, Wash.



JUDY RIDGE Assistant Secretary Commissioner Asotin County PUD Clarkston, Wash.



BILL GAINES Director of Utilities, Tacoma Public Utilities Tacoma, Wash.



DOUG AUBERTIN Commissioner, Ferry County PUD Keller, Wash.



Commissioner, Klickitat County PUD Goldendale, Wash.





Richland, Wash

NANCY BARNES

**Clark Public Utilities** 

BOB HAMMOND

Energy Services Director,

**Richland Energy Services** 

Vancouver, Wash.

Commissioner,

ROBERT JUNGERS Commissioner, Wahkiakum County PUD Cathlamet, Wash.



STEVE KERN Power Supply and Environmental Affairs Seattle City Light Seattle, Wash



WILL PURSER Commissioner. Clallam County PUD Seguim, Wash



ED WILLIAMS Commissioner Centralia City Light Centralia, Wash.



BUZ KETCHAM Commissioner Cowlitz County PUD 1 Kalama, Wash.



LORI SANDERS Commissioner. Benton County PUD Kennewick, Wash



DAVE WOMACK Commissioner. Okanogan Public Utilities Okanogan, Wash

as a continuing and effective source of powerful energy solutions.



CURT KNAPP Commissioner, Pend Oreille County PUD Newport, Wash.

ROGER SPARKS

Kittitas County PUD

Ellensburg, Wash.

Commissioner,

Energy Northwest.



CLYDE LEACH Commissioner, Skamania County PUD Underwood, Wash.

CHUCK TENPAS

Lewis County PUD

Commissioner,

Randle, Wash.



KEN MCMILLEN Commissioner, Jefferson County PUD Port Hadlock, Wash.

DIANA THOMPSON

Pacific County PUD 2

Oysterville, Wash.

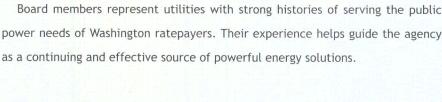
Commissioner



MIKE MURPHY Commissioner, Whatcom County PUD Bellingham, Wash



KATHY VAUGHN Commissioner. Snohomish County PUD Lynnwood, Wash









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LARRY DUNBAR Deputy Director of Power Systems Sequim, Wash

he Energy Northwest Board of Directors includes a representative

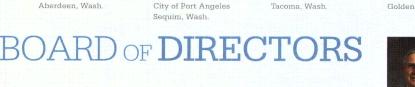
from each of its member utilities. The powers and duties of the

board of directors include final authority on any decision to purchase,

acquire, construct, terminate or decommission any plants and/or facilities of



City of Port Angeles





JACK JANDA Commissioner. Mason County PUD 1 Shelton, Wash





he senior leadership team manages day-to-day operations, executes developing programs and projects, establishes long-term strategies in direct support of the Energy Northwest vision, and provides essential hands-on leadership to foster continual process improvement and to strengthen organizational core values in the workforce.

### SENIOR • LEADERSHIP

#### DALE ATKINSON Vice President,

Employee Developme Corporate Services BRAD SAWATZKE Vice President.

Chief Nuclear Officer

MARK REDDEMANN Chief Executive Officer JACK BAKER Vice President, Energy/Business Services BRENT RIDGE Vice President, Chief Financial and Risk Officer



### **PROJECT** GENERATION

### 7,247 GWh



Columbia produces 1,150-megawatts of electricity, enough energy to power more than a million homes.

COLUMBIA Generating Station

### 107.92 GWh



Packwood has produced 4,359,610 megawatthours of electricity since commercial operation began in 1964.





The total Nine Canyon generating capability is 95.9 MW, enough energy for approximately 39,000 homes.

NINE CANYON Wind Project

39,336 KWh





White Bluffs produced 39,336 net kilowatt-hours of electricity during fiscal year 2011.

WHI 'F

### COLUMBIA Generating Station

#### **V**KAREN McGAUGHEY

"As purchasing lead, preparing for and supporting refueling outages for Columbia is one of my responsibilities. I worked with my team to meet milestones related to identifying necessary parts; ensuring approvals were given in a timely manner; and that materials were received well in advance of the start of the outage. It's a challenging position but very rewarding."

olumbia Generating Station continues to operate safely and efficiently, providing valuable electrical power to the region.

Online performance improved in fiscal year 2011 with no shutdowns or forced outages. However, during the fiscal year, reduced power periods were implemented to make necessary repairs to plant equipment, which resulted in not meeting net generation goals by less than two days. Columbia was shut down in early April for its biennial refueling and maintenance outage (see next page). The shutdown marked the end of Columbia's longest continuous run record at 505 days, besting the old record of 485 days set in 2006.

However, the challenges driven by equipment problems during the last two years resulted in a lower performance compared to industry peers. In fiscal year 2011, there is a renewed focus and plan for continual improvement with the addition of a nuclear Excellence Model as part of the Excellence in Performance initiative.

24'/GW

in fiscal year 2011

Columbia Generating Station is a boiling water reactor, or BWR. Columbia produces 1,150-megawatts of electricity, enough energy to power more than a million homes. Columbia began commercial operation in December 1984.

The excellence plan will also drive improved individual behaviors and accountability for overall improved performance.

In addition to plant performance challenges, the station supported many reviews by external agencies, which all concluded the plant is operated safely.

Training is maximized to ensure both new and current employees receive the necessary skills and knowledge for achieving excellent performance levels. In fiscal 2011, accreditation was renewed for Energy Northwest's technical training programs by an external independent review board.

#### ◀SCOTT O'CONNOR & <u>DESIREE WOLF</u>GRAMM ▶

By day, Scott O'Connor and Desiree Wolfgramm are engineers at Energy Northwest. But both are also communicators with Clean Energy for America, an organization that promotes a dialogue with citizens about the benefits of nuclear energy as a clean, reliable and affordable source of energy. Scott and Desiree have spoken to groups across the country, representing not only Energy Northwest, but the future of the nuclear industry.

### REFUELING OUTAGE TWENTY

#### TINA MALTOS

Refueling outages are busy times around nuclear energy facilities – thousands of people performing thousands of tasks. Energy Northwest employs advanced scheduling software to make sure nothing gets missed. This outage, Tina Maltos, Project Control Integration analyst, played a key role in making sure all departments worked seamlessly with the software – increasing efficiency throughout the organization.



efueling Outage 20 began April 6 and ended Sept. 27 with Columbia Generating Station's reconnection to the Northwest power grid. It involved the largest equipment repair scope in Columbia's history, with the most significant task being the replacement of the steam condenser.

More than 1,800 contract and temporary workers were hired to accomplish the outage work, which included 3,380 work orders and nearly 16,500 individual tasks in support of a more than \$170 million overall investment.

Contractor delays in the condenser replacement project extended the outage duration from a scheduled 78 days to 174 days - into fiscal year 2012. As a result, outage duration goals were not met.

In addition to the condenser replacement, 244 of Columbia's 764 nuclear fuel assemblies in the reactor core were replaced with new assemblies; there were replacements and repairs of multiple other major components that have contributed to past equipment performance issues. Columbia's reliability will be significantly improved due to these initiatives.

### Major R-20 outage PROJECTS:

Condenser replacement Non-segregated bus repair and inspection Main generator rotor replacement Overhaul of one low pressure turbine Overhaul of two diesel generators Control rod hydraulic unit directional control valves replacement Reactor recirculation motor oil level alarm modification Reactor water cleanup piping replacement Refurbishment, overhaul and replacement of valves

### CONDENSER Replacement Project

The condenser turns steam that has flowed through the turbine back into water for re-use in the reactor. It comprises 12 modules, each containing more than 6,000 titanium tubes, and nine waterboxes that direct clean water from the cooling towers through the tubes and back to the cooling towers. The 26-year-old condenser was becoming less reliable over time. Columbia is expected to gain more than 12 megawatts of electricity generation with the new condenser.

#### THERESA NEIDHOLD

"Foreign Material Exclusion programs, or FME, are always important. But refueling outages are a time when many major components are open – disassembled – and susceptible to foreign material events, which can cost nuclear energy facilities millions of dollars. The focus has to be preventing the foreign material from entering systems. The results from our recent refueling outage showed we are embracing industry best practices to prevent significant FME events from happening. I am proud of the job we did and continue to do in this area."

### •••• LICENSE RENEWAL

enewal of Columbia Generating Station's operating license is key to meeting the region's future electricity needs. The initial 40-year license was granted in December 1983 (commercial operation began in December 1984), and in January 2010, Energy Northwest filed a 2,200-page application with the Nuclear Regulatory Commission for a 20-year license extension. Energy Northwest anticipates Columbia's license to be renewed by summer 2012.

To obtain renewal, Energy Northwest must demonstrate to the NRC plant structures and equipment can continue to safely function for the duration of continued operations, through 2043.

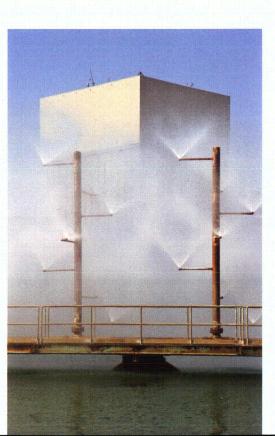
NRC staff visited Columbia for two separate inspections as part of the renewal process, during October and November 2010. The NRC issued the subsequent inspection report with no violations and no findings.

The Energy Northwest team responded to 293 NRC requests for additional information.

Public involvement is an important part of the license renewal process. Energy Northwest held two open house-style "information nights" in January 2011 where the public learned more about the agency, Columbia's safe operation, the local economic impact of Columbia and the license renewal process. Additionally, the NRC held a public meeting in June 2011 in Richland, Wash.

Columbia can safely produce electricity many years beyond its current 40year license. This average licensing term for all U.S. nuclear energy facilities was specified by Congress under the Atomic Energy Act of 1954 and was not based on safety, technical or environmental factors but rather on financing purposes; this was simply a typical amortization period for an electric power plant.

## years



he 27.5-megawatt Packwood Lake Hydroelectric Project produces low-cost energy - much lower than wind, solar and other renewable options in the region. Packwood's fiscal year 2011 generation total was 107,920 megawatt-hours - up 25 percent from 2010 - primarily due to more precipitation and higher snowfall levels in the Cascade range. The capacity factor for fiscal 2011 was 47.4 percent and the project attained 99.5 percent availability. Packwood has produced 4,359,610 megawatt-hours since commercial operation began in 1964.

The project was granted a continuance to operate under its existing license, by the Federal Energy Regulatory Commission, though the final license application was submitted in 2009. Snohomish County Public Utility District continued to purchase a significant portion of the plant's output.

### PACKWOOD LAKE Hydroelectric Project

# 107.92 GWh in fiscal year 2011

### **OBJORNATION OF STATE OF CANYON** Wind Project

he Nine Canyon Wind Project is one of the largest publicly owned wind projects in the nation. With 63 wind turbines - 14 rated at 2.3 megawatts and 49 more at 1.3 megawatts - Nine Canyon's total installed capacity is 95.9 megawatts.

Fiscal year 2011 produced 264,738 net megawatt-hours of electricity, a record for the project, and achieved a 97.4 percent adjusted availability factor, down from 98.2 percent in fiscal 2010. This decline is directly related to tower welding warranty work conducted by the supplier of Phase III equipment to correct manufacturing defects by the vendor. To ensure long-term reliability, Energy Northwest worked with a new bearing supplier to develop a more robust design projected to have twice the service life of the original bearings.

Energy Northwest also coordinated plant controls to respond to the Bonneville Power Administration's "limit to schedule" requirement caused by the installation of 3,500 megawatts of wind projects in the region and the operating requirements of BPA's hydropower system.

With a vision to be the region's leader in energy generation, Energy Northwest partnered with Walla Walla Community College to host the first wind technician intern program to increase the availability of a local skilled workforce to enter the growing wind energy job market.

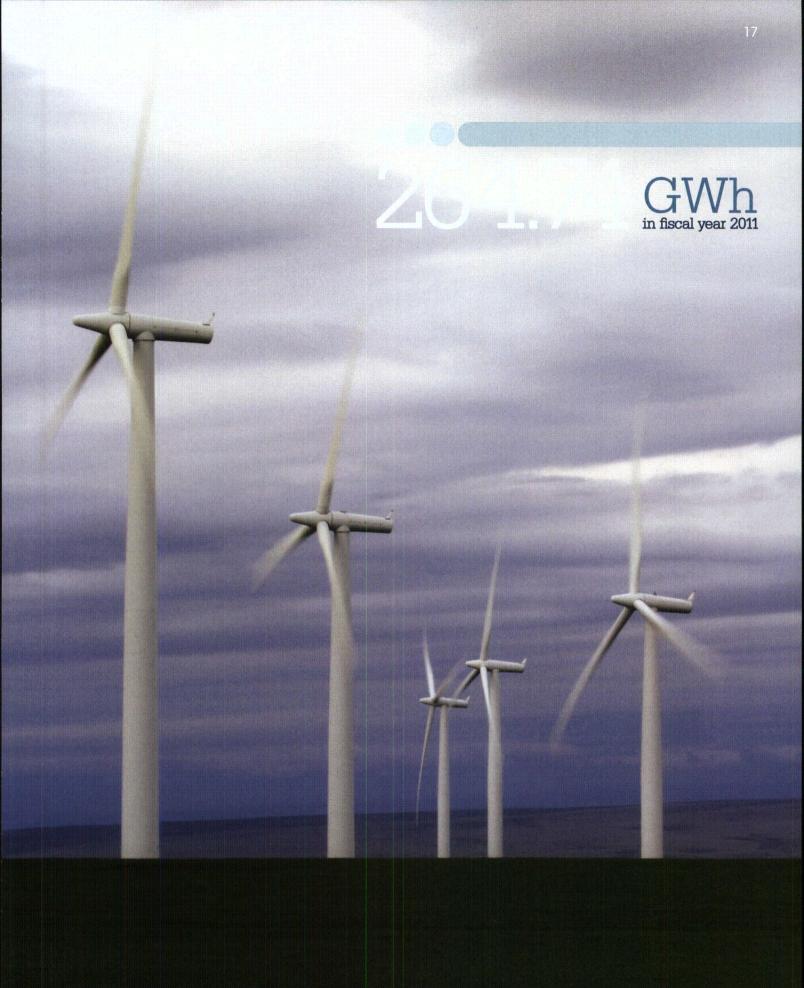
#### **V**DAN ROSS

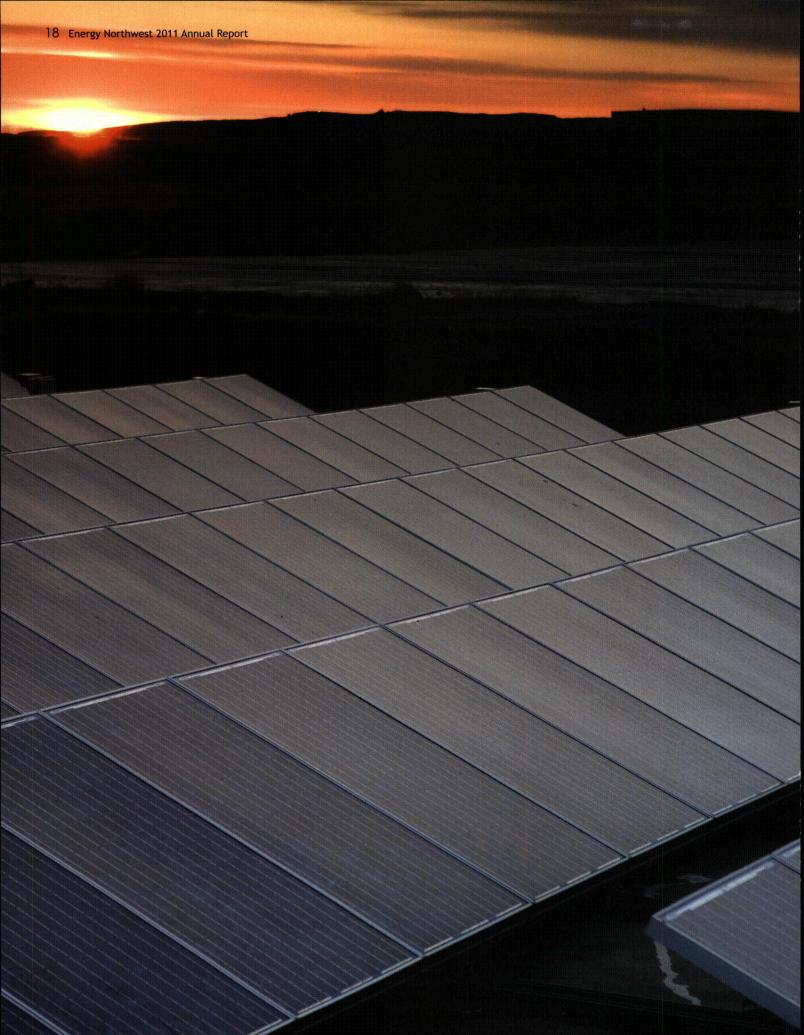
Dan Ross successfully made the transition from water to wind. After years of managing the Packwood Lake project, Ross took over Nine Canyon and led the project during its best generation year ever. Before leaving Packwood, he was instrumental in Energy Northwest's efforts to extend the project's license. Ross now manages both Packwood and Nine Canyon. But why limit yourself? When Columbia's condenser project needed a craft supervisor, the call went to Dan.







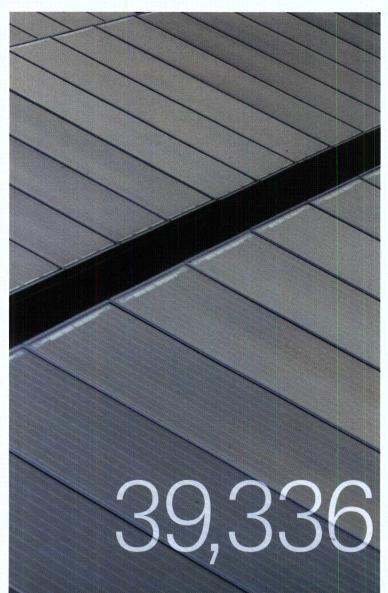




### WHITE BLUFFS Solar Station

hite Bluffs Solar Station, a 242-panel demonstration facility with a rating of 38.7 kilowatts direct current, is located at the Industrial Development Complex near Columbia Generating Station. White Bluffs produced 39,336 net kilowatt-hours of electricity during fiscal year 2011.

The Bonneville Power Administration integrates the power from White Bluffs into its system and Bonneville Environmental Foundation markets the displaced air pollution and greenhouse gas emissions as "green tags." Buyers who participate in utility green power programs purchase these tags to replace traditional polluting sources of electricity with clean, secure and sustainable renewable sources of energy from across North America.



Energy Northwest is using the White Bluffs site for two additional solar energy demonstration projects. Homestead-01 is a 2,025-watt thin-film demonstration array to compare capture efficiencies against the White Bluffs crystalline panel design. The thin-film type is less expensive, but also less efficient. Testing on the project occurred throughout fiscal 2011. Homestead-02 is similar, but uses a different manufacturer's panels and has a lower capacity of 1,280-watts.



### GENERATION Project Development

**hergy Northwest** is recognized in the region as an experienced power generation developer. The major development activities in fiscal year 2011 centered on providing member utilities generation supply options that align with regional renewable policies and power markets.

The agency works with its members to understand and anticipate their thermal and renewable resource needs and identify regional generation supply opportunities to develop appropriate low-cost resources. The goal is to offer competitive generation supply options and solutions to meet utility member needs. The process includes technology evaluation, financial analysis, site selection and acquisition, development marketing and funding, plant permitting and infrastructure interconnection (right of way permits and easements, as well as interconnection agreements to major pipelines, transmission lines, water and discharge, and other utilities) among other supporting services.

The major challenges to developing new generation projects in the Northwest include raising investment funding for developments prior to completing power purchase agreements. The timeline for project site selection, engineering, permitting and infrastructure interconnection ranges from two to four years and construction can range from six months to three years depending on the technology involved and complexity of the project. A typical generation project development needs to anticipate market demand several years in advance of actual utility needs.

Additionally, the economy and hydroelectric power in the Northwest drives agency members and other regional utilities to seek the lowest cost power for their customers. The high percentage of regional hydropower creates market uncertainty and periodic price dilution.

Finally, transmission and pipeline interconnection processes are becoming complex and may take more than two years to complete.

> The agency works with its members to understand and anticipate their thermal and renewable resource needs and identify regional generation supply opportunities to develop appropriate low-cost resources.



### Key Generation PROJECTS

### Kalama Energy: 346-megawatt Natural Gas Combined-Cycle Plant

Energy Northwest secured development agreements and financial budgets with Veresen US Power\Fort Chicago on the development of Kalama Energy in southwestern Washington. Under the agreements, Energy Northwest is providing development services to Veresen until Kalama Energy is fully permitted and subscribed. Once all development work is complete, Energy Northwest expects Veresen to exercise its option to purchase the development. Slated for availability in 2015, Kalama Energy is successfully advancing through significant permitting and engineering processes. Power marketing began in fiscal 2011 and there is utility interest (including some member utility interest) in a major portion of the output.

### Radar Ridge: 60-80-megawatt Wind Generation Project

Radar Ridge, located in Pacific County, Wash., is slated to feature up to 27 wind turbines. Participants in the project include Grays Harbor PUD, Pacific County PUD, Clallam County PUD and Mason County PUD 3, as well as Energy Northwest. The project continued to face permitting challenges throughout fiscal 2011, principally due to discussions surrounding the presence of marbled murrelets (a threatened species of seabird) in the region. Significant independent studies and evaluations verify the project would have had minimal impact on the species. While the permitting was expected to be completed in calendar year 2011, potentially adverse permitting conditions, along with a softening of the overall wind market, led Energy Northwest and the project particpants to vote to terminate further work on Radar Ridge in November 2011.

Solar O Projects

#### Grays Harbor 50-megawatt Power Call Option

A 50-megawatt power call option was part of the compensation package for Energy Northwest selling the rights to develop the 600-megawatt Satsop Natural Gas Combined-Cycle Plant to Duke Energy in 2001. A call option provides the right, but not the obligation, to purchase power. The current value of the option is lower due to increased hydropower production in the region. In times when the price spread between natural gas and hydropower is significant, the option will create substantial revenues for the agency's business development fund.

### Solar Projects: Obsidian Financial and Energetics/Christmas Valley Solar

Co-development agreements are in place for both of these utility-scale, 5-megawatt solar projects located in central Oregon. Both solar projects are fully permitted and qualify for double renewable energy credits for utilities in Oregon and Washington. In addition, the cost of power is the most competitive in the Northwest given the successful award of the Oregon business/energy tax credit, along with federal renewable incentives. The Obsidian project has been delayed to work through tax credit issues with the state of Oregon. The Energetics/ Christmas Valley Solar project is working through transmission interconnection issues and is scheduled for completion in 2012.

# Applied Process Engineering Laboratory

he Applied Process Engineering Laboratory is a business incubator that supports start-up and acceleration of new technologies, and technology-based businesses. Energy Northwest and local partners created APEL by converting a warehouse into laboratory, office and light manufacturing rental space, making it a key part of Energy Northwest's continuing commitment to local economic development. APEL fills a community need for business starter space, and provides suitable environments for controlled testing of advanced processes.

Located in the heart of the Tri-Cities Research District Innovation Partnership Zone, APEL is the "launch pad" to leverage regional technological expertise into early stage entrepreneurial ventures. By creating an environment rich with resources, technical assistance and connections to potential partners and customers, APEL fosters collaboration in innovation and commercialization. APEL welcomed a new client during fiscal year 2011, and expects another client to complete the incubator program successfully in early fiscal 2012.

In fiscal 2011, APEL worked effectively to broaden its mission to include services for non-tenant clients. Historically, services were provided to tenant clients via a lease contract only. To provide services to expanding and emerging businesses, APEL seized the opportunity to expand its reach to non-resident clients. This meets two objectives: Supporting businesses that do not need physical space on an ongoing basis (but simply a short-term laboratory rental or use of office/conference space for key meetings) and, exposure for more businesses - the entrepreneurs and their products - to the APEL community, which enhances collaboration and mutual support.

Major institutions in the Tri-Cities support and sponsor APEL including Energy Northwest, the Port of Benton, the Department of Energy, Washington State University Tri-Cities, Pacific Northwest National Laboratory, the city of Richland and the Tri-Cities Industrial Development Council. APEL's operating costs are covered by tenant rent. By creating an environment rich with resources, technical assistance and connections to potential partners and customers, APEL fosters collaboration in innovation and commercialization.

Industrial Development Complex he Industrial Development Complex is located just east of Columbia Generating Station and is operated by Energy Northwest. A leasing business line was developed to utilize the out-lying buildings at the IDC for use as office and warehouse space, as well as power block facilities.

The revenue from the leasing program reduces the fixed costs for the IDC site, which are the responsibility of the Bonneville Power Administration. Fiscal year 2011 revenue from the leasing line totaled more than \$1.26 million, a net positive margin of \$236,000, an increase of \$74,000 over fiscal 2010. This success provides Energy Northwest with the ability to continue maintenance efforts on site and prepare additional structures for potential lease. It also reflects expansion of business by IDC tenants and additional service needs provided by Energy Northwest.

A significant challenge the IDC faced during fiscal 2011 was correcting power outages due to an aging underground electrical system. An underground cable was installed approximately 30 years ago and, at the time, was only meant to be temporary. Energy Northwest worked closely with BPA in completing approximately \$600,000 of immediate repairs needed to continue servicing IDC customers. A long-range plan is being developed to replace the remaining temporary cable to ensure reliability of the power system.

Energy Northwest will continue to maintain the leasing business line at IDC, focusing on landing an anchor tenant, or tenants, for long-term occupancy of the facilities.

The success of the leasing program will aid in many ways. The program will keep an active Energy Northwest staff on site to maintain and improve the infrastructure, and help complete studies on placing new power generation projects at the IDC, such as solar, nuclear or bio-fuels facilities.

Fiscal year 2011 revenue from the leasing line at the IDC totaled more than

### CALIBRATION SERVICES Laboratory

Alibration services operates and maintains the Energy Northwest Standards Laboratory, located adjacent to Columbia Generating Station. This facility is a multi-disciplined applied physics laboratory performing calibrations in virtually every aspect of metrology, including torque, force, pressure, vacuum, mass, dimensional, electrical, electronic, temperature, humidity, flow, vibration, light and sound.

In addition to primarily providing services to Columbia Generating Station, the Standards Laboratory performs work in the commercial sector, which has helped develop and expand the laboratory's capabilities, increased the technical expertise of the staff, and enhanced its quality program.

In fiscal year 2011, laboratory staff successfully completed the American Association for Laboratory Accreditation on-site assessment process and the laboratory was officially re-accredited. This status provides assurance to customers that calibration activities are in compliance with International Standard ANS/ISO/IEC 17025, which designates the Requirements for Competence of Testing and Calibration Laboratories. The laboratory was first accredited in January 2009, and has since been on an annual assessment schedule. Having successfully completed its third year of the annual assessments, the association has now moved the laboratory to a two-year accreditation cycle. The laboratory's current accreditation is valid through January 2013.

Maintaining accreditation, enhancing capabilities and continually making improvements to technical and quality programs have all been factors in securing multi-year contracts with several major clients. The laboratory is heading into its 12th year as the sole source provider for calibration services to the Department of Energy's Hanford Site. The current Hanford service contract was extended to Sept. 30, 2011, while the parties negotiate a new multi-year calibration services contract.



### **OPERATIONS** & MAINTENANCE

nergy Northwest continued support to Olympic View Generating Station during fiscal year 2011. Operations and Maintenance Services has provided services full time for the project since 2001.

The Olympic View Generating Station is owned by Mason County Public Utility District 3 and comprises two 2.8-megawatt generating units, powered by natural gas-fired reciprocating engines. The nominal station output is 5.4 net megawatts. The plant may be operated remotely, depending on load requirements.

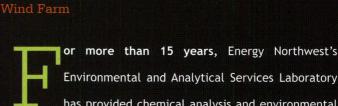
Energy Northwest also provided craft support for Seattle City Light's Boundary Hydroelectric Project. Located on the Pend Oreille River in northeastern Washington, the dam supplies more than one-third of Seattle City Light's power.



Project

Boundary





Wind Facility

has provided chemical analysis and environmental monitoring expertise for utility, municipal and residential customers.

During fiscal year 2011, laboratory staff continued to perform the key environmental assessments at the

Shepherds Flat Wind Farm, located in north-central Oregon. Owned by Caithness Shepherds Flat, LLC., of Sacramento, Calif., the project's most recent design has the facility producing 845 megawatts of electricity from 338 wind turbines. Laboratory worker involvement with the project has been on-going since 2002.

Work on other projects included performing initial avian studies at a proposed wind facility located along the Washington and Oregon border just south of Wallula, Wash.

### **ENVIRONMENTAL** STEWARDSHIP

#### **VAUDREY DESSERAULT**

The Energy/Business Services group consists of several business lines. Their business purpose is varied, but they have the same expectation – maintain environmental stewardship. "We provide several goals so employees at all levels can have an impact on the organization's environmental objectives and targets. I have great advocates in each of the E/BS departments who are ensuring that the EMS program remains strong."



**hergy Northwest's** Environmental Management System is designed to meet the rigorous requirements of the globally recognized International Organization for Standardization 14001:2004 standard, with additional emphasis on compliance and pollution prevention. Energy Northwest's EMS was registered to ISO 14001 in April 2005 by NSF International Strategic Registrations, an accredited registrar. After a successful registration audit in February 2011 with no findings of non-conformance, continuation of Energy Northwest's EMS registration to the standard was granted.

During fiscal year 2011, Energy Northwest established and exceeded environmental improvement targets for reduction of hazardous materials spills and hazardous waste generation and mixed waste generation at Columbia Generating Station.

Energy Northwest is committed to integrating environmental responsibilities into everything the agency does. The agency's environmental stewardship policy is the cornerstone of the environmental management system. This comprehensive program demonstrates commitment and establishes clear expectations for the entire organization. This means consideration of the environment is integrated into all aspects of the organization, including structure, resources, responsibilities, planning, practices, procedures and processes.



The regulated waste program has been enhanced by modifying the process of how waste generation is tracked. Through this change more accurate waste generation data will provide information to identify further waste reduction opportunities.

Several pollution prevention opportunities were identified and implemented in fiscal year 2011. These included changing the management of photochemical waste to minimize the regulated (hazardous waste) volume; reduction of vehicle emissions by use of an electric cart for deliveries of materials from the warehouse to Columbia Generating Station; and reduction of paper/packaging waste through use of technology and re-use.





#### BRAD BARFUSS >

"Environmental stewardship is central to what I do and the decisions I make each day. My role is to support Energy Northwest projects by providing regulationbased guidance to ensure environmental and regulatory compliance. Environmental stewardship is holding myself and the organization accountable to do the right thing, the first time, with the aim to continuously look at ways to improve our interactions with the environment."



### **COMMUNITY** SERVICE

Uring fiscal year 2011, Energy Northwest increased community outreach efforts to strengthen the agency's image as a regional energy leader and to educate key audiences about energy issues facing Washington state.

The need to reach stakeholders beyond the immediate support base in the Tri-Cities is of vital interest to the agency, especially as it undertakes Columbia Generating Station's license renewal effort and explores new power generation development for member utilities in other parts of the region.

One of the community and educational outreach opportunities Energy Northwest participated in this past fiscal year included energy conservation and efficiency education trivia, which appeared across Washington state in movie theaters, newspapers, online, and ran on radio and television stations.

Energy Northwest participated in several energy and environmentally related events such as the Sustainable Energy and Environmental Expo; the Hanford Health and Safety Expo; Harvesting Clean Energy; Energy Independence Day; and Imagine Tomorrow, a Washington State University science and energy-oriented event for high school students.

Energy Northwest employees also spoke to a wide range of audiences, including a workshop in Olympia for the Washington state House Technology, Energy and Communications Committee to inform legislators about nuclear energy, Energy Northwest, its projects and people.

Additionally, Energy Northwest has been a member of the local Tri-Cities business community for more than 50 years. As a major non-Hanford employer, the agency strongly believes in the importance of supporting the communities and non-profit agencies where employees work and live.

#### CINDY WAY

"Our 2010 Head Start campaign was our 30th year. We could not accomplish this year after year without the overwhelming generosity of our employees. Our employees enjoy the experience just as much as the kids who receive the gifts. Our internal committee volunteers work diligently through November and December, and with the folks at Head Start, to ensure all children are "adopted," all gifts have been received, and all parties are a success."

#### CRAIG WITTE

The professionals at Energy Northwest are experts in many fields, which benefits the organization in the daily operation of multiple power generation projects. But it can also benefit the community. When a local non-profit organization needed help in the field of architecture, Craig Witte was able to step up and volunteer his expertise. Energy Northwest is proud to support its employees who volunteer their time – and their knowledge – to make the community a better place to live.

From the CEO to the newest employee, Energy Northwest cares about the Tri-Cities community through direct, hands-on involvement. The agency officially sponsors three vital community organizations: Head Start, United Way and March of Dimes.

#### Head Start

In fiscal year 2011, Energy Northwest celebrated the 30th anniversary of supporting the Benton Franklin Head Start program (since 1980).

Each year, Energy Northwest commits to adopting every Head Start child for the holiday season. In fiscal 2011, nearly 400 children were "adopted" by employees. Each child provided a wish list to Santa and received at least one toy and one clothing item. The gifts were distributed by Energy Northwest employees, playing Santa and his elves, during various Head Start parties.

The Head Start program is the most successful and longest-running school readiness program in the U.S. It provides comprehensive education, health, nutrition and parental involvement services to low-income children and their families.

More than 25 million pre-school aged children have benefited from Head Start and the number of children served in Benton and Franklin counties has more than doubled in the past two decades.

### United Way

Approximately 171 employees donated nearly \$79,000 to United Way in 2010. And four stepped forward to join the United Way Vintner Club leadership program for a total of 29 employees currently in the Vintner Club. These pledges help provide hot meals to elderly neighbors, fund youth developmental programs, provide disaster relief planning for our community and build selfesteem in at-risk youths.

#### March of Dimes

Energy Northwest's "power marchers" team raised \$21,020 this year for the March of Dimes, exceeding the goal and once again demonstrating the philanthropy and generosity of employees. About 35 walkers from Energy Northwest, along with their spouses, children and pets, participated in the 2011 Tri-Cities March for Babies event that helps support neo-natal birth centers and local families in need.



United

Other activities Energy Northwest participated in include:

#### Earth Day Clean-up

Head

Star

Energy Northwest and AREVA employees worked together for the community during a volunteer Earth Day clean-up project. In all, 21 Energy Northwest employees participated, filling about 60, 40-gallon bags with paper, plastic, cans and other debris.

Energy Northwest is committed to taking care of the environment. Energy Northwest's commitment is formally certified by the International Organization for Standardization, which underscores the agency's compliance to international environmental standards and provides thirdparty validation that Energy Northwest's environmental stewardship and management efforts are both effective and sustainable.

The clean-up activity reflects both organizations' commitment to the Tri-Cities community and the environment.

#### Member Forum

Climate change, wind power and the legislative energy landscape were key topics during the Energy Northwest 13th annual Member Forum. Headlining the event was Dr. Patrick Moore, a co-founder of Greenpeace and staunch commercial nuclear power advocate.

More than 90 commissioners, managers and other representatives from the agency's 28 member utilities attended the annual event, which is an important venue for a regional public power community that serves more than 1.5 million ratepayers across Washington state. The forum provides utility representatives an opportunity to meet and listen to speakers on regional and national energy issues, and to discuss solutions to key challenges facing public power. Participants also have the opportunity to network with other members and utility leaders.

### PEOPLE GENERATING POWERFUL SOLUTIONS

