BONNEVILLE POWER ADMINISTRATION

ANNUAL REPORT 2016

INVESTING IN THE FUTURE

SINCE 1937

300K SQ. MILES OF SERVICE TERRITORY

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BPA Profile *The Bonneville Power Administration is a nonprofit federal power marketing administration based in the Pacific Northwest. Although BPA is part of the U.S. Department of Energy, it is self-funding and covers its costs by selling its products and services. BPA markets wholesale electrical power from 31 federal hydroelectric projects in the Northwest, one nonfederal nuclear plant and several small nonfederal power plants. The dams are operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation. The nonfederal nuclear plant, Columbia Generating Station, is owned and operated by Energy Northwest, a joint operating agency of the state of Washington. BPA provides about 28 percent of the electric power used in the Northwest, and its resources — primarily hydroelectric — make BPA power nearly carbon-free.*

BPA also operates and maintains about three-fourths of the high-voltage transmission in its service territory. BPA's territory includes Idaho, Oregon, Washington, western Montana and small parts of eastern Montana, California, Nevada, Utah and Wyoming.

BPA promotes energy efficiency, renewable resources and new technologies that improve its ability to deliver on its mission. It also funds regional efforts to protect and rebuild fish and wildlife populations affected by hydropower development in the Columbia River Basin.

BPA is committed to public service and seeks to make its decisions in a manner that provides opportunities for input from all stakeholders. In its vision statement, BPA dedicates itself to providing high system reliability, low rates consistent with sound business principles, environmental stewardship and accountability.

FINANCIAL HIGHLIGHTS

FISCAL YEAR 2016

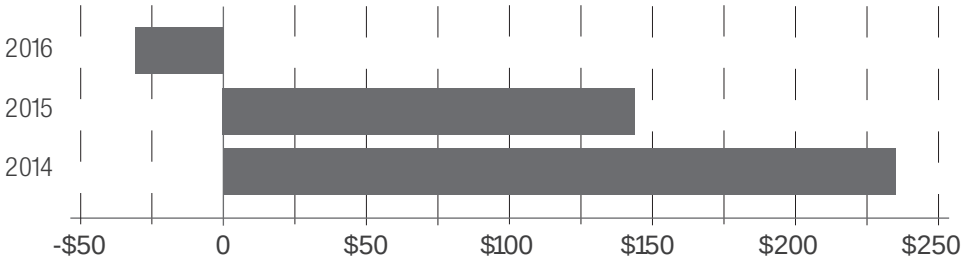
FEDERAL COLUMBIA RIVER POWER SYSTEM

MILLIONS OF DOLLARS

Total operating revenues	$ 3,432.6
Total operating expenses	2,857.3
Net operating revenues	575.3
Net interest expense	298.1
Net revenues	$ 277.2
Adjusted net revenues	$ (30.9)

ADJUSTED NET REVENUES

MILLIONS OF DOLLARS



CREDIT RATINGS

Moody's	Aa1 with a stable outlook
Standard & Poor's	AA- with a stable outlook
Fitch	AA with a stable outlook

ADMINISTRATOR'S LETTER

From the left, James Cramer; Steve Capps; George Wespi; John Hairston, chief administrative officer; Elliot Mainzer, administrator; Randy Hyatt; and Sean Joyce tour BPA's Nekitpe Maintenance Headquarters in Pasco, Washington. Working in collaboration with the Hanford Tribal Technical Working Group, BPA named this facility Nekitpe, which means "Thinking Place." This is the first BPA facility to receive a Native American name unrelated to a geographic feature.

Fiscal year 2016 was a year of continued transformation for the Bonneville Power Administration — not a transformation of what we aspire to achieve, but in how we achieve it. Significant changes in our industry and calls from customers and stakeholders have prompted a heightened focus on cost management and an even tighter focus on key priorities, setting BPA on a path to long-term competitiveness and financial strength.

This year we again experienced the significant effect of low natural gas prices on BPA's surplus power sales. At the same time, we are facing many other pressures related to controlling costs. The federal power and transmission system assets continue to age; new technologies and evolving markets are changing the way utilities do business; and there is new uncertainty on how best to manage the federal hydropower system while also addressing its impacts on endangered salmon and steelhead.

Yet, as BPA has done through all of the chapters in its history, we are prepared to adapt so that we can continue to serve our public-purpose mission and meet the region's need for reliable, affordable, environmentally sustainable power and transmission service. The actions we are taking today are meant to ensure we remain our preference customers' provider of choice in the 2020s and beyond. The BPA's five Priorities are aimed at reaching this central objective, and in 2016 we took important steps in each of these areas.

Our People

The investments we have made in our people are bringing about real cultural change. We aim to provide a safe, positive and inclusive work environment that attracts and retains a diverse, highly skilled workforce, with a deeply embedded commitment to delivering regional value and customer service.

It starts with safety, and I'm proud of our accomplishments on this crucial effort. Since elevating safety to our top core value in 2014, the BPA workforce has displayed an impressive willingness and ability to make fundamental change and drive results. In 2016, more people stepped forward to disclose close calls, saving the next person from the hazard. Over the same period, recordable injuries were reduced. Our leadership team has played a critical role in the success of our safety initiative. With the knowledge that safety starts at the top, BPA's leadership continued to embed a shared commitment to safety throughout the organization.

Physical Assets

The nation's largest carbon-free, renewable energy resource — the Federal Columbia River Power System — and the expansive high-voltage transmission grid that delivers reliable power to consumers across the region, require careful management. The maintenance and modernization of the federal power and transmission system is one of our key responsibilities, and our asset plans must strike a proper balance between system needs and ensuring a predictable and stable long-term rate trajectory for our customers.

In 2016 we took critical steps to maintain the region's federal hydropower assets, including work on mechanical overhauls at Grand Coulee Dam, to continue to improve the reliability and efficiency of the system for power production. We also invested in new turbine technology to improve fish survival.

On the transmission side, Bonneville energized two new high-voltage lines — a total of 66 miles in Oregon and Washington — to support reliability and serve new transmission requests. We also completed the modernization of the Celilo Converter Station in The Dalles, Oregon, and continued upgrades to BPA's 265-mile portion of the Pacific Direct Current Intertie, heightening the security, reliability, capacity and flexibility of the longest single transmission link in the nation.

Also in 2016, we advanced our analytic capability to forecast the long-term impacts of our investment decisions, which has greatly strengthened our asset investment strategy. This capability informed our discussions with customers and stakeholders this summer as we discussed our capital investment plans. In addition, we are strengthening partnerships with our federal partners, the U.S. Army Corps of Engineers and the Bureau of Reclamation, to plan and execute on our capital investments in the federal dams.

Sustainable Finances and Rates

While hydropower conditions were close to average this year, only our Transmission Services organization ended the year in the black. Power Services ended the year with negative modified net revenues, largely because of lower than forecast natural gas prices. In addition, revenues declined from the start-of-year target because more water was stored in Canadian and U.S. reservoirs to make up for releases that helped us manage the dry water-year in 2015. The additional water we received last year contributed to our positive financial results in 2015. In addition, our rate design includes built-in expectations for this type of volatility, and we set rates to cover weather-driven and market risks.

We ended the year with sufficient financial reserves to cover the revenue shortfall and to uphold our commitment to U.S. taxpayers by making our year-end payment to the U.S. Treasury. We have made the payment on time and in full for 33 consecutive years. This year's payment of $1.9 billion — the largest ever and more than twice the scheduled amount — reflects our commitment to long-term financial strength. This was made possible by Regional Cooperation Debt transactions in collaboration with Energy Northwest. These debt management actions continue to deliver savings to the region and are a testament to the great collaborative relationships between BPA, Energy Northwest and the region's public power entities. By accelerating our repayment of the federal investment in the FCRPS, we are significantly reducing future interest expense.

We took the same long-term view during the recent public review of Bonneville's program costs focused on fiscal years 2018 and 2019. Through this process, called the Integrated Program Review and Capital Investment Review, BPA's objectives of long-term financial strength and cost management informed our approach to proposed expense and capital program spending levels. At the same time, we heard from customers that their central concern is the rising cost of operating the federal power and transmission system. To address that concern, we made difficult choices to contain cost increases and minimize near-term rate impacts. However, our work to establish program spending levels for the next rate period is not done. We have committed to a second round of review on a focused set of programs and initiatives that have the greatest potential for further near-term reductions. As we refine these proposed spending levels during IPR 2 in the coming months, our goal will be to demonstrate Bonneville's capacity to further reduce the trajectory of rising rates.

The feedback we heard during IPR/CIR reaffirmed the input we received during Focus 2028. We launched this forum in 2016 to assess the state of our financial health and discuss the options available to us to ensure our financial strength long into the future. We will continue to focus on our fundamental strategic objective of remaining the wholesale power and transmission provider of choice when long-term contracts are up for renegotiation in the next decade.

Reliable, Efficient and Flexible Operations

After a careful evaluation of BPA's organizational structure, late in the fiscal year we launched a Business Transformation Office to ensure BPA carries out its initiatives with a consistent, disciplined approach to program management. The office will be responsible for reviewing and approving new initiatives based on sound business cases and an assessment of business readiness.

One of the priorities for the Business Transformation Office is to advance BPA's commercial operations strategy. The objective is to ensure BPA has the plug-and-play functionality to operate in a modernized electric grid. In 2016, BPA focused on the ability to interact with rapidly transforming neighboring markets. The California Independent System Operator is expanding its energy imbalance market — many Northwest utilities are joining or considering joining the EIM — and evaluating the potential for expanding its operations beyond California through what is being referred to as a regional ISO. This would have significant implications for our operations, but we also see opportunities. While BPA is not considering joining the EIM or regional ISO, we are working collaboratively with the CAISO to protect and enhance the value of the Northwest's federal power and transmission assets.

In the last two years, we increased the staffing of our cybersecurity office from 12 employees to over 40 and created a 24/7 cyber-security operations and analysis center. Bonneville has two teams dedicated to cyber security. One team performs forensics, intelligence and 24-hour incident response, and another team performs offensive research and security assessments. BPA also conducts cyber-offensive operations against its own network to test, drill and improve detection and response.

To help prevent unauthorized access to its information technology systems, BPA established a baseline to set goals for an agencywide phishing awareness program. The employee education effort will be highlighted each October in celebration of National Cyber Security Awareness Month, which is a collaborative effort between government and industry to ensure that every American has the resources they need to stay safer and more secure online.

The Natural Environment

BPA funds and helps run one of the largest fish and wildlife programs in the nation, working closely with state, federal, tribal and nongovernmental partners on a wide variety of actions throughout the Columbia River Basin to improve conditions for fish and wildlife impacted by the hydro system.

For example, in 2016 BPA funded the Southern Cross Ranch acquisition and restoration project in cooperation with the Confederated Tribes of the Umatilla Indian Reservation. This acquisition enabled the restoration of portions of Catherine Creek in eastern Oregon, where the Tribe, with BPA's support, took a comprehensive approach to address chinook and steelhead habitat by investing in floodplain restoration and channel construction. This is just one example of the many hundreds of beneficial actions of BPA's fish and wildlife program, including habitat protection and restoration, hatchery programs, and continued learning and adaptation through targeted research, monitoring and evaluation.

Still, reflecting the challenges of managing the FCRPS, in May the U.S. District Court of Oregon rejected the National Oceanic and Atmospheric Administration Fisheries' most recent biological opinion, or BiOp, addressing the impacts of the federal hydropower system on endangered salmon and steelhead in the Columbia River Basin. The court ordered NOAA to maintain the efforts committed to under the current BiOp through 2018, when a new BiOp is due. The court also ordered a new environmental analysis under the National Environmental Policy Act to evaluate and address the environmental effects of the federal hydropower system. While BPA was disappointed in the court's ruling, we continue to work collaboratively with the U.S. Army Corps of Engineers and the Bureau of Reclamation, our partners in system operations, and with NOAA, to respond to the court order. We are also working with the Corps and Reclamation to engage the public and develop a new environmental impact analysis that takes a hard look at the Columbia River hydro system and its environmental and socioeconomic impacts and benefits, and explores the trade-offs inherent in the management of the system for multiple purposes.

As I look forward to 2017 and beyond, I am encouraged by the progress we made in 2016. I have great confidence in the people of Bonneville to carry out our long-term strategy and heightened focus on cost management so that we continue delivering on the multifaceted public-purpose mission the Northwest greatly depends on.

Elliot Mainzer
Administrator and CEO

BPA PRIORITIES

BPA achieved its mission and improved operational excellence by focusing on the following five priorities:

We provide a safe, positive and inclusive work environment that attracts and retains a diverse, highly skilled workforce with a deeply embedded commitment to delivering regional value and customer service.

We execute sustainable and affordable investment strategies to maintain and modernize clean and renewable power and transmission system infrastructure.

We ensure long-term financial strength by balancing reliability, low rates, cost-effective access to capital, responsible cost management and our other public purpose objectives.

We reliably operate the power and transmission assets and other business operations through highly efficient and effective systems and processes. We enhance our flexibility and interoperability to adapt to changes in supply mix and market design.

We protect and enhance the environment, fish and wildlife with a focus on good science, fiscal efficiency and on-the-ground results.

YEAR IN REVIEW

PHOTO: DAVE JENSEN/WESTERN RIVERS CONSERVANCY

SAFETY

OUR PEOPLE

PHYSICAL ASSETS

We value safety in everything we do. Together, our actions result in people being safe each day, every day. At work, at home and at play, we all contribute to a safe community for ourselves and others.

24/7

275%

INCREASE IN NEAR-HIT REPORTING

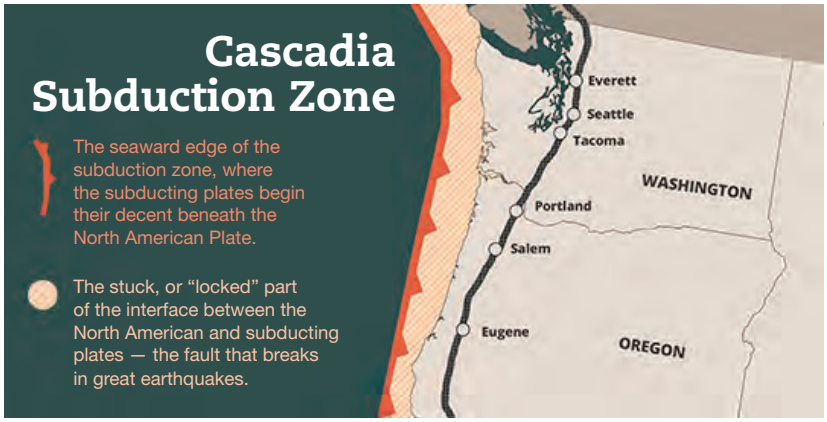
PERSONAL PREPAREDNESS TIP

of water per person per day

At BPA, it all starts with the safety of our workers, our families, our community and our infrastructure.

Safety remained a primary focus in 2016 after becoming BPA's top core value in 2014. Continuous efforts to find and eliminate hazardous conditions drove activities from the executive team to employees in field locations.

A robust safety program is not only the right thing to do for our people; it is the right thing to do for our business, with far-reaching effects on costs and employee performance and morale. BPA is incorporating safety into everything we do, including how we define success.



The Cascadia Subduction Zone is a 620-mile-long dipping fault that stretches from northern Vancouver Island to Cape Mendocino in Northern California. It separates the Juan de Fuca and North American plates. Because of the great length of the fault, the Cascadia Subduction Zone is capable of producing very large earthquakes if rupture occurs along its entire length.

Near-hit reporting increases

One of the year's successes has been a marked increase in near-hit reporting. More BPA workers are raising their voices to disclose a close call — and to save the next person from that same hazard. Near-hit reporting jumped 275 percent in fiscal year 2016 — increasing from 28 reports last year to 105. At the same time, injuries have declined. For example, Transmission Services has reduced recordable injuries by half. BPA's goal is zero injuries, so there is more work to do, but this is a great sign that our safety efforts are delivering tangible results.

The big one

Thankfully, it was just a drill.

Last June, a four-day exercise, called Cascadia Rising, was built around the scenario of a 9.0-magnitude earthquake off of the coast of Oregon resulting in a tsunami. It's the type of event in the Cascadia Subduction Zone that seismologists have predicted could occur. If it hit, it likely would destroy buildings, roads and disrupt communications in the Pacific Northwest.

BPA had a prominent role in the exercise, practicing the steps its emergency command center would undertake if there were a significant disruption to power production and delivery in the Northwest. About 20,000 people were involved in the disaster drill, including various federal agencies, private sector businesses, the U.S. military, and state and local emergency response managers from Washington, Oregon and Idaho, Native American tribes and emergency management officials in British Columbia.

"The scenario presented a lot of unknowns," said BPA Continuity of Operations manager Eric Heidmann. "But there would be places with no load service because most of the towers and lines would be on the ground in certain areas, and the distribution system west of the Cascades would be devastated. That was a big eye-opener for people."

In the event of a catastrophic earthquake, roads, bridges, rivers, culverts and basic infrastructure would be impacted. "That's where the lessons of personal preparedness come in," Heidmann said. "We want our workforce to be prepared with adequate food, water, warmth and protection. That way, when we need our employees at work, they can come in knowing that the needs of their families and loved ones are taken care of."

Stand Up for Safety

To coincide with the Cascadia Rising exercise, BPA held its annual Stand Up for Safety event. It kicked off with a local emergency response expert who provided invaluable advice on how BPA employees can prepare for a 9.0-magnitude earthquake, both at work and at home. BPA also held safety fairs in Portland, Oregon; and Vancouver, Washington; and conducted preparedness-themed field events for district offices across the region. Representatives from the executive team traveled to event sites to participate and address workforce safety concerns related to a large earthquake.

Brad Bea, BPA safety and occupational health manager; Alice Busch, Multnomah County Office of Emergency Management Operations division chief, Elliot Mainzer, BPA administrator and CEO, and John Hairston, BPA's chief administrative officer at the Stand Up for Safety: Personal Preparedness and Resilience kickoff event, June 6, in the Portland headquarters GSA Auditorium. Busch shared how being connected to neighbors and community is just as important as building up personal preparedness supplies.

Infrastructure preparedness

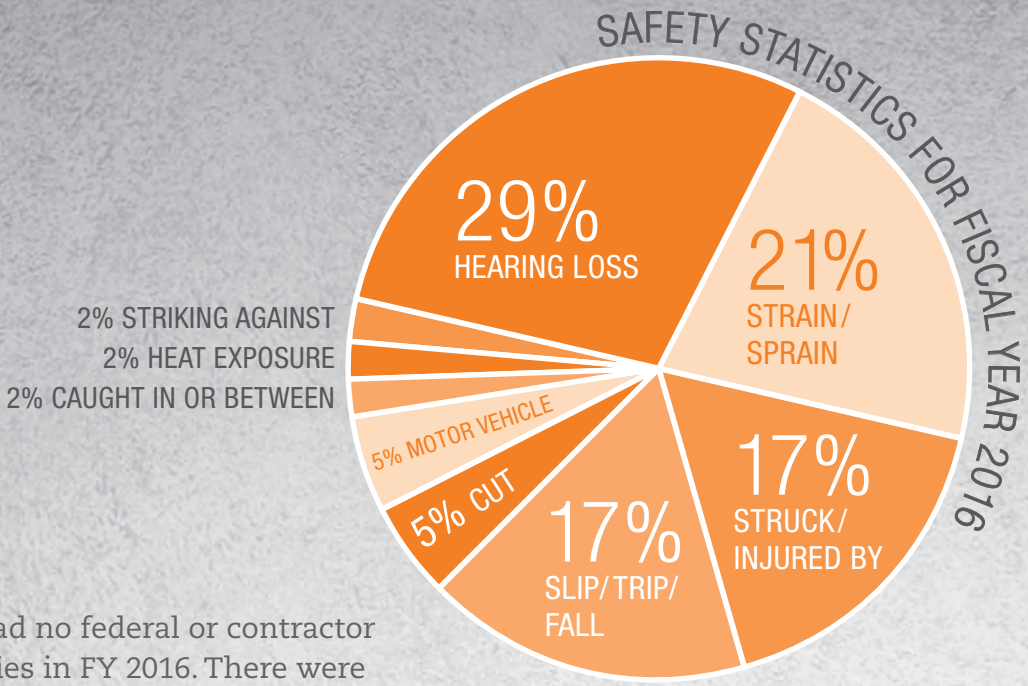
BPA has invested in seismic mitigation projects since 2005 as part of a collaborative effort to estimate the seismic risk to substation equipment. It has funded research that tests seismic performance, including supplemental damping and base isolation of high-voltage substation equipment.

BPA has also developed engineering tools to assess the Northwest power system's vulnerability to extreme events such as earthquakes, landslides, liquefaction, and wind and ice storms. BPA's seismic mitigation program includes hardening critical facilities, anchoring high-voltage transformers, protecting substation equipment, and creating model validation tools for seismic assessment of structural systems. In an extreme event, such as a major quake, these upgrades will help BPA restore the system sooner and save the region hundreds of millions of dollars in avoided replacement costs.

Safety leadership

To help ensure agencywide preparedness, BPA's safety leadership course now includes Transmission Services office personnel in addition to field staff. It arms managers and supervisors with practical, tangible tools to help lead safety initiatives and safety change within their respective work teams. The course uses three modules that have been carefully built to support the agency's safety core value.

"WE WANT OUR WORKFORCE TO BE PREPARED WITH ADEQUATE FOOD, WATER, WARMTH AND PROTECTION. THAT WAY, WHEN WE NEED OUR EMPLOYEES AT WORK, THEY CAN COME IN KNOWING THAT THE NEEDS OF THEIR FAMILIES AND LOVED ONES ARE TAKEN CARE OF."



SAFETY REPORTING AND ACTIVITIES

BPA had no federal or contractor fatalities in FY 2016. There were 30 recordable injuries for the year without including the category of hearing loss, and 42 when partial or complete hearing loss is included.

Safety statistics for fiscal year 2016:

- Hearing loss accounted for 29 percent of all recordable injuries this fiscal year (the agency has been removing hearing loss figures from its injury statistics to establish a baseline).
- Strains and sprains accounted for 21 percent of recordable injuries, with back injuries being the most common.
- Slip/trip/fall and struck/injured by were tied for third-highest cause of injury, with 17 percent of the recordable injuries.

Additional activities in fiscal year 2016:

- Launched a new safety management system, including the creation of 14 supporting programs and procedures.
- Developed a revised hearing loss prevention program.
- Eighty-two frontline leaders participated in specialized safety management training.
- BPA improved its incident reporting and incident assessment programs.

FINANCE

U.S. Treasury payment

$1.9 billion

While this year saw a return to near-normal hydrological conditions, lingering effects of the 2015 dry year along with persistently low natural gas prices and lower customer loads were the primary contributors to BPA's lower-than-expected adjusted net revenues.

Adjusted net revenues, or ANR, is a non-GAAP (generally accepted accounting principles) metric that removes the effects of certain debt-management actions that do not, in the opinion of BPA management, bear on financial results from operations.

For fiscal year 2016, ANR was negative $30.9 million. Power modified net revenues (PMNR) was negative $132.8 million, which is lower than rate case expectations largely due to sustained low natural gas prices affecting net secondary power revenues. PMNR is also a non-GAAP metric that removes the effect of certain debt-management actions that do not bear on financial results from operations. Transmission Services' net revenues of $101.9 million were slightly below rate case expectations yet offset some of the PMNR losses. The financial pressure created by lower-than-expected net revenues underscores the need to adequately assess and plan for these significant uncertainties, and for BPA's leadership and workforce to remain diligent about managing internal operating costs prudently.

BPA's financial reserves were $724.4 million, a decrease from fiscal year 2015. Financial reserves, a non-GAAP liquidity measure used by BPA management, consist of BPA cash and cash equivalents, investments in U.S. Treasury market-based special securities and deferred borrowing.

"The utility industry is undergoing a transformation, and BPA is focusing on actions that keep our rates as low as possible," said Javier Fernandez, BPA's chief financial officer. "But our efforts go beyond rates; it's also about ensuring the financial strength of our organization."

Taking cost management to the next level

In June, BPA embarked on its combined Integrated Program Review (IPR) and Capital Investment Review (CIR) process to allow interested parties to see

all relevant Federal Columbia River Power System, or FCRPS, expense and capital spending-level estimates. The IPR/CIR happens every two years, just before each rate case. It covers BPA's proposed spending levels in the Transmission Services, Power Services and Agency Services programs. Throughout the last IPR/CIR and in the region's Focus 2028 meetings, customers and regional stakeholders emphasized that BPA should increase the level of rigor and scrutiny in managing its costs.

Implementing a long-term financial and rates strategy

BPA's current long-term Regional Dialogue power sales contracts with customers expire in 2028. In 2016, BPA adopted a Long-Term Financial and Rates Key Strategic Initiative to deliver cost-based power and transmission services priced to fully subscribe the FCRPS power supply among regional power customers in the next contract period. In 2016, this initiative progressed in three key focus areas:

1. Further development of analytical tools to forecast long-term power and transmission rates.
2. Establishing a more robust focus on costs and the tools to effectively manage costs.
3. Further defining a long-term competitive position for BPA.

A commitment to asset management

BPA's commitment to asset management is critical, as it invested $776.8 million in fiscal year 2016 and plans to invest approximately $818.7 million in fiscal year 2017. The agency is improving asset management practices by developing a comprehensive, standardized and transparent approach to creating, selecting, executing and evaluating the performance of investment portfolios. BPA's new Asset Management Key Strategic Initiative is an evolving effort to advance the agency's asset management capabilities and level of maturity.

The Asset Management Key Strategic Initiative focuses on the review and improvement of current BPA practices, policies, processes, standards and requirements for asset management. The agency has adopted a leading practice-based framework in managing assets across five categories. A steering team completed an analysis of the current and future states, and identified gaps and the risks to closing these gaps. Additionally, BPA developed an improvement plan and work will begin in fiscal year 2017 on advancing the maturity of asset management in the areas of asset information, life-cycle delivery, and risk and review. BPA is following the framework developed by the Institute of Asset Management, which integrates international asset management specifications and standards.

A proactive approach to debt management

BPA made its 33rd consecutive annual payment to the U.S. Treasury on time and in full. The total payment was $1.9 billion for fiscal year 2016, which ended Sept. 30. The payments are fulfilling BPA's commitment to fully repay U.S. taxpayers with interest for their investment in the FCRPS.

BPA continues to optimize its debt portfolio, which increases its financial health. BPA's fiscal year 2016 U.S. Treasury payment included an additional $958.7 million discretionary principal payment as part of the Regional Cooperation Debt program. The Regional Cooperation Debt program allowed BPA to pay down high-interest-rate federal appropriations that ranged from 7.15–7.25 percent, while extending nonfederal debt that ranged from 0.70–4.54 percent with a weighted-average interest rate of 2.19 percent. By refinancing this debt, we are significantly reducing future interest expense.

"THE UTILITY INDUSTRY IS UNDERGOING A TRANSFORMATION, AND BPA IS FOCUSING ON … ENSURING THE FINANCIAL STRENGTH OF OUR ORGANIZATION."

POWER SERVICES

PHYSICAL ASSETS

SUSTAINABLE FINANCES & RATES

RELIABLE, EFFICIENT & FLEXIBLE OPERATIONS

The Columbia Generating Station is the third-largest generator of electricity in Washington state, producing enough clean, carbon-free energy to power a city the size of Seattle.

1 GRAND COULEE

2 CHIEF JOSEPH

3 COLUMBIA

total generation

8,000+ aMW

The federal dams from which BPA markets its power are operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation. BPA also purchases the entire output of a nonfederal nuclear plant, the Columbia Generating Station, which is owned and operated by Energy Northwest, a joint operating agency of the state of Washington.

BPA's Asset Investment Excellence Initiative

In 2016, BPA, the Bureau of Reclamation and the U.S. Army Corps of Engineers embarked upon the Asset Investment Excellence Initiative, or AIEI, to develop a long-term asset investment plan that is intended to provide certainty, efficiency, affordability and reliability regarding the hydroelectric system's long-term value. The AIEI is a critical component of BPA's Asset Management Key Strategic Initiative.

"The AIEI seeks to identify a level of investment that sustains the ability of the FCRPS to deliver clean, low-cost power over the long term, while mitigating impact on rates through improved reliability and availability," said Mark Gendron, BPA's senior vice president of Power Services.

Last May, the first long-term System Asset Plan, informed by new analytics and assessments, was published and endorsed by agency leadership. The System Asset Plan will be updated annually.

Investments to ensure reliable service

In April, an 805-megawatt generating unit at Grand Coulee Dam was returned to commercial operation. A second generating unit's mechanical overhaul began in the middle of May and it was completely disassembled by mid-July, about six weeks ahead of schedule. An overhaul of the final 805-megawatt generating unit will follow upon the completion of the current work. Three additional generators require both electrical and mechanical refurbishments and replacements to provide decades of reliable, carbon-free service to the region. In addition, to achieve increased generating capability, BPA and the Bureau of Reclamation are investigating the advantages of replacing the turbine runners while the units are already disassembled.

Capital projects funded by BPA are preserving the reliability of critical facilities across the FCRPS. At Chief Joseph Dam near Bridgeport, Washington, the U.S. Army Corps of Engineers and its contractors progressed on a decade-long project to replace 16 aging turbine runners with more efficient models. Chief Joseph is the second-largest hydropower plant in the United States after Grand Coulee Dam, which is just upstream.

A reliable supplier of baseload energy

Energy Northwest's Columbia Generating Station continues to be a reliable supplier of baseload energy. Located in Richland, Washington, Columbia is the Pacific Northwest's only commercial nuclear power plant. During Energy Northwest's 2016 fiscal year, Columbia produced the second-highest generation ever recorded at the station. It produces enough clean, carbon-free energy to power a city the size of Seattle and is the third-largest generator of electricity in Washington state behind Grand Coulee and Chief Joseph dams.

Energy Northwest operates Columbia Generating Station, the Northwest's only commercial nuclear power plant.

All of Columbia's electricity is sold at-cost to the Bonneville Power Administration. BPA acquires the plant's output and pays the costs to operate, maintain and finance the facility, making it an important energy resource for Northwest ratepayers along with the electricity produced by the federal dams in the Columbia River system.

In April 2016, Energy Northwest successfully concluded an aggregated demand response demonstration project (described in greater detail in the Energy Efficiency section). Energy Northwest received recognition as having one of the nation's best demand response programs. These accolades came from the Peak Load Management Alliance, a national community of experts and practitioners who advance demand response.

Columbia River Treaty update

For more than a half century, the Columbia River Treaty has provided value to the Pacific Northwest by facilitating shared management of water resources in the Columbia River Basin between the United States and Canada. The U.S. Entity, consisting of the BPA administrator and the U.S. Army Corps of Engineers' Northwestern Division engineer, works with its Canadian counterparts to carry out the Treaty.

During its existence, the Treaty has enabled mutual power benefits from the coordinated operation of Canadian and U.S. hydropower facilities. These operations also reduce the risk of flooding in the Pacific Northwest. The entities also use flexibilities within the Treaty to address ecosystem considerations in the region through mutually agreed operations such as augmenting flows during certain times of the year to help fish. But there is a growing desire in the region to explore further increasing these mutual benefits by modernizing the Treaty after 2024, which is when some of the more significant flood control provisions of the Treaty change and several agreements implementing the Treaty expire.

The U.S. government reached consensus on a high-level position for negotiations of the post-2024 future of the Columbia River Treaty in June 2015. The final regional recommendation delivered to the Department of State by the U.S. Entity in December 2013 was considered in this effort. A lead negotiator from the Department of State was named in August 2015. Since that time, the Department of State, the U.S. Entity and other federal agencies have worked toward completing the official authorization which would allow the U.S. government to negotiate with Canada. It is anticipated that the authorization to negotiate will be concluded in 2016, and negotiation is expected to begin before the end of the calendar year.

"... TO DELIVER CLEAN, LOW-COST POWER OVER THE LONG TERM ..."

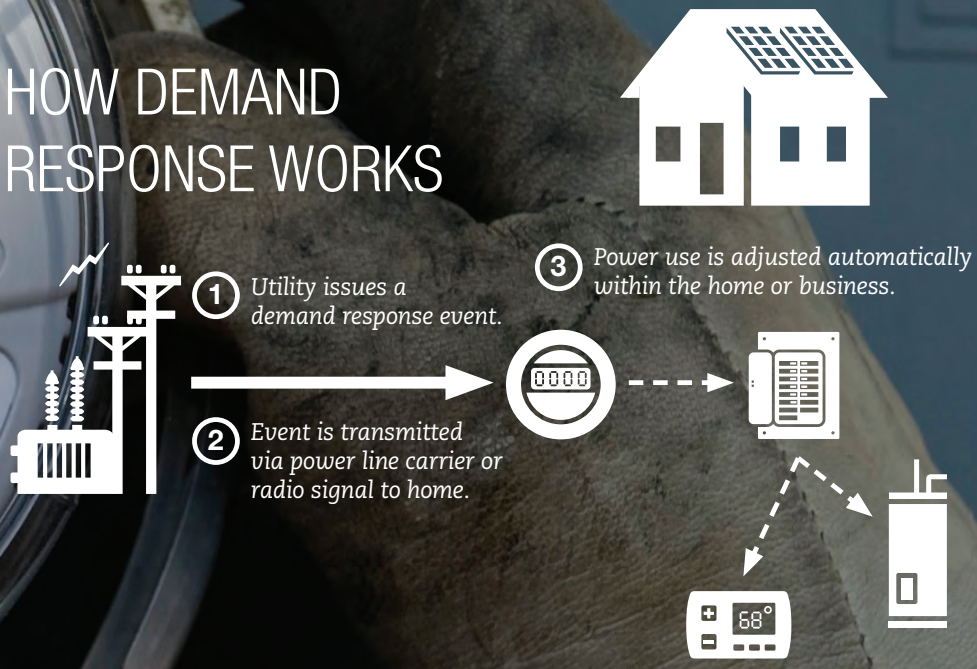
NEW ICE HARBOR DAM TURBINE REDUCES FISH IMPACTS

A blend of engineering and art aptly describes the new turbine at Ice Harbor Dam on the Snake River. The turbine is 150 tons of stainless steel that was expressly designed with the main goal of improving fish survival. The turbine's modern five-blade design will allow fish to glide through the dam with less potential harm. The turbines will provide more uniform water flow and pressure, and passing salmon and steelhead are less likely to strike turbine blades.

The first fish-friendly turbine was delivered in May 2016. The state-of-the-art turbine offers both safer downstream passage of juvenile fish as well as operational flexibility. Most of the installation and verification testing will be performed in fiscal year 2017. If the new fish-friendly turbine design performs as expected, the design could be used in other plants in the FCRPS awaiting turbine replacement.

ENERGY EFFICIENCY

HOW DEMAND RESPONSE WORKS



SUSTAINABLE FINANCES & RATES

RELIABLE, EFFICIENT & FLEXIBLE OPERATIONS

BPA has been at the forefront of promoting energy efficiency, which studies show will continue to be a key tool to meet future customer demand through 2035.

Following the publication of the Northwest Power and Conservation Council's (Council) Seventh Northwest Power Plan, BPA has worked on a strategy to achieve its share of the plan's near-term conservation goals.

BPA's Energy Efficiency Action Plan, drafted for public review in 2016, forecasts 569 average megawatts in public power savings over the next six years. The plan's key strategic themes are to:

1. Identify and prioritize new technologies.
2. Focus on delivery and program accessibility and ease of use for BPA's customers.
3. Leverage regional efforts, including partnering with the Northwest Energy Efficiency Alliance and other utilities to achieve goals.

Following public review, BPA expects to publish its final Energy Efficiency Action Plan in December 2016, revisiting it every two years.

Fourth Efficiency Exchange Conference held

Last April, BPA and NEEA partnered with the Council and Northwest utilities to host the fourth annual Efficiency Exchange Conference. Held in Coeur d'Alene, Idaho, the event promoted technical innovations and new ideas in utility energy-efficiency programs.

"It is the largest energy-efficiency event in the Northwest," said Richard Génecé, BPA's vice president of Energy Efficiency. "We bring together utilities, implementers, contractors and

policymakers to share ideas, best practices and strategies so we can continue building our region's energy-efficiency power plant."

Experts from around the Northwest explored issues such as expanding electric vehicle infrastructure, lighting innovations and new methods of driving energy efficiency through data and behavior.

BPA assesses emerging technologies

BPA invests in evaluations of emerging energy-conservation technologies for reliability and performance. These include lab and field-testing of advanced lighting controls, HVAC systems and technologies to increase electronic equipment efficiency.

The agency collaborates with the U.S. Department of Energy and its network of national laboratories, NEEA, Electric Power Research Institute, Consortium for Energy Efficiency, California's Emerging Technologies Coordinating Council and others. These partnerships reduce the cost of investigating new technologies and represent the needs of Northwest customers.

Bringing new technologies to market

After successfully moving high-performing heat pumps onto the market, BPA's next step is investing in the advancement of carbon dioxide-refrigerant heat pumps. Developed in Japan, this new technology could save an additional 50 percent over today's heat pump water heaters. They perform better in cold climates and can consolidate space and water heating equipment into one unit for smaller dwellings. The technology may also have demand response potential.

Demand-response pilot project a success

In April, the Peak Load Management Alliance recognized Energy Northwest, its public utility partners, the City of Richland, Cowlitz County Public Utility District, Pend Oreille County PUD and BPA for the design and delivery of a demand-response program that supports peak load management. During the trial project, participants successfully reduced energy usage in nearly 80 separate events.

The pilot provided up to 35 megawatts of demand response from resources that included two pulp and paper mills, demand voltage reduction at the City of Richland's substations and Powin Energy's battery energy-storage system.

Demand response uses control and communications technology to shut off, shift or reduce energy consumption at specific times. The coordinated decrease or increase of many electric loads at once can boost system efficiency and provide substantial flexibility. As a result, demand response can serve as a cost-effective alternative to building new power generating stations or transmission infrastructure, resulting in cost savings for ratepayers. In addition, demand response has been identified by the Council in its Seventh Northwest Power Plan as a resource to address potential capacity shortfalls.

BPA's next steps are to make the funding and use of demand response a commercial alternative to other resources. It is possible that further demonstrations may be necessary, as not all demand-response products are ready to be commercialized. BPA will work to advance demand response as a cost-effective capacity alternative, and will pursue successful commercial deployment for both power and transmission needs.

"WE BRING TOGETHER UTILITIES, IMPLEMENTERS, CONTRACTORS AND POLICYMAKERS TO SHARE IDEAS, BEST PRACTICES AND STRATEGIES SO WE CAN CONTINUE BUILDING OUR REGION'S ENERGY-EFFICIENCY POWER PLANT."

OUR PEOPLE

PHYSICAL ASSETS

SUSTAINABLE FINANCES & RATES

RELIABLE, EFFICIENT & FLEXIBLE OPERATIONS

TRANSMISSION SERVICES

15K+

CIRCUIT MILES

"BPA and its partners completed the work on this complex and challenging project on time and on budget, while achieving an outstanding safety record."

RICHARD SHAHEEN, SENIOR VICE PRESIDENT OF TRANSMISSION SERVICES

BPA owns and operates approximately three-fourths of the Northwest's high-voltage transmission assets.

To manage its transmission resources, BPA relies on a proactive, strategic approach, which includes the exploration of technological innovations, as well as recognizing and responding proactively to changing system conditions.

BPA prioritizes its transmission system expansion and sustain projects based on safety, reliability, regulatory and market-driven commercial criteria. In addition, the agency is responding to industry and ratepayer needs by exploring new ways to provide transmission service.

Celilo Converter Station after modernization.

Celilo highlights grid modernization investments

The strength of the Northwest transmission grid took a major leap forward this year with the modernization of BPA's Celilo Converter Station. The Celilo Converter Station upgrades are the largest turnkey project in BPA's 79-year history. The project included seven massive new transformers and anchors a package of BPA-funded grid upgrades to the northern leg of the Pacific Direct Current Intertie, or PDCI.

The Celilo Converter Station, built in the 1960s, takes electricity from alternating current and changes it to direct current, which allows power to travel more efficiently over long distances. This allows regions to swap power during peak demand periods.

The power runs along the PDCI, an 846-mile electron superhighway that is the longest commercial transmission line of its kind in the nation. It connects the Northwest with customers in Los Angeles, providing affordable energy, reliability and cost benefits to customers at both ends. Much of the power is the carbon-free electricity generated by the 31 federal dams of the FCRPS.

"BPA and its partners completed the work on this complex and challenging project on time and on budget, while achieving an outstanding safety record," said Richard Shaheen, senior vice president of Transmission Services. "These significant steps will both strengthen our grid's reliability and increase our capacity to deliver energy. It's a great example of our strategic focus to ensure the long-term health and operational efficiency of our physical assets."

In addition to the upgrade to the Celilo Converter Station, BPA is in the process of completing transmission line work to upgrade 265 miles of the PDCI, which is BPA's portion of the intertie running from the Celilo Converter Station near the Columbia River to the Nevada-Oregon border. When the final phase of BPA's transmission-line upgrade is complete, BPA anticipates the PDCI's capacity to be raised from 3,100 to 3,220 megawatts.

Two new transmission lines energized

The year brought two additional transmission projects online: the Big Eddy-Knight 500-kilovolt (kV) transmission line and the new Central Ferry-Lower Monumental 500-kV transmission line. Both lines bolster grid reliability, relieve transmission congestion and provide service to renewable generating resources.

However, building a new transmission line is anything but simple. There are seemingly infinite challenges in all stages of a project: from identifying the need, siting the line, and partnering with tribes and landowners, to assessing and mitigating potential impacts on environmental and cultural resources.

A helicopter removes conductor on the Harvalum–Big Eddy line as part of BPA's 500-kV Big Eddy–Knight project. Crews must remove the conductor to prepare for the construction of one of the towers supporting the Big Eddy-Knight line as it crosses the Columbia River.

A primary example is the new Big Eddy-Knight line, energized in late 2015. It connects BPA's Big Eddy Substation in Wasco County, Oregon, to the new Knight Substation in Klickitat County, Washington.

While building the Big Eddy-Knight line, sensitive cultural resources near the line required BPA to employ alternate construction methods. Normally, the quickest and easiest way to penetrate hard surfaces and install tower footings is to use controlled blasts. But when BPA and tribal partners realized this method was potentially harmful to nearby cultural resources, project staff and engineers opted for a more delicate procedure called coring. These types of constructive partnerships are a hallmark of BPA's commitment to collaboration in the region.

Southeast Washington renewable customers received good news this past year with the energization of the new Central Ferry-Lower Monumental transmission line, a project seven years in the making. The 38-mile, single-circuit line connects BPA's Central Ferry Substation near the Port of Central Ferry, Washington, to BPA's Lower Monumental Substation in Walla Walla County, Washington.

The line also had its construction challenges as BPA performed more than 100 mitigating measures. For example, to protect mule deer, crews couldn't perform construction tasks on 17 of the 38 miles between November and March. Yet they were able to work year-round and avoided idling resources by "leap frogging" from building roads and tower footings, to erecting towers and stringing conductor. It's another example of BPA going the extra mile to work efficiently, protect resources and promote goodwill.

"Project costs are always a factor, and I'm proud of both project teams' diligent cost management efforts, which have saved ratepayers hundreds of thousands of dollars over the past two years," Shaheen said. "Our inspection methods were also top notch. They worked day-in and day-out, looking at every nut, bolt and piece of steel, to ensure a positive outcome."

Cost-effective approaches sought for I-5 corridor

BPA is seeking innovative solutions for peak congestion in southwest Washington and northwest Oregon. The agency is considering building a 500-kV lattice-steel-tower transmission line that would run from a new substation near Castle Rock, Washington, to another new 500-kV substation near Troutdale, Oregon.

In early 2016, BPA released its final environmental impact statement on the I-5 Corridor Reinforcement Project after more than six years of analysis and robust public involvement. The final EIS is a significant milestone in BPA's National

Environmental Policy Act review for the line's siting. BPA is evaluating circumstances around the project to ensure it makes the right investments at the right time.

BPA will continue to review and evaluate the project consistent with the objective of minimizing long-term economic costs to ratepayers. In addition, BPA is continuing to explore other non-wires measures to determine if there are any feasible and more cost-effective options that could defer the need for the project in the long term or indefinitely. BPA plans to announce a decision on whether to construct the line in the first half of fiscal year 2017.

"PROJECT COSTS ARE ALWAYS A FACTOR, AND I'M PROUD OF BOTH PROJECT TEAMS' DILIGENT COST MANAGEMENT EFFORTS, WHICH HAVE SAVED RATEPAYERS HUNDREDS OF THOUSANDS OF DOLLARS OVER THE PAST TWO YEARS."

FISH AND WILDLIFE STEWARDSHIP

Each year, BPA invests hundreds of millions of dollars to make dams safer for fish. We partner with states and tribes, conservation agencies and others to restore damaged habitat, improve hatchery practices and protect lands and streams.

PHYSICAL ASSETS

THE NATURAL ENVIRONMENT

FISH RETURNS AT THE BONNEVILLE DAM FISH WINDOW 1938–2015

BPA meets its responsibilities to protect, mitigate and enhance fish and wildlife affected by the hydro system using a performance-based approach. Hydro operations and actions at the dams are the core of BPA's program, which also includes habitat, hatchery and predator-management actions.

BPA, partnering with the Bureau of Reclamation and the U.S. Army Corps of Engineers, continues to focus on ways to improve fish passage and survival. For example, the agencies are calibrating spill to optimize passage for adult and juvenile salmon to achieve 93 to 96 percent average survival for juvenile migrating fish on their way to the ocean. These efforts yield benefits such as improved fish survival and reduced fish travel time through the system.

BPA is also implementing effective hatchery and habitat restoration strategies, and in partnership with the Northwest Power and Conservation Council, states, tribes and others, is helping to re-establish important cultural fishing traditions. Fish returns, while generally strong for 2016, are not expected to be as high as the previous two years.

Sockeye, fall chinook, coho and steelhead returns

BPA's fish and wildlife efforts support increased abundance of salmon and steelhead in the Columbia Basin. Adult fish returns are the result of many actions and effects and are not in and of themselves a measure of the hydro system's performance. But they do reflect an overall measure of the health of the freshwater and ocean conditions on which these fish depend, such that if returns are good, we can be confident we are doing our part in managing the hydro system's impacts on salmon in the freshwater migration portion of their lives. In 2016, fish passage numbers have largely been strong, although run size estimates for fall chinook, coho and steelhead were all downgraded from preseason forecasts. At the close of BPA's fiscal year:

- 342,493 sockeye (more than three times the preseason forecast) passed Bonneville Dam. That is good news after big losses of sockeye in 2015 due to unseasonably high water temperatures.
- The fall chinook preseason forecast of 960,000 was reduced to 802,200, which is 114 percent of the 10-year average. There were record returns in 2015 of 1.3 million fall chinook.
- 322,600 coho were expected to enter the Columbia River (73 percent of the 10-year average), of which 84,300 should be destined for areas above Bonneville Dam.
- The current estimate for steelhead was a total run of about 166,100 fish to Bonneville Dam. That estimate is a downgrade from the preseason forecast of 256,200 fish.

Catherine Creek restoration reaps results

In 2016, BPA's habitat program acquired over 4,000 acres of conservation lands for fish and wildlife and 38,000 acre-feet of water per year to improve stream flows and temperatures.

The Southern Cross project is one example of a collaborative, multiyear effort to help chinook salmon survival along Catherine Creek in eastern

The Catherine Creek restoration project reconnected the creek with its floodplain, improving conditions for fish at all life stages.

Oregon. BPA's partner in the project, the Confederated Tribes of the Umatilla Indian Reservation, took a comprehensive approach to address chinook and steelhead rearing, spawning and holding habitat, by focusing on floodplain restoration and channel construction.

Last November, bulldozers and heavy machinery carved out a maze of pools and side channels where salmon can move off the creek's mainstem to spawn. The Tribes are replanting 44 acres of riparian vegetation to keep the water clean and cool. It was all part of a "protect-restore" conservation strategy. Measurable results were observed quickly:

- Significant portions of the new Catherine Creek channel were re-watered in early June, nearly two months ahead of schedule.
- Chinook salmon came to the new habitat less than one week after additional water flow was introduced.

The project quadruples the amount of habitat by reconnecting Catherine Creek to its floodplain at Southern Cross; giving fish at all life stages a better chance of survival.

BPA to continue Spokane hatchery funding

BPA Administrator Elliot Mainzer and Chairwoman Carol Evans of the Spokane Tribe of Indians commemorated a funding agreement in June between the agency and the Tribe. BPA built and has funded the Spokane Tribe's trout hatchery since 1990 and will continue to fund the hatchery for the next 20 years.

BPA and the Spokane Tribe of Indians celebrate a 20-year hatchery funding agreement.

The hatchery produces rainbow trout and kokanee salmon for Grand Coulee's Lake Roosevelt as well as other lakes on Spokane tribal land. BPA began funding the hatchery as mitigation for the environmental impacts of Grand Coulee Dam on the Columbia River.

"We realize the hatchery doesn't bring back what was lost 80 years ago, but BPA is committed to protecting and improving fisheries for the Spokane Tribe," says Lorri Bodi, BPA's vice president of Environment, Fish and Wildlife. "We want to help preserve and fortify tribal culture and the indigenous knowledge that enriches our entire region."

Lamprey research helps illuminate numbers and behavior

Pacific lamprey are being studied throughout the Northwest, thanks in part to five BPA-funded projects. Prized by Northwest tribes as a traditional food and cultural resource, Pacific lamprey numbers have declined because of the loss and degradation of their natural habitat.

The Pacific lamprey (Lampetra tridentata)

Working with the Confederated Tribes of the Warm Springs Reservation of Oregon, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes and Bands of the Yakama Nation and the Nez Perce Tribe, BPA is studying the life history and passage of lamprey, providing artificial production of lamprey for translocation and implementing a restoration program which includes dam passage.

Malheur River fishing re-established

For the first time in generations, there was salmon fishing this year in the Malheur River. Thanks to a BPA-funded, cooperative effort with the Oregon Department of Fish and Wildlife and the Burns Paiute Tribe, about 200 spring chinook salmon were transplanted from the Willamette River to Malheur Ford in Oregon's Grant County.

The initiative's goal was to encourage harvest by tribal members and other anglers. The Tribe held spearfishing lessons so members could fish using traditional methods if they chose. Following this inaugural year, the Tribe and the state will continue bringing salmon to Malheur Ford and will monitor where the fish go to determine where best to put the fishery in coming years.

FCRPS Biological Opinion ruling prompts reconsideration of agency actions

A decision was handed down last spring by the U.S. District Court for the District of Oregon on the FCRPS Biological Opinion. It directed the federal government to update its analysis of the effects of the hydro system on salmon listed under the Endangered Species Act and to prepare a new environmental analysis of the Columbia River hydro system consistent with the National Environmental Policy Act.

"Work at BPA is full of complex, challenging issues," said BPA Administrator Elliot Mainzer. "Judge Simon's ruling is another opportunity for us to demonstrate our core values — especially our commitment to trustworthy stewardship of the FCRPS — and further collaboration with federal agencies, states, tribes and other important stakeholders throughout the region."

"WE WANT TO HELP PRESERVE AND FORTIFY TRIBAL CULTURE AND THE INDIGENOUS KNOWLEDGE THAT ENRICHES OUR ENTIRE REGION."

PHOTO: DAVE JENSEN/WESTERN RIVERS CONSERVANCY

PERFORMANCE TARGET RESULTS

BPA sets annual Key Performance Indicators and multi-year Key Strategic Initiatives that the organization as a whole is responsible for achieving in the specified year. Together, these targets and initiatives serve as indicators of BPA's annual performance.

KEY PERFORMANCE INDICATORS

safe, positive, inclusive, diverse, skilled

SAFETY

Target met. BPA achieved an incident frequency rate of 0.8 per 200,000 hours worked, which is below the target rate of 1.3 or less. No fatalities occurred to BPA employees or contract staff working on BPA facilities.

EMPLOYEE ENGAGEMENT

Target met. BPA met its employee engagement target with 93.1 percent of work groups participating in follow-up discussions or activities and updating action plans in response to the Gallup employee survey results, against a target of 90 percent.

PERFORMANCE PLANS

Target met. BPA met its performance plan target with 96 percent of employees and managers having two progress reviews during the year, against a target of 93 percent.

DEMONSTRATE DIVERSITY LEADERSHIP

Target met. BPA met its diversity leadership target with 97 percent of the executive team members participating in two diversity events during the fiscal year, with at least one event being an external diversity event, against a target of 95 percent.

DEVELOP A POSITIVE WORK ENVIRONMENT

Target not met. Of BPA's federal employees, 94.5 percent attended identified agency diversity offerings, missing the target of at least 95 percent.

EXTERNAL SATISFACTION SURVEYS

Target met. BPA achieved ratings of 8.0 on its customer, 8.1 on its constituent and 7.2 on its tribal government satisfaction surveys, exceeding the target of 7.0.

renewable power and transmission system infrastructure

TRANSMISSION SYSTEM INFRASTRUCTURE

Target not met. BPA achieved targeted transmission system capital expenditures of $433 million, 83.8 percent of the authorized adjusted spending level and below the target range of 90 to 100 percent. Of BPA's transmission projects, 70 of 89 major project milestones, or 78.7 percent, were on track to meet end-of-project completion targets for cost, schedule and scope, missing the 80 percent target.

HYDRO GENERATION SYSTEM INFRASTRUCTURE

Target not met. BPA's budget expenditure rate for the federal hydropower capital program was 93.2 percent, within the target range of 85 to 100 percent. The fiscal year milestone completion rate for major projects was 62.2 percent, below the target of 85 percent or greater. The end-of-project forecast for cost, schedule and scope was missed with 78.1 percent of projects against a target of 80 percent or greater.

ENERGY EFFICIENCY

Target met. BPA and public utility energy efficiency programs are estimated to have achieved 65 average megawatts of new conservation savings against a target of 55 aMW and a FY 2016–17 rate period target of 126 aMW. This was achieved within a cost of $75 million, meeting the FY 2016 target.

SUSTAINABLE FINANCES & RATES

long-term financial strength

BOND RATING

Target met. BPA-backed bonds maintained ratings as affirmed by Moody's (Aa1), Standard & Poor's (AA-) and Fitch (AA).

ADJUSTED NET REVENUES

Target not met. BPA had adjusted net revenues of negative $31 million, missing the target of $67 million or greater.

COST MANAGEMENT

Target met. BPA's departmental expenses were $919 million, within the targeted range of $867 million to $963 million.

TREASURY PAYMENT

Target met. BPA's fiscal year 2016 payment to the U.S. Treasury of $1.88 billion was made on time and in full for the 33rd consecutive year. The payment included $1.44 billion in principal (including advanced repayment of $959 million), $343 million for interest, $60 million in irrigation assistance payments and $35 million for other obligations.

RELIABLE, EFFICIENT & FLEXIBLE OPERATIONS

operating through highly efficient and effective systems and processes

TRANSMISSION SYSTEM OPERATIONS PERFORMANCE

Target met. BPA met transmission system performance targets for excursion minutes over the standard operating limits for the specified flowgates and intertie paths. BPA met optimal path usage targets for specified flowgates and intertie paths. There have been no involuntary curtailments of firm load due to cascading outages, reliability violations or system security breaches initiated on the BPA transmission system.

FEDERAL HYDRO PERFORMANCE

Target met. BPA met the availability factor target of 74.7 percent with a result of 76.5 percent. BPA had a forced outage factor of 3.4, below the target of 4.3 percent or less and met targets in generation reliability compliance, hydro generation safety and fleet cost performance.

COLUMBIA GENERATING STATION PERFORMANCE AND COST

Target met. The cost of power at the Columbia Generating Station nuclear plant was $36.45 per megawatt-hour, below the target of $41.36 or less per megawatt-hour. The Columbia Generating Station overall performance index indicator was 99.5 percent, above the target of 93 percent or greater.

SUSTAINABLE COMPLIANCE

Target met. Roles, responsibilities and attestations of compliance were provided for FY 2016 regulatory compliance programs.

RELIABILITY COMPLIANCE AND SELF-REPORTS

Target met. BPA did not have any current year violations of a North American Electric Reliability Corporation requirement assigned a low to moderate violation risk factor and violation severity level that were originally identified by a regulatory audit or investigation.

RELIABILITY COMPLIANCE MITIGATION PLAN MILESTONES

Target met. BPA had zero missed mitigation plan milestone deadlines without a request for extension approved by the Western Electrical Coordinating Council.

RELIABILITY COMPLIANCE VIOLATIONS OF HIGH RISK AND SEVERITY

Target met. BPA did not have any violations of requirements with a high violation risk factor and a high or severe violation severity level.

CYBER SECURITY

Target met. BPA met cyber-security targets aimed at monitoring and improving BPA's overall cyber-security posture. This year BPA put a special emphasis on the phishing awareness program, establishing a program baseline, deploying an agencywide phishing campaign and generating reduction targets for FY 2017.

KEY STRATEGIC INITIATIVES

BPA SAFETY AND OCCUPATIONAL HEALTH

Target met. BPA's engaged employees and contractors are empowered to recognize job hazards and address safety and occupational health issues. Safety and occupational health are integrated into all aspects of work with a goal of zero injuries. FY 2016 achievements include continuing with major improvements to BPA's safety culture, governance, design and integrated safety and occupational health functions.

WORKFORCE

Target met. BPA has a diverse workforce of the right size and composition, with the right skills and competencies, working in a positive work environment to deliver on its public responsibilities and strategic priorities. In FY 2016, BPA met major milestones to improve position strength (time-to-hire and hires), succession program management, compensation initiative, and diverse and inclusive workforce.

ASSET MANAGEMENT

Target not met. Investments are created, selected and executed through leading practice-based portfolio and project management practices. In FY 2016, BPA met major milestones to further define the KSI; however the Asset Management and Program Delivery Asset Information Project was not completed for transmission asset information systems.

LONG-TERM FINANCIAL AND RATES

Target met. BPA delivers cost-based power and transmission services priced to fully subscribe FCRPS power among Northwest public preference customers, while balancing the goals of low rates, reliable operations, sustainable and affordable investment strategies and long-term financial health, and meeting its public purpose objectives and statutory obligations as a federal power marketer and open-access transmission provider. BPA met the FY 2016 milestones by publishing the FY 2016 reference case with updated rates and financial metrics going through FY 2030, completing several process and scenario tool improvements and by using the scenario tool results to guide the FY 2016 Integrated Program Review and Capital Investment Review planning processes.

COMMERCIAL OPERATIONS

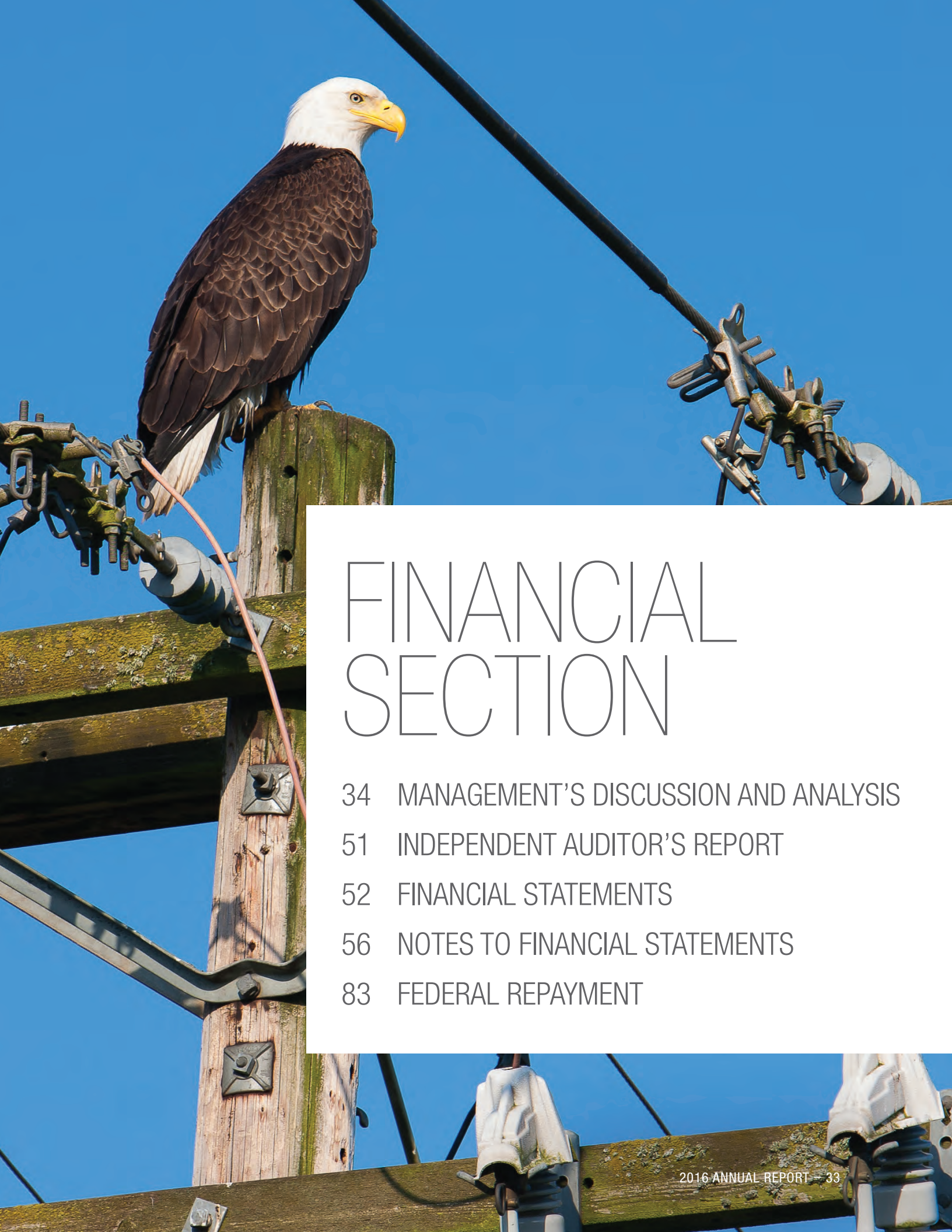
Target met. BPA has the core functionality required to successfully participate in the management of a regional modernized electrical grid. In FY 2016, BPA drafted an operating agreement between BPA and the California ISO, which is being finalized for stakeholder engagement early next year. Additionally, all Commercial Operations work streams have met their FY 2016 targets; including additional long-term planning, work on South of Allston, and Energy Imbalance Market entity market access.

BUSINESS INFORMATION SYSTEMS

Target met. BPA's business information systems optimize the value and reliability of agency decisions and enhance the accountability, integrity, insights and value of supported activities for our stakeholders and the region. In FY 2016, BPA performed a high-level current-state assessment and diagram for the majority of known BIS systems and delivered a strategic direction and road-map document.

FISH AND WILDLIFE

Target met. BPA meets its Endangered Species Act, Pacific Northwest Electric Power Planning and Conservation Act and tribal responsibilities using a performance-based approach, including setting and achieving performance metrics to fully address its obligations through a combination of hydro, habitat, hatchery and predator-management actions. In FY 2016, BPA had several major achievements to ensure that its fish and wildlife program, including hydro system operations and configuration, is scientifically credible, legally defensible, cost effective and has broad regional support. BPA coordinated with the U.S. Army Corps of Engineers and Bureau of Reclamation to successfully operate the hydro system consistent with both the BiOp and court requirements and achieved its tributary habitat improvement and estuary targets.



FINANCIAL SECTION

SUSTAINABLE FINANCES & RATES

MANAGEMENT'S DISCUSSION AND ANALYSIS

GENERAL

The Federal Columbia River Power System (FCRPS) financial statements combine the accounts of the Bonneville Power Administration (BPA), the accounts of the Pacific Northwest generating facilities of the U.S. Army Corps of Engineers (Corps) and the Bureau of Reclamation (Reclamation), as well as the operations and maintenance costs of the U.S. Fish and Wildlife Service for the Lower Snake River Compensation Plan facilities. Consolidated with BPA are "special purpose corporations" known as Northwest Infrastructure Financing Corporations (NIFCs), from which BPA leases certain transmission facilities.

FCRPS revenues are derived principally from the sale of power and transmission products and services. In 1937, the Bonneville Project Act created BPA and directed it to market federally produced hydroelectric power to customers, giving preference and priority in power sales to public bodies and cooperatives. The Act authorized BPA to provide, construct, operate, maintain and improve transmission facilities to deliver federal power at cost. BPA is obligated to meet its statutory and contractual load obligations to preference customers so they can meet their total retail loads and load growth, minus their own nonfederal power supply. As an open access transmission service provider, BPA provides ancillary and control area services to support basic transmission services, including providing balancing reserves for interconnected renewable generation. BPA remains committed to providing nondiscriminatory open access transmission after meeting statutory responsibilities to preference customers and others.

BPA's hydroelectric power supply depends on the amount and timing of precipitation in the Columbia River Basin and the shape, or timing, of the resulting runoff. For ratemaking purposes BPA balances its firm load obligations with the runoff consistent with "critical water conditions." This assumption yields estimated power generation under historically low water conditions, which provides BPA with a reliable estimate of the firm power available to meet firm load obligations. Federal firm power is provided to meet regional preference customer loads first. BPA may also sell firm power to other entities, including regional investor-owned utilities and direct-service industrial customers. Power produced in excess of BPA's firm load obligations, if available, is considered by BPA to be surplus power and is sold in the Western Interconnection wholesale power markets. When generation is not sufficient to meet loads, BPA purchases power on the wholesale markets or acquires the output of resources.

USE OF ESTIMATES AND FORWARD-LOOKING INFORMATION

The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates.

The Management's Discussion and Analysis is unaudited and contains statements which, to the extent they are not recitations of historical facts, constitute "forward-looking statements." In this respect, the words "planned,"

"predict," "could," "estimate," "expect" and similar expressions are intended to identify forward-looking statements. A number of important factors affecting FCRPS business and financial results could cause actual results to differ materially from those stated in forward-looking statements due to factors such as changes in economic, industry, political and business conditions; changes in environmental laws, regulations and policies; and changes in climate, weather, hydroelectric conditions and power services supply and demand. BPA does not plan to issue updates or revisions to the forward-looking statements. The Management's Discussion and Analysis should be read with the Combined FCRPS Financial Statements and related Notes to Financial Statements set forth elsewhere in this annual report.

RATES

Fiscal Years 2016–2017

BPA conducted a consolidated power and transmission rate proceeding, BP-16, to establish rates for fiscal years 2016 and 2017. BPA concluded the BP-16 rate proceeding in July 2015 and shortly thereafter submitted the final rate proposal to the Federal Energy Regulatory Commission (FERC) for confirmation and approval. FERC granted interim approval of the rates on Sept. 17, 2015, and final approval on Feb. 2, 2016. When compared to the prior rate period, the final rates increased wholesale power rate levels by 7.1 percent on average and increased transmission and related rate levels by 4.4 percent on average. The power rate increase resulted from several factors, among them increased hydro system operations and maintenance costs, increased fish and wildlife expenses, the expiration of the effects of debt management actions that had reduced Power Services' revenue requirements for debt service, a scheduled exchange benefit increase under the 2012 Residential Exchange Program settlement, and higher transmission costs that Power Services bears from obtaining transmission and related service from Transmission Services and others to meet power sales obligations. The increase in rates for transmission and related service was caused mainly by capital investments in the transmission system.

Fiscal Years 2018–2019

Starting in June 2016, BPA worked with customers on the Integrated Program Review (IPR) and the Capital Investment Review to examine proposed spending for fiscal year 2018 and 2019 programs, and their associated benefits and costs, in anticipation of the rate proposal that BPA will make for fiscal years 2018 and 2019. BPA expects to conduct a second, targeted IPR (IPR 2) process in early 2017 and use that information in preparing BPA's final rate proposal. The new rate proceeding in which BPA, its customers and others participate will begin in November 2016. At the conclusion of the rate proceeding, the BPA administrator will issue a final record of decision supporting the adoption of the 2018-2019 Final Rate Proposal. The proposed rates will then be submitted to FERC for confirmation and approval. FERC's practice is to grant approval of BPA's rates on an interim basis at the beginning of the rate period, pending final review.

Rate Tools

Under BPA's Treasury payment probability standard, BPA establishes rates sufficient to maintain a level of financial reserves to achieve a 95 percent probability of making all of BPA's scheduled U.S. Treasury payments during the two-year rate period. As part of BPA's risk mitigation strategy, BPA uses a Cost Recovery Adjustment Clause (CRAC), which enables BPA to increase certain power and transmission rates within a rate period to obtain up to $300 million per fiscal year of additional revenue. The CRAC primarily affects power rates. It is an adjustment to the next fiscal year's rate levels and may occur when a rate metric BPA uses to forecast financial reserves is below a specified threshold at the end of a fiscal year. In addition, the General Rate Schedule Provisions allow for an increase to the CRAC's upper limit of $300 million or the imposition of a surcharge to increase power rate levels in the event of certain possible developments related to fish and wildlife costs and operations, such as a court order in pending litigation, a litigation settlement, a new biological opinion (BiOp) or actions or measures different than forecast in the 2014 Supplemental FCRPS BiOp. The CRAC did not trigger for application to fiscal year 2016 or 2017 rate levels.

Slice

BPA offers a power sales product called "Slice of the System," or "Slice." The Slice component accounts for 27 percent of the overall FCRPS generation output. This percentage has remained consistent for both the fiscal year 2014-2015 and 2016-2017 rate periods. For this product, Slice customers pay for a fixed percentage of BPA's power costs in exchange for the right to an indeterminate and variable amount of power. The amount of power Slice customers receive is indexed to their Slice percentage and the decisions they make using a BPA-provided water routing simulator that reasonably represents the real-world constraints and capabilities of the FCRPS. BPA and its federal partners retain all operational control of resources that comprise the FCRPS at all times. BPA recently granted two Slice customers their requests to switch from Slice to other products beginning in fiscal year 2018, which is expected to reduce Slice to an estimated 23 percent of the overall FCRPS generation output.

RESULTS OF OPERATIONS

Operating revenues

Fiscal year 2016 revenues compared to fiscal year 2015

A comparison of FCRPS operating revenues follows for the fiscal years ended Sept. 30, 2016, and 2015:

(Millions of dollars)	2016	2015	Change	Change %
Consolidated gross sales				
Power	$ 2,402.4	$ 2,399.4	$ 3.0	0%
Transmission	903.2	902.6	0.6	0
Bookouts (Power)	(22.1)	(44.5)	22.4	(50)
Sales	3,283.5	3,257.5	26.0	1
U.S. Treasury credits	77.2	82.3	(5.1)	(6)
Miscellaneous revenues				
Power	27.9	30.4	(2.5)	(8)
Transmission	44.0	34.2	9.8	29
Total operating revenues	$ 3,432.6	$ 3,404.4	$ 28.2	1

Total operating revenues were $3.43 billion for fiscal year 2016, an increase of $28.2 million as compared to total operating revenues for fiscal year 2015.

Power Services gross sales increased $3.0 million.

- January through July 2016 runoff volume at The Dalles Dam was 98 million acre-feet (maf), an increase of 14 maf from the 84 maf for the same period in 2015. This metric for measuring volume of runoff is one of several indicators of the amount of electricity the hydro system can produce. The full fiscal year 2016 volume finished at 123 maf, an increase of 10 maf from the 113 maf in fiscal year 2015, and below the historical average (1928-2008) of 132 maf.
- Gross power sales increased to 81,238,796 megawatt-hours in fiscal year 2016 from 80,051,593 megawatt-hours in fiscal year 2015.
- Firm power sales increased $149.9 million primarily due to higher power rates effective Oct. 1, 2015, offset by $59.9 million in lower industrial power sales as a result of an amendment in April 2015 to the Alcoa long-term firm power sales agreement. This amendment reduced the monthly amount of firm power that Alcoa purchased from BPA at industrial firm power rates from 300 average megawatts to 75 average megawatts. In November 2015, Alcoa exercised its curtailment right to further reduce its monthly firm power purchases to 10 average megawatts. This curtailment covers the period of February 2016 to February 2018.

- Surplus sales decreased $87.0 million mainly due to lower prices on surplus products. Natural gas prices were consistently low, which contributed to an environment of low electricity prices for the majority of the year. In addition, lingering effects from the fiscal year 2015 dry year negatively impacted surplus sales for the first half of fiscal year 2016.

Bookouts are presented on a net basis in the Combined Statements of Revenues and Expenses. When sales and purchases are scheduled with the same counterparty on the same transmission path for the same hour, the power is typically booked out and not scheduled for physical delivery. The megawatt-hours that offset each other net to zero. The dollar values of these offsetting transactions reduce both sales and purchased power expense and are recorded as bookouts. Therefore, the accounting treatment for bookouts has no effect on net revenues, cash flows or margins.

Transmission Services gross sales increased $0.6 million over fiscal year 2015. This change reflects higher transmission rates effective Oct. 1, 2015, offset by certain one-time revenues recorded in fiscal year 2015, milder winter and summer temperatures in 2016 and a product terminating in fiscal year 2016.

Miscellaneous transmission revenues increased $9.8 million over fiscal year 2015 largely due to $7.7 million of reimbursable revenue associated with transmission work performed for BPA customers. Reimbursable revenues are generally offset by an equivalent amount of reimbursable expenses.

U.S. Treasury credits decreased $5.1 million for fiscal year 2016 from fiscal year 2015. Under the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act), BPA reduces its payment to the U.S. Treasury for the nonpower expenditures made by BPA for fish and wildlife mitigation. The decrease was primarily due to lower replacement power purchases and capital expenditures required for fish and wildlife mitigation purposes.

Fiscal year 2015 revenues compared to fiscal year 2014

A comparison of FCRPS operating revenues follows for the fiscal years ended Sept. 30, 2015, and 2014:

(Millions of dollars)	2015	2014	Change	Change %
Consolidated gross sales				
Power	$ 2,399.4	$ 2,572.3	$ (172.9)	(7)%
Transmission	902.6	892.5	10.1	1
Bookouts (Power)	(44.5)	(38.3)	(6.2)	16
Sales	3,257.5	3,426.5	(169.0)	(5)
U.S. Treasury credits	82.3	108.4	(26.1)	(24)
Miscellaneous revenues				
Power	30.4	26.2	4.2	16
Transmission	34.2	39.2	(5.0)	(13)
Total operating revenues	$ 3,404.4	$ 3,600.3	$ (195.9)	(5)

Total operating revenues were $3.40 billion for fiscal year 2015, a decrease of $195.9 million as compared to fiscal year 2014. For much of the Columbia River Basin, warmer weather in fall and winter months and drought conditions in spring and summer months led to low runoff for the last half of fiscal year 2015. Consequently, BPA "dry-year operations" for the federal system hydro projects were implemented. In collaboration with BPA, the Corps and Reclamation have a specific set of reservoir operations for dry-year operations. This allows for the release of additional water when doing so will provide the most benefit to migrating Columbia Basin salmon and steelhead species that are listed under the Endangered Species Act. These drawdowns, or drafts, also modestly adjust the timing of power production across the season. In addition, under the Columbia River Treaty, the United States and the province of British Columbia have a specific set of reservoir operations for the release of additional water to optimize flood risk management and power generation in the Columbia River Basin. This water, which

would have otherwise been held back in Canadian storage reservoirs, contributed to greater BPA surplus sales in fiscal year 2015 than would typically occur without such operations.

Power Services gross sales were lower by $172.9 million.

- January through July 2015 runoff volume at The Dalles Dam was 84 maf, a decrease of 24 maf from the 108 maf for the same period in 2014. The full fiscal year 2015 volume finished at 113 maf, a decrease of 22 maf from the 135 maf in fiscal year 2014.
- Gross power sales decreased to 80,051,593 megawatt-hours in fiscal year 2015 from 85,714,109 megawatt-hours in fiscal year 2014.
- Firm power sales decreased $48.1 million due to lower load shaping revenue from the unseasonably warm winter in the Pacific Northwest and lower direct service industries revenue.
- Surplus sales decreased $124.8 million, due to the low water year and lower production at Columbia Generating Station due to the scheduled biennial refueling outage. Runoff volumes were the lowest in nine years as a result of the low snowpack and drought conditions across large parts of the Columbia Basin.

Transmission Services gross sales increased $10.1 million. The increase was largely due to $17.8 million recorded in fiscal year 2015 for erroneous billing credits, including $14.2 million relating to prior fiscal years, that BPA had provided as short-distance discounts for point-to-point services. Management determined the prior period amount to be immaterial to the financial statements for both the current and prior periods. Offsetting this increase, Transmission Services sales decreased $7.7 million due to reduced operating reserve revenues associated with the implementation of a new spinning and supplemental reserve standard issued by the Western Electric Coordinating Council.

U.S. Treasury credits decreased $26.1 million for fiscal year 2015 from fiscal year 2014. The $26.1 million decrease was due to lower power prices and lower replacement power purchases required for fish and wildlife mitigation purposes due to better water conditions from October 2014 through March 2015.

Operating expenses

Fiscal year 2016 operating expenses compared to fiscal year 2015

A comparison of FCRPS operating expenses follows for the fiscal years ended Sept. 30, 2016, and Sept. 30, 2015:

(Millions of dollars)	2016	2015	Change	Change %
Operations and maintenance	$ 2,025.3	$ 1,959.2	$ 66.1	3%
Purchased power	111.7	76.3	35.4	46
Nonfederal projects	249.2	229.0	20.2	9
Depreciation and amortization	471.1	448.0	23.1	5
Total operating expenses	$ 2,857.3	$ 2,712.5	$ 144.8	5

For fiscal year 2016, total operating expenses were $2.86 billion, an increase of $144.8 million as compared to fiscal year 2015. Operations and maintenance expense increased $66.1 million.

- Energy conservation increased $80.0 million largely due to the transition of the energy conservation capital program to expense starting with fiscal year 2016.
- An expense reduction of $27.4 million in March 2015 was not repeated in fiscal year 2016. The expense reduction was for the reversal of a contingent liability originally established for breach of contract claims associated with the California Refund Proceedings.
- Under the 2012 Residential Exchange Program (REP) Settlement Agreement, scheduled amounts increased $18.4 million.

- Energy Northwest's Columbia Generating Station nuclear power plant costs decreased $59.7 million as 2016 was an off-year for the biennial refueling cycle. Maintenance expenses are typically lower in nonrefueling years.

Purchased power expense, including the effects of bookouts, increased $35.4 million for fiscal year 2016 as compared to the same period for fiscal year 2015. BPA was owed less compensation under certain water storage agreements with BC Hydro, a Canadian electric utility owned by the province of British Columbia. Through the end of fiscal year 2016, less water was stored at Arrow Dam in British Columbia and Libby Dam in Montana, which reduced the amount owed to BPA for the value of that stored water. BPA therefore recorded fewer monetary credits to purchased power expense, resulting in an expense increase of $34.9 million for fiscal year 2016.

Nonfederal projects debt service increased $20.2 million and reflects terms of the related outstanding debt and past Energy Northwest debt management actions under the Regional Cooperation Debt efforts for Projects 1 and 3, and also for Columbia Generating Station. Relative to the amounts forecast by BPA in establishing power rates for fiscal year 2016, debt management actions reduced debt service and the associated amortization of the related regulatory and nonfederal generation assets. (See Adjusted Net Revenues section in this Management's Discussion and Analysis.)

Depreciation and amortization increased $23.1 million primarily due to higher amounts of completed transmission and federal system hydro generation assets in service.

Fiscal year 2015 operating expenses compared to fiscal year 2014

A comparison of FCRPS operating expenses follows for the fiscal years ended Sept. 30, 2015, and Sept. 30, 2014:

(Millions of dollars)	2015	2014	Change	Change %
Operations and maintenance	$ 1,959.2	$ 1,901.3	$ 57.9	3%
Purchased power	76.3	199.1	(122.8)	(62)
Nonfederal projects	229.0	355.8	(126.8)	(36)
Depreciation and amortization	448.0	440.5	7.5	2
Total operating expenses	$ 2,712.5	$ 2,896.7	$ (184.2)	(6)

For fiscal year 2015, total operating expenses were $2.71 billion, a decrease of $184.2 million as compared to fiscal year 2014. Operations and maintenance expense increased $57.9 million.

- Fish and wildlife spending increased $26.3 million due to an increase in habitat restoration and mitigation projects, such as the upper Columbia River, Kootenai River and Idaho watershed habitat restoration; Albeni Falls wildlife mitigation projects; and upper and lower Lemhi River Basin land acquisitions.
- Columbia Generation Station costs increased $20.4 million due to higher maintenance and costs related to biennial refueling in fiscal year 2015.
- Transmission operations, maintenance and engineering costs increased $19.1 million largely due to additional substation and non-electric maintenance work, as well as increased work associated with control center and compliance-related activities.
- Transmission acquisition and ancillary purchases increased $13.4 million principally due to a $9.0 million expense write-off of a regulatory asset related to oversupply events. Oversupply events can occur when rising runoff and high wind cause the supply of electricity in BPA's system to exceed demand, potentially destabilizing the transmission system unless mitigative actions are taken. In some cases, avoiding over-generation by spilling water, rather than generating electricity, can mitigate power system effects but can place fish and other aquatic species at risk. In these cases, BPA directs reductions in nonfederal generation on the system and compensates the generators for the reduction.
- Hydro facilities operations and maintenance for the Corps increased $7.3 million largely due to the replacement of transformer bushings at Chief Joseph Dam, generator repair at Bonneville Dam and head-gates refurbishment at McNary Dam.

- Offsetting these increases was a $27.4 million expense reduction from the reversal of a contingent liability originally established for the breach of contract claims associated with the California Refund Proceedings. In March 2015, the United States Court of Federal Claims denied the plaintiffs' motion to reinstate a May 2012 liability decision and issued a memorandum opinion and final order dismissing the claims against BPA. In light of the rulings, BPA's management concluded that a financial loss was no longer probable, and BPA reduced the deferred credits liability by $56.3 million and recorded corresponding reductions of $28.9 million to the related regulatory asset and $27.4 million to operations and maintenance expense. In May 2015, the plaintiffs filed a petition to appeal the decision to the U.S. Court of Appeals and on Sept. 8, 2015, the plaintiffs filed their initial brief.

Purchased power expense, net of bookouts, decreased $122.8 million for fiscal year 2015 as compared to the same period for fiscal year 2014. The decrease in purchased power was driven principally by warmer and wetter weather in BPA's service territory from October 2014 through March 2015, thereby decreasing the need for power purchases through the second quarter, and by the expiration in 2015 of long-term, relatively high-priced power purchase contracts for BPA's winter hedging purposes. Also, under agreements with BC Hydro, a Canadian electric utility owned by the province of British Columbia, BPA recorded credits to purchased power expense of $16.5 million. BPA typically accrues a liability to BC Hydro for power purchases related to water stored and released from Arrow Dam in British Columbia. However, in 2015, due to low power prices and operational objectives, more water was stored than typical. Consequently, at year end, BC Hydro owed BPA for a reduction in BPA's hydroelectric power generation downstream of Arrow Dam.

Nonfederal projects debt service decreased $126.8 million largely as a result of annual changes in Energy Northwest funding needs for debt service provided by BPA. Since 1989, Energy Northwest debt service has been periodically restructured to achieve overall federal and nonfederal debt management objectives. Recent restructurings, known as Regional Cooperation Debt, reduced nonfederal projects expense.

Net interest expense

Fiscal year 2016 net interest expense compared to fiscal year 2015

A comparison of FCRPS net interest expense follows for the fiscal years ended Sept. 30, 2016, and Sept. 30, 2015:

(Millions of dollars)	2016	2015	Change	Change %
Interest expense	$ 353.8	$ 355.7	$ (1.9)	(1)%
Allowance for funds used during construction	(40.3)	(53.2)	12.9	(24)
Interest income	(15.4)	(15.3)	(0.1)	1
Net interest expense	$ 298.1	$ 287.2	$ 10.9	4

Net interest expense was $298.1 million for fiscal year 2016, an increase of $10.9 million driven primarily by lower allowance for funds used during construction (AFUDC). AFUDC is a reduction to interest expense that is instead capitalized as part of construction work in progress assets. AFUDC decreased $12.9 million year over year due to lower capital spending and because certain large capital projects were completed and placed in service in fiscal year 2016.

Fiscal year 2015 net interest expense compared to fiscal year 2014

A comparison of FCRPS net interest expense follows for the fiscal years ended Sept. 30, 2015, and Sept. 30, 2014:

(Millions of dollars)	2015	2014	Change	Change %
Interest expense	$ 355.7	$ 333.7	$ 22.0	7%
Allowance for funds used during construction	(53.2)	(50.2)	(3.0)	6
Interest income	(15.3)	(23.4)	8.1	(35)
Net interest expense	$ 287.2	$ 260.1	$ 27.1	10

Net interest expense was $287.2 million for fiscal year 2015, an increase of $27.1 million as compared to net interest expense for fiscal year 2014.

- Interest expense increased $22.0 million primarily due to certain U.S. Treasury bond debt extinguishment actions, which decreased fiscal year 2014 interest expense. These actions did not recur in 2015 and the nonrecurrence resulted in an increase of $36.4 million in interest expense from fiscal year 2014 to 2015. Partially offsetting the increase was an $18.5 million decrease in interest expense associated with federal appropriations previously incurred to fund hydro generation assets owned by the Corps and Reclamation. This decrease was due in large measure to Regional Cooperation Debt management actions in fiscal year 2014 that enabled BPA to pay off higher-interest-rate appropriations on Sept. 30, 2014.
- Interest income decreased $8.1 million primarily due to lower cash balances and lower interest rates with U.S. Treasury.

OTHER OPERATIONAL MATTERS

Biological opinion

The operation of the federal system hydroelectric projects by the Corps, Reclamation and BPA, or "action agencies," is subject to the Endangered Species Act (ESA). A biological opinion (BiOp) evaluates the effects of a federal agency action on species and habitat protected under the ESA. If necessary, it recommends a reasonable alternative that will ensure agency actions will not jeopardize listed species or result in adverse consequences to critical habitat.

In May 2016, the U.S. District Court for the District of Oregon issued a decision invalidating the FCRPS BiOp by NOAA's National Marine Fisheries Service (NMFS) and ruling that the Corps and Reclamation failed to comply with the National Environmental Policy Act when they issued decision documents to adopt and implement the FCRPS BiOp. The court ordered NMFS to prepare a new FCRPS BiOp by March 2018. The court also ordered the Corps and Reclamation to continue to implement and fund the 2008 FCRPS BiOp through 2018 and to prepare a new environmental impact statement (EIS) on FCRPS operations, including consideration of breaching the four lower Snake River dams. On Sept. 30, 2016, the action agencies published a Notice of Intent to Prepare an EIS in the Federal Register, which initiates the EIS development process. The entire process is expected to take five years to complete.

The May court decision did not affect operations and maintenance expense reported for fiscal year 2016. BPA is unable to predict whether and the extent to which the new BiOp or related legal or court actions will lead to financial impacts on BPA or to modifications to federal system hydro operations.

Transmission line project

BPA is currently evaluating whether to construct a new transmission line and related facilities in western portions of Washington state and Oregon. Through Sept. 30, 2016, BPA has made cumulative investments of $118.7 million, primarily for environmental clearance, public involvement, surveys and preliminary design costs. The $118.7 million includes capitalized indirect, overhead and interest costs and is reported under Construction work in progress on the Combined Balance Sheets. BPA expects that a decision whether to proceed with construction could be made in the first half of fiscal year 2017. If BPA decides to not proceed with this project, BPA will then evaluate the appropriate accounting treatment for applicable amounts recorded as construction work in progress.

LIQUIDITY AND CAPITAL RESOURCES

Cash and cash equivalents and financial reserves

As of Sept. 30, 2016, the FCRPS cash and cash equivalents balance was $579.6 million. BPA's cash and cash equivalents balance was $212.4 million, and the combined balance held by Corps and Reclamation was $367.2 million.

To ensure BPA is able to meet its financial responsibilities to counterparties and to the U.S. Treasury, BPA relies on measures such as financial reserves, a line of credit with the U.S. Treasury and a Cost Recovery Adjustment Clause that can raise rates, if needed. BPA's total financial reserves were $724.4 million at Sept. 30, 2016, as compared to $1.19 billion at Sept. 30, 2015. Financial reserves, a non-GAAP liquidity measure used by BPA management, consist of BPA cash and cash equivalents, investments in U.S. Treasury market-based special securities and deferred borrowing. The U.S. Treasury market-based special securities reflect the market value as if securities were liquidated as of the end of the period. Deferred borrowing represents amounts that BPA is authorized to borrow from the U.S. Treasury for capital expenditures on utility plant assets and for expenditures on certain regulatory assets, primarily related to fish and wildlife, that BPA has incurred but has not borrowed for as of the end of the period.

A comparison of BPA total financial reserves, reported at fair value, follows for the fiscal years ended Sept. 30, 2016, and Sept. 30, 2015:

(Millions of dollars)	As of Sept. 30, 2016	As of Sept. 30, 2015	Change	Change %
Cash and cash equivalents	$ 579.6	$ 646.7	$ (67.1)	(10)%
Short-term investments in U.S. Treasury securities	272.9	694.6	(421.7)	(61)
	852.5	1,341.3	(488.8)	(36)
Less: Cash and cash equivalents held by Corps and Reclamation	367.2	308.3	58.9	19
Add: Deferred borrowing	239.1	154.0	85.1	55
BPA financial reserves balance at end of period	$ 724.4	$ 1,187.0	$ (462.6)	(39)

Three-year capital forecast

Planned capital expenditures for the FCRPS over the next three fiscal years for utility plant and for fish and wildlife assets, recorded as regulatory assets, are shown below. The amounts include estimates for capitalized indirect, overhead and interest costs. Actual capital expenditures may differ materially from these estimates based upon a number of factors, including environmental and cultural resource requirements, project lead times, resource availability, outages, dependencies associated with other projects and other factors. Amounts in the table below do not include investments projected by Energy Northwest for Columbia Generating Station.

(Millions of dollars)	2017	2018	2019
Transmission assets	$ 536.4	$ 520.5	$ 534.7
Federal system hydro generation assets	222.3	241.0	263.0
Fish and wildlife	44.6	50.5	44.0
IT and other assets	15.4	16.2	16.2
Total annual capital forecast	$ 818.7	$ 828.2	$ 857.9

Access to capital

BPA makes capital investments to support its multifaceted responsibilities to the region. Historically BPA relied solely on its ability to borrow from the U.S. Treasury. However, BPA's U.S. Treasury borrowing authority is limited by law and, absent other actions, the limit could be reached within a few years. To assure funding necessary for critical infrastructure improvements, BPA has, over several years, expanded its options to include nonfederal debt refinancings, lease-purchases, the power prepay program, reserve and revenue financing and asset management strategies to more rigorously prioritize proposed capital investments.

BPA borrowing authority from the U.S. Treasury

The aggregate principal amount of debt BPA is authorized by Congress to have outstanding with the U.S. Treasury at any one time is $7.70 billion. The U.S. Treasury borrowing authority may be used to finance capital programs for the FCRPS. In addition, BPA and the U.S. Treasury have agreed to a liquidity facility for Northwest Power Act

expenses in the amount of $750.0 million. Use of the facility is counted within the $7.70 billion overall limit. For capital programs, the related U.S. Treasury debt is term limited depending on the facilities financed: 50 years for Corps and Reclamation capital investments, 35 years for transmission facilities, 15 years for fish and wildlife projects and six years for corporate capital assets.

As of Sept. 30, 2016, BPA had $4.76 billion of bonds outstanding to the U.S. Treasury and $2.94 billion in remaining U.S. Treasury borrowing authority.

Regional Cooperation Debt Program

Starting in fiscal year 2014, BPA and Energy Northwest worked closely to establish a new phase of integrated debt management for their combined total debt portfolios, the debt service of which is borne by BPA ratepayers through BPA's rates. Energy Northwest-related debt refinanced under this effort is called Regional Cooperation Debt.

An important component of Regional Cooperation Debt is the issuance of new bonds by Energy Northwest to refund outstanding bonds shortly before their maturities when substantial principal repayments are due. Funds made available from these refinancings enable BPA to prepay higher-interest-rate federal appropriations. The net effect of refinancing this Regional Cooperation Debt is that both the weighted-average interest rate and the maturity of BPA's overall debt portfolio will be reduced over the life of the proposal. The refinancings also preserve and restore U.S. Treasury borrowing authority, enabling BPA to make much-needed investments in critical infrastructure.

In fiscal year 2015 the objective of the Regional Cooperation Debt management actions was expanded to enable rate mitigation actions that allow for items such as the expensing of conservation costs beginning in fiscal year 2016 that BPA would otherwise defer and record as a regulatory asset.

Future Regional Cooperation Debt transactions, if implemented, would make funds available in the Bonneville Fund to prepay a portion of BPA's repayment obligation for federal appropriations, to make payments to reduce the outstanding principal amount of bonds issued by BPA to the U.S. Treasury, or for other debt management purposes likely to be determined through a public process. BPA estimates that the aggregate potential principal amount of future Regional Cooperation Debt refunding bonds in fiscal year 2017 through fiscal year 2024 could approximate $2.82 billion.

Expense borrowing arrangement by Energy Northwest

Through a new line-of-credit borrowing arrangement between Energy Northwest and a bank, BPA is accelerating payments on comparatively higher-interest-rate federal appropriations. During fiscal year 2016, Energy Northwest funded operations and maintenance for Columbia Generating Station and interest expense on bonds previously issued for CGS and terminated nuclear Projects 1 and 3 with $259.0 million received from a borrowing arrangement with a bank. This arrangement bears interest at variable rates and is due to be repaid on or before June 30, 2017. The rate was less than one percent per annum in fiscal year 2016. At the end of fiscal year 2016, BPA used the $259.0 million accumulated in the Bonneville Fund to fund the prepayment of comparatively higher-interest-rate federal appropriations. The $259.0 million would otherwise have been provided to Energy Northwest. These appropriations were anticipated to be prepaid at the end of fiscal year 2017 as part of the Regional Cooperation Debt Program. By June 30, 2017, BPA expects to fund Energy Northwest's repayment of the $259.0 million it received under the borrowing agreement. If the $259.0 million is repaid as expected in fiscal year 2017, the FCRPS Combined Statements of Cash Flows will record a financing activity outflow.

BPA estimates that the acceleration of debt repayment could save the agency up to $19.0 million in interest expense in fiscal year 2017. BPA also expects that Energy Northwest will undertake similar actions in future years through fiscal year 2020, potentially saving BPA up to $71.0 million in interest expense.

Lease-Purchase Program

The Lease-Purchase Program enables BPA to provide for continued investment in infrastructure to support a safe and reliable system for the transmission of power without using limited U.S. Treasury borrowing authority. Under

this program, BPA generally acts as the construction provider and has entered into lease-purchase arrangements with third parties that issue bonds and other debt instruments to fund construction of specific transmission assets. These third parties include the NIFCs, the Port of Morrow, Oregon, and the Idaho Energy Resources Authority.

U.S. Treasury payment

BPA made its U.S. Treasury payment of $1.88 billion for fiscal year 2016. Fiscal year 2016 is the 33rd consecutive year in which BPA made its scheduled payment on time and in full.

(Millions of dollars)	2016	2015	2014
Scheduled payment			
Principal	$ 478.1	$ 219.3	$ 204.0
Interest	342.9	349.5	333.1
Irrigation assistance	60.3	52.1	52.6
Other FCRPS costs	35.2	40.5	38.2
Scheduled payment	916.5	661.4	627.9
Advanced payment			
Principal	958.7	229.3	363.1
Total Treasury payment	$ 1,875.2	$ 890.7	$ 991.0

The fiscal year 2016 payment to the U.S. Treasury was the largest such payment BPA has ever made. The payment included $958.7 million of higher-interest-rate federal appropriations. As previously discussed, the advanced repayment of these appropriations was made possible by additional cash in the Bonneville Fund becoming available primarily as a result of the Regional Cooperation Debt Program and the expense borrowing arrangement by Energy Northwest.

Credit ratings

In fiscal year 2016 the rating agencies reaffirmed the credit ratings on nonfederal debt backed by BPA. The ratings are subject to change and the most recent ratings were as follows:

- Moody's at Aa1 with a stable outlook (June 2016)
- Fitch at AA with a stable outlook (June 2016)
- Standard & Poor's at AA- with a stable outlook (March 2016)

CASH FLOWS

Fiscal year 2016 cash flows compared to fiscal year 2015

A comparison of FCRPS cash flows follows for the 12 months ended Sept. 30, 2016, and Sept. 30, 2015:

(Millions of dollars)	2016	2015	Change	Change %
Cash and cash equivalents at beginning of year	$ 646.7	$ 859.2	$ (212.5)	(25)%
Cash flows from				
Operating activities	854.8	675.7	179.1	27
Investing activities	(265.4)	(1,106.3)	840.9	(76)
Financing activities	(656.5)	218.1	(874.6)	(401)
Net increase (decrease) in cash and cash equivalents	(67.1)	(212.5)	145.4	(68)
Cash and cash equivalents at end of the year	$ 579.6	$ 646.7	$ (67.1)	(10)

Operating activities

Net cash provided by FCRPS operating activities during fiscal year 2016 increased $179.1 million to $854.8 million when compared to fiscal year 2015. As a result of the factors previously discussed, the FCRPS had net revenues in fiscal year 2016 of $277.2 million as compared to net revenues of $404.7 million in fiscal year 2015, a decrease of

$127.5 million. The increase in operating cash flows reflects changes in receivables and unbilled revenues, and to accounts payable and other accrued liabilities. However, the largest factor for the $179.1 million increase was a $259.0 million non-cash expense relating to a new borrowing arrangement for Energy Northwest. This amount relates to expenses reported by BPA and incurred for Energy Northwest-related operations that Energy Northwest funded via a borrowing arrangement with a bank instead of by payments from BPA. (See Expense borrowing arrangement by Energy Northwest section in this Management's Discussion and Analysis.)

Investing activities

Net cash used for FCRPS investing activities decreased $840.9 million to $265.4 million for the 12 months ended Sept. 30, 2016, when compared to the 12 months ended Sept. 30, 2015. BPA continues to make significant investments in utility plant assets with $808.3 million invested in fiscal year 2016. However, in fiscal year 2016 there was a decrease in utility plant investments of $156.2 million, primarily due to higher fiscal year 2015 capital work on the Central Ferry-Lower Monumental and Big Eddy-Knight transmission lines, wood pole lines, access roads and upgrades and additions to the Celilo Converter Station. Modernization of the Celilo Convertor Station in Wasco County, Oregon and its return to commercial operations occurred in the third quarter of fiscal year 2016.

The net incremental maturities during fiscal year 2016 of U.S. Treasury market-based special securities classified as investments on the Combined Balance Sheets was $417.9 million, an increase of $555.7 million from the comparable period in the prior year. Maturities exceeded purchases during fiscal year 2016 as BPA used the net proceeds for operational purposes, including to help make its annual payment to the U.S. Treasury. Under a banking arrangement with the U.S. Treasury, BPA agreed to invest an additional $100 million annually in lower yield market-based special securities through fiscal year 2018 or until the Bonneville Fund with the U.S. Treasury was fully invested. However, after BPA made its scheduled U.S. Treasury payment on Sept. 30, 2016, BPA was considered to be fully invested in market-based special securities and will no longer earn interest-offset credits. Instead, BPA will continue to earn interest on its investments in market-based specials. BPA expects to earn a lower rate of interest on market-based securities than it had earned as interest-offset credits.

Fiscal year 2016 deposits to the Lease-Purchase Program restricted trust funds decreased by $115.2 million compared to fiscal year 2015 due to a reduction in the dollar amount of new lease-purchase commitments, which resulted in a reduction in the amounts held in the trust funds for construction costs in fiscal year 2016. Receipts from the lease-purchase restricted trust funds increased by $13.9 million from fiscal year 2015 as a result of ongoing expenditures to fund continuing Lease-Purchase Program construction.

Financing activities

Net cash used for FCRPS financing activities was $656.5 million during fiscal year 2016, a decrease of $874.6 million as compared to net cash provided by financing activities during fiscal year 2015.

BPA repaid $1.12 billion in federal appropriations in fiscal year 2016, an increase of $881.5 million from fiscal year 2015. The increase is largely due to the $958.7 million paid in advance during fiscal year 2016, a substantial increase from the $229.3 million of federal appropriations paid in advance during fiscal year 2015. (See U.S. Treasury payment section in this Management's Discussion and Analysis.)

BPA borrowings from the U.S. Treasury for fiscal year 2016 totaled $429.0 million, a decrease of $190.0 million from fiscal year 2015. Of the $429.0 million borrowed, $329.0 million was at fixed interest rates and $100.0 million was at variable interest rates. Borrowings were used to fund investments of:

- $254.2 million for transmission assets
- $136.8 million for federal system hydro generation assets
- $25.0 million for energy conservation measures associated with fiscal year 2015 activities
- $13.0 million for fish and wildlife measures

Beginning with fiscal year 2016, BPA no longer debt finances new energy conservation measures. Instead, BPA expenses these costs as incurred. In prior years, BPA financed a large portion of its energy conservation costs with the proceeds of bonds issued to the U.S. Treasury.

The repayment by BPA of borrowings from the U.S. Treasury was $319.0 million through fiscal year 2016, an increase of $106.7 million as compared to fiscal year 2015. These repayments included $289.0 million for short-term obligations used to fund the Celilo modernization project in Wasco County, Oregon. In July 2016, BPA obtained long-term financing for the Celilo project by entering into a lease-purchase agreement with the Port of Morrow, Oregon. Certain proceeds from this financing reimbursed BPA for its costs of construction enabling BPA to repay related U.S. Treasury borrowing. This agreement resulted in a $321.0 million increase to FCRPS nonfederal debt and a $319.1 million increase to cash, net of certain debt issuance costs.

Nonfederal debt proceeds increased $205.4 million during fiscal year 2016. This increase was primarily due to the Celilo modernization project, offset by reductions to other Lease-Purchase Program activity in fiscal year 2016, as previously discussed.

In June 2016, one of the consolidated special purpose corporations from which BPA leases transmission facilities, NIFC V, sold its lease receivable from BPA, rights to future lease revenue, and title to the leased assets to the Port of Morrow, Oregon, a port district located in Morrow County, Oregon. NIFC V's $118.0 million bank line of credit was replaced by a $115.1 million capital lease with the Port of Morrow, Oregon. The net financial reporting effect of this transaction was a nonfederal debt cash repayment of $3.8 million and a $0.9 million noncash increase to nonfederal debt.

Fiscal year 2015 cash flows compared to fiscal year 2014

A comparison of FCRPS cash flows follows for the 12 months ended Sept. 30, 2015, and Sept. 30, 2014:

(Millions of dollars)	2015	2014	Change	Change %
Cash and cash equivalents at beginning of year	$ 859.2	$ 1,010.1	$ (150.9)	(15)%
Cash flows from				
Operating activities	675.7	697.6	(21.9)	(3)
Investing activities	(1,106.3)	(1,250.0)	143.7	(11)
Financing activities	218.1	401.5	(183.4)	(46)
Net increase (decrease) in cash and cash equivalents	(212.5)	(150.9)	(61.6)	41
Cash and cash equivalents at end of the year	$ 646.7	$ 859.2	$ (212.5)	(25)

Operating activities

Net cash provided by operating activities of the FCRPS during fiscal year 2015 decreased $21.9 million to $675.7 million when compared to fiscal year 2014. As a result of the factors previously discussed, the FCRPS had net revenues in fiscal year 2015 of $404.7 million as compared to net revenues of $443.5 million in fiscal year 2014, a decrease of $38.8 million. The decrease in operating cash flows reflects reduced sales and higher operations and maintenance expense, partially offset by reduced purchased power expense. Also, in fiscal year 2014 BPA paid the remaining balance of $89.0 million to certain investor-owned utilities related to the 2008 Residential Exchange Program Interim Agreement true-up payments. These fiscal year 2014 true-up payments relieved BPA from future such payments.

Investing activities

Net cash used for investing activities of the FCRPS decreased $143.7 million to $1.11 billion for the 12 months ended Sept. 30, 2015, when compared to the 12 months ended Sept. 30, 2014. BPA continued to make significant investments in utility plant with $964.5 million invested in fiscal year 2015, an increase of $121.5 million from the comparable period in fiscal year 2014. Transmission capital expenditures through the end of fiscal year 2015 were

higher due to work on key projects such as the Central Ferry-Lower Monumental line, the Big Eddy-Knight line and the Celilo Converter Station.

The net incremental investment for U.S. Treasury market-based special securities classified as investments on the Combined Balance Sheets, purchases less maturities, as of Sept. 30, 2015, was $137.8 million, a decrease of $3.8 million from the comparable period in the prior year.

Fiscal year 2015 deposits of nonfederal debt proceeds to the Lease-Purchase Program restricted trust funds decreased by $313.2 million as a result of entering into reduced principal amounts of lease-purchases in fiscal year 2015 as compared to fiscal year 2014. The receipts reflect continuing capital expenditures at numerous projects including the Celilo-Sylmar line and the previously mentioned Central Ferry-Lower Monumental line. The amounts received by BPA in fiscal year 2015 from these trust funds decreased by $51.6 million from fiscal year 2014 as a result of reduced lease-purchase project construction. These receipts were used to fund ongoing construction under the Lease-Purchase Program.

Financing activities

Net cash provided by financing activities was $218.1 million through the end of fiscal year 2015, a decrease of $183.4 million as compared to net cash provided by financing activities through the end of fiscal year 2014.

BPA borrowings from the U.S. Treasury for fiscal year 2015 totaled $619.0 million, an increase of $16.0 million over fiscal year 2014. Of the $619.0 million borrowed, $580.0 million was at fixed interest rates and $39.0 million was at variable interest rates. Borrowings were used to fund investments of $445.0 million for transmission, $66.0 million for generation, $77.0 million for energy conservation measures and $31.0 million for fish and wildlife measures.

Nonfederal debt proceeds decreased $313.9 million through the end of fiscal year 2015. This decrease was primarily due to reduced Lease-Purchase Program activity in fiscal year 2015 as previously discussed. Nonfederal debt repayments decreased $105.3 million through the end of fiscal year 2015. This decrease was primarily due to lower repayments of Energy Northwest debt in fiscal year 2015 when compared with fiscal year 2014.

CONTRACTUAL OBLIGATIONS AND FEDERAL PAYMENTS

Amounts shown in the following table include interest expense or represent undiscounted cash flows and may be higher than amounts for these line items reflected in the Combined Balance Sheets and described in the related Notes to Financial Statements — Note 5, Asset Retirement Obligations; Note 7, Debt and Appropriations; and Note 9, Residential Exchange Program. Purchase power commitments are a period expense. Irrigation assistance and purchase power commitments are described in Note 13, Commitments and Contingencies.

As of September 30:
(Millions of dollars)

	2017	2018	2019	2020	2021	2022+	Total
Nonfederal debt	$ 1,170.2	$ 1,219.5	$ 901.0	$ 986.1	$ 1,161.9	$ 4,965.5	$ 10,404.2
Federal appropriations	124.2	124.2	124.2	132.4	186.9	5,999.4	6,691.3
Borrowings from U.S. Treasury	225.8	167.0	723.7	524.2	399.3	4,543.9	6,583.9
IOU exchange benefits	214.1	232.2	232.2	245.2	245.2	1,923.5	3,092.4
Irrigation assistance	50.8	27.2	56.6	24.3	14.8	268.4	442.1
Purchase power commitments	70.5	74.8	77.6	43.9	33.6	-	300.4
REP refund amounts	76.5	76.5	76.6	-	-	-	229.6
Asset retirement obligations	4.9	5.0	5.2	5.3	5.5	199.6	225.5
Total	$ 1,937.0	$ 1,926.4	$ 2,197.1	$ 1,961.4	$ 2,047.2	$ 17,900.3	$ 27,969.4

CRITICAL ACCOUNTING POLICIES

Regulatory accounting

BPA's rates are designed to recover its cost of service. In connection with the rate-setting process, certain current costs or credits may be included in rates for recovery or refund over future periods. Under those circumstances, regulatory assets or liabilities are recorded in accordance with authoritative guidance for regulated operations. Such costs or credits are amortized during the periods they are scheduled in rates.

In order to apply regulatory accounting, an entity must have the statutory authority to establish rates that recover all costs, and rates so established must be charged to and collected from customers. If BPA's rates should become market-based, BPA would review any deferred costs and revenues for possible recognition in the Combined Statement of Revenues and Expenses in that period. Since BPA's rates are not structured to provide a rate of return, regulatory assets are recovered at cost without an additional rate of return. Amortization of these assets and liabilities is reflected in the Combined Statements of Revenues and Expenses.

Revenues

Revenues from sales of power and transmission are recognized either when the product is delivered or the service is provided. Operating revenues include estimates for unbilled power and transmission services that were delivered but not billed by the end of the fiscal year. Accrued unbilled revenues are estimated from forecasts based on multiple factors including streamflows, seasonality, weather, changes in electricity prices, and customer load and usage patterns. Consequently, the amount of accrued unbilled revenues can vary significantly from period to period.

Off-balance-sheet arrangements

The FCRPS is not engaged in any off-balance-sheet arrangements through unconsolidated limited purpose entities.

ADJUSTED NET REVENUES

A comparison of Adjusted Net Revenues (ANR) follows for fiscal years 2016, 2015, and 2014:

(*Millions of dollars*)	2016	2015	2014
Net revenues (expenses)	$ 277.2	$ 404.7	$ 443.5
Adjustments			
Debt Service Reassignment actions[1]	7.5	6.5	170.7
Regional Cooperation Debt management actions [2]	(387.1)	(268.6)	(378.1)
Revenue requirement adjustment[3]	71.5	-	-
Adjusted Net Revenues	$ (30.9)	$ 142.6	$ 236.1

In fiscal year 2016, BPA continued the use of a Key Agency Target called Adjusted Net Revenues, a non-GAAP measurement designed to report net revenues after removing the current year effects of certain debt management actions and a rate mitigation adjustment. The effects of these actions and adjustment are not considered to be related to ongoing FCRPS operations, and BPA management has therefore determined that ANR is a better representation of FCRPS financial performance for the periods presented.

ANR is FCRPS net revenues adjusted to reflect:

1) The removal of the effect on FCRPS net revenues of "Debt Optimization" actions that were implemented for several continuous years beginning in fiscal year 2001. Debt Optimization involved the refinancing of Energy Northwest debt to extend its weighted-average maturity, which in turn enabled BPA to reduce the aggregate principal amount of bonds issued by BPA and then outstanding to the U.S. Treasury. Debt Optimization actions initially had the effect of increasing FCRPS net revenues over what they otherwise would have been in each of the fiscal years in which the actions occurred. In subsequent fiscal years, the repayment of the extended Energy Northwest debt has had the effect of decreasing reported FCRPS net revenues. An element of Debt Optimization,

referred to as Debt Service Reassignment, continues to reduce FCRPS net revenues resulting in adjustments to derive the ANR amount.

2) The removal of the effect on FCRPS net revenues of Regional Cooperation Debt management actions, from and after fiscal year 2014, to extend the weighted-average maturity of Energy Northwest debt. These Regional Cooperation Debt management actions have enabled BPA to prepay relatively higher-interest-rate federal appropriations in lieu of the repayment of Energy Northwest debt that had otherwise been assumed to be repaid in BPA's power rate proposals for the fiscal year(s) in which the appropriations prepayments were made. Amounts related to Regional Cooperation Debt management actions vary from year to year depending on the change in the weighted-average maturities of the Energy Northwest debt.

3) The removal of the effect of an adjustment to the power rate case revenue requirement, which was accomplished through a revenue requirement offset. This offset was introduced so that the effects of certain Regional Cooperation Debt management and other cost management actions would serve to mitigate, to a limited extent, a rate increase. This offset limits upward power rate impacts of ceasing to debt finance energy conservation costs beginning in fiscal year 2016. The foregoing actions resulted in lower FCRPS net revenues than would be reported in their absence.

Report of Independent Auditors

To the Administrator of the
Bonneville Power Administration,
United States Department of Energy

We have audited the accompanying combined financial statements of the Federal Columbia River Power System which comprise the combined balance sheets as of September 30, 2016 and 2015 and the related combined statements of revenues and expenses and cash flows for each of the three years in the period ended September 30, 2016.

Management's Responsibility for the Combined Financial Statements

Management is responsible for the preparation and fair presentation of the combined financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of combined financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the combined financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the combined financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the combined financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the combined financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the combined financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the combined financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the combined financial statements referred to above present fairly, in all material respects, the financial position of the Federal Columbia River Power System as of September 30, 2016 and September 30, 2015, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2016 in accordance with accounting principles generally accepted in the United States of America.

PricewaterhouseCoopers LLP

October 28, 2016

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Federal Columbia River Power System
Combined Balance Sheets

As of September 30

(Millions of Dollars)

	2016	2015
Assets		
Utility plant		
Completed plant	**$ 18,276.5**	$ 17,235.7
Accumulated depreciation	**(6,310.4)**	(6,192.7)
Net completed plant	**11,966.1**	11,043.0
Construction work in progress	**1,312.0**	1,815.7
Net utility plant	**13,278.1**	12,858.7
Nonfederal generation	**3,504.8**	3,534.2
Current assets		
Cash and cash equivalents	**579.6**	646.7
Short-term investments in U.S. Treasury securities	**272.9**	694.3
Accounts receivable, net of allowance	**50.5**	35.7
Accrued unbilled revenues	**279.8**	298.9
Materials and supplies, at average cost	**111.9**	116.9
Prepaid expenses	**31.8**	27.4
Total current assets	**1,326.5**	1,819.9
Other assets		
Regulatory assets	**6,180.2**	6,603.2
Nonfederal nuclear decommissioning trusts	**314.3**	282.7
Deferred charges and other	**293.8**	449.9
Total other assets	**6,788.3**	7,335.8
Total assets	**$ 24,897.7**	$ 25,548.6

The accompanying notes are an integral part of these financial statements.

Federal Columbia River Power System
Combined Balance Sheets

As of September 30

(Millions of Dollars)

	2016	2015
Capitalization and Liabilities		
Capitalization and long-term liabilities		
Accumulated net revenues	**$ 3,392.6**	$ 3,175.7
Debt		
Federal appropriations	**2,866.9**	3,901.7
Borrowings from U.S. Treasury	**4,682.6**	4,366.7
Nonfederal debt	**7,158.2**	6,786.9
Total capitalization and long-term liabilities	**18,100.3**	18,231.0
Commitments and contingencies (Note 13)		
Current liabilities		
Debt		
Borrowings from U.S. Treasury	**76.1**	282.0
Nonfederal debt	**857.6**	752.5
Accounts payable and other	**437.2**	539.8
Total current liabilities	**1,370.9**	1,574.3
Other liabilities		
Regulatory liabilities	**2,143.8**	2,259.8
IOU exchange benefits	**2,551.9**	2,683.9
Asset retirement obligations	**185.7**	184.8
Deferred credits and other	**545.1**	614.8
Total other liabilities	**5,426.5**	5,743.3
Total capitalization and liabilities	**$ 24,897.7**	$ 25,548.6

The accompanying notes are an integral part of these financial statements.

Federal Columbia River Power System
Combined Statements of Revenues and Expenses

For the Years Ended September 30

(Millions of Dollars)

	2016	2015	2014
Operating revenues			
Sales	**$ 3,283.5**	$ 3,257.5	$ 3,426.5
U.S. Treasury credits	**77.2**	82.3	108.5
Miscellaneous revenues	**71.9**	64.6	65.3
Total operating revenues	**3,432.6**	3,404.4	3,600.3
Operating expenses			
Operations and maintenance	**2,025.3**	1,959.2	1,901.3
Purchased power	**111.7**	76.3	199.1
Nonfederal projects	**249.2**	229.0	355.8
Depreciation and amortization	**471.1**	448.0	440.5
Total operating expenses	**2,857.3**	2,712.5	2,896.7
Net operating revenues	**575.3**	691.9	703.6
Interest expense and (income)			
Interest expense	**353.8**	355.7	333.7
Allowance for funds used during construction	**(40.3)**	(53.2)	(50.2)
Interest income	**(15.4)**	(15.3)	(23.4)
Net interest expense	**298.1**	287.2	260.1
Net revenues	**$ 277.2**	$ 404.7	$ 443.5
Accumulated net revenues, beginning of year	**3,175.7**	2,823.1	2,432.2
Irrigation assistance	**(60.3)**	(52.1)	(52.6)
Accumulated net revenues, end of year	**$ 3,392.6**	$ 3,175.7	$ 2,823.1

The accompanying notes are an integral part of these financial statements.

Federal Columbia River Power System
Combined Statements of Cash Flows

For the Years Ended September 30
(Millions of Dollars)

	2016	2015	2014
Cash flows from operating activities			
Net revenues	**$ 277.2**	$ 404.7	$ 443.5
Non-cash items:			
Depreciation and amortization	**471.1**	448.0	440.5
Amortization of nonfederal projects	**25.9**	23.1	119.2
Deferred payments for Energy Northwest-related O&M and interest	**259.0**	-	-
Gain on extinguishment of U.S. Treasury bonds	**-**	-	(36.1)
Changes in:			
Receivables and unbilled revenues	**8.3**	(22.6)	(14.8)
Materials and supplies	**5.0**	(4.4)	(0.4)
Prepaid expenses	**(4.4)**	5.0	8.0
Accounts payable and other	**(92.5)**	(1.1)	35.6
Regulatory assets and liabilities	**65.0**	16.6	(95.5)
IOU exchange benefits	**(132.0)**	(111.6)	(197.3)
Other assets and liabilities	**(27.8)**	(82.0)	(5.1)
Net cash provided by operating activities	**854.8**	675.7	697.6
Cash flows from investing activities			
Investment in utility plant, including AFUDC	**(808.3)**	(964.5)	(843.0)
U.S. Treasury securities:			
Purchases	**(939.0)**	(1,323.0)	(950.0)
Maturities	**1,356.9**	1,185.2	808.4
Deposits to nonfederal nuclear decommissioning trusts	**(3.5)**	(3.4)	(3.2)
Lease-purchase trust funds:			
Deposits to	**(90.6)**	(205.8)	(519.0)
Receipts from	**219.1**	205.2	256.8
Net cash used for investing activities	**(265.4)**	(1,106.3)	(1,250.0)
Cash flows from financing activities			
Federal appropriations:			
Proceeds	**83.0**	48.0	119.7
Repayment	**(1,117.8)**	(236.3)	(321.1)
Borrowings from U.S. Treasury:			
Proceeds	**429.0**	619.0	603.0
Repayment	**(319.0)**	(212.3)	(206.9)
Nonfederal debt:			
Proceeds	**411.6**	206.2	520.1
Repayment	**(49.6)**	(121.7)	(227.0)
Customers:			
Net advances for construction	**5.1**	4.0	3.7
Repayment of funds used for construction	**(38.5)**	(36.7)	(37.4)
Irrigation assistance	**(60.3)**	(52.1)	(52.6)
Net cash (used for) and provided by financing activities	**(656.5)**	218.1	401.5
Net decrease in cash and cash equivalents	**$ (67.1)**	$ (212.5)	$ (150.9)
Cash and cash equivalents at beginning of year	**646.7**	859.2	1,010.1
Cash and cash equivalents at end of year	**$ 579.6**	$ 646.7	$ 859.2
Supplemental disclosures:			
Cash paid for interest, net of amount capitalized	**$ 376.2**	$ 365.8	$ 350.7
Significant noncash investing and financing activities:			
U.S Treasury bonds repaid with non-cash gains	**$ -**	$ -	$ (39.1)
Nonfederal debt increase for Energy Northwest	**$ 320.7**	$ 572.8	$ 221.6
Nonfederal debt extinguished through refinancing for Energy Northwest	**$ (217.9)**	$ (359.7)	$ (112.0)
Other nonfederal	**$ 11.6**	$ 2.3	$ -

The accompanying notes are an integral part of these financial statements.

Notes to Financial Statements

1. Summary of Significant Accounting Policies

ACCOUNTING PRINCIPLES

Combination and consolidation of entities

The Federal Columbia River Power System (FCRPS) financial statements combine the accounts of the Bonneville Power Administration (BPA), the accounts of the Pacific Northwest generating facilities of the U.S. Army Corps of Engineers (Corps) and the Bureau of Reclamation (Reclamation) as well as the operations and maintenance costs of the U.S. Fish and Wildlife Service for the Lower Snake River Compensation Plan facilities. Consolidated with BPA are “special purpose corporations” known as Northwest Infrastructure Financing Corporations (NIFCs), from which BPA leases certain transmission facilities. (See Note 7, Debt and Appropriations, and Note 8, Variable Interest Entities.)

BPA is a separate and distinct entity within the U.S. Department of Energy; the Corps is part of the U.S. Department of Defense; and Reclamation and U.S. Fish and Wildlife Service are part of the U.S. Department of the Interior. Each of the combined entities is separately managed, but the facilities are operated as an integrated power system with the financial results combined as the FCRPS. BPA is a self-funding federal power marketing administration that purchases, transmits and markets power for the FCRPS. While the costs of Corps and Reclamation projects serve multiple purposes, only the power portion of total project costs are assigned to the FCRPS through cost allocation processes. All intracompany and intercompany accounts and transactions have been eliminated from the FCRPS financial statements.

FCRPS financial statements are prepared in accordance with generally accepted accounting principles (GAAP) of the United States of America. FCRPS financial statements also reflect the Uniform System of Accounts (USoA) applicable to federal entities as prescribed for electric public utilities by the Federal Energy Regulatory Commission (FERC). FCRPS accounting policies also reflect other specific legislation and directives issued by U.S. government agencies. All U.S. government properties and income are tax exempt.

Use of estimates

The preparation of FCRPS financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the FCRPS financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications

Certain prior year balances in the Notes to Financial Statements have been reclassified to conform with the current presentation. These reclassifications had no effect on prior year FCRPS combined results of operations, financial condition, or cash flows.

Rates and regulatory authority

BPA establishes separate power and transmission rates in accordance with several statutory directives. Rates proposed by BPA are subject to an extensive formal hearing process, after which they are proposed by BPA and reviewed by FERC. FERC’s review is based on BPA statutes that include a requirement that rates must be sufficient to ensure repayment of the federal investment in the FCRPS over a reasonable number of years after first meeting BPA’s other costs. After the final FERC approval, BPA’s rates may be reviewed by the United States Court of Appeals for the Ninth Circuit (Ninth Circuit Court) if challenged by parties involved in the rate proceedings. Petitions seeking such review must be filed within 90 days of the final FERC approval. The Ninth Circuit Court may either confirm or reject a rate proposed by BPA. BPA’s rates are not structured to provide a rate of return on its assets.

In accordance with authoritative guidance for regulated operations, certain costs or credits may be included in rates for recovery or refund over a future period and are recorded as regulatory assets or liabilities. (See Note 4, Effects of Regulation.)

Utility plant

Utility plant is stated at original cost and includes federal system hydro generation, transmission and other assets. The costs of substantial additions, major replacements and substantial betterments are capitalized. Costs include direct labor and materials; payments to contractors; indirect charges for engineering, supervision and certain overhead items; and an allowance for funds used during construction (AFUDC). Maintenance, repairs and replacements of items determined to be less than major units of property are charged as incurred to Operations and maintenance in the Combined Statements of Revenues and Expenses. When utility plant is retired, the original cost and any net proceeds from the disposition are charged to accumulated depreciation. (See Note 2, Utility Plant.)

Depreciation and amortization

Depreciation of the original cost of generation plant is computed using straight-line methods based on estimated average service lives of the various classes of property. For transmission plant, depreciation of original cost and estimated net cost of removal is computed primarily on the straight-line group life method based on estimated average service lives of the various classes of property. The estimated net cost of removal is included in depreciation expense. (See Note 2, Utility Plant.)

In the event removal costs are expected to exceed salvage proceeds, a reclassification of this negative salvage is made from accumulated depreciation to a regulatory liability. As actual removal costs are incurred, the associated regulatory liability is reduced. (See Note 4, Effects of Regulation.)

Amortization expense relates primarily to certain regulatory assets. (See Note 4, Effects of Regulation.)

Allowance for funds used during construction

AFUDC represents the estimated cost of interest on financing the construction of new assets. AFUDC is based on the construction work in progress balance and is charged to the capitalized cost of the utility plant asset. AFUDC is a reduction of interest expense.

AFUDC is capitalized at one rate for construction funded substantially by BPA and at another rate for Corps and Reclamation construction funded by congressional appropriations. The BPA rate is determined based on the weighted-average cost of borrowing for BPA and for the Lease-Purchase Program. (See discussion of the Lease-Purchase Program in Note 7, Debt and Appropriations.) The rate for appropriated funds is provided each year to BPA by the U.S. Treasury. (See Note 2, Utility Plant.)

Nonfederal generation

BPA is party to long-term contracts for BPA to acquire all of the generating capability of Energy Northwest's Columbia Generating Station (CGS) nuclear power plant and Lewis County PUD's Cowlitz Falls Hydroelectric Project. These contracts require BPA to meet all of the facilities' operating, maintenance and debt service costs. Operations and maintenance and debt service expenses for these projects are recognized based upon total project cash funding requirements. The Nonfederal generation assets in the Combined Balance Sheets are amortized over the term of the related outstanding nonfederal debt, with the amortization expense included in Nonfederal projects on the Combined Statements of Revenues and Expenses. (See Note 7, Debt and Appropriations.)

Cash and cash equivalents

Cash amounts for the FCRPS include cash in the Bonneville Power Administration Fund (Bonneville Fund) within the U.S. Treasury and cash from certain unexpended appropriations of the Corps and Reclamation related to the FCRPS. Cash in the Bonneville Fund includes cash and cash equivalents, which consist of investments in non-marketable market-based special securities issued by the U.S. Treasury (market-based

specials) with maturities of 90 days or less at the date of investment. The carrying value of cash and cash equivalents approximates fair value.

Concentrations of credit risks

General credit risk

Financial instruments that potentially subject the FCRPS to concentrations of credit risk consist primarily of BPA accounts receivable. Credit risk relates to the loss that might occur as a result of counterparty non-performance.

BPA's accounts receivable are spread across a diverse group of customers throughout the western United States and Canada, and include consumer-owned utilities (COUs), investor-owned utilities (IOUs), power marketers, wind generators and others. BPA's accounts receivable exposure is generally from large and stable counterparties and does not represent a significant concentration of credit risk. During fiscal years 2016, 2015 and 2014, BPA experienced no material losses as a result of any customer defaults or bankruptcy filings.

BPA mitigates credit risk by reviewing counterparties for creditworthiness, establishing credit limits and monitoring credit exposure. To further manage credit risk, BPA obtains credit support, such as letters of credit, parental guarantees, and cash in the form of prepayments, deposits or escrow funds, from some counterparties. BPA monitors counterparties for changes in financial condition and regularly updates credit reviews. (See Note 11, Risk Management and Derivative Instruments.)

Allowance for doubtful accounts

Management reviews accounts receivable to determine if any receivable will potentially be uncollectible. The allowance for doubtful accounts includes amounts estimated through an evaluation of specific customer accounts, based upon the best available facts and circumstances of customers that may be unable to meet their financial obligations, and a reserve for all other customers based on historical experience. The balance is not material to the financial statements.

Derivative instruments

Derivative instruments are measured at fair value and recognized on the Combined Balance Sheets as either Deferred charges and other or as Deferred credits and other unless the contract is eligible for the normal purchases and normal sales exception under derivatives and hedging accounting guidance. Derivative instruments reported by the FCRPS consist primarily of forward electricity contracts, which are generally considered normal purchases and normal sales if they require physical delivery, are expected to be used or sold in the normal course of business and meet the derivative accounting definition of capacity. Recognition of these contracts in Sales or Purchased power in the Combined Statements of Revenues and Expenses occurs when the contracts settle. (See Note 11, Risk Management and Derivative Instruments.)

Changes in fair value are deferred as either Regulatory assets or Regulatory liabilities on the Combined Balance Sheets in accordance with regulated operations accounting guidance. The FCRPS does not apply hedge accounting.

Fair value

Carrying amounts of current assets and current liabilities approximate fair value based on the short-term nature of these instruments. Fair value measurements are applied to certain financial assets and liabilities and to determine fair value disclosures in accordance with GAAP. When developing fair value measurements, it is FCRPS policy to use quoted market prices whenever available or to maximize the use of observable inputs and minimize the use of unobservable inputs when quoted market prices are not available. Fair values are primarily developed using industry standard models that consider various inputs including quoted forward prices for commodities, time value, volatility factors, current market and contractual prices for underlying instruments, market interest rates and yield curves, and credit spreads, as well as other relevant economic measures. (See Note 11, Risk Management and Derivative Instruments and Note 12, Fair Value Measurements.)

Revenues and net revenues

Operating revenues are recorded when power, transmission and related services are delivered and include estimated unbilled revenues. Net revenues over time are committed to payment of operational obligations, including debt for both operating and non-operating nonfederal projects, debt service on bonds BPA issues to the U.S. Treasury, the repayment of federal appropriations for the FCRPS, and the payment of certain irrigation costs.

U.S. Treasury credits

U.S. Treasury credits represent nonpower-related costs that BPA recovers from the U.S. Treasury in accordance with certain laws. The primary U.S. Treasury credit is the 4(h)(10)(C) credit provided for in the Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act). This credit requires BPA to recover the nonpower portion of expenditures BPA makes for fish and wildlife protection, mitigation and enhancement. Through Section 4(h)(10)(C), the Northwest Power Act ensures that the costs of mitigating these impacts are allocated between the power-related and other purposes of the federal hydroelectric projects of the FCRPS. Power-related costs are recovered in BPA's rates. U.S. Treasury credits are reported as a component of Operating revenues in the Combined Statements of Revenues and Expenses.

Purchased power

Purchased power expense represents wholesale power purchases that are meant to augment the FCRPS resource pool to meet loads and obligations. Purchased power excludes operations and maintenance expenses associated with CGS and the Cowlitz Falls Hydroelectric Project, and with certain contracts for renewable resources that BPA management considers part of the FCRPS resource pool.

Nonfederal projects

Nonfederal projects expense represents the amortization of nonfederal generation assets and regulatory assets for terminated nonfederal nuclear and hydro facilities, as well as the interest expense on the debt related to those assets. This expense is recognized over the terms of the related outstanding debt.

Interest expense

Interest expense includes interest associated with the unpaid balance of federal appropriations scheduled for repayment, interest on bonds issued by BPA to the U.S. Treasury and interest on certain nonfederal debt and liabilities. Reductions to interest expense include the amortization of a capitalization adjustment regulatory liability and gains, if any, related to the repayment of certain U.S. Treasury bonds considered extinguished or modified after being called and reissued. Interest expense excludes interest on nonfederal debt related to operating or terminated generation assets that is instead reported as a component of nonfederal projects expense. (See Note 7, Debt and Appropriations.)

Interest income

Interest income includes interest earnings on balances in the Bonneville Fund including market-based special securities and interest earnings from other sources. Through Sept. 30, 2016, BPA continued to earn interest offset credits on certain cash balances in the Bonneville Fund that were not invested in market-based specials. These credits reduced some interest payments, associated with federally appropriated investments in the FCRPS, in the amount of the interest earned. The interest offset credits were earned at the weighted-average interest rate of BPA's outstanding U.S. Treasury borrowings. Interest earnings on U.S. Treasury market-based special investments are based on the stated rates of the individual securities. BPA will no longer earn interest offset credits in fiscal year 2017. (See Note 3, Investments in U.S. Treasury Securities.)

Residential Exchange Program

In order to provide qualifying regional utilities, primarily IOUs, access to power benefits from the FCRPS, Congress established the Residential Exchange Program (REP) in Section 5(c) of the Northwest Power Act. Whenever a Pacific Northwest electric utility offers to sell power to BPA at the utility's average system cost of resources, BPA purchases such power and offers, in exchange, to sell an equivalent amount of power at BPA's priority firm exchange rate to the utility for resale to that utility's residential and small farm consumers. REP costs are forecast for each year of the rate period and included in the revenue requirement for establishing

BPA's power rates. The cost of this program is collected through BPA's power rates. REP costs are recognized when incurred and are included in Operations and maintenance in the Combined Statements of Revenues and Expenses.

In fiscal year 2011, BPA signed the 2012 Residential Exchange Program Settlement Agreement (2012 REP Settlement Agreement), resolving disputes related to the REP. The 2012 REP Settlement Agreement provides for fixed "Scheduled Amounts" payable to the IOUs, as well as fixed "Refund Amounts" payable to the COUs. The Refund Amounts do not reduce rates but are bill credits to qualifying COUs as designated in the 2012 REP Settlement Agreement. (See Note 9, Residential Exchange Program.)

Pension and other postretirement benefits

Federal employees associated with the operation of the FCRPS participate in either the Civil Service Retirement System or the Federal Employees Retirement System. Employees may also participate after retirement in the Federal Employees Health and Benefit Program and the Federal Employee Group Life Insurance Program. All such postretirement systems and programs are sponsored by the Office of Personnel Management; therefore, the FCRPS financial statements do not include accumulated plan assets or liabilities related to the administration of such programs. As part of BPA's scheduled payment each year to the U.S. Treasury for bonds and other purposes, BPA makes contributions to cover the estimated annual unfunded portion of FCRPS pension and postretirement benefits. These contribution amounts are paid to the U.S. Treasury and are recorded as Operations and maintenance in the Combined Statements of Revenues and Expenses during the year to which the payment relates.

RECENT ACCOUNTING PRONOUNCEMENTS

Revenue from contracts with customers

In May 2014, the Financial Accounting Standards Board (FASB) issued an Accounting Standards Update (ASU) on revenue from contracts with customers that supersedes the existing revenue recognition guidance, including most industry-specific guidance. On April 1, 2015, the FASB proposed to defer the effective date of the new revenue standard by one year and to permit one year early adoption. In 2016, the FASB issued three updates to the guidance. Management is evaluating the impact of adopting this guidance, which will be effective for fiscal year 2019.

Fees paid in cloud computing arrangements

In April 2015, the FASB issued an ASU addressing customer's accounting for fees paid in a cloud computing arrangement. Existing GAAP does not include explicit guidance about these types of fees. Examples of cloud computing arrangements include software as a service, platform as a service, infrastructure as a service, and other similar hosting arrangements. BPA does not expect any significant impact to the FCRPS financial statements as a result of adopting this guidance, which will be effective for fiscal year 2017.

Presentation of debt issuance costs

In April 2015, the FASB issued an ASU to align the balance sheet presentation of debt issuance costs with that of debt premiums and discounts. BPA does not expect any significant impact to the FCRPS financial statements as a result of adopting the guidance, which will be effective for fiscal year 2017.

Financial instruments, recognition and measurement

In January 2016, the FASB issued an ASU to address certain aspects of recognition, measurement, presentation and disclosure of financial instruments. Among other provisions, the ASU supersedes guidance to classify equity securities into trading or available-for-sale and requires all equity securities to be measured at fair value with changes in fair value recognized through net income. Management is evaluating the impact of adopting this guidance, which will be effective for fiscal year 2020.

Leases

In February 2016, the FASB issued an ASU on leases. The primary change under the ASU is the recognition of lease assets and lease liabilities by lessees for those agreements classified as operating leases under current GAAP. Management is evaluating the impact of adopting this guidance, which will be effective for fiscal year 2020.

Financial instruments, credit losses

In June 2016, the FASB issued an ASU to amend guidance related to credit losses on financial instruments held by a reporting entity. Instead of recognizing credit losses when such losses are probable, the ASU requires assets measured at amortized cost to be presented at the net amount expected to be collected. In addition, credit losses relating to available-for-sale debt securities are required to be recorded through an allowance for credit losses. Management is evaluating the impact of adopting this guidance, which will be effective for fiscal year 2022.

Classification of certain cash receipts and cash payments in the statement of cash flows

In August 2016, the FASB issued an ASU to address eight specific cash flow issues with the objective of reducing the existing diversity in practice. Management is evaluating the impact of adopting this guidance, which will be effective for fiscal year 2020.

SUBSEQUENT EVENTS

Management has performed an evaluation of events and transactions for potential FCRPS recognition or disclosure through Oct. 28, 2016, which is the date the financial statements were issued.

2. Utility Plant

As of Sept. 30 — millions of dollars	2016	2015	Estimated average service lives
Completed plant			
Federal system hydro generation assets	$ 8,964.4	$ 8,838.7	75 years
Transmission assets	9,088.9	8,217.7	48 years
Other assets	223.2	179.3	6 years
Completed plant	$ 18,276.5	$17,235.7	
Accumulated depreciation			
Federal system hydro generation assets	$ (3,235.1)	$(3,116.3)	
Transmission assets	(2,963.5)	(2,982.9)	
Other assets	(111.8)	(93.5)	
Accumulated depreciation	$ (6,310.4)	$(6,192.7)	
Construction work in progress			
Federal system hydro generation assets	$ 485.3	$ 399.6	
Transmission assets	800.6	1,348.1	
Other assets	26.1	68.0	
Construction work in progress	$ 1,312.0	$ 1,815.7	
Net Utility Plant	$ 13,278.1	$12,858.7	

Allowance for funds used during construction

Fiscal year	2016	2015	2014
BPA rate	3.0%	3.1%	3.7%
Appropriated rate	0.4%	0.1%	0.1%

Completed plant assets reported as transmission capital leased assets were $1,285.6 million and $548.2 million, with accumulated depreciation of $45.4 million and $54.2 million, at Sept. 30, 2016, and 2015, respectively.

Construction work in progress includes $118.7 million of transmission assets related to a new transmission line and related facilities, collectively referred to as the I-5 Corridor Reinforcement Project, in western portions of Washington State and Oregon. BPA expects that a decision whether to proceed with construction could be made in the first half of fiscal year 2017. If BPA decides to not proceed with this project, BPA will then evaluate the appropriate accounting treatment for applicable amounts recorded as construction work in progress.

3. Investments in U.S. Treasury Securities

As of Sept. 30 — millions of dollars	2016		2015	
	Amortized cost	Fair value	Amortized cost	Fair value
Short-term	$ 272.9	$ 272.9	$ 694.3	$ 694.6

BPA participates in the U.S. Treasury's Federal Investment Program, which provides investment services to federal government entities that have funds on deposit with the U.S. Treasury and statutory authority to invest those funds. Investments of the funds are generally restricted to market-based special securities. Under its banking arrangement with the U.S. Treasury, BPA had agreed to increase the amounts in the Bonneville Fund that are invested in market-based specials by at least $100.0 million annually. However, as of Sept. 30, 2016, and after making its scheduled payment to the U.S. Treasury for bonds and other purposes, BPA is considered to be fully invested in market-based specials. As such, all balances in the Bonneville Fund will thereafter be invested through the Federal Investment Program and BPA will no longer earn interest offset credits. Instead, BPA will continue to earn interest on its investments in market-based specials. (See Note 1, Summary of Significant Accounting Policies.)

Market-based specials held during fiscal years 2016 and 2015 had a weighted-average yield of 0.6 percent and 0.1 percent, respectively, with maturities of up to two years. The amounts shown in the preceding table exclude U.S. Treasury securities with maturities of 90 days or less at the date of investment, which are considered cash equivalents and are included in the Combined Balance Sheets as part of Cash and cash equivalents. For all other securities, FCRPS follows the authoritative guidance for investments, debt and equity securities. These investments are classified as held-to-maturity and reported at amortized cost. They are not actively traded and their valuations are based on a market input evaluation pricing methodology using a combination of observable market data such as current market trade data, reported bid/ask spreads, and institutional bid information. These fair value measurements are considered Level 2 in the fair value hierarchy as defined by the accounting guidance for fair value measurements and disclosures. (See Note 12, Fair Value Measurements.) Investments with maturities that will be realized in cash between 91 days and one year are classified as short-term investments.

4. Effects of Regulation

REGULATORY ASSETS

As of Sept. 30 — millions of dollars	2016	2015
IOU exchange benefits	$ 2,551.9	$ 2,683.9
Terminated nuclear facilities	1,879.6	2,030.9
Columbia River Fish Mitigation	711.0	695.8
Conservation measures	333.9	379.9
Fish and wildlife measures	282.6	298.9
REP Refund Amounts	222.8	294.2
Legal claims and settlements	54.0	55.6
Spacer damper replacement program	47.6	48.3
Federal Employees' Compensation Act	27.5	32.5
Trojan decommissioning and site restoration	26.7	25.6
Derivative instruments	21.2	33.7
Terminated hydro facilities	13.1	14.5
Other	8.3	9.4
Total	$ 6,180.2	$ 6,603.2

Regulatory assets include the following items:

"**IOU exchange benefits**" reflect amounts to be recovered in rates through 2028 for the IOU exchange benefits liability incurred as part of the 2012 REP Settlement Agreement. These amounts amortize to operations and maintenance expense. (See Note 9, Residential Exchange Program.)

"**Terminated nuclear facilities**" consist of amounts to be recovered in future rates to satisfy the nonfederal debt for Energy Northwest Projects 1 and 3. These assets are amortized to nonfederal projects expense over the term of the related outstanding debt. (See Note 7, Debt and Appropriations.)

"**Columbia River Fish Mitigation**" is the cost of research and development for fish bypass facilities funded through appropriations since 1989 in accordance with the Energy and Water Development Appropriations Act of 1989, Public Law 100-371. These costs are recovered in rates over 75 years and amortized to depreciation and amortization expense.

"**Conservation measures**" consist of the costs of deferred energy conservation measures to be recovered in future rates. These costs are amortized to depreciation and amortization expense over periods of 12 or 20 years. BPA deferred certain costs of energy conservation measures through fiscal year 2015 and, beginning with fiscal year 2016 and the BP-16 rate period, began expensing such costs as incurred.

"**Fish and wildlife measures**" consist of deferred fish and wildlife project expenses to be recovered in future rates. These costs are amortized to depreciation and amortization expense over a period of 15 years.

"**REP Refund Amounts**" are amounts that were established in the 2012 REP Settlement Agreement. (See Note 9, Residential Exchange Program.) These amounts are recovered in rates through 2019 from IOUs as a reduction in their IOU Exchange benefits and are equal to the regulatory liability for REP Refund Amounts to COUs.

"**Legal claims and settlements**" reflect amounts to be recovered in future rates to satisfy accrued liabilities related to outstanding legal claims and settlement agreements. These costs will be recovered and amortized to operations and maintenance expense over a period established by BPA.

"**Spacer damper replacement program**" consists of costs to replace deteriorated spacer dampers and are recovered in future rates under the Spacer Damper Replacement Program. These costs are amortized to depreciation and amortization expense over a period of 25 or 30 years.

"**Federal Employees' Compensation Act**" reflects the actuarial estimated amount of future payments for current recipients of BPA's worker compensation benefits. This amount equals the associated liability, and related expenses are recorded to operations and maintenance expense as payments are made. (See Note 6, Deferred Charges and Other.)

"**Trojan decommissioning and site restoration**" reflects the amount to be recovered in future rates for funding the asset retirement obligation (ARO) liability related to the former Trojan nuclear facility. This amount equals the associated liability. (See Note 5, Asset Retirement Obligations.)

"**Derivative instruments**" reflect the unrealized losses from BPA's derivative portfolio. These amounts are deferred over the corresponding underlying contract delivery months. (See Note 11, Risk Management and Derivative Instruments.)

"**Terminated hydro facilities"** consist of the amounts to be recovered in future rates to satisfy nonfederal debt for the Northern Wasco hydro project, for which BPA ceased its participation. These assets are amortized to nonfederal projects expense over the term of the related outstanding debt. (See Note 7, Debt and Appropriations.)

REGULATORY LIABILITIES

As of Sept. 30 — millions of dollars	2016	2015
Capitalization adjustment	$ 1,277.3	$ 1,342.2
Accumulated plant removal costs	432.3	423.2
REP Refund Amounts to COUs	222.8	294.2
Decommissioning and site restoration	157.7	125.8
Derivative instruments	47.3	68.1
Other	6.4	6.3
Total	$ 2,143.8	$ 2,259.8

Regulatory liabilities include the following items:

"**Capitalization adjustment**" is the difference between the outstanding balance of federal appropriations, plus $100 million, before and after refinancing under the BPA Refinancing Section of the Omnibus Consolidated Rescissions and Appropriations Act of 1996 (Refinancing Act), 16 U.S.C. 838(l). Consistent with treatment in BPA's power and transmission rate cases, this adjustment is amortized over a 40-year period through fiscal year 2036. Amortization of the capitalization adjustment as a reduction to interest expense was $64.9 million for fiscal years 2016, 2015 and 2014, respectively.

"**Accumulated plant removal costs**" are the amounts previously collected through rates as part of depreciation. The liability will be reduced as actual removal costs are incurred. (See Note 1, Summary of Significant Accounting Policies.)

"**REP Refund Amounts to COUs**" are the amounts previously collected through rates that are owed to qualifying COUs and will be provided as future bill credits through fiscal year 2019 as established in the 2012 REP Settlement Agreement. These amounts are equal to regulatory assets for REP Refund Amounts. (See Note 9, Residential Exchange Program.)

"**Decommissioning and site restoration**" is the amount previously collected through rates and invested in the related nonfederal nuclear decommissioning trusts in excess of the ARO balances for (i) CGS decommissioning and site restoration, and (ii) Energy Northwest Projects 1 and 4 site restoration. (See Note 5, Asset Retirement Obligations.)

"**Derivative instruments**" reflect the unrealized gains from BPA's derivative portfolio. These amounts are deferred over the corresponding underlying contract delivery months. (See Note 11, Risk Management and Derivative Instruments.)

5. Asset Retirement Obligations

As of Sept. 30 — millions of dollars	2016	2015
Beginning Balance	$ 184.8	$ 176.1
Activities:		
Accretion	9.4	9.1
Expenditures	(2.7)	(2.1)
Revisions	(5.8)	1.7
Ending Balance	$ 185.7	$ 184.8

AROs are recognized based on the estimated fair value of the dismantlement and restoration costs associated with the retirement of certain tangible long-lived assets. The liability is adjusted for any revisions, expenditures and the passage of time. The FCRPS also has tangible long-lived assets such as federal hydro projects and transmission assets without an associated ARO because no obligation exists to remove these assets.

AROs include the following items as of Sept. 30, 2016:

CGS decommissioning and site restoration of $149.9 million

Trojan decommissioning of $26.7 million

Energy Northwest Projects 1 and 4 site restoration of $9.1 million

NONFEDERAL NUCLEAR DECOMMISSIONING TRUSTS

As of Sept. 30 — millions of dollars	2016		2015	
	Amortized cost	Fair value	Amortized cost	Fair value
Equity index funds	$ 152.6	$ 174.6	$ 130.7	$ 135.5
Bond index funds	118.6	120.5	130.3	129.6
U.S. government obligation mutual funds	19.5	19.2	19.0	17.6
Total	$ 290.7	$ 314.3	$ 280.0	$ 282.7

These assets represent trust fund account balances for decommissioning and site restoration costs. External trust fund accounts for decommissioning and site restoration costs for CGS are funded monthly and are charged to operations and maintenance expense. The decommissioning trust fund account was established to provide for decommissioning at the end of the project's safe storage period in accordance with Nuclear Regulatory Commission (NRC) requirements. The NRC requires that this period be no longer than 60 years from the time the plant ceases operations. Decommissioning funding requirements for CGS are based on an NRC decommissioning cost estimate and the license termination date, which is in 2043. The CGS trust fund accounts are funded and managed by BPA in accordance with NRC requirements and site certification agreements.

The investment securities in the decommissioning and site restoration trust fund accounts are classified as available-for-sale and recorded at fair value in accordance with accounting guidance for investments, debt and equity securities. Net unrealized and realized gains and losses on these investment securities are recognized as adjustments to the related regulatory liability, which represents the excess of the amount previously collected through rates over the current ARO balance. (See Note 4, Effects of Regulation.)

Contribution payments to the CGS trust fund accounts for fiscal years 2016, 2015 and 2014 were $3.5 million, $3.4 million and $3.2 million, respectively. BPA and Energy Northwest have no obligation to make further payments into the site restoration fund for Energy Northwest Projects 1 and 4.

Based on an agreement in place, BPA directly funds Eugene Water and Electric Board's 30 percent share of Trojan's decommissioning costs through current rates. Decommissioning costs are included in Operations and maintenance in the Combined Statements of Revenues and Expenses.

6. Deferred Charges and Other

As of Sept. 30 — millions of dollars	2016	2015
Lease-Purchase trust funds	$ 197.7	$ 335.6
Derivative instruments	47.3	68.1
Settlements receivable	16.0	16.0
Funding agreements	14.4	11.7
Spectrum Relocation Fund	13.3	13.4
Other	5.1	5.1
Total	$ 293.8	$ 449.9

Deferred Charges and Other include the following items:

"**Lease-Purchase trust funds**" are amounts held in separate trust accounts outside the Bonneville Fund for the construction of leased transmission assets, the use of which BPA has received under lease-purchase agreements. The amounts held in trust are also used in part for debt service payments during the construction period and include an investment fund mainly for future principal and interest debt service payments. (See Note 7, Debt and Appropriations.) These trust balances consist of cash and cash equivalents and investments classified as either trading or held to maturity. Trading securities, which comprise the majority of trust balances, are held for construction purposes and are stated at fair value based on quoted market prices. Interest income and realized and unrealized gains or losses on amounts held in trust for construction are recorded as AFUDC. Interest income and gains and losses on other trust balances are recorded as either income or expense in the period when earned.

"**Derivative instruments**" represent unrealized gains from BPA's derivative portfolio, which includes physical power purchase and sale transactions and power exchange transactions.

"**Settlements receivable**" represents interest earned by BPA on certain settlements, the principal of which has been collected. The timing of cash receipt of the interest is unknown.

"**Funding agreements**" represent deferred costs associated with BPA's contractual obligations to determine the feasibility of certain joint transmission projects.

"**Spectrum Relocation Fund**" was created to reimburse certain federal agencies such as BPA for the costs of replacing radio communication equipment displaced as a result of radio band frequencies no longer available to the affected federal agencies. Amounts received for Spectrum Relocation Fund from the U.S. Treasury are held in the Bonneville Fund for the sole purpose of constructing replacement assets.

7. Debt and Appropriations

As of Sept. 30 — millions of dollars		2016		2015	
	Terms	Carrying Value	Weighted-Average Interest Rate	Carrying Value	Weighted-Average Interest Rate
Nonfederal debt					
Nonfederal generation:					
Columbia Generating Station	0.7 – 6.8% through 2044	$ 3,636.0	3.9%	$ 3,453.0	4.0%
Cowlitz Falls Project	4.0 – 5.3% through 2032	78.9	5.1	82.1	5.1
Terminated nonfederal generation:					
Nuclear Project 1	0.7 – 5.0% through 2028	864.8	4.8	902.8	4.7
Nuclear Project 3	0.7 – 5.3% through 2028	1,068.1	4.8	1,132.7	4.7
Northern Wasco Hydro Project	1.5 – 5.0% through 2024	14.2	3.7	15.6	3.5
Lease-Purchase Program:					
Capital lease obligations	1.5 – 6.1% through 2042	1,707.7	2.7	1,181.0	2.9
Consolidated NIFC debt	1.8 – 5.4% through 2034	319.6	3.3	437.6	3.1
Other capital lease obligations	4.2 – 7.4% through 2043	41.3	5.4	32.1	6.4
Customer prepaid power purchases	4.3 – 4.6% through 2028	285.2	4.5	302.5	4.5
Total Nonfederal debt		$ 8,015.8	3.9	$ 7,539.4	4.0
Federal debt and appropriations					
Borrowings from U.S Treasury	0.5 – 5.9% through 2045	$ 4,758.7	3.1	$ 4,648.7	3.0
Federal appropriations	2.9 – 7.3% through 2066	2,430.2	5.1	3,513.8	5.8
Federal appropriations (not yet scheduled for repayment)		436.7	n/a	387.9	n/a
Total Federal debt and appropriations		$ 7,625.6	3.8	$ 8,550.4	4.2
Total debt and appropriations		$ 15,641.4	3.8%	$16,089.8	4.1%

Nonfederal generation and Terminated nonfederal generation

BPA is party to long-term contracts for BPA to acquire all of the generating capability of Energy Northwest's Columbia Generating Station and all of Lewis County PUD's Cowlitz Falls Hydroelectric Project through 2032. These contracts require that BPA meet all of the operating, maintenance and debt service costs for these projects. Under certain agreements, BPA also has financial responsibility for meeting all costs of Energy Northwest's Projects 1 and 3, including debt service costs of bonds and other financial instruments issued for the projects, even though these projects have been terminated. BPA is also required by a "Settlement and Termination Agreement" between BPA and Northern Wasco PUD to pay amounts equal to annual debt service on certain bonds of the Northern Wasco Hydro Project. Under the Settlement and Termination Agreement, BPA ceased its participation in this project.

BPA recognizes expenses for these nonfederal generation and terminated nonfederal generation projects based on total project cash funding requirements, which include debt service and operating and maintenance expense. BPA recognized operating and maintenance expense for these projects of $263.2 million, $323.3 million and $301.1 million in fiscal years 2016, 2015 and 2014, respectively, which is included in Operations and maintenance in the Combined Statements of Revenues and Expenses. Debt service expense for all projects of $249.2 million, $229.0 million and $355.8 million for fiscal years 2016, 2015 and 2014, respectively, is reported as Nonfederal projects in the Combined Statements of Revenues and Expenses. On the Combined Balance Sheets, related assets for operating projects are included in Nonfederal generation.

Related assets for terminated generation are included in Regulatory assets. (See Note 4, Effects of Regulation.)

As a result of debt management actions taken by Energy Northwest under a Regional Cooperation Debt effort with BPA, amounts otherwise collected in BPA's power and transmission rates during fiscal years 2016 and 2015 were not used to fund the Energy Northwest-related principal payments as originally intended, and as included in rates. Instead, these principal amounts were refinanced to fiscal year 2032 at the latest. Amounts otherwise collected to fund these principal payments were used to prepay instead, before their maturity date, $618.0 million and $229.3 million of comparatively higher interest rate federal appropriations during fiscal years 2016 and 2015, respectively.

Also during fiscal year 2016, Energy Northwest funded operations and maintenance for Columbia Generating Station and interest expense on bonds previously issued for CGS and terminated nuclear Projects 1 and 3 with $259.0 million received from a borrowing arrangement with a bank. This arrangement bears interest at variable rates and is due to be repaid on or before June 30, 2017. The rate was less than one percent per annum in fiscal year 2016. At the end of fiscal year 2016, BPA used the $259.0 million, that it would otherwise have provided to Energy Northwest, to fund the prepayment of $259.0 million of comparatively higher interest rate federal appropriations. These appropriations were otherwise anticipated to be prepaid at the end of fiscal year 2017. By June 30, 2017, BPA expects to fund Energy Northwest's repayment of the $259.0 million it received under the borrowing agreement.

Amounts recorded in the FCRPS Combined Statements of Revenues and Expenses were not affected by the foregoing Energy Northwest borrowing arrangement. However, because the transaction deferred BPA's funding of Energy Northwest costs in the amount that Energy Northwest borrowed under the arrangement, the FCRPS Combined Statements of Cash Flows recorded a $259.0 million increase to cash provided by operating activities. If the $259.0 million is repaid as expected in fiscal year 2017, the FCRPS Combined Statements of Cash Flows will record a financing activity outflow.

Energy Northwest debt of $1.64 billion is callable, in whole or in part, at Energy Northwest's option, on call dates between July 2017 and July 2026 at 100 percent of the principal amount.

The fair value of Energy Northwest debt exceeded carrying value by $704.2 million and $560.7 million as of Sept. 30, 2016, and 2015, respectively. The valuations are based on a market input evaluation pricing methodology using a combination of market observable data such as current market trade data, reported bid/ask spreads and institutional bid information. These fair value measurements are considered Level 2 in the fair value hierarchy. (See Note 12, Fair Value Measurements.)

Lease-Purchase Program and Other capital lease obligations

Under the Lease-Purchase Program, BPA consolidates special purpose corporations, collectively referred to as Northwest Infrastructure Financing Corporations (NIFCs). These entities issued debt to and received advances from nonfederal sources, which were used to finance construction of transmission facilities leased to BPA. The combined NIFCs have issued $119.6 million in bonds and borrowed $200.0 million on a line of credit as of Sept. 30, 2016. The rental payments from BPA are pledged to the payment of the debt, but the facilities themselves do not secure the debt. The bonds bear interest at 5.4 percent and mature in 2034. All NIFC bonds outstanding are subject to redemption by the issuing NIFC, in whole or in part, at any date, at the higher of the principal amount of the bonds or the present value of the bonds discounted using the U.S. Treasury rate plus a premium of 12.5 basis points. The line of credit becomes due in full on Jan. 1, 2019. The lease-purchase agreements contain provisions that allow BPA to purchase the related assets at any time during each lease term for a bargain purchase price plus the value of the related outstanding debt instrument. (See Note 8, Variable Interest Entities.)

The fair value of the consolidated NIFC debt exceeded the carrying value by $39.5 million and $20.8 million as of Sept. 30, 2016, and 2015, respectively. The valuations are based on the discounted future cash flows using interest rates for similar debt that could have been issued at Sept. 30, 2016, and 2015, respectively. These fair

value measurements are considered Level 2 in the fair value hierarchy. (See Note 12, Fair Value Measurements.)

Lease-purchase transactions with entities that are not consolidated in the FCRPS financial statements are reported as transmission capital leased assets. These include BPA's lease-purchase transactions with the Port of Morrow, a port district located in Morrow County, Oregon, and the Idaho Energy Resources Authority (IERA), an independent public instrumentality of the State of Idaho, for transmission facilities, including lines, substations and general plant assets. These capital lease obligations are paid from the rental payments made by BPA. The facilities themselves are not security for the payment of these obligations.

On the Combined Balance Sheets, the consolidated NIFC debt and capital lease liabilities are included in Nonfederal debt. The related assets are included in Utility plant and Deferred charges and other for unspent funds held in trust accounts outside the Bonneville Fund. The capital lease obligations expire on various dates through 2043.

Completed plant assets reported as transmission capital leased assets are described in Note 2, Utility Plant.

In fiscal years 2016 and 2015, certain of the NIFC entities sold their lease receivables, rights to future lease revenues, and title to their leased assets to the Port of Morrow, resulting in the associated liabilities being reported as capital lease obligations instead of as consolidated NIFC debt. One of these transactions occurred in fiscal year 2016 and two occurred in fiscal year 2015. These transactions resulted in increases of $124.9 million and $303.3 million to transmission capital leased assets in fiscal years 2016 and 2015, respectively, with an immaterial net change in both years to Completed plant on the Combined Balance Sheets. (See Note 2, Utility Plant.)

Customer prepaid power purchases

During fiscal year 2013, BPA entered into agreements with four regional COUs for the advance payment of portions of their power purchases. Under this program, customers purchased prepaid power in blocks through fiscal year 2028. For each block purchased, BPA repays the prepayment, with interest, as monthly fixed credits on the customers' power bills.

In March 2013, BPA received $340.0 million representing $474.3 million in scheduled credits for blocks purchased by customers. BPA accounts for the prepayment proceeds as a financing transaction and reports the value of the obligations associated with the fixed credits as a prepayment liability. Interest expense is recognized using a weighted-average effective interest rate of 4.5 percent. The prepaid liability is reduced and the credits are applied as power is delivered through fiscal year 2028.

Borrowings from U.S. Treasury

BPA is authorized by Congress to issue and sell to the U.S. Treasury, and have outstanding at any one time, up to $7.70 billion aggregate principal amount of bonds. Of the $7.70 billion in U.S. Treasury borrowing authority, $1.25 billion is available for electric power conservation and renewable resources, including capital investment at the FCRPS hydroelectric facilities owned by the Corps and Reclamation, and $6.45 billion is available for BPA's transmission capital program and to implement BPA's authorities under the Northwest Power Act. Of the $7.70 billion, $750.0 million can be issued to finance Northwest Power Act related expenses. The interest on BPA's outstanding bonds is set at rates comparable to rates on debt issued by other comparable federal government institutions at the time of issuance. Bonds can be issued with call options.

As of Sept. 30, 2016, of the total $4.76 billion outstanding balance, none related to Northwest Power Act expenses. Outstanding bonds carrying a variable rate of interest were $800.0 million and $700.0 million at Sept. 30, 2016, and 2015, respectively. The weighted-average interest rate of BPA's borrowings from the U.S. Treasury exceeds current rates. As a result, the fair value of BPA's U.S. Treasury borrowings exceeded the carrying value by approximately $651.2 million and $474.5 million, based on discounted future cash flows using agency rates offered by the U.S. Treasury as of Sept. 30, 2016, and 2015, respectively, for similar maturities. These fair value measurements are considered Level 2 in the fair value hierarchy. (See discussion in Note 12, Fair Value Measurements.)

Of the outstanding U.S. Treasury borrowings, $218.8 million is not subject to redemption prior to their stated maturities. As of Sept. 30, 2016, $800.0 million of borrowings are callable by BPA at par value and the remaining $3.74 billion of borrowings are callable by BPA at a premium or discount, which is calculated based on the current government agency rates for the remaining term to maturity at the time the borrowings are called.

In fiscal years 2016 and 2015, BPA did not call any bonds it had issued to the U.S. Treasury. However, during fiscal year 2014, BPA called $1.18 billion principal amount of previously issued U.S. Treasury borrowings prior to maturity and reissued $1.14 billion principal amount of shorter-duration debt at lower interest rates. The result of these noncash transactions was a gain in fiscal year 2014 of $36.0 million for extinguished debt, which decreased interest expense immediately, as well as a gain of $3.0 million for modified debt, which is amortized to interest expense over the term of the new debt.

Federal appropriations

Federal appropriations reflect the responsibility that BPA has to repay congressionally appropriated amounts in the FCRPS. Federal appropriations consist primarily of the remaining unpaid power portion of Corps and Reclamation capital investments funded through congressional appropriations and include appropriations for Columbia River Fish Mitigation as allocated to the power purpose of the Corps' FCRPS hydroelectric projects.

BPA is obligated to establish rates to repay to the U.S. Treasury appropriations for federal generation and transmission plant investments within a specified repayment period, which is the reasonable expected service life of the facilities, not to exceed 50 years. Federal appropriations may be paid early without penalty, and BPA repaid appropriations early in fiscal years 2016 and 2015. All outstanding federal appropriations are scheduled for repayment in fiscal year 2020 and thereafter. BPA establishes schedules for the repayment of federal appropriations when it establishes its power and transmission rates. These schedules can change depending on whether appropriations have been prepaid or deferred. Interest on appropriated amounts begins accruing when the related assets are placed into service.

As of Sept. 30 — millions of dollars	Maturing Nonfederal debt excluding capital leases	Future minimum lease payments under capital leases	Borrowings from U.S. Treasury	Federal appropriations	Total
2017	$ 855.8	$ 51.3	$ 76.1	$ -	$ 983.2
2018	932.0	51.3	14.0	-	997.3
2019	644.8	61.6	574.9	-	1,281.3
2020	383.1	427.2	389.0	8.2	1,207.5
2021	386.7	615.4	275.0	63.2	1,340.3
2022 and thereafter	3,064.4	1,030.9	3,429.7	2,795.5	10,320.5
Total	$ 6,266.8	$ 2,237.7	$ 4,758.7	$ 2,866.9	$ 16,130.1
Less: Executory costs	-	27.9	-	-	27.9
Less: Amount representing interest	-	460.8	-	-	460.8
Present value of debt	6,266.8	1,749.0	4,758.7	2,866.9	15,641.4
Less: Current portion	855.8	1.8	76.1	-	933.7
Long-term debt	$ 5,411.0	$ 1,747.2	$ 4,682.6	$ 2,866.9	$ 14,707.7

8. Variable Interest Entities

A VIE is an entity that does not have sufficient equity at risk to finance its activities without additional financial support or whose equity investors lack characteristics of a controlling financial interest. An enterprise that has a controlling interest is known as the VIE's primary beneficiary and is required to consolidate the VIE.

Management reviews executed lease-purchase agreements with nonfederal entities, such as the NIFCs. BPA is the primary beneficiary of the NIFCs, and BPA therefore consolidates the NIFCs into the FCRPS financial statements as VIEs. The key factors in this determination are BPA's ability to take contractual actions that significantly impact the economic, commercial and operating activities of the NIFCs and that BPA may be obligated to absorb losses that could be significant to the NIFCs. Additionally, BPA's lease-purchase agreements with the NIFC entities obligate BPA to absorb the operational and commercial risks, and thus potentially significant benefits or losses associated with the underlying transmission facilities. BPA also has exclusive use and control of the facilities during the lease periods and has indemnified the NIFC entities for all construction and operating risks associated with their respective transmission facilities.

Amounts related to the NIFC entities include Lease-Purchase trust funds and other assets of $21.8 million and $22.4 million and Nonfederal debt of $319.6 million and $437.6 million as of Sept. 30, 2016, and 2015, respectively. BPA has also entered into lease-purchase agreements with other nonfederal entities. These entities are governmental and, in accordance with VIE accounting guidance, are therefore not consolidated into the FCRPS financial statements. (See Note 7, Debt and Appropriations.)

BPA has entered into power purchase agreements with wind farm-related VIEs, which, because of their pricing arrangements, provide that BPA absorb commodity price risk from the perspective of the counterparty entities. However, BPA management has concluded that in no instance does BPA have the power to control the most significant operating and maintenance activities of these entities and, therefore, BPA is not the primary beneficiary and does not consolidate these entities. Additionally, BPA does not provide, and does not plan to provide, any additional financial support to these entities beyond what BPA is contractually obligated to pay. Thus, BPA has no exposure to loss on contracts with these VIEs. Expenses related to VIEs for which BPA is not the primary beneficiary were $21.6 million, $19.7 million and $21.8 million in fiscal years 2016, 2015 and 2014, respectively. These expenses were recorded to operations and maintenance as BPA management considers the related purchases to be part of the FCRPS resource pool.

9. Residential Exchange Program

BACKGROUND

As provided in the Northwest Power Act, in 1981 BPA began to implement the REP through various contracts with eligible regional utility customers. BPA's implementation of the REP has been the subject of various litigations and settlement agreements.

2012 RESIDENTIAL EXCHANGE PROGRAM SETTLEMENT AGREEMENT

Beginning in April 2010, over 50 litigants and other regional parties entered into mediation to resolve numerous disputes over the REP. In February 2011 the parties reached a final settlement agreement – the 2012 Residential Exchange Program Settlement Agreement (2012 REP Settlement Agreement), and in July 2011 BPA also signed the 2012 REP Settlement Agreement. In fiscal year 2012, BPA recorded an associated long-term IOU exchange benefits liability and corresponding regulatory asset of $3.07 billion. Under the 2012 REP Settlement Agreement, the IOU's REP benefits were determined for fiscal years 2012-2028 (also referred to herein as Scheduled Amounts). The Scheduled Amounts started at $182.1 million for fiscal year 2012 and increase over time to $286.1 million for fiscal year 2028. As provided in the 2012 REP Settlement Agreement, the Scheduled Amounts are established for each IOU based on the IOU's average system cost, its residential exchange load and BPA's applicable Priority Firm Exchange rate. The Scheduled Amounts total $4.07 billion over the 17-year period through 2028, with remaining Scheduled Amounts as of Sept. 30, 2016, totaling

$3.09 billion. Amounts recorded of $2.55 billion at Sept. 30, 2016, represent the present value of future cash outflows for these IOUs exchange benefits.

REP SCHEDULED AMOUNTS

As of Sept. 30 — millions of dollars		
2017	$	214.1
2018		232.2
2019		232.2
2020		245.2
2021		245.2
2022 through 2028		1,923.5
Subtotal of annual payments		3,092.4
Less: Discount for present value		540.5
IOU exchange benefits	$	2,551.9

In addition to Scheduled Amounts, the 2012 REP Settlement Agreement calls for Refund Amounts to be paid to COUs in the amount of $76.5 million each year from fiscal year 2012 through fiscal year 2019. The Refund Amounts were established as a regulatory asset and regulatory liability for the refunds that will be provided to COU customers as bill credits. The 2012 REP Settlement Agreement established Refund Amounts totaling $612.3 million, with remaining refunds as of Sept. 30, 2016, totaling $229.6 million. Amounts recorded as a regulatory liability of $222.8 million at Sept. 30, 2016, represent the present value of future cash flows for the amounts to be refunded to COUs.

10. Deferred Credits and Other

As of Sept. 30 — millions of dollars		2016		2015
Customer reimbursable projects	$	196.8	$	216.5
Generation interconnection agreements		142.2		169.0
Third AC Intertie capacity agreements		97.7		99.9
Legal claims and settlements		34.4		33.7
Federal Employees' Compensation Act		27.5		32.5
Derivative instruments		21.2		33.7
Fiber optic leasing fees		18.0		21.9
Other		7.3		7.6
Total	$	545.1	$	614.8

Deferred Credits and Other include the following items:

"**Customer reimbursable projects**" consist of advances received from customers where either the customer or BPA will own the resulting asset. If the customer will own the asset under construction, the revenue is recognized as the expenditures are incurred. If BPA will own the resulting asset, the revenue is recognized over the life of the asset once the corresponding asset is placed in service.

"**Generation interconnection agreements**" are generators' advances held as security for requested new network upgrades and interconnection. These advances accrue interest and will be returned as cash or credits against future transmission service on the new or upgraded lines.

"**Third AC Intertie capacity agreements**" reflect unearned revenue from customers related to the Third AC Intertie transmission line capacity project. Revenue is recognized over an estimated 49-year life of the related assets.

"**Legal claims and settlements**" reflect amounts accrued for outstanding legal claims and settlements. (See Note 13, Commitments and Contingencies.)

"**Federal Employees' Compensation Act**" reflects the actuarial estimated amount of future payments for current recipients of BPA's worker compensation benefits.

"**Derivative instruments**" reflect the unrealized loss of the derivative portfolio, which primarily includes physical power purchase and sale transactions.

"**Fiber optic leasing fees**" reflect unearned revenue related to the leasing of fiber optic cables. Revenue is recognized over the lease terms extending through 2024.

11. Risk Management and Derivative Instruments

BPA is exposed to various forms of market risks related to commodity prices and volumes, counterparty credit, and interest rates. Non-performance risk, which includes credit risk, is described in Note 12, Fair Value Measurements. BPA has formalized risk management processes in place to manage agency risks, including the use of derivative instruments. The following sections describe BPA's exposure to and management of certain risks.

RISK MANAGEMENT

Due to the operational risk posed by fluctuations in river flows and electricity market prices, net revenues that result from underlying surplus or deficit energy positions are inherently uncertain. BPA's Risk Oversight Committee has responsibility for the oversight of market risk and determines the transactional risk policy and control environment at BPA. Through simulation and analysis of the hydro supply system, experienced business and risk managers install market price risk measures to capture additional market-related risks, including credit and event risk.

COMMODITY PRICE RISK AND VOLUMETRIC RISK

BPA has exposure to commodity price risk through fluctuations in electricity market prices that affect the value of energy bought and sold. Volumetric risk is the uncertainty of energy production from the hydro system. The combination of the two results in net revenue uncertainty. BPA routinely models commodity price risk and volumetric risk through parametric calculations, Monte Carlo simulations and general market observations to derive net revenues at risk, mark-to-market valuations, value at risk and other metrics as appropriate. These metrics capture the uncertainty around single point forecasts in order to monitor changes in the revenue risk profile from changes in market price, market price volatility and forecasted hydro generation. BPA measures and monitors the output of these methods on a regular basis. In order to mitigate revenue uncertainty that is beyond BPA's risk tolerance, BPA enters into short-term and long-term purchase and sale contracts by using instruments such as forwards, futures, swaps, and options.

CREDIT RISK

Credit risk relates to the loss that might occur as a result of counterparty non-performance. BPA mitigates credit risk by reviewing counterparties for creditworthiness, establishing credit limits and monitoring credit exposure. To further manage credit risk, BPA obtains credit support such as letters of credit, parental guarantees, cash in the form of prepayment or deposit of escrow funds, from some counterparties. BPA monitors counterparties for changes in financial condition and regularly updates credit reviews. BPA uses scoring models, publicly available financial information and external ratings from major credit rating agencies to determine appropriate levels of credit for its counterparties.

During fiscal year 2016, BPA experienced no material losses as a result of any customer defaults or bankruptcy filings. As of Sept. 30, 2016, BPA had $78.2 million in credit exposure related to purchase and sale contracts after taking into account netting rights. Of this credit exposure, $50.1 million was related to sub-investment grade counterparties who provided letters of credit for $36.4 million. The letters of credit serve as a guarantee arrangement and mitigate BPA's credit risk exposure to these counterparties.

INTEREST RATE RISK

BPA has the ability to issue variable rate bonds or related instruments to the U.S. Treasury. BPA manages the interest rate risk presented by variable rate U.S. Treasury debt by holding a like amount of variable rate U.S. Treasury security investments with a similar maturity profile. These U.S. Treasury investments earn interest at a variable rate that is correlated, but not identical, to the interest rate paid on U.S. Treasury variable rate debt. Energy Northwest may also issue variable rate debt for which BPA is expected to fund the repayment. (See Note 3, Investments in U.S. Treasury Securities and Note 7, Debt and Appropriations.)

DERIVATIVE INSTRUMENTS

Commodity Contracts

BPA's forward electricity contracts are eligible for the normal purchases and normal sales exception if they require physical delivery, are expected to be used or sold by BPA in the normal course of business and meet the derivative accounting definition of capacity described in the derivatives and hedging accounting guidance. These transactions are not recorded at fair value in the financial statements. Recognition of these contracts in Sales or Purchased power in the Combined Statements of Revenues and Expenses occurs when the contracts are delivered and settled.

For derivative instruments not eligible for the normal purchases and normal sales exception, BPA records unrealized gains and losses in Regulatory assets and Regulatory liabilities in the Combined Balance Sheets. Realized gains and losses are included in Sales and Purchased power in the Combined Statements of Revenues and Expenses as the contracts are delivered and settled.

When available, quoted market prices or prices obtained through external sources are used to measure a contract's fair value. For contracts without available quoted market prices, fair value is determined based on internally developed modeled prices. (See Note 12, Fair Value Measurements.)

As of Sept. 30, 2016, the derivative commodity contracts recorded at fair value totaled 4.7 million megawatt hours (MWh), gross basis, with delivery months extending to September 2022.

In the Combined Balance Sheets, BPA reports gross fair value amounts of derivative instruments subject to a master netting arrangement, excluding contracts designated as normal purchases or normal sales. (See Note 6, Deferred Charges and Other and Note 10, Deferred Credits and Other.) In the event of default or termination, contracts with the same counterparty are offset and net settle through a single payment. BPA does not offset cash collateral against recognized derivative instruments with the same counterparty under the master netting arrangements.

If netted by counterparty, BPA's derivative position would result in an asset of $47.3 million and $68.1 million and a liability of $21.2 million and $33.7 million as of Sept. 30, 2016, and 2015, respectively.

12. Fair Value Measurements

BPA applies fair value measurements and disclosures accounting guidance to certain assets and liabilities including commodity derivative instruments, nuclear decommissioning trusts and other investments. BPA maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. Fair value is based on actively quoted market prices, if available. In the absence of actively quoted market prices, BPA seeks price information from external sources, including broker quotes and industry publications. If

pricing information from external sources is not available, BPA uses forward price curves derived from internal models based on perceived pricing relationships to major trading hubs.

BPA also utilizes the following fair value hierarchy, which prioritizes the inputs to valuation techniques used to measure fair value, into three broad levels:

Level 1 – Quoted prices (unadjusted) in active markets for identical assets and liabilities that BPA has the ability to access at the measurement date. Instruments categorized in Level 1 primarily consist of financial instruments such as fixed income investments, equity mutual funds and money market funds.

Level 2 – Inputs other than quoted prices included within Level 1 that are either directly or indirectly observable for the asset or liability, including quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in inactive markets, inputs other than quoted prices that are observable for the asset or liability, and inputs that are derived from observable market data by correlation or other means. Instruments categorized in Level 2 include certain non-exchange traded commodity derivatives and certain agency, corporate and municipal securities as part of the Lease-Purchase trust funds investments. Fair value for certain non-exchange traded derivatives is based on forward exchange market prices and broker quotes adjusted and discounted. Lease-Purchase trust funds investments are based on a market input evaluation pricing methodology using a combination of observable market data such as current market trade data, reported bid/ask spreads, and institutional bid information.

Level 3 – Unobservable inputs for the asset or liability, including situations where there is little, if any, market activity for the asset or liability. Instruments categorized in Level 3 include long-dated and modeled commodity contracts where inputs into the valuation are adjusted market prices plus an adder.

The fair value hierarchy gives the highest priority to quoted prices in active markets (Level 1) and the lowest priority to unobservable data (Level 3). In some cases, the inputs used to measure fair value might fall in different levels of the fair value hierarchy. The lowest level input that is significant to a fair value measurement in its entirety determines the applicable level in the fair value hierarchy. Assessing the significance of a particular input to the fair value measurement in its entirety requires judgment, considering factors specific to the asset or liability.

BPA includes non-performance risk when calculating fair value measurements. This includes a credit risk adjustment based on the credit spreads of BPA's counterparties when in an unrealized gain position, or on BPA's own credit spread when in an unrealized loss position. BPA's assessment of non-performance risk is generally derived from the credit default swap market and from bond market credit spreads. The impact of the credit risk adjustments for all outstanding derivatives was immaterial to the fair value calculation at Sept. 30, 2016, and 2015. There were no transfers between Level 1 or Level 2 during the fiscal years ended Sept. 30, 2016, and 2015.

ASSETS AND LIABILITIES MEASURED AT FAIR VALUE ON A RECURRING BASIS

As of Sept. 30, 2016 — millions of dollars

	Level 1	Level 2	Level 3	Total
Assets				
Nonfederal nuclear decommissioning trusts				
Equity index funds	$ 174.6	$ —	$ —	$ 174.6
Bond index funds	120.5	—	—	120.5
U.S. government obligation mutual funds	19.2	—	—	19.2
Derivative instruments [1]				
Commodity contracts	—	47.3	—	47.3
Lease-Purchase trust funds				
U.S. government sponsored enterprise obligations	—	22.8	—	22.8
U.S. government obligations	—	120.9	—	120.9
Corporate obligations	—	13.0	—	13.0
Municipal obligations	—	13.2	—	13.2
Total	$ 314.3	$ 217.2	$ —	$ 531.5
Liabilities				
Derivative instruments [1]				
Commodity contracts	$ —	$ (21.2)	$ —	$ (21.2)
Total	$ —	$ (21.2)	$ —	$ (21.2)

As of Sept. 30, 2015 — millions of dollars

Assets				
Nonfederal nuclear decommissioning trusts				
Equity index funds	$ 135.5	$ —	$ —	$ 135.5
U.S. government obligation mutual funds	129.6	—	—	129.6
Corporate bond index funds	17.6	—	—	17.6
Derivative instruments [1]				
Commodity contracts	—	—	70.4	70.4
Lease-Purchase trust funds				
U.S. government sponsored enterprise obligations	—	199.0	—	199.0
U.S. government obligations	—	48.2	—	48.2
Corporate obligations	—	35.7	—	35.7
Municipal obligations	—	22.4	—	22.4
Total	$ 282.7	$ 305.3	$ 70.4	$ 658.4
Liabilities				
Derivative instruments [1]				
Commodity contracts	$ —	$ (33.7)	$ —	$ (33.7)
Total	$ —	$ (33.7)	$ —	$ (33.7)

[1] Derivative instruments assets and liabilities are included in Deferred charges and other and Deferred credits and other in the Combined Balance Sheets, respectively. (See Note 6, Deferred Charges and Other and Note 10, Deferred Credits and Other.) See Note 11, Risk Management and Derivative Instruments for more information related to BPA's risk management strategy and use of derivative instruments.

Level 3 derivative commodity contracts are long-dated power contracts measured at fair value on a recurring basis using the California-Oregon Border (COB) and Mid-Columbia (Mid-C) forward price curves. They include power contracts delivering to illiquid trading points or contracts without available market transactions for the entire delivery period; therefore, they are considered unobservable. Forward prices are considered a key

component to contract valuations. All valuation pricing data is generated internally by BPA's risk management organization.

The risk management organization constructs the forward price curve through the use of available market prices, broker quotes and bid/offer spreads. In periods where market prices or broker quotes are not available, the risk management organization derives monthly prices by applying seasonal shaping based on historical broker quotes and spreads. Long-term prices are derived from internally developed or commercial models with both internal and external data inputs. BPA management believes this approach maximizes the use of pricing information from external sources and is currently the best option for valuation. Significant increases or decreases in the inputs would result in a significantly higher or lower fair value measurement.

Forward power prices are influenced by, among other factors, the price of natural gas, seasonality, hydro forecasts, expectations of demand growth, planned changes in the regional generating plants, and the emergence of new marginal fuels for generation.

COMMODITY CONTRACTS

The following table presents the changes in the assets and liabilities measured at fair value on a recurring basis and included in the Level 3 fair value category.

As of Sept. 30 — millions of dollars	2016	2015
Beginning Balance	$ 70.4	$ 4.7
Changes in unrealized gains (losses)[1]	(23.2)	65.7
Transfers out of Level 3 to Level 2	(47.2)	-
Ending Balance	$ -	$ 70.4

[1] Unrealized gains and losses are included in Regulatory assets and Regulatory liabilities in the Combined Balance Sheets. Realized gains and losses are included in Sales and Purchased power, respectively, in the Combined Statements of Revenues and Expenses.

During fiscal year 2016, transfers out of Level 3 occurred when the significant inputs became more observable, such as when the time between the valuation date and the delivery term of a transaction became shorter.

13. Commitments and Contingencies

INTEGRATED FISH AND WILDLIFE PROGRAM

The Northwest Power Act directs BPA to protect, mitigate and enhance fish and wildlife and their habitats to the extent they are affected by federal hydroelectric projects on the Columbia River and its tributaries, from which BPA markets power. BPA makes expenditures and incurs other costs for fish and wildlife protection and mitigation that are consistent with the purposes of the Northwest Power Act and the Pacific Northwest Power and Conservation Council's Columbia River Basin Fish and Wildlife Program. In addition, certain fish and wildlife species that inhabit the Columbia River Basin are listed under the Endangered Species Act (ESA) as threatened or endangered. BPA makes expenditures and incurs other costs related to power purposes to comply with the ESA and implement certain biological opinions (BiOp) prepared by the National Oceanic and Atmospheric Administration Fisheries Service and the U.S. Fish and Wildlife Service in furtherance of the ESA. BPA's total commitment including timing of payments under the Northwest Power Act, ESA and BiOp fluctuates because it is in part dependent on river flows and water conditions. As of Sept. 30, 2016, BPA has entered into long-term fish and wildlife agreements with estimated contractual commitments of $468.1 million. These agreements will expire at various dates between fiscal years 2018 and 2025.

IRRIGATION ASSISTANCE

Scheduled distributions

As of Sept. 30 — millions of dollars		
2017	$	50.8
2018		27.2
2019		56.6
2020		24.3
2021		14.8
2022 through 2045		268.4
Total	$	442.1

As directed by law, BPA is required to establish rates sufficient to make distributions to the U.S. Treasury for original construction costs of certain Pacific Northwest irrigation projects for which the costs have been determined to be beyond the irrigators' ability to pay. These irrigation distributions do not specifically relate to power generation. In establishing power rates, particular statutory provisions guide the assumptions that BPA makes as to the amount and timing of such distributions. Accordingly, these distributions are not considered to be regular operating costs of the power program and are treated as distributions from accumulated net revenues when paid. Future irrigation assistance payments are scheduled to total $442.1 million over a maximum of 66 years since the time the irrigation facilities were completed and placed in service. BPA is required by the Grand Coulee Dam - Third Powerplant Act to demonstrate that reimbursable costs of the FCRPS will be returned to the U.S. Treasury from BPA within the period prescribed by law. BPA is required to make a similar demonstration for the costs of irrigation projects to the extent the costs have been determined to be beyond the irrigators' ability to repay. These requirements are met by conducting power repayment studies including schedules of distributions at the proposed rates to demonstrate repayment of principal within the allowable repayment period. Irrigation assistance excludes $40.3 million for Teton Dam, which failed prior to completion and for which BPA has no obligation to repay.

FIRM PURCHASE POWER COMMITMENTS

As of Sept. 30 — millions of dollars		
2017	$	70.5
2018		74.8
2019		77.6
2020		43.9
2021		33.6
Total	$	300.4

BPA periodically enters into long-term commitments to purchase power for future delivery. When BPA forecasts a resource shortage, based on its planned contractual obligations for a period and the historical water record for the Columbia River basin, BPA takes a variety of operational and business steps to cover a potential shortage including entering into power purchase commitments. Additionally, under BPA's current Tiered Rates Methodology and its current Regional Dialogue power sales contracts, BPA's customers may request that BPA meet their power requirements in excess of the Rate Period High Water Mark load under their contract. For these Above High Water Mark load requests, BPA may meet such requests by entering into power purchase commitments. The preceding table includes firm purchase power agreements of known costs that are currently

in place to assist in meeting expected future obligations under BPA's current long-term power sales contracts. Included are six purchases made specifically to meet BPA's commitments to sell power at Tier 2 rates in fiscal years 2017-2019 and two purchases to meet load obligations in Idaho. The expenses associated with Tier 2 purchases to meet prior commitments were $22.1 million, $24.6 million and $4.9 million for fiscal years 2016, 2015 and 2014, respectively. The expenses associated with the Idaho purchases, which are not included in the Tier 2 amounts, commenced July 1, 2016, and were $9.0 million for fiscal 2016. BPA has several other purchase agreements with wind-powered and other generating facilities that are not included in the preceding table as payments are based on the variable amount of future energy generated and as there are no minimum payments required.

ENERGY EFFICIENCY PROGRAM

BPA is required by the Northwest Power Act to meet the net firm power load requirements of its customers in the Pacific Northwest. BPA is authorized to help meet its net firm power load through the acquisition of electric conservation. BPA makes available a portfolio of initiatives and infrastructure support activities to its customers to ensure the conservation targets established in the Northwest Power and Conservation Council's then-current Power Plan are achieved. The Council released the Seventh Power Plan in fiscal year 2016. These initiatives and activities are often executed via conservation commitments made by BPA to its customers through $78.0 million of agreements with utility customers and contractors that provide support in the way of energy efficiency program research, development and implementation. The timing of the payments under these commitments is not fixed or determinable, and these agreements will expire at various dates through fiscal year 2020.

1989 ENERGY NORTHWEST LETTER AGREEMENT

In 1989, BPA agreed with Energy Northwest that, in the event any participant shall be unable for any reason, or shall fail or refuse, to pay to Energy Northwest any amount due from such participant under its net billing agreement for which a net billing credit or cash payment to such participant has been provided by BPA, BPA will be obligated to pay the unpaid amount in cash directly to Energy Northwest.

NUCLEAR INSURANCE

BPA is a member of the Nuclear Electric Insurance Limited (NEIL), a mutual insurance company established to provide insurance coverage for nuclear power plants. The insurance policies purchased from NEIL by BPA include: 1) Primary Property and Decontamination Liability Insurance; 2) Decontamination Liability, Decommissioning Liability and Excess Property Insurance; and 3) NEIL I Accidental Outage Insurance.

Under each insurance policy, BPA could be subject to a retrospective premium assessment in the event that a member-insured loss exceeds reinsurance and reserves held by NEIL. The maximum assessment for the Primary Property and Decontamination Liability Insurance policy is $19.6 million. For the Decontamination Liability, Decommissioning Liability and Excess Property Insurance policy, the maximum assessment is $7.3 million. For the NEIL I Accidental Outage Insurance policy, the maximum assessment is $5.3 million.

As a separate requirement, BPA is liable under the Nuclear Regulatory Commission's indemnity for public liability coverage under the Price-Anderson Act. In the event of a nuclear accident resulting in public liability losses exceeding $375.0 million, BPA could be subject to a retrospective assessment of up to $121.3 million limited to $19.0 million per incident within one calendar year. Assessments would be included in BPA's costs and recovered through rates. As of Sept. 30, 2016, there have been no assessments to BPA under either of these programs.

ENVIRONMENTAL MATTERS

From time to time there are sites for which BPA, the Corps or Reclamation may be identified as potential responsible parties. Costs associated with cleanup of sites are not expected to be material to the FCRPS financial statements. As such, no material liability has been recorded.

INDEMNIFICATION AGREEMENTS

BPA, the Corps and Reclamation have provided indemnifications of varying scope and terms in contracts with customers, vendors, lessors, trustees, and other parties with respect to certain matters, including, but not limited to, losses arising out of particular actions taken on behalf of the FCRPS, certain circumstances related to Energy Northwest Projects, and in connection with lease-purchases. Because of the absence of a maximum obligation in the provisions, management is not able to reasonably estimate the overall maximum potential future payments. Based on historical experience and current evaluation of circumstances, management believes that, as of Sept. 30, 2016, the likelihood is remote that the FCRPS would incur any significant costs with respect to such indemnities. No liability has been recorded in the financial statements with respect to these indemnification provisions.

LITIGATION

Southern California Edison

Southern California Edison (SCE) filed two separate actions pending in the U.S. Court of Federal Claims against BPA related to a power sales and exchange agreement (Sale and Exchange Agreement) between BPA and SCE. The actions challenged: 1) BPA's decision to convert the contract from a sale of power to an exchange of power as provided for under the terms of the contract (Conversion Claim); and 2) BPA's termination of the Sales and Exchange Agreement due to SCE's nonperformance (Termination Claim).

In 2006, BPA and SCE executed an agreement to settle the claims wherein BPA would make a payment of $28.5 million plus applicable interest to SCE if certain identified conditions were met, including a final resolution of BPA's claims pending in the California refund proceedings and related litigation as discussed below. BPA has recorded a liability of $34.4 million, including interest, on the basis that all conditions have been met except the final resolution in the California refund proceedings and related litigation, which management considers probable. BPA established an offsetting regulatory asset, as the costs will be collected in future rates.

California parties' refund claims

BPA was a party to proceedings at FERC that sought refunds for sales into markets operated by the California Independent System Operator and the California Power Exchange during the California energy crisis of 2000-2001. In BPA v. FERC, 422 F.3d 908 (9th Cir. 2005) the Ninth Circuit Court found that governmental utilities, like BPA, were not subject to FERC's statutory authority to order market participants to pay refunds. As a consequence of the Ninth Circuit Court's decision, three California investor-owned utilities along with the State of California filed breach of contract claims in the United States Court of Federal Claims against BPA. The complaints, filed in 2007, alleged that BPA was contractually obligated to pay refunds on transactions where BPA received amounts in excess of mitigated market clearing prices retroactively established by FERC.

In May 2012, the Court of Federal Claims issued an opinion that held that BPA breached its contracts with the California parties. Assuming the amounts owed included interest, such refunds could have amounted up to $51.8 million. While the ruling did not establish a specific liability in this matter, BPA recorded a liability in this amount in fiscal year 2012.

On April 2, 2013, the Court of Federal Claims issued a Declaratory Judgment in favor of the California parties in response to motions by these parties requesting declaratory relief for certain transactions.

Thereafter, a new judge for the Court of Federal Claims was assigned to the claims, and on Dec. 20, 2013, she vacated the May 2012 opinion. After hearings conducted in June 2014 and January 2015, at the judge's request, BPA filed a motion to dismiss the claims. On March 12, 2015, the judge issued a decision granting BPA's motion to dismiss and holding that the California parties lacked standing to sue because they had no contractual privity with BPA. The judge also found that even if the California parties had standing, the breach of contract claims should nevertheless be dismissed because the factual predicate for a breach of contract claim against Bonneville did not exist because FERC had not retroactively revised the rates applicable to the BPA transactions, as alleged by the California parties. Thereafter the California parties filed appeals of the order in the United States Court of Appeals for the Federal Circuit. On Oct. 3, 2016, the Federal Circuit Court of

Appeals affirmed the dismissal by the Court of Federal Claims of all breach of contract claims against Bonneville.

In a separate proceeding as part of FERC's California refund docket, an administrative law judge appointed by the FERC Commissioners conducted a hearing in 2012 to make certain findings related to certain classes of transactions at issue in the California parties' breach of contract litigation in the Court of Federal Claims. The FERC proceeding had potential impacts on the scope of potential damages in the breach of contract case. On Feb. 15, 2013, the FERC administrative law judge issued findings to the effect that the prices involved in certain transactions were unjust and unreasonable and subject to refund and recommended that BPA pay $59.6 million, plus interest. On Nov. 10, 2014, FERC dismissed BPA from the FERC California refund proceeding and did not affirm the administrative law judge's findings and recommendations. The California parties did not appeal the dismissal of BPA from the proceeding.

In fiscal year 2015, BPA removed its liability for the California parties' refund claims as a result of the judge's dismissal in 2015 of all the claims in the Court of Federal Claims on the basis that BPA's management has determined that the probability of financial loss is remote.

Rates

BPA's rates are frequently the subject of litigation. Most of the litigation involves claims that BPA's rates are inconsistent with statutory directives, are not supported by substantial evidence in the record, or are arbitrary and capricious. It is the opinion of BPA's general counsel that if any rate were to be rejected, the remedy accorded would be a remand to BPA to establish a new rate. BPA's flexibility in establishing rates could be restricted by the rejection of a BPA rate, depending on the grounds for the rejection. BPA is unable to predict, however, what new rate it would establish if a rate were rejected. If BPA were to establish a rate that was lower than the rejected rate, a petitioner may be entitled to a refund in the amount overpaid; however, BPA is required by law to set rates to meet all of its costs. Thus, it is the opinion of BPA's general counsel that BPA may be required to increase its rates to seek to recover the amount of any such refunds, if needed.

OTHER

The FCRPS may be affected by various other legal claims, actions and complaints, including litigation under the Endangered Species Act, which may include BPA as a named party. Certain of these cases may involve material amounts. Management is unable to predict whether the FCRPS will avoid adverse outcomes in these legal matters; however, management believes that disposition of pending matters will not have a materially adverse effect on the FCRPS financial position or results of operations for fiscal year 2016.

Judgments and settlements are included in FCRPS costs and recovered through rates. Except with respect to the SCE matter described above, no liability has been recorded for the above legal matters. (See Note 10, Deferred Credits and Other, for discussion of amounts accrued for outstanding legal claims and settlements.)

SUSTAINABLE FINANCES & RATES

FEDERAL REPAYMENT

REVENUE REQUIREMENT STUDY

The submission of BPA's Annual Report fulfills the reporting requirements of the Grand Coulee Dam – Third Powerplant Act, Public Law 89-448. The revenue requirement study demonstrates repayment of federal investment. It reflects revenues and costs consistent with BPA's 2016 Final Wholesale Power and Transmission Rate Proposals of July 23, 2015, for fiscal years 2016 and 2017. (See BP-16-E-BPA-02 for Power and BP-16-E-BPA-08 for Transmission.) The final proposals filed with FERC contain the official amortization schedule for the rate periods. FERC granted final approval to the Power Rates Schedules and the Transmission, Ancillary and Control Area Service Rate Schedules on Feb. 2, 2016.

REPAYMENT DEMONSTRATION

BPA is required by Public Law 89-448 to demonstrate that reimbursable costs of the FCRPS will be returned to the U.S. Treasury from BPA net revenues within the period prescribed by law. BPA is required to make a similar demonstration for the costs of irrigation projects that are beyond the ability of irrigation water users to repay. These requirements are met by conducting power repayment studies including schedules of payments at the proposed rates to demonstrate repayment of principal within the allowable repayment period.

Since 1985, BPA has prepared separate repayment demonstrations for generation and transmission in accordance with an order issued by FERC on Jan. 27, 1984 (26 FERC 61,096).

REPAYMENT POLICY

BPA's repayment policy is reflected in its generation and transmission revenue requirements and respective rate levels. This policy requires that FCRPS revenues be sufficient to:

1. Pay the cost of operating and maintaining the power system.
2. Pay the cost of obtaining power through purchase and exchange agreements (nonfederal projects) and transmission services that BPA is obtaining under capitalized lease-purchase agreements.
3. Pay interest on and repay outstanding U.S. Treasury borrowings to finance transmission system construction, conservation, environmental, direct-funded Corps and Reclamation improvements, and fish and wildlife projects.
4. Pay interest on the unrepaid investment in facilities financed with appropriated funds. (Federal hydroelectric projects all were financed with appropriated funds, as were BPA transmission facilities constructed before 1978.)
5. Pay, with interest, any outstanding deferral of interest expense.
6. Repay the power investment in each federal hydroelectric project with interest within 50 years after the project is placed in service (except for the Chandler project, which has a legislated repayment period of 66 years).

7. Repay each increment of the investment in the BPA transmission system financed with appropriated funds with interest within the average service life of the associated transmission plant (48 years).
8. Repay the appropriated investment in each replacement at a federal hydroelectric project within its service life.
9. Repay irrigation investment at federal reclamation projects assigned for payment from FCRPS revenues, after all other elements in the priority of payments are paid and within the same period established for irrigation water users to repay their share of construction costs. These periods range from 40 to 66 years, with 50 years being applicable to most of the irrigation payment assistance.

Investments bearing the highest interest rate will be repaid first, to the extent possible, while still completing repayment of each increment of investment within its prescribed repayment period.

REPAYMENT OBLIGATION

BPA's rates must be designed to collect sufficient revenues to return separately the power and transmission costs of each FCRPS investment and each irrigation assistance obligation within the time prescribed by law.

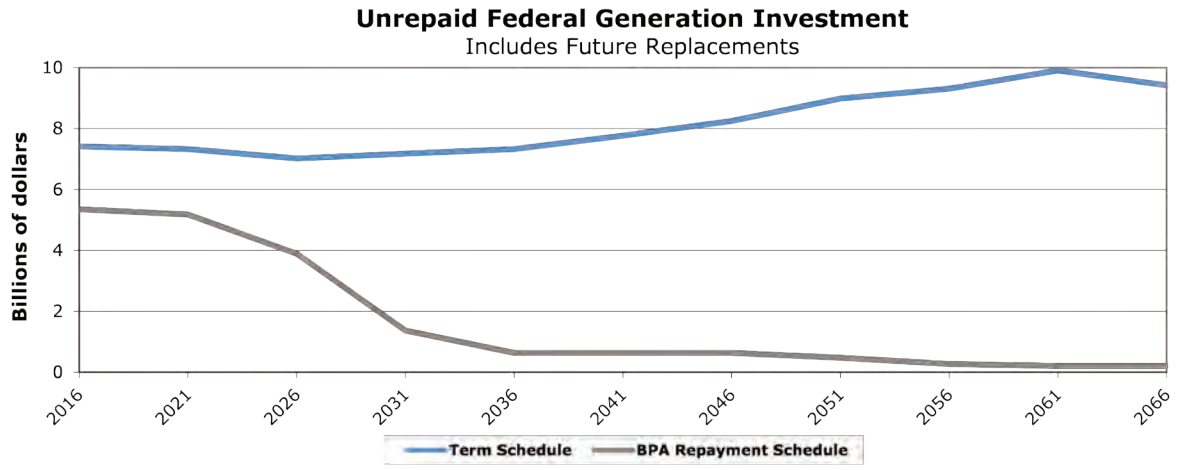
If existing rates are not likely to meet this requirement BPA must reduce costs, adjust its rates, or both. However, irrigation assistance payments from projects authorized subsequent to Public Law 89-448 are to be scheduled to not require an increase in the BPA power rate level. Comparing BPA's repayment schedule for the unrepaid capital appropriations and bonds with a "term schedule" demonstrates that the federal investment will be repaid within the time allowed. A term schedule represents a repayment schedule whereby each capitalized appropriation or bond would be repaid in the year it is due.

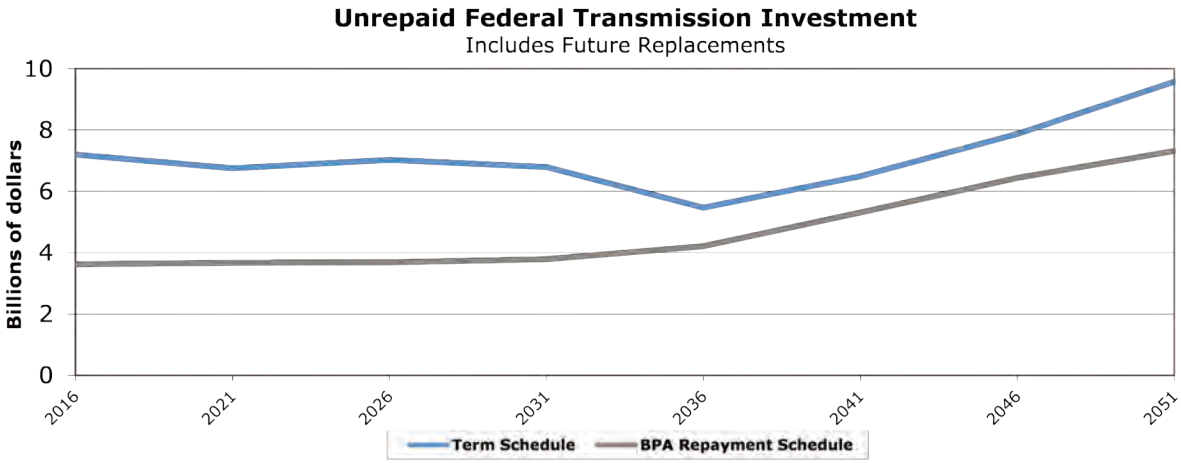
Reporting requirements of Public Law 89-448 are met so long as the unrepaid FCRPS investment and irrigation assistance resulting from BPA's repayment schedule are less than or equal to the allowable unrepaid investment in each year. While the comparison is illustrated by the following graphs representing total FCRPS generation and total FCRPS transmission investment, the actual comparison is performed on an investment-by-investment basis.

REPAYMENT OF FCRPS INVESTMENT

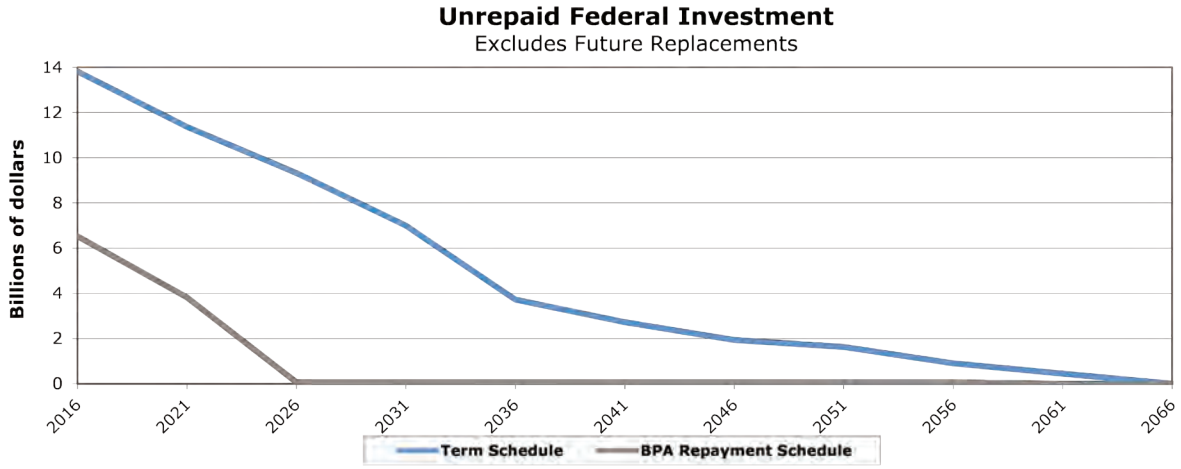
The graphs for Unrepaid Federal Generation and Transmission Investment illustrate that unrepaid investment resulting from BPA's generation and transmission repayment schedules is less than the allowable unrepaid investment. This demonstrates that BPA's rates are sufficient to recover all FCRPS investment costs on or before their due dates.

The term schedule lines in the graphs show how much of the obligation can remain unpaid in accordance with the repayment periods for the generation and transmission components of the FCRPS. The BPA repayment schedule lines show how much of the obligation remains to be repaid according to BPA's repayment schedules. In each year, BPA's repayment schedule is ahead of the term schedule. This occurs because BPA plans repayment both to comply with obligation due dates and to minimize costs over the entire repayment study horizon (35 years for transmission, 50 years for generation). Repaying highest interest-bearing investments first, to the extent possible, minimizes costs. Consequently, some investments are repaid before their due dates while assuring that all other obligations are repaid by their due dates. These graphs include forecasts of system replacements during the repayment study horizon that are necessary to maintain the existing FCRPS generation and transmission facilities.





The Unrepaid Federal Investment graph displays the total planned unrepaid FCRPS obligations compared to allowable total unrepaid FCRPS investment, omitting future system replacements. This demonstrates that each FCRPS investment through 2016 is scheduled to be returned to the U.S. Treasury within its repayment period and ahead of due dates.



If, in any given year, revenues are not sufficient to cover all cash needs including interest, any deficiency becomes an unpaid annual expense. Interest is accrued on the unpaid annual expense until paid. This must be paid from subsequent years' revenues before any repayment of federal appropriations can be made.

LEADERSHIP

Elliot Mainzer, Claudia Andrews (retired COO September 2016), John Hairston

ENTERPRISE BOARD MEMBERS AS OF SEPT. 30, 2016

Elliot Mainzer
Administrator and Chief Executive Officer

Dan James
Deputy Administrator

John Hairston
Chief Operating Officer (Acting)

Shana Kuhn
Chief Administrative Officer (Acting)

Mark Gendron
Senior Vice President for Power Services

Richard Shaheen
Senior Vice President for Transmission Services

Mary K. Jensen
Executive Vice President and General Counsel

Javier Fernandez
Executive Vice President and Chief Financial Officer

Tom McDonald
Executive Vice President of Compliance, Audit and Risk Management (Acting)

Larry Buttress
Executive Vice President Business Transformation

Kim Thompson
Executive Vice President of Corporate Strategy (Acting)

F. Lorraine (Lorri) Bodi
Vice President of Environment, Fish and Wildlife

Paul Dickson
Vice President of Information Technology and Chief Information Officer (Acting)

Scott Simms
Director of Communications

Peter Cogswell
Director of Intergovernmental Affairs

Tracey Stancliff
Enterprise Program Management Officer

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