

CELEBRATING



ommunities Energizing Life in **C H** u to all of our ce

2019 ANNUAL REPORT

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GREETINGS from the Commissioners

Hanya Elson Rehecca J. Walfe Tañya "Toni" Olson Rebecca Wolfe

s your publicly elected board, we're focused on providing our customers with reliable power that's safely and responsibly generated, as well as safe drinking water at the lowest possible cost. As a public utility, the PUD takes pride in serving the people of Snohomish County and Camano Island.

We are the 12th largest public utility in the U.S. and the second largest in Washington state, serving almost 355,000 electric customers and more than 21,000 water customers.

Public power has deep roots and an important

Sid Logan

heritage in our region. Our PUD was created by the voters nearly 70 years ago. As the PUD's three publicly elected commissioners, we give our customers an active voice in the utility's policies and services.

Our customers and employees have a long history of supporting energy conservation. In 2019, we again surpassed our energy-saving targets.

We're pleased to share this 2019 annual report, which details the many successes of our employees and customers over the past year.



John Haarlow (right) presents the GM Life-Saving Award to PUD employees who came to the aid of a co-worker (see page 5).

e were very excited to celebrate 70 years of public service to our customers in 2019, and we are even more excited about what the next 70 years will bring!

I am proud we are an organization that values our customers and communities, our employees, our financial health and our planet. While many utilities around the country are working to become 80% carbon-free by 2040, we are already a national leader. The PUD proudly serves Snohomish County and Camano Island homes and businesses with 98% carbon-free energy, and we are well ahead of national efforts to become 100%.

One shining example of our commitment to expanding carbon-free energy in 2019 was our successful launch of Community Solar, located at the site of the future Arlington Microgrid and Clean Energy Technology Center. Our customers scrambled to purchase units in the project, which sold out in just a few weeks. We also awarded space on the solar array to two local non-profits, which will pass their energy savings to income-qualified customers through bill assistance.

Since we began providing electricity in 1949, our focus as a public utility has always been to serve all customers – including those most likely to be underserved or in need of special accommodations. With that commitment in mind, we spent time this year exploring new ways to better serve our income-qualified customers, and looking for creative opportunities to support our business partners with unique power needs.

After 70 years offering customers a single rate based on their kilowatt-hour use, our Board of Commissioners committed to modernizing our rate structure and bringing it in line with other industries. Beginning in 2021, customer bills will reflect a small base charge to help the utility better apportion the cost of serving each customer. We are also working on providing customers with more rate options, such as time-of-day use, to give

them more control over their bills.

Through our phenomenal employees, our modernization efforts, and our focus on continuous improvement, we aim to be recognized as one of the best utilities in the country for our customers. Enhancing the customer experience was one of our biggest initiatives in 2019 and will continue to be going forward. We improved our Outage Map to customer raves, continued to improve power reliability and reduced the length of outages. We also have a team working on new and improved online customer self-service options. We know there are ways to be better in every department, and I have challenged every employee to look for ways to stretch, grow and delight our customers.

We know two areas sure to delight customers: lower bills and great reliability. Our energy conservation programs are ever-evolving and responsive to both residential and business customers. Our commitment to proactive tree trimming and improved switching technology throughout the service area has helped reduce outages for our customers by 21 million minutes!

To be certain, the next 70 years will bring new and unique challenges. There are increasing concerns about power resources in the Pacific Northwest and the ability to serve our growing populations. Traffic congestion is increasing, which may impact our ability to respond quickly to outages. We also see the coming transition to all-electric vehicles (EVs), and we want to be a key resource for our customers as they make the switch to carbon-free transportation.

All told, the future is bright! I am so pleased to be part of these changes and to be leading a powerful team of talented employees in service to our communities. It's why I consider this to be the best job in the best place to live in the country. Snohomish PUD has a wonderful history, and we share a fantastic future ahead.

RAISING THE BAR IN RELIABILITY

ew things are as critical to everyday life as reliable and safe electric and water service. In 2019, the PUD continued its trend of reducing the number and duration of customer outages. Today, the PUD can boast some of the best statistics in the region when it comes to service reliability and restoration response times.

Electric outage statistics continued to improve thanks to system upgrades and focused work by first responders to limit the number of customers affected during repairs. In 2017, the average PUD customer outage lasted 129.6 minutes during normal operations. This number dropped to 92.4 minutes in 2018, and to 91 minutes in 2019.



Tree trimming has always been fundamental to the PUD's reliability efforts as shown by this clipping from the 1951 Annual Report.

CONTINUED ON PAGE 4

There were 12 outages involving transmission lines in 2019. In 11 cases, the PUD's investment in modern electric switching and auto-sectionalizing equipment allowed the utility to successfully isolate faults and restore power to customers in less than one minute.

The East Arlington Switching Station was energized in August and improved service reliability in northern Snohomish County, particularly between Arlington and Oso. The new switching station replaced aging infrastructure and is designed to accommodate the area's anticipated growth in the decades ahead. The Oso substation was also overhauled and brought up to current PUD standards.

Trees in power lines accounted for 28% of all outages in 2019, as well as some of the longest and most complex outages to repair. It's why tree trimming remains one of the PUD's best investments on behalf of customers. PUD staff proactively trimmed trees and vegetation along 423 miles of power lines in 2019, helping reduce the likelihood of customer outages, especially during the region's notori-



Crews replace an aging pole on California Street in Everett (Oct. 2019)

ous windstorms.

The PUD completed inspections on 26,931 power poles in its service territory, twice the average annual inspection rate. More than 450 aging or damaged poles were proactively replaced or repaired.

The PUD's water utility continued

to maintain high levels of safe and reliable service to more than 21,000 customers, replacing approximately 15,000 feet of aging pipeline in 2019.

Below, PUD linemen install wires connecting the modernized East Arlington Switching Station with the Eagle Creek Substation (Dec. 2019).



SAFETY FIRST, ALWAYS

afety is the first value and highest priority of the PUD, for both its customers and its employees.

In 2019, the PUD contracted with SafeStart to help expand employee safety principles.

SafeStart is an international safety company focused on making workplaces safer through behavior-based training. By the end of 2019, 63% of all PUD workers had completed the SafeStart program, with 100% completion expected in 2020.

The PUD's investment in employee safety has led to clear results. Employee injuries were down 5% in 2019, and limited or missed workdays as a result of injuries fell by 36%.

PUD employees used their safety training to assist others in the community. The Red Cross honored employee Matt Stirk, who used his PUD CPR training to save the life of a man who collapsed at dinner in a Monroe restaurant.

Five PUD employees – Casey Donovan, Jose Hernandez, Nick Miller, Reno Sansaver and Jesse Weewie – received the PUD General Manager's Life-Saving Award for their combined efforts to save a coworker who suffered an Above, a demo from this year's Safety Days is ready for action. Below, the pages of the 1952 Annual Report offer a safety lesson and study in heroics. Two PUD linemen rushed to the aid of a painter stuck atop the flagpole at the county courthouse.



on-the-job cardiac event.

All employees attended PUD Safety Days in 2019, participating in safety demonstrations, classes and presentations such as emergency preparedness, self-defense, personal health and cybersecurity. SOLAR Welcome



POWERING INTO THE FUTURE

Community Solar participants gathered at the Arlington Microgrid site for a project celebration. The event featured information about battery storage, EVs and more (August 2019).

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s the PUD reflected on and celebrated more than 70 years of water and electric service in 2019, it also began looking ahead with robust plans to become a utility of the future.

The PUD launched teams to plan the installation of new metering technology, research the effectiveness of distributed energy resources and maximize the growth and adoption of electric vehicles (EVs).

Construction on the next phase of the Arlington Microgrid broke ground in 2019. The Clean Energy Technology Center and Modular Data Center will support the larger microgrid project, allowing the PUD to study and demonstrate the effectiveness of battery energy storage,



solar power and vehicle-to-grid charging technology.

The PUD's Board of Commissioners approved an opt-in time-of-day rate pilot for commercial and industrial customers that will help the utility study how effective timeof-day rates are at shifting electricity usage to off-peak

> hours during the winter months, and tactics for communicating new rate designs with customers.

To meet growing demand in the Lynnwood area and on the Everett waterfront, the PUD completed construction of two new substations, Lynnwood's Cedar Valley and Everett's Port Gardner, and broke ground on the Swamp Creek Switching Station.

Left, an informational sheet about the time-of-day rate pilot.



he PUD marked 70 years of electric service with a renewed focus on customer satisfaction in 2019, launching multiple ini-

tiatives to improve service quality, better assist customers and position itself as a best-in-class utility.

In many cases, opportunities for improvement were identified by PUD employees who interact with customers on a regular basis. The PUD's executive leadership firmly believes in empowering employees to affect positive change on behalf of customers.

PUD leadership continued to focus on building out customer communication channels in 2019. Some of the most visible imWe're proud to honor the commitment to our neighbors that began more than 70 years ago. Below, a 1961 Open House at our Monroe Community Office.

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provements were to the PUD's online services. Early in the year, the PUD's mobile-friendly Outage Map received a significant upgrade. The new Estimated Time of Restoration (ETR) feature allows customers to quickly find out when their power may return.

Another Outage Map addition arrived in late 2019 with the Outage Tracker, giving customers step-bystep information on power restoration efforts in the field. The PUD's Outage Map was accessed almost a million times during the year, evidence this new communication channel has hit the mark.

While online services continued to grow rapidly, many customers also utilized the PUD's Call Center in 2019. Customers who connected with PUD by phone were greeted with an improved interactive voice response (IVR) experience. Through improved speech recognition technology, callers can now check account balances and make over-the-phone payments in fewer steps and with fewer frustrations.

For customers who reached a Call Center employee, procedural improvements behind the scenes resulted in more expedient care and call resolution. Customer Service Representatives gained a new tool to quickly and easily help customers compare their energy use over time. Customers will gain access to the same tool in 2020.

Assisting customers with compassion and empathy continued to be an important part of PUD employee training. In Fall 2019, the Board of Commissioners approved a new income-qualified assistance program, improving the PUD's ability to help a





The PUD's online Outage Map continued to evolve in 2019, earning customer kudos and industry notice. Informational graphics, such as the one at left, accompany updates during storms when the PUD's 34,000 Facebook followers and 14,000 Twitter followers tend to be most active.

broader range of customers. Applications for income-qualified discounts were streamlined, making them easier to complete and expediting much needed help to the customer.

The PUD removed barriers for customers in arrears and struggling to pay their monthly energy bills. The new Combo Payment Plan allows a Customer Service Representative to take the average of a customer's monthly bills, plus any past due amount, and spread both over 12 months of equal and predictable payments.

The PUD's ongoing commitment to provide customers with excellent and flexible service was reflected in the J.D. Power & Associates Residential Satisfaction Survey. Overall customer satisfaction increased double digits in 2019, outperforming most utilities in the region as PUD leadership continued to seek new ways to improve the customer experience.



he PUD's robust energy-efficiency programs helped reduce overall residential energy needs by more than 21 million kilowatt-hours in 2019, saving customers approximately \$2.2 million. By reducing the demand for electricity, the PUD is better able to keep residential rates steady and ensure there is enough energy to serve all customers – especially during peak usage.

To help customers achieve greater energy efficiency, the PUD provided more than \$4.4 million in product incentives and rebates in 2019. Residential customers used those rebates Above, customers trade in inefficient lights at our Holiday Light Exchange (Dec. 2019). Below, a photo from 1972 celebrates the PUD's tradition of helping customers conserve.



and incentives to make energy-saving purchases, including:

- Nearly 3,000 washers and dryers
- Nearly 900 smart thermostats
- More than 400 ductless heat pumps
- More than 400 windows
- Nearly 300,000 square feet of insulation
- More than 1,000,000 LED lamps or fixtures

Commercial and industrial customers also benefited from the PUD's energy-efficiency efforts. There were nearly 600 energy-saving business projects in 2019, reducing overall energy demand by more than 30 million kilowatt-hours.

More than a third of the commercial and industrial energy savings came from improved lighting efficiency, including projects such as the new LED lighting grid at Everett High School's historic Little Theater. The PUD helped the school district save \$14,000 on upfront costs and another \$6,000 in annual energy use – money that can now support other important school programs. Student safety was also improved. Not only do the LED lights save energy, they are cool to the touch, allowing students a truly hands-on experience in lighting design.

Below, customers were invited to craft edible energy-efficient houses during the Holiday Light Exchange.





The PUD's Trade Allies are partners in helping the utility spread the word about energy-efficiency incentives and discounts.



Everett High School's Little Theater teamed with the PUD for significant savings on new energy-saving lights.



Energy-efficiency staff delivered advanced power strips and other energy-saving supplies to local service agencies just in time for the holiday season (Dec. 2019).



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author shows that yes, it *is* possible to prepare meals every day **Food, B1**

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\$1.00 (HIGHER IN OUTLYING AREAS)

Utility bill won't go up in 2020

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25.2019

This is the third year in a row the PUD hasn't raised electric and water rates.

By ANDREA BROWN Herald Writer

EVERETT — Snohomish County PUD bills are not going up in 2020, but don't crank up the heater and

prance around in your Santa boxer shorts. Energy conservation is one reason the cost isn't rising.

This is the third year in a row the Snohomish County Public Utility District hasn't raised electric or water rates. The utility serves 352,000 electric customers and 20,000 water users in Snohomish County as well as on Camano Island in Island County. "Some big debts have been paid off," said Aaron Swaney, PUD spokesman. "It has been a priority to keep rates affordable for customers."

The 2020 operating budget includes \$650 million for the PUD's electric system, down \$15 million from \$665 million for 2019. Most of the decrease in expenses is due to lower

Bonneville Power Administration costs and service payments related to the Jackson Hydroelectric Plan So with all that extra doug

so with all that each why aren't rates going down?

"We had other places where had a reduction in revenue, a some increases in our capital pl ect budget," Swaney said.

See BILL, Page



Above, news of the PUD's third year with no rate increase made the front page of the Everett Herald (Dec. 25, 2019). Below, a PUD group tours Paine Field just before commercial service began. The opening of the airport in May was exciting news for our region.

art of the PUD's mission is to deliver affordable power and water to customers. The strong financial performance and internal cost control measures in 2019 helped up-

hold that mission and other fiscal strategic priorities, creating financial stability for the utility.

In 2019, the PUD's Electric and Generation system revenue bond



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ratings were upgraded to Aa2 and the Water system's revenue bond rating was affirmed at Aa2 by Moody's Investor Service. The agency cited the region's robust economic growth, and the PUD's decline in outstanding debt, benefits of longterm supply agreements with Bonneville Power Administration and low carbon transition risk exposure.

Moody's rating and sustained strong ratings from Standard & Poor's and Fitch, will help the PUD secure lower interest rates when it sells bonds to raise capital for future projects.

As a not-for-profit utility, the PUD's rates are set to cover its cost of doing business. That includes money for public benefits, including fish and wildlife programs, infrastructure and reliability capital projects. By reinvesting money in the community through energy-efficiency efforts and energy-assistance programs the PUD partners with those in need.

Continuous efforts by employees and management to control costs have allowed the PUD's Board of Commissioners to avoid a retail rate increase for the third year in a row. The PUD's residential electric rate remains 10.4 cents per kilowatt-hour (kWh), keeping it competitive with other Northwest electric utility rates and below the national average of 12.95 cents/kWh.

The PUD's electric and water customer base grew by nearly 4,500 and 500 customers, respectively, in 2019.

To ensure rates fairly and fully apportion the utility's costs, the Board adopted the implementation



Above, well managed power scheduling played a key role in 2019. Below, bill production has come a long way from the early days of the utility. In 2019, the PUD was able to save \$680,513, mostly in postage, thanks to customers who opted for paperless billing.



of a base charge for residential and commercial customers that will be phased in, beginning in 2021, along with a commensurate reduction in the energy rate. The new rate design will provide a reliable source of revenue for the PUD, better aligning the utility's fixed costs with revenue, and making electricity more price-competitive with fossil fuels like natural gas and propane.



Above, a PUD Special Meterman connects a 93 kW solar system to the grid (Dec. 2019). Below, an example of the utility's long-time support of renewable energy. In this 1982 image, an installer puts in a solar hot water system funded by a PUD incentive program.

he PUD is a national leader in carbon-free energy, thanks largely to the abundance of renewable hydropower in the Pacific Northwest and a long-term partnership with the Bonneville Power Administration, which supplies more than 80% of the utility's carbon-free electricity. But hydropower is only part of the growing number of renewable energy resources available to

the PUD and its customers.



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In 2019, the PUD completed its first Community Solar project, located at the home of the future Microgrid and Clean Energy Technology Center in Arlington. The 500-kilowatt array is the largest community solar project in the state.

Customer support for the project was overwhelming. Space on the array sold out within a few weeks of operation. More than 500 PUD customers now receive solar energy credits on their bill, proportionate to their level of participation in the program, with a waiting list for others hoping to join.

With the launch of Community Solar, the PUD also awarded its final Planet Power solar energy grants to five community-focused and nonprofit organizations: Eagle Creek Elementary, Snohomish County Fire District No. 22, YMCA-Everett, Farmer Frog and Camp Killoqua. Thanks to customer contributions to the Planet Power program through the years, an additional 329



The operator of Farmer Frog receives a Planet Power solar energy grant (August 2019).

kilowatts of solar energy has been added to the PUD's grid across 39 individual projects - 112 kilowatts in 2019 alone.

In addition to the hydropower

resources available through Bonneville Power, the PUD continued to invest in its own hydroelectric projects. In 2019, the PUD completed the last of the capital improvements specifically identified in the new license for the Henry M. Jackson Hydroelectric Project near Sultan, which is capable of supplying power to over 53,000 homes. The PUD also continued to invest in and benefit from its four smaller projects at Woods Creek, Youngs Creek, Calligan Creek and Hancock Creek.

The PUD's other renewable energy resources include long-term contracts for wind projects in Central Washington and Oregon, and contracts with locally owned and operated biomass and biodigester facilities.

Below, Community Solar participants and PUD support staff pause for a photo during the Community Solar Celebration (August 2019).



ENSURING SAFE & RELIABLE WATER

he PUD's water utility continues to provide safe and reliable drinking water to more than 21,000 residents of Lake Stevens, Granite Falls and surrounding areas near Arlington and Lake Goodwin.

In 2019, the water utility replaced 15,000 feet of water main in Lake Stevens, installed 459 new services, up from 321 a year earlier, and completed four capital projects key to continued reliability.

After taking control of the Warm Beach Water System in 2018, the PUD completed surveys, a cultural review and critical areas identification on the system in preparation for main replacements scheduled for 2020.

The PUD continued to maximize the use of its Lake Stevens wells, resulting in annual savings of \$677,000 in costs for wholesale water from the City of Everett.

Diligent water sampling and proactive maintenance work helped the water utility meet all state and federal water quality requirements for its water systems and provide safe drinking water for its customers in 2019. Above, a water quality test in progress. Below, a worker opens a hydrant in this 80s-era image.





AN EYE ON ENVIRONMENT

PUD staff and community stakeholders gathered to celebrate the completion of the Water Temperature Conditioning (WTC) Project at Culmback Dam (July 2019). Below, the WTC in action.

he PUD is proud of its longstanding commitment to environmental sustainability, striving daily to protect the region's natural resources and wildlife without impact to the quality of services provided to customers. The PUD's Environmental Affairs and Natural Resources teams are central to this mission, leading efforts to reduce pollution, increase recy-

cling, ensure worker and customer health and safety, and promote sustainable resources.

Environmental Affairs collaborates throughout the year with PUD departments, outside agencies and the private sector on many recycling projects. In 2019, some 14,000 pounds of computer equipment, circuit boards and other used electronic waste were recycled. The PUD also recycled approximately 1,000 dis-



tribution transformers, a significant source for copper recovery. In the past two years, over 2.5 miles of fluorescent light tubes and 2,100 light bulbs were recycled. Numerous battery types are also used in utility operations, and over 9,200 pounds were recycled during the past two years.

The use of chemicals and products are integral to District operations, and the lifecycle of these materials is evaluated prior to use. Many paints and solvents are carefully selected to address any potential health hazards or long-term waste management concerns. In 2019, Environmental Affairs evaluated more than 122 chemical products, not including reviews performed to find environmentally sustainable alternatives.

In the event of oil spills, PUD employees in multiple operational groups receive comprehensive training in compliance with cleanup requirements as well as health, safety and regulatory reporting. In 2019, the utility responded to several spills occurring as a result of damage to oilfilled equipment. The PUD collected 1,560 pounds of spill cleanup absorbents and other contaminated debris.



Transformers await recycling at the PUD's Operations Center.

Approximately 194 cubic yards of contaminated soil were excavated and safely disposed of at a permitted facility.

In 2019, the PUD formally celebrated the completion of the Water Temperature Conditioning Project at Culmback Dam, fulfilling its capital improvement requirements as part of the new license for the Henry M. Jackson Hydroelectric Project. The completed project allows the PUD to mix warmer water near the top



of Spada Lake Reservoir with colder water at the base of the dam. This ensures downstream river temperatures are conducive to successful fish spawning and rearing in the upper reaches of the Sultan River.

Over the past few years, the PUD has also completed more than 30 projects to retrofit poles and spans of wire to protect birds from collisions and electrocution. The utility manages more than 4,550 acres of land and water associated with its hydroelectric projects, including the protection of over 500 acres of old-growth habitat in the Sultan Basin. The PUD treated 150 acres and 19 miles of road rightof-way for noxious weed control, and created more than 1,200 snags and decaying live trees to improve bird and wildlife habitat across 175 acres near Spada Lake Reservoir.

This sign detailing the scope of the Sultan River Project (dedicated as the Henry M. Jackson Hydroelectric Project) ran in the PUD's 1964 Annual Report.

A GOOD NEIGHBOR & RELIABLE PARTNER

ncreasing customer engagement and public outreach were significant goals in 2019 as the PUD celebrated more than 70 years of service to Snohomish County and Camano Island.

The PUD's education team was especially busy. The PUD provided more than 34,500 student hours of instruction during the 2018-2019 academic year, including 19 assemblies and 1,265 classroom presentations at 87 Snohomish County schools. Approximately 200 students visited the PUD's Woods Creek Hydroelectric Project on school field trips, and the utility was represented at more than a dozen STEM, Trade Up and Career fairs. Above, teachers participate in a Microgrid Workshop offered by the PUD's education team (July 2019). Below, cooking classes were one of the PUD's most popular community events for decades. This photo is from a 1975 microwave cooking class.



The PUD played an important role in helping bridge communities. Two large projects involved partnerships with the cities of Everett and Sultan. In Everett, the PUD assisted in the safe placement of the new Grand Avenue Park pedestrian and utility bridge, which required undergrounding of distribution utilities, replacing poles, raising transmission lines and ensuring the safety for all parties working near – and directly under – PUD infrastructure.

In Sultan, PUD crews collaborated with the city on the new pedestrian bridge near Sportsman Park, raising overhead wires and relocating poles to make room for the new safe and ADA-accessible walkway across the Sultan River.

The PUD's High Voltage Demonstration Trailer was popular again in 2019, with over two dozen appearances at educational, community and safety events. For the first time in the PUD's history, linemen assisted in training first responders, like firefighters. The trailer was used to demonstrate the types of high-voltage hazards first responders might encounter during an emergency.

In August, the PUD brought back a re-envisioned Spada Community Day, partnering with the City of Everett and the Washington Department of Natural Resources to invite customers to Spada Lake Reservoir. Attendees met with PUD staff, learned more about the role of hydropower in our communities, and got a first-hand look at the utility's commitment to environmental sustainability and wildlife protection.

One of the most impactful community and energy partnerships of



The PUD's High Voltage Demonstration Team delivered a powerful lesson on electrical safety at Mukilteo Elementary's STEM night (March 2019).

2019 can be seen in downtown Everett at the new HopeWorks Station, which provides low-barrier housing and job training. HopeWorks and the PUD partnered to create a building that generates more electricity than it consumes, aided by 532 grid-interconnected solar units on the building's roof. A ribbon cutting ceremony was held in October. As part of the PUD's ongoing commitment to provide essential services to income-qualified customers, efforts were undertaken to streamline the utility's discount programs. In 2019, the PUD served an average of 11,000 income-qualified customers per month for a total of \$5.24 million in bill assistance.



PUD staff members and Commissioner Wolfe joined a local elementary school class for an Arbor Day tree planting at Walter Hill Park in Everett (April 2019).

LEADERSHIP TEAM



John Haarlow CEO/GM



Pam Baley Customer & Energy Services



Melissa Collins Commission & Executive Services



Julee Cunningham Communications, Marketing & Business Readiness



Tom DeBoer Generation, Power, Rates & Transmission Management



Dean Galvez Chief Information Officer



Kim Johnston Government & External Affairs



Allison Jubb Human Resources



Glenn McPherson Chief Financial Officer



Guy Payne Distribution & Engineering Services



Anne Spangler General Counsel



Brant Wood Water Utility

A LEGACY OF SERVICE

10

One of 2019's most memorable events came courtesy of Mother Nature. In February, record-setting snow battered the Puget Sound, causing traffic headaches, scheduling nightmares and power outages. PUD staff rose admirably to the challenges.

nohomish County PUD was created by a majority vote of the people in 1936 to provide electric and water service to Snohomish County and Camano Island. It officially began operations as a water utility in 1947. In 1949, the PUD purchased the electric distribution system for Snohomish County and Camano Island from Puget Sound Power & Light and began serving its new customers. The PUD is the 12th largest public utility in the United States and the second largest in Washington, serving almost 355,000 electrical customers. It also serves more than 21,000 water customers. The PUD is governed by three elected commissioners who represent separate districts within the service territory.



Independent Auditors' Report



Report of Independent Auditors

The Board of Commissioners Public Utility District No. 1 of Snohomish County Everett, Washington

Report on the Financial Statements

We have audited the accompanying financial statements of Public Utility District No. 1 of Snohomish County, Washington (the District), which comprise the District's combined and individual statements of net position of the Electric, Generation, and Water Systems as of December 31, 2019, the related District's combined and the individual statements of revenues, expenses and changes in net position and cash flows for the Electric, Generation, and Water Systems for the year ended December 31, 2019, the Combined statements as of and for the year ended December 31, 2018, the combined statements of fiduciary net position – pension funds as of December 31, 2019 and 2018, and the combined statements of changes in fiduciary net position – pension funds for the years ended December 31, 2019 and 2018, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these 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 financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the 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 financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the combined financial position of the District as of December 31, 2019 and 2018, and the individual financial positions of the Electric, Generation, and Water Systems as of December 31, 2019, and the changes in their financial positions and their cash flows for the years then ended, and combined fiduciary net position – pension funds as of December 31, 2019 and 2018, and changes in combined fiduciary net position – pension funds for the years then ended, in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the accompanying management's discussion and analysis, schedule of proportionate share of the net pension liability – PERS, schedule of employer contributions – PERS, and schedule of changes in total other post-employment benefits (OPEB) liability and related ratios, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the combined financial statements. The accompanying schedules of Electric System – statements of revenues, expenses, and debt service coverage, Electric System – revenue and statistical data, and Water System – statements of revenues, expenses, debt service coverage, and statistical data are presented for purposes of additional analysis, and are not a required part of the basic financial statements. The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the combined financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated April 3, 2020, on our consideration of the District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the District's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control over financial reporting and compliance.

Mass adams HP

Everett, Washington April 3, 2020

Management's Discussion and Analysis (Unaudited)

The following discussion provides an overview of Public Utility District No. 1 of Snohomish County (the PUD) financial activities for the years ended December 31, 2019 and 2018. This unaudited discussion is designed to be used in conjunction with the financial statements and notes, which follow this section.

FINANCIAL HIGHLIGHTS

Combined Operating Results

Snohomish County PUD's operating results for 2019 increased slightly from 2018 as combined net income increased from \$80 million in 2018 to \$82 million in 2019. This was a 2.5% increase compared to a 5% increase in 2018. This net income increase was primarily due to higher interest and investment income, and higher capital contributions in 2019. The increased capital contributions reflected strong real estate development activity in Snohomish County. These increases were offset by lower net operating income.

The PUD continued to exhibit increases in its customer base and retail sales in 2019. The average number of Electric System customers increased 1.3% from 350,418 in 2018 to 354,953 in 2019, the same percentage increase in 2018. New electric service connections were 4,339 in 2019, compared to 4,341 in 2018. New connections in 2017 were 5,132, the highest recorded at the PUD since 2007. Similarly, the average number of Water System customers increased 4.0% from 20,808 in 2018 to 21,635 in 2019, following a 2.5% increase in 2018. The transfer of the Warm Beach water system to the PUD in 2018 added approximately 600 customers to the Water Utility.

Along with the increases in customers, retail MWh sales increased 0.7% from 6,487,390 MWh in 2018 to 6,531,223 MWh in 2019, compared to a 1.6% decrease in 2018. Weather in the Puget Sound area was colder than usual in the winter of 2019, primarily due to the snowstorms in February. The weather was closer to average in 2018. As a result, retail energy consumption was increased from 2018 levels.

Combined retail sales were \$627 million in 2019, higher than the \$623 million in 2018 and \$622 million in 2017. This was the result of a moderate increase in residential energy consumption in 2019, following a decrease in 2018. There were no Electric rate increases in either 2019 or 2018. The Water System residential rate increased 1.8% effective January 2018.

The PUD sells surplus power into the wholesale power markets to balance resources with customer loads. Combined wholesale sales revenue was \$29 million 2019 compared to \$35 million in both 2018 and 2017. The volume of excess power available to be sold in the wholesale market decreased 30% in 2019. The Electric system sold \$11 million of excess transmission capacity in both 2019 and 2018. Combined other operating revenue was \$29 million in 2019, \$8



million lower than the \$37 million in 2018. This was primarily due to a lower level of energy efficiency reimbursement from Bonneville Power Administration (BPA).

Combined operating expenditures were \$643 million in 2019, \$15 million higher than the \$628 million spent in 2018, a 2.4% increase following a 1.0% increase in 2018. The primary drivers of the operating expenditure increase in 2019 were a \$21 million increase in purchased power partially offset by an \$8 million decrease in operation and maintenance costs. The higher 2018 maintenance cost was primarily due to two windstorms in December of 2018.

Combined operations expenses slightly declined to \$197 million in 2019 from \$198 million in 2018. Combined maintenance costs decreased \$8 million, from \$34 million in 2018 to \$27 million in 2019. There were two powerful wind storms in mid-December 2018. The wind storms caused trees and branches to fall, resulting in outages throughout Snohomish County and Camano Island. PUD crews, along with contract and mutual-aid crews, spent several days repairing transmission and distribution lines throughout the county to restore power. The PUD recorded \$5 million in maintenance costs as a result of the storms.

During 2019, the PUD's income from investing activities increased to \$12 million as compared to \$10 million in 2018, consistent with the financial market indices. This was a 23% increase compared to a 64% increase in 2018. The cash reserve portfolio is invested in securities and deposits authorized by Washington state statute. The portfolio is managed to reflect the PUD's current risk profile and other cash reserve policies and regulatory requirements.

Capital contributions increased \$12 million in 2019 from \$30 million in 2018 to \$42 million in 2019. This was a 40% increase in 2019 compared to a 15% increase in 2018.

Fiduciary Activities Reporting Requirements

In 2019, the PUD implemented the Governmental Accounting Standards Board Statement 84 that requires governmental entities to identify fiduciary component units and report the activities on separate financial statements. Three retirement funds – 401(a), 401(k) and Retirement Health Savings (RHS) plans – were identified as fiduciary activities in accordance with the requirements of the standard. Two new financial reports – Combined Statements of Fiduciary Net Position, Pension Funds and Combined Statements of Changes in Fiduciary Net Position, Pension Funds – were included in the 2019 financial statements. The three trust funds have combined assets of \$214 million and \$173 million as of December 31, 2019 and 2018, respectively.

Bond Rating Upgrade

In June, 2019, the bond ratings of the PUD's Electric and Generation system revenue bonds were upgraded to Aa2 by Moody's Investors Services. The agency cited several key factors contributing to the upgraded bond rating: the PUD's strong financial performance and liquidity, a strong service area, decline in outstanding debt and healthy debt service coverage levels, a long-term supply agreement with BPA, and continued emphasis on cost management and fiscal responsibility.

The bond upgrade by Moody's, together with the PUD's already strong AA- ratings with Standard & Poor's and Fitch ratings, will help the PUD secure lower interest rates when it issues bonds to raise capital for future projects.

ELECTRIC SYSTEM

Electric System Rates

General Rates

The PUD Board of Commissioners approved a 2.9% general electric rate increase, effective April 1, 2017. The 2018 financial results reflect a full-year impact of the rate change. The PUD's 2019 operating budget included a modest 1.3% rate increase, down from the original 2.9% rate increase that had been planned. Because of strong financial results and reserve levels, the Board of Commissioners decided to forgo a rate increase in 2019. There have been no general rate increases since April 2017.

Bonneville Power Administration (BPA) Rates

BPA markets wholesale electricity generated from the federally owned hydroelectric projects in the Columbia River basin and one non-federal nuclear power plant. BPA provides approximately 83% of the energy resources used by the PUD to serve its customers. Power purchases from BPA were \$239 million and \$238 million in 2019 and 2018, respectively. BPA passes its costs of power, transmission, and ancillary services to customers through its wholesale rates. These wholesale rates are reviewed biannually and adjusted on October 1. Subject to approval by the Board of Commissioners, the PUD adjusts retail electric rates to reflect BPA rate adjustments. As a result of the increased cost of power and transmission purchases from BPA, the PUD's Board of Commissioners increased retail power rates 1.6% to match the higher costs effective October 1, 2017. There was no BPA power or transmission rate increase in October 2018 or 2019.

Capital Investments - Customer Growth

The PUD makes significant investments in capital programs each year to maintain, expand, and enhance its electric distribution system. The number of customers continues to grow in the PUD's service area. The need for electric distribution infrastructure and facilities to serve customers and assure reliability is expected to continue. Electric System capital expenditures were \$113 million in 2019 and \$100 million in 2018.

Key projects in 2019 included the construction of two new substations: Cedar Valley in Lynnwood and Port Gardner in Everett. The new construction will serve new or growing customer loads in these areas. Other significant work included a complete rebuilding of Oso substation, 115 kV six-breaker ring bus construction at the East Arlington substa-



tion, circuit switchers replaced at three stations, and system reliability upgrades at ten substations. Transmission projects included pole relocations for several municipalities. The PUD continued its ongoing replacement of aging poles. In 2019, approximately 450 distribution poles, 19 transmission poles, and 25.7 miles of underground distribution cables were replaced.

Capital Funding and Lower Debt Levels

The PUD utilizes a combination of revenues, cash reserves, and revenue bonds to fund investments in the electric distribution and transmission system infrastructure. In addition, the PUD receives capital contributions from developers to fund infrastructure construction directly related to growth.





Figure 3

bond sale were used to fund qualifying additions, replacements, and improvements to the Electric System, including construction and upgrades relating to the electric distribution system, smart grid infrastructure, replacement and consolidation of the PUD's community offices, and utility pole replacements. The PUD fully allocated all proceeds of the Series 2015 revenue bonds in 2018.

Growth in capital infrastructure provides additional debt capacity and flexibility for future financing activity. Strong operating results over the past several years have provided adequate cash for the funding of capital projects in the short-term. No new debt issuance, along with the continued payment of outstanding debt have enabled the PUD to reduce Electric System debt levels. Longterm debt for the Electric System, including current maturities, totaled \$318 million as of December 31, 2019, compared to \$328 million in 2018.

Solar Panel Community Project

In 2019, the PUD completed construction of a 500-kilowatt solar array installation at the site of the PUD's Microgrid & Clean Energy Technology Center in Arlington. The first Community Solar program was launched in the spring of 2019. Generation to the electric grid began on May 1, 2019. At peak output, the solar array can power about 50 homes annually.

The Community Solar program has over 500 PUD customer-participants. Each participant subscribed to a portion of the solar panels, which offset approximately \$1.0 million of the solar project construction costs. These participants receive credits on their electric bills for electricity produced and are eligible for an annual state-funded cost recovery incentive for their participation. The final cost of the solar array construction project is \$1.2 million. The solar array is part of a larger Arlington Microgrid project, which includes a 1 megawatt battery storage system, vehicle-to-grid system, and grid management and control systems.

GENERATION SYSTEM

Calligan and Hancock Creek Hydroelectric Projects

The PUD completed construction of two Federal Energy Regulatory Commission (FERC) licensed, low-impact hydropower projects in 2018, the Calligan Creek and Hancock Creek projects. Both projects were in full operation in 2019. Calligan and Hancock creeks are tributaries to the Snoqualmie River near North Bend in King County, Washington, south of the PUD's Henry M. Jackson hydroelectric project. Each project has a capacity of 6 megawatts, enough power to serve about 5,000 homes each at peak output. Calligan and Hancock are both environmentally responsible, run-of-the-river projects.

Lower Generation System Debt Levels

Revenue bonds to fund capital expenditures were last issued in 2015, with a final maturity in 2045. The proceeds of the bond sale were used to fund a portion of the design and construction of the Calligan Creek and Hancock Creek hydroelectric projects. The PUD fully allocated all proceeds of the Series 2015 revenue bonds in 2018.

Debt levels in the Generation System have been declining in recent years. Long-term debt for the Generation System, including current maturities, totaled \$81 million as of December 31, 2019, compared to \$108 million in 2018.

Sunset Falls Project Disposition

In April 2018, the Board of Commissioners decided not to pursue a final application with FERC for

ed not to pursue a final application with FERC for the Sunset Falls Hydropower Project. The plan was for a proposed 30-megawatt hydroelectric project above an existing fish passage barrier, Sunset Falls, located on the south fork of the Skykomish River. The PUD studied and assessed the viability and potential for a hydroelectric project beginning in July 2010. After a thorough review of the new Integrated Resource Plan (IRP), the Board of Commissioners concluded that additional energy generated by the project would not be required.





As a result of the project termination, the Electric System recorded a \$9 million charge to other income and expense in 2018. Generation System utility plant includes land and easement assets purchased in connection with the Sunset Falls project, valued at \$0.7 million.

WATER SYSTEM

Water System Operating Results

Retail sales revenue for the Water System increased slightly from \$12.6 million in 2018 to \$12.7 million in 2019 following a \$0.4 million increase in 2018. The revenue increase in 2019 was due to an increased customer base, while the 2018 increase was the result of an overall retail rate increase of 2.0% effective January 2018.

Operating expenses increased from \$11.1 million in 2018 to \$11.6 million in 2019, following a decrease of \$0.2 million in 2018. The 2017 increase was the result of higher water purchases due to the shutdown of the PUD's Lake Stevens water treatment plant for four months of 2017 and higher meter reading costs due to the impact of monthly reading and billing. The 2019 increase was primarily due to higher purchased water of \$0.2 million, and higher maintenance costs of \$0.2 million.







Water System capital contributions were \$8.4 million in 2019, \$2.7 million higher than the \$5.7 million in 2018 reflecting strong developer activity in the central Snohomish County area the Water System serves.

Capital Funding and Lower Debt Levels

The PUD utilizes State of Washington grants and loans, revenue bonds, revenues and cash reserves to fund capital infrastructure improvements. In addition, the Water System receives capital contribution fees from developers to address growth in the Water System service area.

Growth in capital infrastructure provides additional debt capacity and flexibility for future financing activity. Strong operating results over the past several years have enabled the PUD to reduce Water System debt levels. The PUD used \$2.3 million from the Operating Reserve to redeem the outstanding balance of the Series 2006 Water System Revenue and Refunding bonds in 2019.

Historically low interest rate markets for tax-

exempt bonds continued in 2019. The PUD issued \$6.6 million of Series 2019 Water System Revenue Refunding Bonds to refinance the Series 2009 Water System Revenue Bonds at lower long-term interest rates. This transaction resulted in a \$1.3 million net present value savings, and it will lower annual debt service costs by an average of \$200,000 from 2020 to 2031.

Long-term debt for the Water System, including current maturities, totaled \$12.9 million as of December 31, 2019, compared to \$18.8 million in 2018.

Water System Rate Change

In December 2017, the Board of Commissioners approved revisions to the Water System's service rate schedule including a January 2018 overall retail rate increase of 2.0%. Several factors led to the rate increase, including a 3.5% increase in wholesale water purchase prices, increased operations and maintenance costs, and other necessary system infrastructure improvements to replace the aging water mains.

Warm Beach Water Association Transfer

In September 2018, ownership of the Warm Beach Water Association's (the Association) water distribution system was transferred to the PUD at the request of the Association's membership after a multi-year process of study and public outreach. The transfer added approximately 600 new customers to the PUD's Water System.

Improvements to the Association's system will be funded by a combination of \$6.3 million of federal and state grants and loans through the Drinking Water State Revolving Fund, \$0.8 million contributed by the Association, and approximately \$1.2 million from the PUD's Water System operating reserve. Customers of the PUD's Warm Beach water system will pay a capital improvement surcharge to reimburse the operating reserve. The PUD initiated a drawdown of \$0.5 million from the Drinking Water State Revolving Fund in 2019.

An estimated \$4.6 million for improvement projects is currently planned. These projects are necessary to increase the reliability of the transferred water system.

OVERVIEW OF THE FINANCIAL STATEMENTS

Basic Financial Statements

The Combined Statements of Net Position present the PUD's net position as the difference between assets and deferred outflows of resources, and liabilities and deferred inflows of resources. The Combined Statements of Net Position provide information about the nature and amount of investments in resources (assets), the consumption of net assets in one period that are applicable to future periods (deferred outflows of resources), the obligations to creditors (liabilities), and the acquisition of net assets that are applicable to future periods (deferred inflows of resources).

The Combined Statements of Revenues, Expenses, and Changes in Net Position report the revenues and expenses during the periods indicated and identify operating activity separately from non-operating activity.

The Combined Statements of Cash Flows provide information about the PUD's cash flows from operating activities, capital and related financing activities, investing activities, and non-capital financing activities, and presents a reconciliation of net operating income to net cash provided by operating activities.

Notes to the Financial Statements

The notes to the financial statements provide additional information that is essential to a full understanding of the figures provided in the basic financial statements.

Financial Analysis

Analysis of the comparative financial information is provided in the following table.

Condensed Combined Financial Information

(In millions)

	2019	2018	2017	
Current Assets, Investments, and Special Funds Net Utility Plant Other Assets <i>Total Assets</i>	\$ 589 1,608 <u>19</u> 2,216	\$ 621 1,552 <u>19</u> 2,192	\$ 618 1,505 <u>30</u> 2,153	
Deferred Outflows of Resources	20	22	26	
Current Liabilities Long-Term Debt Other Liabilities Total Liabilities	117 430 <u>124</u> 671	142 453 <u>142</u> 737	133 496 <u>135</u> 764	
Deferred Inflows of Resources	38	31	24	
Net Investment in Capital Assets Restricted Unrestricted Net Position	1,168 173 186 \$ 1,527	1,069 152 224 \$ 1,445	1,019 183 189 \$ 1,391	
Operating Revenues Operating Expenses Net Operating Income	\$ 685 643 42	\$ 695 628 67	\$ 687 624 63	
Interest Charges Other Income and Expense Net Income before Capital Contributions Capital Contributions Net Income	$ \begin{array}{r} (23) \\ 21 \\ 40 \\ 42 \\ 82 \\ \end{array} $			
Net Position – beginning of year Adjustment for OPEB expense Net Position	1,445 	1,391 (26) \$ 1,445	1,315 	

Assets

Current assets, investments, and special funds decreased \$32 million in 2019. High demand for energy resources due to a prolonged cold weather event combined with a decrease in power provided by the PUD's long-term contracts necessitated the purchase of significant resources at historically high rates in the wholesale market in the first quarter of 2019. The PUD utilized operating reserves to meet this demand without rate increases. Current assets, investments, and special funds increased \$3 million in 2018 as strong operating results led to slightly higher operating reserves.

The PUD had \$1.6, \$1.6, and \$1.5 billion invested in a broad range of net utility capital assets as of December 31, 2019, 2018, and 2017, respectively. Utility capital assets include five operating hydroelectric power generation plants, electric transmission and distribution lines and substations, water transmission and distribution pipes, storage and pump station facilities, buildings, and equipment. Utility plant additions were \$123 million in 2019 and \$117 million in 2018, reflecting the construction of the new hydroelectric projects, investments in the distribution and transmission systems, including construction associated with growth and general facilities of the PUD. The increase in utility plant was offset by \$11 million and \$25 million in routine retirements in 2019 and 2018, respectively. Accumulated depreciation increased \$56 million and \$45 million related to routine plant asset activity in 2019 and 2018, respectively.

Other assets increased \$1 million in 2019 reflecting a grant receivable from the Federal Emergency Management Administration (FEMA) related to restoration work associated with a declared major storm event in December 2018. Other assets decreased \$11 million in 2018 reflecting the collection of long-term receivables and the termination of the Sunset Falls project in 2018.

Deferred Outflows of Resources

Deferred outflows of resources decreased \$2 million in 2019 and \$4 million in 2018. Amortization of the book loss on defeasance of debt and changes to the Net Pension Liability impacted deferred outflows of resources by \$3 million in 2019 and \$4 million in 2018.

Liabilities

Current liabilities decreased \$25 million in 2019 due to a decrease in the current portion of the PUD's long-term debt. Current liabilities increased \$9 million in 2018 reflecting somewhat higher vendor payable balances and a slightly higher level of long-term debt principal payments due in 2019.

Long-term debt decreased \$23 million in 2019 and \$43 million in 2018 as a result of scheduled principal repayments and bond refunding in 2019.

Other liabilities decreased \$18 million in 2019 and increased \$7 million in 2018 primarily due to actuarial valuation changes in the post retirement liabilities.

Deferred Inflows of Resources

Deferred inflows increased \$7 million in 2019 and \$8 million in 2018 as the result of an increase in the net pension plan deferrals.

Net Position

Net investment in capital assets increased \$98 and \$50 million in 2019 and 2018, respectively, reflecting the growth in net utility plant. The PUD added 4,339 and 4,341 Electric System customer connections in 2019 and 2018, respectively. The Water System added 470 and 961 customer connections in 2019 and 2018, respectively.

Restricted net position represents resources that are subject to external restrictions, such as bond covenants or third-party contractual agreements, and resources restricted by the Board of Commissioners' resolution. Restricted net position increased \$21 million in 2019 and decreased \$31 million in 2018 due to the required changes in recognition of postemployment liabilities.

Unrestricted net position is available to finance day-to-day operations without constraints established by covenants, legal requirements, or board resolutions. Unrestricted net position decreased \$38 million in 2019 due to lower cash reserves and recognition of postemployment liability. Unrestricted net position increased \$35 million in 2018 due to strong operating results leading to higher cash reserves.

Operating Revenues

Operating revenues decreased \$11 million in 2019, from \$696 million in 2018 to \$685 million in 2019. Retail revenues increased \$4 million in 2019, while other operating revenue decreased \$8 million due to a lower level of BPA energy conservation program reimbursements. Wholesale revenues decreased \$6 million due to an overall decrease in power available for sale in the wholesale market.

Operating revenues increased \$9 million in 2018, from \$687 million in 2017 to \$696 million in 2018. Retail revenues increased \$1 million in 2018, while other operating revenue increased \$8 million in 2018 related to increased revenue earned from the sale of transmission capacity and a higher level of BPA energy conservation program reimbursements.

Operating Expenses

Operating expenses increased \$15 million in 2019, from \$628 million in 2018 to \$643 million in 2019. Unfavorable weather conditions reduced the power supplied by the PUD's hydroelectric and wind contracts in the first quarter, requiring the PUD to purchase considerably more power from the wholesale market than usual. Because wholesale market power rates were much higher than normal, purchased power expense was \$22 million higher than 2018.

Operating expenses increased \$4 million in 2018, from \$624 million in 2017 to \$628 million in 2018, primarily due to higher maintenance expenses related to two strong wind events in 2018.

Interest Charges

Total interest charges increased \$1 million from 2018 to 2019 due to the PUD's implementation of GASB Statement No. 89 effective January 2019. Prior to this implementation interest costs incurred before the end of a construction period were capitalized as part of the historical cost of the asset.

Interest charges decreased \$1 million from 2017 to 2018 as a result of declining debt levels since 2015.

Other Income and Expense

Other income and expense increased \$16 million in 2019 and decreased \$5 million in 2018.

The \$16 million increase is partially due to a \$5 million increase in grant income and a \$3 million increase in interest income.

The \$5 million decrease in 2018 was due to the recognition of \$9 million in costs related to the termination of the Sunset Falls project, partially offset by a \$5 million increase in interest income reflecting favorable market conditions.

Capital Contributions

Capital contributions increased \$12 million in 2019 and \$4 million in 2018. Capital contributions are collected from property developers when they request to connect to the PUD's electric or water distribution systems or request engineering or construction services. The capital contributions increases in 2019 and 2018 reflect increased property development in the PUD's service area.

Adjustment for OPEB Expense

The Governmental Accounting Standards Board required changes to recognition of postemployment benefits other than pensions (OPEB) as of January 1, 2018. A \$26 million adjustment was recorded in Net Position to reflect the impact of the required change on the PUD's net position as of the first day of 2018.

Requests for Information

The basic financial statements, notes, and management's discussion and analysis are designed to provide a general overview of the PUD's finances. Questions concerning any of the information provided in this report should be directed to the PUD at 2320 California Street, Everett, WA 98201.

Combined Statements of Net Position

December 31, 2019 and 2018

(In thousands)

	2019			2018	
Assets	Electric System	Generation System	Water System	Combined	Combined
Current Assets:	-,	-/	-,		
Cash and temporary investments:					
Cash and cash equivalents	\$ 36,477	\$ 7,304	\$ 1,833	\$ 45,614	\$ 93,894
Temporary investments	84,160	5,631	3,025	92,816	81,710
Total Cash and Temporary Investments	120,637	12,935	4,858	138,430	175,604
Accounts and other receivables, net	86,389	194	1,477	88,060	89,567
Intersystem loans receivable	3,389	_	_	_	_
Materials and supplies	28,041	_	300	28,341	24,738
Prepayments and other	9,657	198	111	9,966	6,952
Total Current Assets	248,113	13,327	6,746	264,797	296,861
Long Term-Investments & Special Funds					
Long-term investments	111,131	2,005	2,508	115,644	116,099
Special funds – bond funds and other	180,015	15,019	13,286	208,320	208,276
Total Long-Term Investments & Special Funds	291,146	17,024	15,794	323,964	324,375
Utility Plant:					
Plant in service	1,921,416	347,450	160,961	2,429,827	2,353,840
Construction work in progress	134,504	2,670	3,481	140,655	104,436
Total utility plant	2,055,920	350,120	164,442	2,570,482	2,458,276
Accumulated depreciation	(776,851)	(145,985)	(39,306)	(962,142)	(905,985)
Net Utility Plant	1,279,069	204,135	125,136	1,608,340	1,552,291
Other Assets:					
Conservation loans and other receivables, net	2,700	_	415	3,115	1,559
Intersystem loans and receivables	38,053	_	_	_	_
FERC licenses	_	15,588	_	15,588	16,125
Other assets	690	15		705	1,027
Total Other Assets	41,443	15,603	415	19,408	18,711
Total Assets	1,859,771	250,089	148,091	2,216,509	2,192,238
Deferred Outflows of Resources					
Unamortized loss on refunding debt	1,323	4,861	164	6,348	9,741
Net pension and OPEB deferrals	13,075	341	331	13,747	11,862
Total Deferred Outflows of Resources	14,398	5,202	495	20,095	21,603
Total Assets and Deferred Outflows	\$1,874,169	\$ 255,291	\$ 148,586	\$2,236,604	\$2,213,841

The accompanying notes are an integral part of these combined financial statements.
Combined Statements of Net Position

December 31, 2019 and 2018 (*In thousands*)

		2018			
Liabilities	Electric System	Generation System	Water System	Combined	Combined
Current Liabilities:	System	System	System	Combined	Combined
Accounts payable	\$ 48,886	\$ 431	\$ 1,188	\$ 50,505	\$ 53,715
Accrued taxes	پ 43,880 17,855	φ 4 51 72	φ 1,100 95	\$ 50,505 18,022	پ روز 17,538
Accrued interest	1,523	338	33	1,894	2,036
Other accrued liabilities	24,845		29	24,874	24,366
Customer deposits	4,713		23	4,736	4,808
Current maturities of long-term debt	10,335	5,310	1,537	17,182	39,464
Intersystem loans payable	10,555	3,389	1,007		
Total Current Liabilities	108,157	<u> </u>	2,905	117,213	141,927
Long-Term Debt:					
Revenue bonds	330,005	86,796	9,487	426,288	449,634
Other notes payable			3,540	3,540	3,351
Total Long-Term Debt	330,005	86,796	13,027	429,828	452,985
Other Liabilities:					
Intersystem loans and payables	-	38,053	_	_	_
FERC license obligations	-	15,588	_	15,588	16,125
Net pension liability	42,566	1,119	1,119	44,804	57,477
Other liabilities	59,373	2,566	1,626	63,565	68,773
Total Other Liabilities	101,939	57,326	2,745	123,957	142,375
Total Liabilities	540,101	153,662	18,677	670,998	737,287
Deferred Inflows of Resources					
Unearned FERC license contributions	-	5,500	_	5,500	6,000
Net pension deferrals	25,268	619	696	26,583	23,385
Other deferred inflows	5,860	86	139	6,085	1,908
Total Deferred Inflows of Resources	31,128	6,205	835	38,168	31,293
Net Position					
Net investment in capital assets Restricted:	940,052	116,889	110,736	1,167,677	1,069,584
Reserve funds	486	7,700	950	9,136	8,427
Rate stabilization	116,457	_	1,521	117,978	116,059
Debt service and other	30,148	5,657	10,785	46,590	27,260
Unrestricted	215,797	(34,822)	5,082	186,057	223,931
Total Net Position	1,302,940	95,424	129,074	1,527,438	1,445,261
Total Liabilities, Deferred Inflows	d 1 074 160	¢ 055 001	¢ 140 FOC	¢0.000 (0.0	¢0.010.041
and Net Position	\$ 1,874,169	\$ 255,291	\$ 148,586	\$2,236,604	\$2,213,841

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

Combined Statements of Revenues, Expenses, and Changes in Net Position

Years ended December 31, 2019 and 2018

(In thousands)

			2018		
	Electric System	Generation System	Water System	Combined	Combined
Operating Revenues:					
Retail sales	\$ 613,816	\$ –	\$ 12,727	\$ 626,543	\$ 622,910
Wholesale sales	29,317	36,450	634	29,951	35,530
Other	28,451	314	403	29,168	37,359
Total Operating Revenues	671,584	36,764	13,764	685,662	695,799
Operating Expenses:					
Purchased power	349,909	_	_	313,459	291,771
Purchased water	-	_	2,596	2,596	2,438
Operations	188,550	4,806	3,527	196,883	197,880
Maintenance	23,021	1,975	1,712	26,708	34,940
Depreciation	55,493	5,717	3,028	64,238	61,863
Taxes	38,710	74	726	39,510	39,462
Total Operating Expenses	655,683	12,572	11,589	643,394	628,354
Net Operating Income	15,901	24,192_	2,175	42,268	67,445
Interest Charges:					
Interest	17,194	6,998	666	23,033	24,785
Amortization of debt related costs	(1,232)	1,537	77	382	462
Allowance for funds used during construction	4			4	(2,949)
Total Interest Charges	15,966	8,535	743	23,419	22,298
Other Income and Expense:					
Interest income	13,973	1,477	665	14,290	10,854
Other income and expense, net	6,731	53	28	6,812	(6,135)
Total Other Income and Expense	20,704	1,530	693_	21,102_	4,719
Net Income Before Capital Contributions	20,639	17,187	2,125	39,951	49,866
Capital Contributions	33,743	39_	8,444	42,226	30,415
Net Income	54,382	17,226	10,569	82,177	80,281
Net Position, Beginning of year	1,248,558	78,198	118,505	1,445,261	1,390,785
Adjustment for OPEB expense (see Note 1)					(25,805)
Net Position, End of year	\$1,302,940	\$ 95,424	\$ 129,074	\$ 1,527,438	\$1,445,261

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

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Combined Statements of Cash Flows

Years ended December 31, 2019 and 2018 (In thousands)

			2018		
_	Electric System	Generation System	Water System	Combined	Combined
Cash Flows From Operating Activities:					
Cash received from customers	\$ 649,017	\$ 36,651	\$ 13,557	\$ 661,962	\$ 672,292
Cash payments to suppliers	(493,465)	(3,713)	(4,238)	(464,153)	(434,268)
Cash payments to employees	(81,529)	(3,972)	(3,518)	(89,019)	(95,497)
Cash payments for taxes	(41,102)	(110)	(691)	(41,903)	(39,242)
Other cash received (paid)	21,016	(650)	122	20,488	25,794
Net Cash Provided by Operating Activities	53,937	28,206	5,232	87,375	129,079
Cash Flows From Capital & Related Financing Activiti	es:				
Capital construction	(101,546)	(1,196)	(4,288)	(107,030)	(100,205)
Proceeds from debt	_	_	8,025	8,025	_
Debt issuance costs	_	_	(97)	(97)	_
Repayment of debt	(9,880)	(27,605)	(12,462)	(49,947)	(37,804)
Interest paid on debt	(17,195)	(7,611)	(698)	(23,179)	(21,948)
Capital contributions	24,317	39	4,286	28,642	23,822
Capital grants received	1,268	_	_	1,268	631
Intercompany loan interest	2,413	(2,413)			
Net Cash (Used for) Capital & Related Financing Activities	(100,623)	(38,786)	(5,234)	(142,318)	(135,504)
Cash Flows From Investing Activities:					
Sale of special funds and investment securities	263,208	56,923	14,985	335,116	421,337
Purchase of special funds and investment securities	(275,474)	(51,783)	(16,339)	(343,596)	(486,291)
Interest on investment securities	14,142	1,672	599	14,088	11,745
Net Cash Provided by (Used for) Investing Activities	1,876	6,812	(755)	5,608	(53,209)
Cash Flows From Non-Capital Financing Activities:					
Non-capital grants received Net Cash Provided by Non-Capital	963	92		1,055	35
Financing Activities	963	92		1,055	35
Net Increase (Decrease) in Cash & Cash Equivalents	(43,847)	(3,676)	(757)	(48,280)	(59,599)
Beginning of year	80,324	10,980	2,590	93,894	153,493
Cash & Cash Equivalents – End of year	\$ 36,477	\$ 7,304	\$ 1,833	\$ 45,614	\$ 93,894

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

Combined Statements of Cash Flows (continued)

Years ended December 31, 2019 and 2018

(In thousands)

			2018		
	Electric System	Generation System	Water System	Combined	Combined
Reconciliation of Net Operating Income to Net Cash	Provided by Op	perating Activitie	s:		
Net Operating Income	\$ 15,901	\$ 24,192	\$ 2,175	\$42,268	\$ 67,445
Adjustments to net operating income:					
Depreciation	55,493	5,717	3,028	64,238	61,863
Pension and OPEB Related	(13,747)	(342)	(354)	(14,443)	(13,638)
Other cash received (paid)	(627)	(289)	28	(888)	(410)
(Increase) decrease in receivables	2,670	(113)	32	2,589	5,637
(Increase) decrease in other assets	(5,040)	(28)	31	(5,037)	(1,070)
Increase (decrease) in payables	(3,624)	(691)	268	(4,047)	4,567
Increase (decrease) in other liabilities	2,911	(240)	24	2,695	4,685
Total adjustments	38,036	4,014	3,057	45,107	61,634
Net Cash Provided by Operating Activities	\$ 53,937	\$ 28,206	\$ 5,232	\$ 87,375	\$ 129,079
Non-cash Investing, Capital and Related Financing A	ctivities:				
Non-cash contributions	\$ 9,098	\$ -	\$ 4,158	\$ 13,256	\$ 8,875
Allowance for funds used during construction	(4)	_	_	(4)	2,949
Changes in valuation of financial instruments	2,078	59	55	2,192	1,024
Amortization of debt related costs	1,232	(1,537)	(77)	(382)	(462)

Combined Statements of Fiduciary Net Position Pension Funds

Years ended December 31, 2019 and 2018 (In thousands)

		2018			
	401 (a)	401 (k)	Retirement Health Savings	Combined	Combined
Assets					
Cash and Cash Equivalents	\$ -	\$ –	\$ –	\$ -	\$ –
Investments, at fair value					
Stable Value/Cash Management	160	24,299	892	25,351	24,542
Bond	20	8,407	20	8,447	7,594
Balanced/Asset Allocation	-	114,547	733	115,280	89,800
U.S. Stock	297	54,815	210	55,322	42,862
International/Global Stock	25	7,794	25	7,844	6,616
Total investments	502	209,862	1,880	212,244	171,414
Loans Receivable		2,168		2,168	2,028
Total Assets	<u>\$ 502</u>	\$ 212,030	\$ 1,880	\$214,412	\$ 173,442
Liabilities					
Accounts payable and other liabilities					
Total Liabilities	<u>\$ </u>	\$	\$	\$	\$
Fiduciary Net Position					
Restricted for					
Pensions	502	212,030	_	212,532	172,035
Postemployment benefits other than pensions			1,880	1,880	1,407
Total Net Position held in Trust	<u>\$ 502</u>	\$ 212,030	\$ 1,880	\$214,412	\$ 173,442

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

Combined Statements of Changes in Fiduciary Net Position Pension Funds

Years ended December 31, 2019 and 2018 (In thousands)

			201	19			2018
	401	(a)	401 (k)		rement n Savings	Combined	Combined
Additions							
Contributions:							
Members	\$	_	\$ 8,378	\$	_	\$ 8,378	\$ 8,152
Employer		22	1,903		340	2,265	2,136
Rollover		-	2,605		_	2,605	1,766
Forfeiture		_	11		_	11	9
Total Contributions		22	12,897		340	13,259	12,063
Investment earnings:							
Net increase (decrease) in fair value of investments		69	33,770		123	33,962	(11,737)
Interest, dividends and other		12	2,396		56	2,464	2,873
Total Investment Earnings (Loss)		81	36,166		179	36,426	(8,864)
Total Additions	<u>\$</u> 1	.03	\$ 49,063	\$	519	\$ 49,685	\$ 3,199
Deductions							
Benefits paid to or for participants		25	8,331		_	8,356	7,364
Medical, dental and life insurance for retirees		_	_		21	21	24
Rollover distributions		44	_		_	44	_
Administrative expenses and other plan adjustments		1	268		25	294	272
Total deductions	\$	70	\$ 8,599	\$	46	\$ 8,715	\$ 7,660
Net increase (decrease) in fiduciary net position		33	40,464		473	40,970	(4,461)
Fiduciary Net Position restricted for Pensions, Beginning of year	2	469	171,566		1,407	173,442	177,903
Fiduciary Net Position restricted for Pensions, End of year	\$ 5	502	\$212,030	\$	L,880	\$214,412	\$173,442

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

Notes to Combined Financial Statements

December 31, 2019 and 2018

Note 1

Summary of Significant Accounting Policies

GENERAL

Public Utility District No. 1 of Snohomish County, Washington, (the PUD) is a public electric and water utility serving Snohomish County and Camano Island in Island County, Washington. The PUD's operations consist of three systems: the Electric System, the Generation System, and the Water System. The PUD is governed by a three-member Board of Commissioners (the Commission), which is elected for staggered six-year terms. The legal responsibilities and powers of the PUD, including the establishment of rates and charges for services rendered, are exercised through the Commission.

The Electric System is made up of the PUD's electric transmission and distribution system. The Generation System is composed of the PUD's Henry M. Jackson Hydroelectric Project and four smaller hydroelectric projects. The Water System is made up of the PUD's water distribution system.

The accompanying financial statements for 2019 include the individual and combined statements of net position for the Electric System, Generation System, and Water System, and the statements of revenues, expenses, and changes in net position, and cash flows for each system. System columns presented in the financial statements and notes may not add to the combined totals due to the elimination of intercompany transactions, which consist of intersystem loans and routine intercompany transactions. The PUD also has fiduciary responsibility for the following trust funds: 401(a), 401(k) and Retiree Health Savings (RHS) plans. The combined statements of fiduciary net position for these three fiduciary funds and statements of changes in fiduciary net position are included as part of the financial statements (see Note 7).

The PUD's financial statements are reported using the accrual basis of accounting. Revenues are recorded when earned, and expenses are recorded when incurred. Revenues and costs that are directly related to the generation, purchase, transmission, and distribution of electricity or water are reported as operating revenues and expenses. All other revenues and expenses are reported as non-operating revenues and expenses.

The accompanying financial statements have been prepared in conformity with Generally Accepted Accounting Principles (GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles.

The PUD's other significant accounting and financial policies are described in the following sections.

Retail Sales

The PUD bills Electric and Water System customers for their consumption on a monthly basis. The accompanying financial statements include estimated unbilled revenues for electricity and water delivered to customers between the last billing date and the end of the year. Unbilled electric revenue was \$37.4 million and \$40.0 million as of December 31, 2019, and 2018, respectively. Unbilled water revenue was \$629,000 and \$644,000 as of December 31, 2019, and 2018, respectively. Power sales and purchase transactions are recognized over the duration of the contracts as a component of retail and wholesale revenue and purchased power operating expenses.

Capital Contributions

The PUD records capital contributions from customers and developers, primarily relating to expansions to the PUD's distribution facilities, as a separate category of non-operating revenue.

Cash Equivalents

The PUD considers highly liquid, short-term investments with original maturities of three months or less to be cash equivalents.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded when invoices are issued and are written off when they are determined to be uncollectible. A reserve is established for uncollectible accounts receivable based upon historical write-off trends and knowledge of specific circumstances that indicate collection of an account may be unlikely. The allowance for doubtful accounts was \$2.8 million and \$3.1 million as of December 31, 2019 and 2018, respectively.

Material and Supplies

Material and supplies are recorded at average cost and consist primarily of materials for construction and maintenance of utility plant.

Special Funds

Special funds are restricted or limited-use funds that have been established in accordance with Commission resolutions, bond resolutions, state law or other agreements. These funds, which consist of cash, cash equivalents, and investments, are restricted for specific purposes, including debt service, bond reserves, rate stabilization, qualifying capital expenditures, postemployment benefits, FERC license commitments, and other reserve requirements. In June 2018, the PUD adopted a revised financial reserve policy which made modest changes in the allocation of reserves between special funds and other cash and investments. It is the PUD's policy to use unrestricted funds prior to using restricted funds except for bond proceeds used for qualifying capital expenditures and funds set aside for debt service payments.

Utility Plant

Utility plant is stated at cost. The PUD's capitalization threshold for utility plant is \$5,000. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets, ranging from 5 to 77 years. When utility plant assets are retired, the original cost together with removal costs, less salvage, is charged to accumulated depreciation. The cost of maintenance and repairs is charged to expense as incurred, while the cost of replacements and betterments is capitalized. See Table 1 for additional utility plant details.

The PUD periodically reviews the carrying value of its utility plant and other equipment whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

Unamortized Loss on Refunding Debt

The difference between the cost to defease outstanding debt and the carrying value of bonds defeased by refunding bonds is deferred and amortized over the shorter of the remaining term of the refunded bonds or the term of the refunding bonds, using the straight-line or effective-interest method. This difference for bonds defeased by operating funds is charged in the current period.

Net Position

Net position consists of the following components:

- *Net investment in capital assets* This component consists of capital assets, net of accumulated depreciation reduced by the net outstanding debt balances related to capital assets, net of unamortized debt related costs.
- *Restricted* This component consists of assets and liabilities with constraints placed on use. Constraints include those imposed by bond covenants or third-party contractual agreements, and resources restricted by Board resolution.
- *Unrestricted* This component consists of assets and liabilities that do not meet the definition of "net investment in capital assets" or "restricted."

Compensated Absences

Employees accrue paid time off (PTO) or vacation in varying amounts according to their years of service. Accrued liability for PTO and vacation was \$12.3 million and \$12.0 million at December 31, 2019 and 2018, respectively. These liabilities are presented as part of Other Accrued Liabilities.

Table 1

Utility Plant

(In thousands)

	2017		2018			2019		
	Ending Balance	 Additions	etirements Transfers	Ending Balance	Additions	etirements Transfers	Ending Balance	
Electric System								
Transmission	\$ 141,528	\$ 21,306	\$ (974)	\$ 161,860	\$ 2,066	\$ (511)	\$ 163,4	15
Distribution	1,146,384	85,337	(20,233)	1,211,488	61,427	(7,930)	1,264,9	85
General Plant & Other	373,670	38,592	(3,121)	409,141	14,659	(2,383)	421,4	17
Land & Non-Depreciable Assets	67,585	 2,863	 (38)	 70,410	 1,189	 	71,5	99
Plant in Service	1,729,167	148,098	(24,366)	1,852,899	79,341	(10,824)	1,921,4	16
Construction Work in Progress	148,210	 (47,944)	 _	 100,266	 34,238	 	134,5	04
Utility Plant	1,877,377	100,154	(24,366)	1,953,165	113,579	(10,824)	2,055,9	20
Less Accumulated Depreciation	(691,929)	 (44,771)	 7,452	 (729,248)	 (51,006)	 3,403	(776,8	351)
Net Utility Plant	\$1,185,448	\$ 55,383	\$ (16,914)	\$ 1,223,917	\$ 62,573	\$ (7,421)	\$1,279,0)69
Generation System								
Generation/Production	\$ 234,845	\$ 58,973	\$ 271	\$ 294,089	\$ 566	\$ (60)	\$ 294,5	95
Transmission	2,781	_	_	2,781	58	(28)	2,8	11
Distribution	5,535	862	25	6,422	-	(6)	6,4	16
General Plant & Other	16,887	10,600	2,158	29,645	161	-	29,8	06
Land & Non-Depreciable Assets	14,759	 1,576	 (2,508)	 13,827	 (5)	 _	13,8	22
Plant in Service	274,807	72,011	(54)	346,764	780	(94)	347,4	50
Construction Work in Progress	62,371	 (60,190)	 -	 2,181	 489	 _	2,6	70
Utility Plant	337,178	11,821	(54)	348,945	1,269	(94)	350,1	20
Less Accumulated Depreciation	(134,965)	 (5,325)	 1	 (140,289)	 (5,696)	 	(145,9	85)
Net Utility Plant	\$ 202,213	\$ 6,496	\$ (53)	\$ 208,656	\$ (4,427)	\$ (94)	\$ 204,1	35
Water System								
Generation/Production	\$ 9,300	\$ -	\$ _	\$ 9,300	\$ 56	\$ _	\$ 9,3	56
Transmission & Distribution	119,513	7,754	(340)	126,927	6,780	(252)	133,4	-55
General Plant & Other	14,043	-	(125)	13,918	236	(58)	14,0	96
Land & Non-Depreciable Assets	4,032	 _	 _	 4,032	 22	 	4,0	54
Plant in Service	146,888	7,754	(465)	154,177	7,094	(310)	160,9	61
Construction Work in Progress	4,386	 (2,397)	 _	 1,989	 1,492	 	3,4	-81
Utility Plant	151,274	5,357	(465)	156,166	8,586	(310)	164,4	42
Less Accumulated Depreciation	(33,862)	 (2,691)	 105	 (36,448)	 (2,899)	 41	(39,3	06)
Net Utility Plant	\$ 117,412	\$ 2,666	\$ (360)	\$ 119,718	\$ 5,687	\$ (269)	\$ 125,1	36

Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, 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. The PUD has used estimates in determining reported amounts including unbilled revenue, allowance for doubtful accounts receivable, accrued liability for injuries and damages, depreciable lives of utility plant, pensions, and other contingencies. Actual results could differ from these estimates.

Accounting Changes and Reclassifications

GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, requires governments providing defined Other Postemployment Benefits (OPEB) to recognize the net OPEB liability on their statements of net position. This standard identifies the methods and assumptions that are required to be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. The PUD provides retiree health and life insurance benefits and has reflected the impact of this requirement in the financial statements effective January 1, 2018.

The financial impact resulting from this implementation was the restatement of 2018 beginning net position by \$25.8 million for the PUD's OPEB liability. The OPEB liability was \$46.1 million and \$50.7 million as of December 31, 2019 and 2018, respectively.

GASB Statement No. 83, Certain Asset Retirement Obligations, establishes criteria for governmental entities to recognize and disclose Asset Retirement Obligations (ARO) when the liability is incurred and reasonably estimable. The PUD implemented the standard, effective January 1, 2019. Certain assets and the associated obligating events were identified and reviewed by the PUD. It was determined that there have been no material obligating events for these assets. As a result, there was no impact to the financial results for the year ended December 31, 2019.

GASB Statement No. 84, Fiduciary Activities, requires governmental entities to identify fiduciary activities for accounting and financial reporting purposes. In 2019, the PUD implemented the standard and identified 401(a), 401(k) and Retirement Health Savings (RHS) plans as fiduciary activities. Two new financial reports – Combined Statements of Fiduciary Net Position, Pension Funds and Combined Statements of Changes in Fiduciary Net Position, Pension Funds – were included as part of the financial statements. The three trust funds have combined assets of \$214.4 million and \$173.4 million as of December 31, 2019, and 2018, respectively.

In January 2019, the PUD early adopted GASB Statement No. 89, Accounting for Interest Cost Incurred Before the End of a Construction Period. The statement establishes requirements for interest costs incurred before the end of a construction period to be recognized as an expense in the period in which the cost is incurred and should not be capitalized as part of the historical cost of the asset. As a result, calculation of Allowance for Funds Used During Construction (AFUDC) was discontinued effective January 1, 2019. The AFUDC reported on the 2019 financial statements is a reclassification of an open work order.

Certain reclassifications have been made to the 2018 financial statements to conform to the 2019 presentation.

Note 2 Special Funds and Cash and Temporary Investments

The PUD's investment policy authorizes the investment of funds in U.S. Treasury, federal and state agency obligations, interest-bearing demand or time deposits, repurchase agreements, bankers' acceptances, and certain other investments. Interest-bearing demand or time deposits with a qualified public depository of the State of Washington are protected and collateralized under the Washington State Public Deposit Protection Act. In all instances, the PUD evaluates the credit-worthiness of the financial institutions with which it invests.

All PUD investments are in compliance with the State of Washington statutes and PUD bond resolutions. Substantially all PUD investments are recorded at fair value based on quoted market prices. The relative type of PUD's investments at December 31, 2019 and 2018 are summarized in Table 2.

Table 2

Special Funds and Cash and Temporary Investments

	Electric System		Generation System		Water System	
	2019	2018	2019	2018	2019	2018
U.S. Treasury Securities	51%	15%	44%	11%	49%	39%
U.S. Agency Obligations						
Federal Home Loan Bank	18%	31%	_	21%	7%	27%
Federal Farm Credit Bank	5%	8%	—	_	5%	5%
Federal National Mortgage Association	6%	2%	3%	_	8%	-
Federal Home Loan Mortgage Corporation	4%	19%	3%	_	10%	5%
Tennessee Valley Authority	2%	2%	_	_	_	-
Cash and Interest-bearing Demand or Time Deposits	4%	6%	_	31%	2%	7%
Washington State Local Government Investment Pool	10%	17%	50%	37%	19%	17%

The PUD invests funds consistent with the following objectives: conform with state and local statutes, preserve principal, maintain adequate liquidity, and maximize yield. The PUD's investments are purchased with the objective of holding the security until maturity.

Investment securities owned by the PUD are registered in the PUD's name and held in trust by banks or trust companies. Repurchase agreements are fully collateralized by eligible securities registered in the PUD's name. Other PUD investments are insured by federal depository insurance or protected against loss since they are on deposit with financial institutions recognized as qualified public depositories of the State of Washington.

The Washington State Local Government Investment Pool (LGIP) is an investment vehicle operated by the Washington State Treasurer, offering governmental agency investors the economies of scale available from a multi-billion-dollar pooled fund investment portfolio. As of December 31, 2019, LGIP investments include primarily U.S. Agency Securities, U.S. Treasury Securities, Repurchase Agreements, and Interest-Bearing Bank Deposits. Assets held in LGIP are invested in a manner consistent with the U.S. Securities and Exchange Commission's rule 2a-7 of the Investment Company Act of 1940. The PUD records these investments at amortized cost.

The PUD must give notice to the LGIP if the PUD plans to withdraw over \$1.0 million on the same day. The LGIP may suspend withdrawals or liquidate if the difference between the amortized cost per share and the market net asset value per share results in material dilution or other unfair results. The LGIP may suspend redemptions if the New York Stock Exchange suspends trading or closes, if the US bond markets are closed, and if the Securities and Exchange Commission declares an emergency.

In order to address custodial credit risk, all investments except cash, interest-bearing demand or time deposits, and funds held in the LGIP, which are not evidenced by securities, are held in the PUD's name by a third-party custodian. The PUD addresses concentration of credit risk by investing in a diversified portfolio.

The PUD manages its exposure to decreases in the fair value of its investments arising from increasing interest rates by setting maturity limits for its investments. While some bond reserves are invested in U.S. agency obligations that approximate the term of the related bonds, all other funds are invested in instruments with maturities of less than five years, and most are invested for terms of two years or less. The PUD's investment policy specifies that the investment portfolio be structured so maturing investments match projected cash flow needs in order to mitigate interest rate risk. Investment maturities for combined special funds and cash and temporary investments as of December 31, were as follows:

	20)19	2018		
Term	Amount Invested (in thousands)	Percent of Invested Fund	Amount Invested (in thousands)	Percent of Invested Fund	
Less than 30 days	\$ 71,748	16%	\$ 115,820	24%	
30 to 90 days	19,534	4%	34,955	7%	
90 days to 1 year	106,788	23%	120,613	24%	
1 year to 5 years	238,552	51%	196,475	39%	
Bond reserves invested to bond maturity	25,772	6%	32,116	6%	
	\$ 462,394	100%	\$ 499,979	100%	

Fair value is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. The PUD's investments, at fair value, can be categorized by valuation techniques into two levels. Level 1 investments are traded on a national securities exchange and are valued at the last reported sales price on the last business day of the year. Level 2 investments are valued using pricing models maximizing the use of observable inputs for similar securities.

The table below shows the fair value hierarchy for each system's investments subject to fair value measurement, as of December 31 (in thousands):

				2018				
	Ele	ctric	Generation		Water		Combined	
	Level 1	Level 2	Level 1	Level 2	Level 1	Level 2	Level 1	Level 2
U.S. Treasury Notes	\$208,021	\$ -	\$ 13,136	\$ -	\$ 10,150	\$ -	\$ 78,099	\$ -
Tennessee Valley Authority	_	10,013	_	_	_	_	_	9,966
Federal Home Loan								
Mortgage Corporation	_	14,468	_	867	-	2,000	-	83,262
Federal Farm Credit Bank	_	20,646	_	_	-	1,000	-	34,088
Federal Home Loan Bank	_	73,952	_	_	_	1,521	_	151,426
Federal National								
Mortgage Association		25,235		800		1,623		9,485
Assets Valued at Fair Value	\$ 208,021	\$144,314	\$13,136	\$ 1,667	\$ 10,150	\$6,144	\$ 78,099	\$288,227

Note 3 Long-Term Debt

Debt service (principal and interest) payments on the PUD's revenue bonds and other notes payable to maturity, excluding intersystem borrowing, are set forth in Table 3.

TABLE 3

Debt Service (Principal & Interest)

(In thousands)

	Electric	System	Generation System		Water	System
	Principal	Interest	Principal	Interest	Principal	Interest
2020	\$ 10,335	\$ 16,520	\$ 5,310	\$ 4,059	\$ 1,537	\$ 465
2021	10,820	16,033	5,505	3,841	1,562	424
2022	11,305	15,550	5,765	3,565	1,642	366
2023	11,850	15,002	6,035	3,275	769	296
2024	13,075	14,411	6,320	2,972	794	269
2025-2029	58,130	62,737	7,820	12,502	4,249	888
2030-2034	70,700	45,721	10,100	10,225	2,118	136
2035-2039	106,415	23,425	13,025	7,295	116	7
2040-2044	25,575	1,279	16,750	3,569	70	1
2045-2046	_	_	3,870	193	_	_
Total	\$ 318,205	\$ 210,678	\$ 80,500	\$ 51,496	\$ 12,857	\$ 2,852

The Electric, Generation and Water Systems' revenues, net of specified operating expenses, are pledged as security for the systems' revenue bonds until their respective bonds are defeased or repaid. Principal and interest paid for 2019 and 2018 were \$60.1 million and \$62.3 million, respectively. Total revenues available for debt service as defined for the same periods were \$141.8 million and \$151.4 million. At December 31, 2019, annual principal and interest payments are expected to require between 27% and 54% of revenues.

Tax-exempt revenue bonds make up the majority of the PUD's long-term debt and are subject to Internal Revenue Service Code (the Code) requirements for arbitrage rebate. Rebates are calculated based on earnings on gross proceeds of the bonds that are in excess of the amount prescribed by the Code. The estimated arbitrage liability as of December 31, 2019 and 2018 was \$1.3 million and \$1.0 million, respectively.

Electric System

A summary of principal outstanding on Electric System long-term debt follows:

	December 31,		
	2019	2018	
	(In the	ousands)	
Series 2015 Revenue bonds, 5.0%, due 2020-2040, earliest call 2025	\$ 129,150	\$ 131,755	
Series 2012 Revenue Refunding bonds, 4.0-5.0%, due 2020-2028, earliest call 2022	41,495	41,495	
Series 2011 Revenue Refunding bonds, 3.0-5.0%, due 2020-2024, earliest call 2021	26,980	31,125	
Series 2010A Revenue bonds, 4.4-5.6%, due 2020-2035, currently callable	120,580	123,710	
Total Principal Outstanding on Long-Term Debt	\$318,205	\$328,085	

Changes in the Electric System long-term debt during the years ended December 31, 2019 and 2018, follow (in thousands):

	2017	2018			2019					
	Balance	Add	litions	Reductions	Balance	Addi	tions	Re	ductions	Balance
Revenue bonds, face amount	\$ 337,545	\$	_	\$ (9,460)	\$ 328,085	\$	_	\$	(9,880)	\$318,205
Unamortized bond premium	25,754		_	(1,772)	23,982		-		(1,771)	22,211
Unamortized bond discount	(86)		_	5	(81)		_		5	(76)
Total Debt	363,213		_	(11,227)	351,986		-		(11,646)	340,340
Less: Current maturities	(9,460)				(9,880)					(10,335)
Total Long-Term Debt	\$ 353,753				\$ 342,106					\$ 330,005

The PUD is obligated as part of its bond resolution to purchase for use in its Electric System all power available to the Electric System from the Generation System. The PUD is also unconditionally obligated by the bond resolution to set aside revenues in amounts sufficient to pay, to the extent not otherwise paid, all the debt service on the Generation System bonds on a parity of lien with the Electric System Senior bonds.

The PUD is required to maintain a cash reserve for certain Electric System bonds. At December 31, 2019 and 2018, the PUD maintained the reserve requirement of \$18.8 million in the Electric System.

The fair value of the Electric System's long-term debt was \$377.5 million and \$373.1 million, respectively, at December 31, 2019 and 2018. The fair value of the Electric System's long-term debt is estimated based on quoted market prices for the same or similar issues.

The PUD provided an irrevocable \$1.6 million letter of credit to Bonneville Power Administration to secure transmission projects under an agreement. The letter of credit expired on October 31, 2018, and the PUD did not have any draws on this letter of credit.

Generation System

A summary of principal outstanding on Generation System long-term debt follows:

	December 31,		
	2019	2018	
	(In the	ousands)	
Series 2015 Revenue bonds, 5.0%, due 2025-2045, earliest call 2025	\$ 39,985	\$ 39,985	
Series 2010A Revenue Refunding bonds, 4.0-5.0%, due 2020-2024, earliest call 2020	26,465	54,070	
Series 2010B Revenue bonds, 5.3-5.7%, due 2020-2040, currently callable	14,050	14,050	
Total Principal Outstanding on Long-Term Debt	\$ 80,500	\$ 108,105	

Changes in the Generation System long-term debt during the years ended December 31, 2019 and 2018, follow (in thousands):

	2017			2018				2019	
	Balance	A	dditions	Reductions	Balance	Addi	tions	Reductions	Balance
Revenue bonds, face amount	\$ 134,420	\$	_	\$ (26,315)	\$108,105	\$	-	\$ (27,605)	\$ 80,500
Unamortized bond premiums	14,810		_	(1,598)	13,212		_	(1,597)	11,615
Unamortized bond discounts	(10)		_	1	(9)		_		(9)
Total Debt	149,220		_	(27,912)	121,308		-	(29,202)	92,106
Less: Current maturities	(26,315)				(27,605)				(5,310)
Total Long-Term Debt	\$ 122,905				\$ 93,703				\$ 86,796

The PUD is required to maintain a cash reserve for certain Generation System bonds. At December 31, 2019 and 2018, the PUD maintained the reserve requirement of \$6.5 million and \$12.1 million in the Generation System.

At December 31, 2019, \$3.8 million of the Series 1989 Generation System Revenue bonds and \$24.3 million of the Series 1986A Generation System Revenue Refunding bonds were considered defeased. At December 31, 2018, \$7.0 million of the Series 1989 Generation System Revenue bonds and \$24.3 million of the Series 1986A Generation System Revenue Refunding bonds were considered defeased.

The fair value of the Generation System's long-term debt was \$91.4 million and \$117.2 million, respectively, at December 31, 2019 and 2018. The fair value of the Generation System's long-term debt is estimated based on quoted market prices for the same or similar issues.

Water System

A summary of principal outstanding on Water System long-term debt follows:

		Decen	nber 3:	1,
		2019		2018
		(In the	ousands))
Series 2019 Revenue Refunding bonds, 5.0%, due 2020-2031, not callable	\$	6,570	\$	_
Series 2011 Revenue Refunding bonds, 4.0-5.0%, due 2020-2022, earliest call 2021		2,405		3,235
Series 2009 Revenue bonds, refunded in 2019		-		9,270
Series 2006 Revenue and Refunding bonds, redeemed in 2019		-		2,575
State of Washington Drinking Water Revolving Fund loans:				
equal principal payments plus 1.0% interest due annually through 2042		531		_
equal principal payments plus 1.0% interest due annually through 2034		1,868		1,993
equal principal payments plus 1.5% interest due annually through 2029		826		909
equal principal payments plus 1.5% interest due annually through 2027		513		577
equal principal payments plus 2.5% interest due annually through 2022		144		191
Total Principal Outstanding on Long-Term Debt	\$ 1	L 2,85 7	\$	18,750

In December 2019, the PUD issued \$6.6 million of Series 2019 Water System Revenue Refunding bonds at a premium of \$1.5 million. These proceeds, along with \$0.8 million from the Operating Reserve, were used to refund the Series 2009 Water Revenue bonds at a net carrying value of \$8.8 million. The costs of issuance of \$0.1 million were paid out of the residual bond proceeds. The difference between the funds required to refund the outstanding debt, \$8.72 million, and the net carrying amount of the outstanding debt, \$8.77 million, is recognized as a deferred inflow of resources to be amortized over the remaining life of the debt.

The economic gain on the refunding is calculated as the difference between the present value of the outstanding debt service requirements and the present value of the new debt service requirements, discounted at the effective interest rate and adjusted for additional cash paid. The net present value savings, or economic gain, from the 2009 Water Revenue bond refunding is \$1.3 million.

The PUD also used \$2.3 million from the Operating Reserve to redeem the outstanding balance of the Series 2006 Water System Revenue and Refunding bonds.

Changes in the Water System long-term debt during the years ended December 31, 2019 and 2018, follow (in thousands):

	2017		2018			2019	
	Balance	Additions	Reductions	Balance	Additions	Reductions	Balance
Revenue bonds, face amount	\$ 16,790	\$ -	\$ (1,710)	\$ 15,080	\$ 6,570	\$ (12,675)	\$ 8,975
Unamortized bond premiums	502	-	(97)	405	1,455	(153)	1,707
Unamortized bond discounts	_	-	_	_	-	-	_
Other notes payable	3,989		(319)	3,670		212	3,882
Total Debt	21,281	-	(2,126)	19,155	8,025	(12,616)	14,564
Less: Current maturities	(2,029)			(1,979)			(1,537)
Total Long-Term Debt	\$ 19,252			\$ 17,176			\$ 13,027

The Water System periodically enters into low-interest loan agreements with the Washington State Public Works Trust Fund and the State of Washington Drinking Water Revolving Fund. These funds have provided various loans to the PUD for the repair, replacement, rehabilitation, and reconstruction of water facilities. In 2019, the PUD initiated a drawdown of \$0.5 million to pay down a loan of the Warm Beach Water System, which was transferred to the PUD in 2018.

The PUD is required to maintain a cash reserve for certain Water System bonds. At December 31, 2019 and 2018, the PUD maintained the reserve requirement of \$0.4 million and \$1.2 million in the Water System.

The fair value of the Water System's long-term debt was \$10.5 million and \$19.1 million, respectively, at December 31, 2019 and 2018. The fair value for the Washington State Public Works Trust Fund loan and the State of Washington Drinking Water Revolving Fund loans approximate the carrying amounts since such loans are exclusive and have no market.

Note 4 BPA Power Purchase Agreement

The PUD is a preference customer of the Bonneville Power Administration (BPA), from which it acquired approximately 83% and 86% of its energy purchases in 2019 and 2018 respectively.

The PUD purchases power from BPA under power supply contracts offered pursuant to the Pacific Northwest Electric Planning and Conservation Act. These contracts provide the PUD with the ability to purchase power in excess of its declared resources on an as-needed basis. The PUD entered into contracts with BPA to purchase approximately 75-85% of its power requirements from the federal agency through 2028.

Energy Northwest Nuclear Projects Nos. 1, 2 and 3

The PUD entered into participation agreements in Energy Northwest's Nuclear Projects Nos. 1, 2 and 3. The PUD, Energy Northwest and BPA have entered into separate Net Billing Agreements with respect to Energy Northwest's Project No. 1, Project No. 2 and 70% ownership share of Project No. 3. The PUD is obligated to purchase from Energy Northwest, and BPA is obligated to purchase from the PUD, a maximum of approximately 20%, 15% and 19%, respectively, of the capacity of Project Nos. 1 and 2 and Energy Northwest's 70% ownership share of Project No. 3. BPA is unconditionally obligated to pay Energy Northwest the PUD's pro rata share of the total annual costs of the projects, including debt service on revenue bonds issued to finance the projects. The effect of these net billing agreements is that the cost of power sold by BPA to all of its customers, including the PUD, includes the cost of these projects.

Notwithstanding the assignment of the PUD's share of the capability of a net billed project to BPA, the PUD remains unconditionally obligated to pay to Energy Northwest its share of the total annual costs of the projects to the extent payment is not received by Energy Northwest from BPA. The PUD has not made payments under this contract.

Note 5 Generation System Projects

The Generation System consists of the PUD's Henry M. Jackson Hydroelectric Project (Jackson Project) and four smaller hydroelectric projects.

Henry M. Jackson Hydroelectric Project

The Jackson Project is a multipurpose hydroelectric project with a capacity of 111.8 megawatts. In 2019 and 2018, the Jackson Project supplied 4% and 5%, respectively, of the PUD's energy needs.

The project is currently operating under a 45-year license issued by the Federal Energy Regulatory Commission (FERC) that will expire in 2056. The license agreement includes requirements for fish, wildlife, and recreation enhancement in the Jackson Project area. The PUD has also negotiated settlement agreements with the cities of Everett and Sultan, Washington Department of Fish and Wildlife, United States Forest Service, and the Tulalip Tribes that call for funding commitments over the course of the 45-year license.

Small Hydroelectric Projects

The Generation System owns four small hydroelectric projects. Two of these, the Youngs Creek Hydroelectric Project (Youngs Creek) and the Woods Creek Hydroelectric Project (Woods Creek) are located near Sultan, Washington, in Snohomish County. Completed in 2011, Youngs Creek has a capacity of 7.5 megawatts, and its FERC license expires in 2042. Woods Creek was purchased by the PUD in 2008, has a capacity of 650 kilowatts, and was upgraded by the PUD to meet current operating standards.

The PUD's other two projects, Calligan Creek Hydroelectric Project (Calligan Creek) and Hancock Creek Hydroelectric Project (Hancock Creek), were completed and began operation in 2018. These 6.0-megawatt run-of-the-river hydroelectric projects are situated near North Bend, Washington, in King County. The 50-year FERC licenses for each project will expire in 2065.

The PUD has committed the Electric System to purchase the output of its Generation System projects at the cost of the power produced.

Note 6 Related Party Transactions

The Generation System sells power to the Electric System at the cost of power produced including debt service and any other cash transactions. The Generation System sold \$37.3 and \$42.0 million of power in 2019 and 2018, respectively, to the Electric System.

The Electric and Generation Systems periodically enter into loan transactions between the systems for various purposes including to defease bonds, to fund energy generation project construction, and to fund energy generation project studies, including the purchase and development of small hydroelectric projects. These loans are assigned terms consistent with the associated asset acquired, and interest rates are set at tax-exempt bond market rates at the time of the loan.

Electric System loans to the Generation System were \$41.4 million and \$43.9 million at December 31, 2019 and 2018, respectively. The Generation System recorded interest expense on these loans of \$1.7 million in 2019 and \$1.6 million in 2018.

In 2019, the Generation System repaid the Electric System for a loan with a balance of \$2.0 million. The Electric System recorded interest expense on this loan of \$122 thousand in 2019 and \$193 thousand in 2018.

Note 7 Retirement and Deferred Compensation Plans

DEFINED BENEFIT PENSION PLANS

The Public Employee Retirement System (PERS) is a cost-sharing multiple-employer retirement system comprised of three separate pension plans for membership purposes. PERS Plan 1 and PERS Plan 2 are defined benefit plans and PERS Plan 3 is a defined benefit plan with a defined contribution component. PERS members include elected officials, state employees, and employees of governmental agencies in the State of Washington.

PERS members who joined the system by September 30, 1977 are Plan 1 members. Those who joined after that date are Plan 2 members unless they exercised an option to transfer their membership to Plan 3. PERS members joining the system

on or after March 1, 2002 for state and higher education employees, or September 1, 2002 for local government employees have the irrevocable option of choosing membership in either PERS Plan 2 or Plan 3. The option must be exercised within 90 days of employment. Employees who fail to choose within 90 days default to Plan 3.

PERS is comprised of and reported as three separate plans for accounting purposes. Plan 1 accounts for defined benefits of Plan 1 members; Plan 2/3 accounts for the defined benefits of Plan 2 members and the defined benefit portion of benefits for Plan 3 members; and Plan 3 accounts for the defined contribution portion of benefits for Plan 3 members. Although members can only be a member of either Plan 2 or Plan 3, the defined benefit portion of Plan 2 and Plan 3 are accounted for in the same pension trust fund. All assets of Plan 2/3 may legally be used to pay the defined benefits of any of the Plan 2 or Plan 3 members or beneficiaries, as defined by the terms of the plan. Therefore, Plan 2/3 is considered to be a single plan for accounting purposes.

General Benefits Provided

PERS provides retirement, disability and death benefits. Benefit provisions are established by state statute and can only be modified by the state legislature.

PERS Plan 1 and Plan 2 retirement benefits are financed from a combination of investment earnings and employer and employee contributions. Employee contributions to the PERS Plan 1 and Plan 2 defined benefit plans accrue interest at a rate specified by the Director of the Washington State Department of Retirement Systems (DRS). Benefit increases are provided to benefit recipients each January. Increases are related to the funding ratio of the plan.

The benefit provisions stated in the following paragraphs of this section are current provisions and apply to active plan participants. Vested, terminated employees who are entitled to benefits but are not receiving them yet are bound by the provisions in effect at the time they terminated their public service.

Substantially all full-time and qualifying part-time PUD employees participate in PERS which is administered by DRS. The state Legislature establishes, and amends, laws pertaining to the creation and administration of all public retirement systems.

Both the PUD and the employees made the required contributions. The PUD's required contributions for the years ended December 31, were:

	PER	S Plan 1	PERS Plan 2	PERS Plan 3		
			(In thousands)			
2019	\$	81	\$ 13,105	\$ 2,535		
2018		81	12,667	2,572		
2017		71	11,143	2,124		

PERS Plan 1 Description

PERS Plan 1 provides retirement, disability and death benefits. Retirement benefits are determined as two percent of the member's average final compensation (AFC) times the member's years of service. The AFC is the average of the member's 24 highest consecutive service months. Members are eligible for retirement from active status at any age with at least 30 years of service, at age 55 with at least 25 years of service, or at age 60 with at least five years of service. Members retiring from active status prior to the age of 65 may receive actuarially reduced benefits. Retirement benefits are actuarially reduced to reflect the choice of a survivor benefit. Other benefits include duty and non-duty disability payments, an optional cost-of-living adjustment (COLA), and a one-time duty-related death benefit, if found eligible by the Department of Labor and Industries. PERS 1 members were vested after the completion of five years of eligible service. The plan was closed to new entrants on September 30, 1977.

The PERS Plan 1 member contribution rate is established by State statute at 6 percent. The employer contribution rate is developed by the Office of the State Actuary and includes an administrative expense component that is currently set at 0.18 percent. Each biennium, the state Pension Funding Council adopts Plan 1 employer contribution rates. The PERS Plan 1 required contribution rates (expressed as a percentage of covered payroll) were as follows:

Actual Contribution Rates	Employer	Employee
July 2015 through June 2017	11.18%	6.00%
July 2017 through August 2018	12.70	6.00
September 2018 through December 2019	12.83	6.00

The PUD's contributions as reported by PERS to the plan were \$6.2 million, and \$6.0 million for the years ended December 31, 2019, and 2018, respectively.

PERS Plan 2/3 Description

PERS Plan 2/3 provides retirement, disability and death benefits. Retirement benefits are determined as two percent of the member's AFC times the member's years of service for Plan 2 and one percent of AFC for Plan 3. The AFC is the average of the member's 60 highest-paid consecutive service months, and there is no cap on years of service credit. Members are eligible for retirement with a full benefit at 65 with at least five years of service credit. Retirement before age 65 is considered an early retirement. PERS Plan 2/3 members who have at least 20 years of service credit and are 55 years of age or older, are eligible for early retirement with a benefit that is reduced by a factor that varies according to age for each year before age 65. PERS Plan 2/3 members who have 30 or more years of service credit and are at least 55 years old can retire under one of two provisions:

- With a benefit that is reduced by three percent for each year before age 65; or
- With a benefit that has a smaller (or no) reduction (depending on age) that imposes stricter return-to-work rules.

PERS Plan 2/3 members hired on or after May 1, 2013, have the option to retire early by accepting a reduction of five percent for each year of retirement before age 65. This option is available only to those who are age 55 or older and have at least 30 years of service credit. PERS Plan 2/3 retirement benefits are also actuarially reduced to reflect the choice of a survivor benefit. Other PERS Plan 2/3 benefits include duty and non-duty disability payments, a cost-of-living allowance (based on the CPI) capped at three percent annually and a one-time duty-related death benefit, if found eligible by the Department of Labor and Industries. PERS 2 members are vested after completing five years of eligible service. Plan 3 members are vested in the defined benefit portion of their plan after ten years of service; or after five years of service if 12 months of that service are earned after age 44.

PERS Plan 3 defined contribution benefits are totally dependent on employee contributions and investment earnings on those contributions. PERS Plan 3 members choose their contribution rate upon joining membership and have a chance to change rates upon changing employers. As established by statute, Plan 3 required defined contribution rates are set at a minimum of 5 percent and escalate to 15 percent with a choice of six options. Employers do not contribute to the defined contribution benefits. PERS Plan 3 members are immediately vested in the defined contribution portion of their plan.

The PERS Plan 2/3 employer and employee contribution rates are developed by the Office of the State Actuary to fully fund Plan 2 and the defined benefit portion of Plan 3. The Plan 2/3 employer rates include a component to address the PERS Plan 1 Unfunded Actuarial Accrued Liability (UAAL) and an administrative expense that is currently set at 0.18 percent. Each biennium, the state Pension Funding Council adopts Plan 2 employer and employee contribution rates and Plan 3 contribution rates. The PERS Plan 2/3 required contribution rates (expressed as a percentage of covered payroll) were as follows:

Actual Contribution Rates	Employer Plan 2/3	Employee Plan 2	Employee Plan 3
July 2017 through August 2018	12.70%	7.38%	varies
September 2018 through June 2019	12.83%	7.41%	varies
July 2019 through December 2019	12.83%	7.90%	varies

The PUD's contributions as reported by PERS to the plan were \$9.7 million, and \$9.0 million for the years ended December 31, 2019, and 2018, respectively.

Pension Financial Statement Balances

At June 30, 2019 and 2018, the PUD reported a total pension liability of \$44.8 million and \$57.5 million for its proportionate share of the net pension liabilities. The pension liability was \$33.9 million and \$38.8 million for PERS Plan 1 and \$10.9 million and \$18.7 million for PERS Plan 2/3 at June 2019 and 2018, respectively.

The PUD's proportionate share of the net pension liabilities for PERS Plan 1 was 0.88% and 0.87% for June 30, 2019 and 2018 respectively. The PUD's proportionate share of the PERS Plan 2/3 was 1.12% and 1.10% for June 30, 2019 and 2018 respectively.

Employer contribution transmittals received and processed by DRS for the fiscal year ended June 30 are used as the basis for determining each employer's proportionate share of the collective pension amounts reported by DRS in the Schedules of Employer and Non-employer Allocations for all plans.

The collective net pension liability was measured as of June 30, 2019, and the actuarial valuation date on which the total pension liability (asset) is based was as of June 30, 2018, with update procedures used to roll forward the total pension liability to the measurement date.

For the years ended December 31, 2019 and 2018, the PUD recognized pension credit of \$4.1 million and \$2.5 million, respectively, for PERS Plan 1 and a pension credit of \$7.0 million and \$9.0 million, respectively, for PERS Plan 2/3.

At December 31, the PUD reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (in thousands):

		20	19		2018			
	PER	S 1	PERS 2/3		PERS 1		PERS	\$ 2/3
	Deferred Outflow	Deferred Inflow	Deferred Outflow	Deferred Inflow	Deferred Outflow	Deferred Inflow	Deferred Outflow	Deferred Inflow
Differences between expected and actual experience	\$ -	\$ -	\$ 3,127	\$ 2,347	\$ -	\$ -	\$ 2,293	\$ 3,275
Net difference between projected and actual investment earnings on pension plan investments	_	2,264	_	15,888	_	1,541	_	11,480
Changes of assumptions	_	_,	279	4,579	_		219	5,324
Changes in proportion and differences between contribu- tions and proportionate share of contributions	_	_	1,142	1,505	_	_	697	1,765
Contributions subsequent to the measurement date	<u>2,954</u> \$ 2,954		<u>4,765</u> \$ 9,313		<u>3,059</u> \$ 3,059		<u> </u>	

Deferred outflows of resources related to pensions resulting from the PUD's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2020 and 2019. Other amounts reported as deferred outflows and deferred inflows of resources related to pensions will be recognized in pension (income) expense as follows (in thousands):

Year ended		
December 31:	PERS 1	PERS 2/3
2020	\$ (500)	\$ (4,965)
2021	(1,184)	(8,301)
2022	(422)	(3,764)
2023	(158)	(2,083)
2024	_	(865)
2025 - 2026		207
Total	\$ (2,264)	\$ (19,771)

Actuarial Assumptions

The total pension liability (TPL) for each of the DRS plans was determined using the most recent actuarial valuation completed in 2019 with a valuation date of June 30, 2018. The actuarial assumptions used in the June 30, 2018, valuation were based on the results of the Washington Office of the State Actuary's (OSA) 2007-2012 Experience Study and the 2017 Economic Experience Study.

Additional assumptions for subsequent events and law changes are current as of the 2018 actuarial valuation report. Plan liabilities were rolled forward from June 30, 2018, to June 30, 2019, reflecting each plan's normal cost (using the entry-age cost method), assumed interest and actual benefit payments. Assumptions included:

- Inflation: 2.75% total economic inflation; 3.50% salary inflation
- Salary increases: In addition to the base 3.50% salary inflation assumption, salaries are also expected to grow by promotions and longevity.
- Investment rate of return: 7.40%

Mortality rates were based on the RP-2000 report's Combined Healthy Table and Combined Disabled Table, published by the Society of Actuaries. OSA applied offsets to the base table and recognized future improvements in mortality by projecting the mortality rates using 100% Scale BB. Mortality rates are applied on a generational basis; meaning, each member is assumed to receive additional mortality improvements in each future year throughout his or her lifetime.

The discount rate used to measure the total pension liability for all DRS plans was 7.4%. To determine that rate, an asset sufficiency test included an assumed 7.5% long-term discount rate to determine funding liabilities for calculating future contribution rate requirements. Consistent with the long-term expected rate of return, a 7.4% future investment rate of return on invested assets was assumed for the test. Contributions from plan members and employers are assumed to continue being made at contractually required rates (including PERS 2/3 employers, whose rates include a component for the PERS 1 liabilities). Based on these assumptions, the pension plans' fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return of 7.4% was used to determine the total liability.

The long-term expected rate of return on DRS pension plan investments of 7.4% was determined using a building-blockmethod. The Washington State Investment Board (WSIB) used a best estimate of expected future rates of return (expected annual return, standard deviation of the annual return, correlations between the annual returns of each asset class with every other asset class) to develop each major asset class. Those expected returns make up one component of WSIB's capital market assumptions. WSIB uses the capital market assumptions and their target asset allocation to simulate future investment returns at various future times.

Estimated Rates of Return by Asset Class

Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2019, are summarized in the table below.

Asset Class	Target Allocation	Long-term Expected Real Rate of Return
Fixed Income	20%	2.20%
Tangible Assets	7%	5.10%
Real Estate	18%	5.80%
Global Equity	32%	6.30%
Private Equity	23%	9.30%

The inflation component used to create the table is 2.2% and represents WSIB's most recent long-term estimate of broad economic inflation.

Sensitivity of Net Pension Liability

The table below presents the PUD's proportionate share of the net pension liability/(asset) calculated using the current discount rate, as well as the PUD's proportionate share of the net pension liability if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the current rate.

			(\$ Millions					
		2019			2018			
	1%	Discount	1%	1%	Discount	1%		
	Decrease	Rate	Increase	Decrease	Rate	Increase		
	(6.4%)	(7.4%)	(8.4%)	(6.4%)	(7.4%)	(8.4%)		
PERS Plan 1	\$ 42.4	\$ 33.9	\$ 26.5	\$ 47.6	\$ 38.8	\$ 31.1		
PERS Plan 2/3	83.7	10.9	(48.8)	85.6	18.7	(36.1)		

Pension Liability Allocation

The pension liability has been allocated to the Electric, Generation and Water Systems, based on percentages of staffing levels between the systems. The PUD's proportionate share of net pension liability for each plan, as of December 31, is as follows (in thousands):

	Decembe	er 31, 2019	Decembe	r 31, 2018
	PERS Plan 1	PERS Plan 2/3	PERS Plan 1	PERS Plan 2/3
Electric System	\$ 32,198	\$ 10,368	\$ 36,843	\$ 17,785
Generation System	823	296	938	481
Water System	868	251	988	442

Pension Plan Fiduciary Net Position

The pension plans' fiduciary net position has been determined on the same basis used by the pension plan accounted for in pension trust funds using the flow-of-economic-resources measurement focus and the accrual basis of accounting. Investments are reported at fair value. Unrealized gains and losses are included as investment income in the Statement of Changes in Fiduciary Net Position. The net assets of the retirement funds are valued using the publicly traded securities, limited partnerships, private equity limited partnerships and real estate limited partnerships.

Detailed information about each defined benefit pension plans' fiduciary net position is available in the separately issued DRS 2019 CAFR financial report. The DRS CAFR may be obtained by writing to: Department of Retirement Systems, Communications Unit, P.O. Box 48380, Olympia WA 98504-8380.

POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)

The PUD implemented GASB No. 75 to recognize net liability related to OPEB and its disclosure requirements. There are two OPEB plans, healthcare and life insurance. They are a single-employer defined benefit OPEB plan administered by the PUD. There are no stand-alone financial statements presented for either of these plans.

Plan Descriptions

Healthcare Plan

The PUD administers retiree self-insured medical and vision insurance and Health Reimbursement arrangement (HRA) benefits for eligible retirees hired before July 1, 2009, and their dependents. Retiree benefit provisions are established by Commission resolution.

In general, the PUD pays a contribution toward the retiree's PUD group health plan premiums or to a Health Reimbursement Arrangement (HRA). For retirees and their dependents under age 65 who elect a PUD group medical plan, the PUD contribution is based on 75% of the premium for the most commonly elected retiree health plan during the prior year. Retirees and their dependents under age 65 who waive PUD group medical plan coverage receive a \$180 monthly contribution into their HRA. When a retiree or dependent becomes eligible for Medicare at age 65, the retiree is no longer eligible for the group medical plan; however, the PUD contributes \$180 a month to the retiree's HRA. This OPEB plan is closed to employees hired after July 1, 2009. In 2019 and 2018, the PUD contributed \$2.0 and \$2.2 million, respectively, to the plans. Plan members receiving benefits contributed \$0.6 million in both 2019 and 2018.

Retiree Life Insurance

The PUD administers life insurance benefits related to a term life insurance plan terminated in 1986 for eligible retirees. The retiree life insurance benefit provisions were established by Commission resolution.

Employees who were covered by the PUD's group term life insurance prior to November 1986 may reinstate this insurance at the time of retirement subject to a \$60,000 maximum benefit. Retiree insurance premium contribution amounts are established by the Commission. The PUD entered into an insurance contract to fully insure the life insurance obligation, and contributed \$308,000 and \$321,000 towards the premium in 2019 and 2018, respectively.

Valuation Date, Measurement Date and Reporting Date

The Valuation Date of OPEB liability is December 31, 2018. This is the date as of which the census data is gathered and the actuarial valuation is performed. The Measurement Date is December 31, 2018. This is the date as of which the total OPEB liability is determined and rolled forward to the reporting date of December 31, 2019. The reporting date is December 31, 2019, the PUD's fiscal year-end. GASB Statement No. 75 allows a lag of up to one year between the measurement date and the reporting date. There have been no significant changes between the valuation date and fiscal year ends. No adjustment is required between the measurement date and the reporting date.

Actuarial assumptions and other inputs

The total OPEB liability in the December 31, 2019 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

Inflation	2.30% based on Actuary's capital market expectations.
Salary increases	3.05% for which the assumption above inflation is based upon the most recent pension valuation for Plan 2 of the Public Employees Retirement System (PERS), a subset of the Washington State Retirement Systems.
Discount rate	4.10%
Healthcare cost trend rates	6.4 % for 2019-2020, decreasing to an ultimate rate of 4.6 % for 2026 and later years.
Retirees' share of health benefit- related costs	25% of projected health insurance premiums for retirees.
Life insurance cost trend rates	4.5% for 2019-2027.
Retirees' share of life benefit- related costs	23% of projected life insurance premiums for retirees in 2019, 25% in 2020.

The discount rate was based on 20-Year Tax-Exempt Municipal Bond Yield, as required by GASB Statement No. 75.

Mortality rates were based on the RP-2000 Healthy Mortality Table for Males or Females, as appropriate, with 100% of Scale BB fully generational offset one year.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality and the healthcare cost trend. Amounts determined regarding the funded status of the plan and the annual contributions of the employer are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future. The actuarial assumptions used in the December 31, 2018 valuation were based on the results of an actuarial experience study for the period ended December 31, 2018.

OPEB Liability

As of December 31, 2019, the PUD's total OPEB liability for retiree healthcare was \$41.7 million, and \$4.4 million for retiree life benefits, recorded in other accrued and other liabilities. The annual payroll of active employees covered by the plan was \$70.3 million in 2019, compared to \$71.7 million in 2018.

The following census of membership was used in the actuarial valuation:

	Healthcare	Life
Retirees (and beneficiaries for healthcare)	644	232
Active employees	554	9
	1,198	241

The following table shows the changes in the PUD's net OPEB liability (in thousands):

HEALTHCARE	2019			2018
	Electric	Generation	Water	Combined
Net OPEB liability – beginning of year	\$ 43,653	\$ 1,054	\$ 1,099	\$ 18,841
Actuarial beginning of year adjustment	-	_	_	25,838
Changes for the year:				
Service Cost	1,096	27	28	1,066
Interest on total OPEB liability	1,490	37	38	1,673
Effect of economic/demographic gains/(losses)	757	19	19	_
Effect of assumptions changes or inputs	(4,406)	(110)	(113)	1,395
Expected benefit payments	(2,812)	(70)	(72)	(3,007)
Net Changes	(3,875)	(97)	(100)	1,127
Net OPEB liability – end of year	\$ 39,778	\$ 957	\$ 999	\$ 45,806
LIFE		2019		2018
	Electric	Generation	Water	Combined
Net OPEB liability – beginning of year	\$ 4,642	\$ 119	\$ 121	\$ 4,853
Actuarial beginning of year adjustment	_	_	_	(33)
Changes for the year:				
Service Cost	7	_	_	12
Interest on total OPEB liability	155	4	4	177
Effect of economic/demographic gains/(losses)	(14)	_	_	_
Effect of assumptions changes or inputs	(297)	(7)	(8)	178
Expected benefit payments	(305)	(8)	(8)	(305)
Net Changes	(454)	(11)	(12)	62
Net OPEB liability – end of year	\$ 4,188	\$ 108	\$ 109	\$ 4,882

Changes of assumptions and other inputs reflect a change in the discount rate from 3.44 percent in 2018 to 4.10 percent in 2019. The schedule of changes in the PUD's total OPEB liability and related ratios is included in the Required Supplementary Information.

Sensitivity Analysis

Sensitivity of the total OPEB liability to changes in the discount rate

The following presents the total OPEB liability of the PUD, calculated using the discount rate of 4.10%, as well as what the PUD's total OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower (3.10%) or 1 percentage point higher (5.10%) than the current rate (in millions):

		2019	
	1% Decrease (3.10%)	Current Discount Rate (4.10%)	1% Increase (5.10%)
Healthcare	\$ 45.7	\$ 41.7	\$ 38.2
Life	4.9	4.4	4.0

Sensitivity of the total OPEB liability to changes in the healthcare cost trend rate

The following presents the total OPEB liability of the PUD, calculated using the current healthcare cost trend rates as well as what the PUD's total OPEB liability would be if it were calculated using trend rates that are 1 percentage point lower or 1 percentage point higher than the current healthcare cost trend rates (in millions):

	2019				
	1% Decrease	Current Trend Rate	1% Increase		
Healthcare	\$ 40.0	\$ 41.7	\$ 43.8		

OPEB Financial Statement Balances

For the year ended December 31, 2019 and 2018, the PUD recognized OPEB healthcare expense of \$2.2 million and \$3.0 million, respectively. For OPEB life insurance, the PUD recognized OPEB credit of \$0.2 million and OPEB expense of \$0.4 million for the year ended December 31, 2019 and 2018, respectively. At December 31, 2019, the PUD reported deferred outflows of resources and deferred inflows of resources related to OPEB healthcare from the following sources (in thousands):

	2019			
	Deferred Outflows of Resources	Deferred Inflows of Resources		
Differences between expected and actual experience	\$ 622	\$ -		
Changes of assumptions or other inputs	858	(3,623)		
Total	\$ 1,480	\$ (3,623)		

There were no deferred outflows and deferred inflows of resources related to OPEB life plan.

Amounts currently reported as deferred outflows of resources and deferred inflows of resources related to other post–employment benefits will be recognized in OPEB income (expense) as follows (in thousands):

Measurement Period Ending December 31:	
2020	\$ 565
2021	565
2022	566
2023	447
Thereafter	
	\$ 2,143

POSTEMPLOYMENT DEFINED CONTRIBUTION AND HEALTHCARE PLANS

Employees hired after July 1, 2009, are not eligible for the postemployment defined benefit healthcare plan but are instead eligible for a defined contribution health care plan. Under this plan, the PUD currently contributes \$53.86 per month into an employee's individual HRA account, also known as the Retirement Health Savings (RHS) Plan. These funds are available to the employee for qualified health care costs upon termination of employment or retirement from the PUD.

The PUD administers a Non-PERS 401(a) Plan and Trust effective October 1, 1998. Participation in this profit-sharing plan is offered to eligible employees of the PUD as defined in the plan document. The Plan provides certain Employer Contributions to Participants equal to the employer contributions that would have been made to Plan 2 of PERS if Participants in the plan had been eligible to participate in PERS. The PUD made contributions of \$22 thousand and \$24 thousand in 2019 and 2018, respectively. These funds are available to the Participant following a settlement date as defined in the plan document.

DEFERRED COMPENSATION PLANS

The PUD administers an Internal Revenue Code Section 457 deferred compensation program, covering eligible employees as defined in the plan document. Participants may contribute and defer, up to defined limits, a portion of their current year's

salary. The deferred compensation is not available to employees until termination, retirement, death or an unforeseeable emergency. All plan assets are held in trust for the exclusive benefit of participants and their beneficiaries and as such are not included on the PUD's financial statements.

The PUD administers a 401(k) Savings Plan (the Plan) effective May 1, 1985. Participation in the Plan is offered to eligible employees of the PUD as defined in the plan document. The Plan is a defined contribution plan, which provides that participants may make voluntary salary deferral contributions, on a pretax basis, up to a maximum amount as indexed for cost–of–living adjustments. The PUD makes matching contributions in an amount equal to 50% of the first 4% of a participant's compensation contributed as a salary deferral. The PUD made matching contributions of \$1.9 million and \$1.8 million in 2019 and 2018, respectively.

Note 8 Self-Insurance Fund

The PUD maintains a comprehensive insurance program that includes liability insurance coverage of \$50 million in excess of a \$2 million self–insured retention per occurrence. This coverage insures against certain losses arising from property damage or bodily injury damage claims filed by third parties against the PUD. At December 31, 2019, the PUD's \$2 million self–insured retention was fully funded. Self–insurance funds are included in special funds at market value, with a balance of \$10.0 million as of December 31, 2019 and 2018.

Note 9 Contingencies

The PUD is involved in various claims arising in the normal course of business. The PUD does not believe that the ultimate outcome of these matters will have a material adverse impact on its financial position or results of operations.

The PUD has received federal and state grants for specific purposes that are subject to review and audit by the grantor agencies. Such audits could lead to requests for reimbursements to the grantor agency for expenditures disallowed under terms of the grants. Management believes such disallowances, if any, would be immaterial.

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REQUIRED SUPPLEMENTARY INFORMATION (Unaudited)

SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY - PERS

As of June 30 (In thousands)

PERS 1	2019	2018	2017	2016	2015
Employer's proportion of the net pension liability (asset)	0.88%	0.87%	0.87%	0.91%	0.89%
Employer's proportionate share of the net pension liability	\$ 33,889	\$ 38,769	\$ 41,111	\$ 48,809	\$ 46,613
Employer's covered employee payroll	\$ 642	\$ 608	\$ 768	\$ 1,059	\$ 1,481
Employer's proportionate share of the net pension liability					
as a percentage of covered employee payroll	5,278.66%	6,376.48%	5,352.03%	4,610.37%	3,147.32%
Plan fiduciary net position as a percentage of the total pension liability	67.12%	63.22%	61.24%	57.03%	59.10%
PERS 2/3	2019	2018	2017	2016	2015
Employer's proportion of the net pension liability (asset)	1.12%	1.10%	1.10%	1.14%	1.11%
Employer's proportionate share of the net pension liability	\$ 10,915	\$ 18,707	\$ 38,094	\$ 57,276	\$ 39,776
Employer's covered employee payroll	\$ 122,155	\$ 114,293	\$ 107,494	\$ 106,886	\$ 98,786
Employer's proportionate share of the net pension liability					
as a percentage of covered employee payroll	8.94%	16.37%	35.44%	53.59%	40.26%
Plan fiduciary net position as a percentage of the total pension liability	97.77%	95.77%	90.97%	85.82%	89.20%

Notes to Schedule:

Factors that significantly affect trends in the amounts reported in the schedule include changes in benefit terms, changes in the size or composition of the population covered by the benefit terms, or the use of different assumptions such as the discount rate. DRS allocates a portion of contributions from the PERS 2/3 to PERS 1 in order to fund its unfunded actuarially accrued liability.

SCHEDULE OF EMPLOYER CONTRIBUTIONS - PERS

As of December 31 (in thousands)		borror								
PERS 1	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Contractually required contributions	\$ 81	\$ 81	\$ 71	\$ 98	\$ 124	\$ 155	\$ 152	\$ 158	\$ 160	\$ 148
Contributions in relation to the contractually required contributions	(81)	(81)	(71)	(98)	(124)	(155)	(152)	(158)	(160)	(148)
Contribution deficiency (excess)	\$	\$	\$	\$ -	\$	\$ -	\$	\$	\$	\$
Covered employer payroll Contributions as a percentage of	632	632	594	879	1,221	1,611	1,854	2,196	2,574	2,780
covered employee payroll	12.82%	12.82%	11.95%	11.15%	10.14%	9.62%	8.20%	7.19%	6.22%	6.85%
PERS 2/3										
Contractually required contributions Contributions in relation to the	\$15,640	\$ 15,239	\$13,267	\$ 11,925	\$ 10,581	\$ 8,989	\$ 7,668	\$ 6,619	\$ 5,337	\$ 4,393
contractually required contributions	(15,640)	(15,239)	(13,267)	(11,925)	(10,581)	(8,989)	(7,668)	(6,619)	(5,337)	(4,393)
Contribution deficiency (excess)	\$	\$	\$	\$ -	\$ -	\$	\$	\$	\$	\$
Covered employer payroll	121,760	119,564	110,945	106,716	103,383	97,703	93,277	92,171	85,198	83,012
Contributions as a percentage of covered employee payroll	12.84%	12.75%	11.96%	11.17%	10.23%	9.20%	8.22%	7.18%	6.26%	5.29%

SCHEDULE OF CHANGES IN TOTAL OTHER POST-EMPLOYMENT BENEFITS (OPEB) LIABILITY AND RELATED RATIOS

As of December 31 (in thousands)

	2	019	2018			
Total OPEB Liability	Post retirement Health	Post retirement Life	Post retirement Health	Post retirement Life		
Service cost	\$ 1,151	\$ 7	\$ 1,066	\$ 12		
Interest on total OPEB liability	1,565	163	1,673	177		
Effect on economic/demographic gains/(losses)	794	(14)	_	_		
Effect of assumption changes or inputs	(4,629)	(312)	1,395	178		
Expected benefit payments	(2,954)	(321)	(3,007)	(305)		
Net change in total OPEB liability	\$ (4,073)	\$ (477)	\$ 1,127	\$ 62		
Total OPEB liability, beginning	45,806	4,882	44,679	4,820		
Total OPEB liability, ending	\$ 41,733	\$ 4,405	\$ 45,806	\$ 4,882		
Covered employee payroll	\$ 70,291	N/A	\$ 71,696	N/A		
Total OPEB liability as a % of covered employee payroll	59.37%	N/A	63.89%	N/A		

Notes to Schedule:

There are no changes of benefit terms.

Changes of assumptions: Changes of assumptions and other inputs reflect the effects of changes in the discount rate, election, demographic, and health assumptions each period.

The PUD has established a fund to address the unfunded portion of future postemployment benefits. The balance of this account was \$32.2 million and \$29.1 million as of December 31, 2019 and 2018, respectively, and is included in special funds on the statements of net position. Since these funds have not been placed in an irrevocable trust, the PUD has not reduced the unfunded actuarial liability by these funds. Effective January 1, 2015, the PUD has entered into an insurance product that is expected to fund the remaining life insurance liability.

Electric System Statements of Revenues, Expenses, and Debt Service Coverage (Unaudited)

(In thousands)

Years Ended December 31,	2015	2016	2017	2018	2019
Operating Revenues:					
Sale of electric energy	\$ 602,913	\$ 602,811	\$ 643,121	\$ 647,228	\$ 645,833
Other operating revenues	21,186	28,100	28,685	36,878	28,451
Unbilled revenues	(16,800)	8,720	1,500	(1,921)	(2,700)
Total Operating Revenues	607,299	639,631	673,306	682,185	671,584
Operating Expenses:					
Purchased power	320,515	347,494	333,338	333,705	349,909
Operations and maintenance	207,676	208,695	219,526	221,225	211,571
Depreciation	49,042	51,460	53,191	53,624	55,493
Taxes	35,417	35,448	37,994	38,668	38,710
Total Operating Expenses	612,650	643,097	644,049	647,222	655,683
Net Operating Income (Loss)	(5,351)	(3,466)	29,257	34,963	15,901
Interest Charges	13,553	14,154	13,959	14,455	15,966
Other Income and Expense:					
Interest income	4,648	5,015	5,781	9,679	11,895
Net increase (decrease) in the fair value of investments	(434)	156	(456)	1,002	2,078
Other income and expense, net	13,619	7,654	3,954	(7,090)	6,731
Total Other Income and Expense	17,833	12,825	9,279	3,591	20,704
Capital Contributions:					
Cash contributions	13,350	15,493	17,338	18,053	24,645
Non-cash contributions	3,162	4,601	5,010	6,598	9,098
Total Capital Contributions	16,512	20,094	22,348	24,651	33,743
Net Income	15,441	15,299	46,925	48,750	54,382
Non-cash contributions	(3,162)	(4,601)	(5,010)	(6,598)	(9,098)
Interest charges	13,553	14,154	13,959	14,455	15,966
Depreciation	49,042	51,460	53,191	53,624	55,493
Pension & OPEB liability actuarial adjustments	(2,769)	171	(6,889)	(12,964)	(13,747)
Net increase (decrease) in the fair value of investments	434	(156)	456	(1,002)	(2,078)
Hydroelectric project termination charge	_	_	_	9,637	_
Balance Available for Debt Coverage	72,539	76,327	102,632	105,902	100,918
Parity Debt Service Costs:					
Interest	18,227	18,186	17,774	17,358	16,937
Principal	11,323	8,669	9,080	9,495	9,918
Total Parity Debt Service Costs	\$ 29,550	\$ 26,855	\$ 26,854	\$ 26,853	\$ 26,855
Parity Debt Service Coverage	2.5x	2.8x	<u> </u>	3.9x	3.8x

Electric System Revenue and Statistical Data (Unaudited)

						% Change
Years Ended December 31,	2015	2016	2017	2018	2019	From 2018
Retail Customers (average)						
Residential	305,916	309,761	314,323	318,421	322,225	1.2%
Commercial	30,793	31,046	31,357	31,712	32,443	2.3%
Industrial	74	77	81	80	81	1.3%
Other	228	225	221	205	204	-0.5%
Retail Customers	337,011	341,109	345,982	350,418	354,953	1.3%
Megawatt-Hours Billed						
Residential	3,491,910	3,368,728	3,642,117	3,566,731	3,603,089	1.0%
Commercial	2,387,839	2,335,126	2,371,339	2,363,415	2,373,169	0.4%
Industrial	567,017	555,919	553,544	528,244	527,237	-0.2%
Wholesale	1,765,021	2,220,976	2,227,442	2,016,038	1,401,511	-30.5%
Other	28,217	25,971	27,137	29,000	27,728	-4.4%
Megawatt-Hours Billed	8,240,004	8,506,720	8,821,579	8,503,428	7,932,734	-6.7%
Revenues Billed (in thousands)						
Residential	\$ 326,772	\$ 324,675	\$ 360,906	\$ 362,924	\$ 366,804	1.1%
Commercial	198,569	199,982	205,652	208,405	209,058	0.3%
Industrial	37,125	37,521	37,762	36,729	36,611	-0.3%
Wholesale	36,770	37,076	34,947	34,985	29,317	-16.2%
Other	3,677	3,557	3,854	4,185	4,043	-3.4%
Revenues Billed	\$ 602,913	\$ 602,811	\$ 643,121	\$ 647,228	\$ 645,833	-0.2%
Average Retail Rate per kWh:						
Residential	\$ 0.094	\$ 0.096	\$ 0.099	\$ 0.102	\$ 0.102	_
Commercial	\$ 0.083	\$ 0.086	\$ 0.087	\$ 0.088	\$ 0.088	_
Industrial	\$ 0.065	\$ 0.067	\$ 0.068	\$ 0.07	\$ 0.069	-1.4%
Number of Employees	972	1,002	1,004	1,005	1,046	4.1%
Electric Line Miles	6,359	6,388	6,439	6,496	6,547	0.8%
New Electric Service Connections	3,702	4,510	5,132	4,341	4,339	_

Water System Statements of Revenues, Expenses, Debt Service Coverage, and Statistical Data (Unaudited)

(In thousands)

(/					
Years Ended December 31,	2015	2016	2017	2018	2019
Operating Revenues:					
Sale of water	\$ 11,521	\$ 11,749	\$ 12,753	\$ 13,133	\$ 13,361
Other operating revenues	268	325	344	397	403
Total Operating Revenues	11,789	12,074	13,097	13,530	13,764
Operating Expenses:	2 0 0 0	0.000	0.505	0 400	0.506
Purchased water	2,009	2,096	2,585	2,438	2,596
Operations and maintenance	4,210	4,816	5,180	5,091	5,239
Depreciation Taxes	2,931 612	2,794	2,875	2,932 688	3,028 726
	9,762	<u> </u>	<u> </u>	11,149	
Total Operating Expenses	9,702	10,554	11,201		11,589
Net Operating Income	2,027	1,740	1,816	2,381	2,175
Interest Charges	799	735	705	614	743
Other Income and Expense:					
Interest income	162	200	246	418	610
Net increase (decrease) in the fair value of investments	8	9	(26)	46	55
Other income and expense, net	1,071	939	945	_	28
Total Other Income and Expense	1,241	1,148	1,165	464	693
Capital Contributions:					
Cash contributions	1,606	2,862	2,120	3,441	4,286
Non-cash contributions	786	658	1,609	2,277	4,158
Total Capital Contributions	2,392	3,520	3,729	5,718	8,444
-					
Net Income	4,861	5,673	6,005	7,949	10,569
Non-cash contributions	(786)	(658)	(1,609)	(2,277)	(4,158)
Interest charges	799	735	705	614	743
Depreciation	2,931	2,794	2,875	2,932	3,028
Settlement amortization ¹	(927)	(927)	(927)	_	_
Pension and OPEB liability actuarial adjustments	(74)	4	(178)	(348)	(354)
Net increase (decrease) in the fair value of investments	(8)	(9)	26	(46)	(55)
Balance Available for Debt Coverage	6,796	7,612	6,897	8,824	9,773
Parity Debt Service Costs:					
Interest	869	814	755	695	617
Principal	1,705	1,701	1,705	1,706	1,621
Total Parity Debt Service Costs	2,574	2,515	2,460	2,401	2,238
Less: Assessment payments received	(100)	(75)	(90)	(65)	(32)
Debt Service Paid from Revenues	\$ 2,474	\$ 2,440	\$ 2,370	\$ 2,336	\$ 2,206
Parity Debt Service Coverage	2.7x	3.1x	2.9x	3.8x	4.4x
Number of Water Customers (average)	19,436	19,895	20,293	20,808	21,635
Water Sales & Purchases (thousand cubic feet)					
Retail Cubic Feet Sold	195,158	178,826	198,117	197,606	196,688
Wholesale Cubic Feet Sold	199,198	16,802	22,189	24,003	26,837
Total Cubic Feet Sold	214,120	195,628	220,306	221,609	223,525
	<u>===;;==0</u>				
Average Retail Water Rates (thousand cubic feet)					
Residential	\$3.31	\$3.46	\$3.46	\$3.52	\$3.52
Commercial	\$3.00	\$3.12	\$3.12	\$3.24	\$3.24

¹Annexation settlement with the City of Marysville was amortized over 5 years, 2013 – 2017.



Snohomish County PUD

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