

2019-2024 Strategic Plan: Financial Forecast Assumptions

EXECUTIVE SUMMARY

This document details the financial assumptions behind the 5.1% average rate path determined by the 2019-2024 Strategic Plan.

Average rates are derived by dividing the revenue requirement by retail sales. The primary driver for the average rate increase is the growing revenue requirement, which is increasing by about \$40M per year on average. However, declining retail sales are also expected to increase rates by around 1% on average.

RATE INCREASE SUMMARY

	2018*	2019	2020	2021	2022	2023	2024
Revenue Requirement, \$M	888.3	928.9	984.1	1,018.6	1,051.8	1,087.0	1,125.6
Annual Increase		4.6%	5.9%	3.5%	3.3%	3.4%	3.5%
Retail Sales GWh	9,456	9,279	9,230	9,116	9,034	8,955	8,903
Annual Change		-1.9%	-0.5%	-1.2%	-0.9%	-0.9%	-0.6%
Average Rate, cents/kWh	9.40	10.01	10.66	11.17	11.64	12.14	12.64
Annual Increase		6.5%	6.5%	4.8%	4.2%	4.3%	4.1%

^{*}The 2018 revenue requirement is the 2018 Adopted Revenue Requirement of \$902.1M adjusted downward for the impacts of the 2017 BPA Passthrough, which also reduces the 2018 average rate. 2018 sales GWh are the forecasted sales used to set the 2018 Adopted rates. The 2018 Average Rate is based on current 2018 rates and consumption profiles based on the most recent retail sales forecast.

Below is a table of example bill impacts assuming each customer receives the average rate increase noted above and maintains the same level of consumption. These impacts are estimates only and will change after the retail rate design process is completed. Customers who decrease their consumption through energy efficiency measures will experience smaller bill impacts.

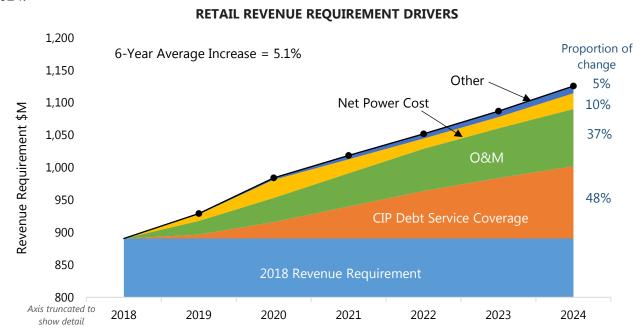
CUSTOMER BILL IMPACTS

	Monthly Bill	Monthly Increase						
	2018	2019	2020	2021	2022	2023	2024	
Residential-Typical	\$65	\$4.23	\$4.49	\$3.54	\$3.24	\$3.43	\$3.48	
UDP Residential-Typical (40%)	\$26	\$1.69	\$1.80	\$1.42	\$1.30	\$1.37	\$1.39	
Small Commercial-Coffee Shop	\$721	\$47	\$50	\$39	\$36	\$38	\$39	
Medium Commercial-Grocery	\$16,399	\$1,067	\$1,134	\$894	\$818	\$866	\$878	
Large Industrial-Metals	\$1,591,969	\$103,593	\$110,069	\$86,775	\$79,380	\$84,033	\$85,265	
Large Commercial-Education	\$1,787,785	\$116,335	\$123,608	\$97,448	\$89,144	\$94,369	\$95,753	

In 2017, City Light recently updated its retail sales forecast methodology to better account for energy efficiency and the impacts of weather. In recent years, despite strong growth in residential and commercial building stock, retail sales have been relatively flat on a weather-adjusted basis. While there is lots of uncertainty, building growth is expected to slow and continued energy efficiency improvements are expected to yield downward trending retail sales. Retail sales are forecasted to decline 0.8% per year, on average through 2024. The lower forecasted retail sales compared to the 2016 Strategic Plan adds rate pressure. Decreasing retail sales account for around 2% of the 6.5% 2019 rate increase and about 1% of the 5.1% average 6-year increase.



The following chart and tables summarize the drivers of the change in revenue requirement over 2019-2024.



RETAIL REVENUE REQUIREMENT SUMMARY

\$, Millions	2019	2020	2021	2022	2023	2024
Revenue Requirement	928.9	984.1	1,018.6	1,051.8	1,087.0	1,125.6
Debt Service Coverage						
Debt Service	223.6	234.5	247.7	261.0	272.0	282.2
Additional 0.8x Coverage	178.9	187.6	198.2	208.8	217.6	225.8
O&M						
Baseline 2018 O&M	294.2	294.2	294.2	294.2	294.2	294.2
Inflation and REC Growth*	12.1	21.1	31.8	46.6	55.8	66.2
Strategic Adjustments	(3.2)	3.8	7.0	6.1	8.6	9.5
Net Power Costs						
Power and Wheeling Contracts	280.9	286.6	280.4	264.1	265.6	272.4
Net Wholesale Revenue (NWR)	(55.0)	(50.0)	(50.0)	(40.0)	(40.0)	(40.0)
Power Related Revenues, Net	(18.6)	(11.6)	(11.5)	(11.2)	(10.9)	(10.8)
Other						
Taxes, Payments and Uncollectibles	50.4	52.8	56.9	58.6	60.4	62.4
Miscellaneous Revenue	(34.3)	(34.8)	(36.1)	(36.4)	(36.2)	(36.4)

^{*} Inflation on existing O&M, and incremental renewable energy credit (REC) investments to meet I-937 requirements. City Light financial policy calls for retail rates to be set so the utility has sufficient revenue net of expenses to cover annual debt service obligations by 1.8 times. Therefore, debt service coverage is defined as debt service plus an additional 80% of debt service. Increasing debt service and associated coverage is the single largest revenue requirement driver, which is indicative of the utility's large capital program. The second largest driver is O&M, which is growing primarily due to inflation. The increase in net power costs is driven by inflation in long-term power contracts, plus declining net wholesale revenue. Other costs generally grow in proportion with the revenue requirement, and include state taxes, franchise payments, and uncollectible revenue. Other revenue comes from a variety of fees and service charges, as well as from interest earnings and only mild growth is expected over the six-year planning period.

INTRODUCTION

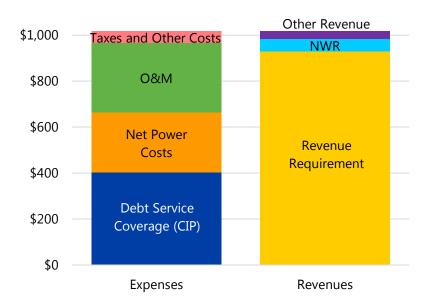
The 2019-2024 Strategic Plan builds on the 2017-2022 Strategic Plan Update and extends the horizon an additional two years to 2024.

This document details the assumptions that determine the average retail rate path for the years 2019-2024. Average retail rates are not actual billed rates but are the ratio of the revenue requirement to retail sales and represent the average impact to customer bills assuming their consumption is constant.

$$average\ rate\ \left(\frac{\$}{kwh}\right) = \frac{revenue\ requirement\ (\$)}{retail\ sales\ (kwh)}$$

The revenue requirement is the amount of retail revenue that must be collected to meet expenses and financial policies. The chart below shows how the revenue requirement is sized to meet expenses in each year.

REVENUES AND EXPENSES (2019 FORECAST, \$MILLIONS)



Following is a short description of each primary component of the revenue requirement. These are discussed in detail in the following sections of this document.

Debt Service Coverage

- The cost of debt funded capital investments (including deferred expenses such as programmatic conservation and superfund remediation) as recovered over time.
- Per policy, debt service coverage is equal to 1.8 times the annual debt service obligation.
- The additional funds in debt service coverage above those needed to pay principal and interest obligations (the remaining 0.8 times) cover a portion of the current year capital requirements, so they are not all debt financed.

0&M

- Includes expenses for all O&M costs.
- All non-capitalized labor costs are included in this category.
- Includes inflation assumptions, additional program funding requirements, as well as some cost savings to help mitigate the rate increase.

Power, Net

- Purchased power costs and wheeling (purchased transmission) costs, net of power revenues.
- Includes revenues from surplus power sales, also called net wholesale revenue.
- Does not include costs of operating owned generation and transmission resources, or other power O&M expenses (these are in O&M).

Other

Includes taxes, franchise payments and uncollectable revenue, net of miscellaneous revenues.

This document concludes with a discussion of the retail sales forecast, which is the denominator in the average rate formula.

DEBT SERVICE COVERAGE (CIP, DEFERRED O&M AND BONDS)

Debt service coverage represents the cost of debt funded capital requirements, as recovered over time. Net capital requirements are comprised of the capital improvement program (CIP) plus expenses deferred (such as programmatic conservation and superfund remediation), less capital contributions, which are payments from outside sources that offset capital expenses.

Net Capital Requirements = CIP + Deferred O&M - Capital Contributions

Net capital requirements are not a direct component of the revenue requirement but determine the amount of debt (bonds) that must be issued. The principal payments on outstanding debt and associated interest expense make up debt service.

City Light's debt service coverage policy (established by Resolution 31187) calls for setting rates to yield sufficient revenue net of expenses to cover annual debt service obligations by 1.8 times. Since the additional 0.8x required for debt service coverage is not an actual expense, these funds are typically allocated to City taxes¹ and current year capital expenditures, which reduces the size of future bonds.

The capital expenditures forecast projected cash expenditures, reduced by a 10% assumed underexpenditure compared to budget. It is based on the 2018-2023 CIP Plan that was adopted in 2017 for the 2018 budget process, adjusted for:

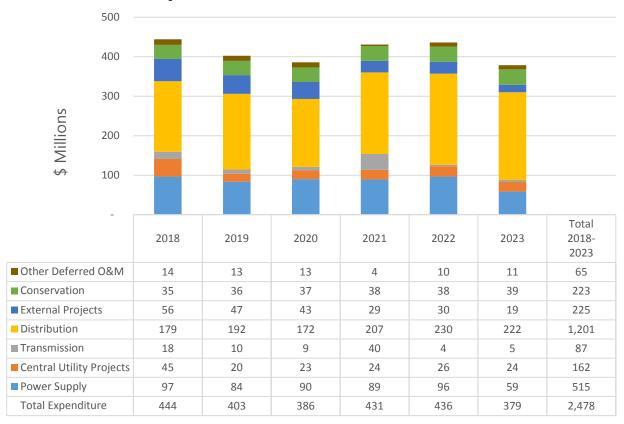
- Cash flow adjustments to reflect changes to project schedules and payments
- Removal of two projects: Master Service Center (\$100 million) and the Technical Training Center (\$11 million)
- Incremental spending needs (see appendix 1 for details)

The bar chart below shows capital expenditures assumed in the Adopted 2018-2023 CIP budget, reduced by 10% to reflect an assumption for budget under-expenditure, plus a minor additional funding identified as part of this strategic plan cycle. The year 2024 is not shown because a comprehensive CIP plan has not yet been developed for that year. Instead, a \$300 million placeholder value was used (before any incremental changes), which will help guide the development of the 2024 CIP budget.

Several key infrastructure projects are currently in progress including the Denny Substation, Advanced Metering and Alaskan Way Viaduct Infrastructure Relocation. As a result, current capital requirements are significantly larger than historical levels.

¹ Taxes paid to the City of Seattle are considered junior lien to debt service. They are not included in the taxes category when calculating the revenue requirement.

CAPITAL REQUIREMENTS FORECAST: BASED ON 2018-2023 ADOPTED CIP



The table below summarizes capital requirements (consistent with those shown in the bar chart above) and funding sources. Capital contributions include third-party funding for capital expenses such as service connections and reimbursements for certain transportation projects and are included as a credit to total capital requirements. Capital funding from operations reflects cash drawdowns and may represent net operating proceeds from the current or previous year(s). This forecast projects bond issuances totaling about \$1.7 billion to support 2018-2024 capital requirements, which will bring total outstanding debt to just above \$3.0 billion by 2022.

Per financial policy, the six-year CIP should be funded with at least 40% operating cash. Due to the CIP having several unusually large one-time projects, cash funding is expected to be 33% for the 2018-2023 CIP and 35% for 2019-2024 CIP.

CAPITAL REQUIREMENTS AND FUNDING

\$, Millions	2018	2019	2020	2021	2022	2023	2024
Capital Requirements, net							
CIP	394.6	353.5	336.1	389.5	387.4	328.8	346.8
Deferred O&M	49.7	49.1	49.9	41.3	48.7	49.8	50.8
Capital Contributions	(60.1)	(34.0)	(35.7)	(38.9)	(40.5)	(35.9)	(35.8)
Total	384.3	368.6	350.4	391.9	395.6	342.8	361.8
Capital Funding							
Operations	116.2	120.4	70.1	97.5	179.8	151.9	163.0
Bond Proceeds	268.1	248.2	280.3	294.4	215.7	190.8	198.8
Total	384.3	368.6	350.4	391.9	395.6	342.8	361.8
Total Debt Outstanding	2,506	2,642	2,809	2,986	3,072	3,123	3,188

Capital requirements determine the size of future bond sales and resulting debt service. The bond size is slightly higher than bond proceeds shown in the table above to account for issue costs and required deposits into the bond reserve fund. Debt service assumptions for bonds issued in 2020 and later assume a 30-year term at a 5.0% interest rate. Per financial policy, debt service has a 1.8x impact on the revenue requirement. Most existing debt was issued in the last 10 years with 25-30-year terms and level debt service, which is why debt service on these bonds is decreasing only slightly. In addition, the large capital program is driving larger future bond issues than in the past. Together these two factors are driving up the volume of debt outstanding and associated debt service obligations over the next six years.

BOND SALES AND DEBT SERVICE, \$MILLIONS

				D	ebt Servic	:e		
	Bond Size	2018	2019	2020	2021	2022	2023	2024
Existing ¹		214.4	206.8	201.5	196.5	190.8	187.3	185.0
2018 (Jul) ²	275		16.8	16.8	16.8	16.8	16.8	16.8
2019 (Jul) ²	255			15.6	15.6	15.6	15.6	15.6
2020 (Jul)	289			0.6	18.8	18.8	18.8	18.8
2021 (Aug)	303					19.1	19.7	19.7
2022 (Aug)	220						13.8	14.3
2023 (Aug)	192							12.1
2024 (Aug)	200							
Total		214.4	223.6	234.5	247.7	261.1	272.0	282.3
Debt Service Cove	erage (1.8x)	386.0	402.5	422.0	445.9	469.9	489.6	508.1

OPERATING AND MAINTENANCE (0&M)

Non-power operating and maintenance expenses (O&M) are the costs associated with day-to-day operations. O&M is a large and diverse category of costs that includes functions such power production; distribution and transmission system operation and maintenance; customer services such as billing and meter reading; and administrative support. This forecast defines O&M as excluding purchased power, wheeling and taxes, which are included in separate categories.

The basis for the 2019-2024 O&M forecast is the 2018 O&M budget, which is adjusted to remove costs that do not impact debt service coverage, and then inflated appropriately. The average annual inflation applied to O&M is around 2.8% and represents the increased cost of providing the same level of services as in 2018. The table below lists the inflation assumption for each O&M cost category.

BUDGET O&M INFLATION BY CATEGORY

\$, Millions	2018	2019	2020	2021	2022	2023	2024
Labor	144.4	148.7	152.4	156.0	159.5	163.1	166.9
Labor Benefits	75.8	78.5	81.2	84.1	87.0	90.0	93.2
Non-Labor	81.2	82.8	84.9	86.9	88.8	90.8	93.0
Transfers to City	69.7	71.8	74.0	76.2	78.5	80.8	83.3
Operating Supplies	<u>12.9</u>	<u>13.5</u>	<u>14.2</u>	<u>14.9</u>	<u>15.7</u>	<u>16.5</u>	<u>17.3</u>
Total Inflated Budget	384.0	395.3	406.7	418.0	429.4	441.3	453.6
Annual Labor Increase		3.0%	2.5%	2.3%	2.2%	2.3%	2.4%
CPI Growth*		2.0%	2.5%	2.3%	2.2%	2.3%	2.4%
Avg Growth All O&M		2.9%	2.9%	2.8%	2.7%	2.8%	2.8%

^{*}From IHS Economics – Dec 2017 Forecast for the Seattle Metro area

O&M Category	Annual Inflation	Notes
Labor	see above	2019 higher than CPI to account for higher 2017 CPI (3.3%), which is not reflected in 2018 labor rates
Labor Benefits	3.5%	Based on history, assumed to remain above CPI
Non-Labor	CPI	
Transfers to City	3.0%	Assumed to grow at slightly higher than CPI Inflation
Operating Supplies	5.0%	Includes IT equipment and software, fuel costs, inventory material for distribution and generation systems. Growth assumed to remain high (conservative placeholder)

There are numerous adjustments made to the 2018 O&M budget to make it consistent with financial policies and reflect changes to plans and programs. More detail on the Strategic Adjustments is in Appendix 1.

0&M ADJUSTMENTS DETAIL

\$, Millions	2018	2019	2020	2021	2022	2023	2024
Inflated 2018 Budget	384.0	395.3	406.7	418.0	429.4	441.3	453.6
adjustments							
REC Expense ¹	2.4	5.8	5.8	7.8	13.9	13.9	15.2
Intertie Expense ¹	0.9	0.8	0.8	0.8	0.8	0.8	0.8
PNCA Payment ¹	1.8	1.9	1.9	1.9	1.9	1.9	1.5
Capital Loadings ²	(85.0)	(87.5)	(90.0)	(92.6)	(95.2)	(98.0)	(100.8)
Under Expenditure	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)	(10.0)
Subtotal: O&M Baseline with Inflation	294.2	306.3	315.2	325.9	340.8	349.9	360.4
\$ Millions	2018	2019	2020	2021	2022	2023	2024
2018 Baseline	294.2	294.2	294.2	294.2	294.2	294.2	294.2
Inflation and REC growth		12.1	21.1	31.8	46.6	55.8	66.2
Strategic Adjustments ⁴	-	(3.2)	3.8	7.0	6.1	8.6	9.5
Total O&M	294.2	303.1	319.0	333.0	346.9	358.5	369.9

¹ Items that are budgeted as purchased power budget but recognized as O&M in financial statements:

- Renewable Energy Credits (RECs), the increase in 2022 reflects the purchase of Stateline RECs after the current purchase power contract expires.
- Maintenance costs associated with ownership the 3rd AC intertie
- Payments for the Pacific Northwest Coordination Agreement (PNCA) related to the compensation for the benefits of upstream storage at the Boundary project.

POWER COSTS, NET

This category includes all costs and revenue associated with the actual purchase and sale of energy, wheeling and associated auxiliary services.

City Light's power portfolio is a relative constant. With the sole exception being the expiration of the Stateline contract in 2022, this forecast projects no major contract changes, and no new resources are expected to be procured.

² Remove capital loadings and overhead expenses associated with the CIP from the O&M budget, and include these expenses as capital requirements. CIP and deferred overheads are expected to increase at a rate of 2.9% per year, predicated on the assumption that labor levels will remain constant for CIP and deferred O&M over the six-year planning period.

³ Remove \$10 million per year to reflect an assumption of budget under-expenditure

⁴ Includes changes to O&M programs that would not be included in inflation. These adjustments include funding changes for existing initiatives, incremental spending, and savings to mitigate rate increases. These amounts reflect funding levels above what is already included in the 2018 budget. See Appendix 1.

Below is a table outlining long term power and wheeling costs.

LONG-TERM	DOWED.	CONTRACTS	AND WHEELING
LONG-IERIVI	PUVVER	CONTRACTS	AIND MUCCLING

\$, Millions	2018	2019	2020	2021	2022	2023	2024
BPA Power ¹	170.0	172.8	176.9	178.9	183.9	186.0	191.3
Priest Rapids ²	2.1	2.0	1.9	1.9	1.8	1.8	1.7
Grand Coulee ³	6.8	7.1	7.3	7.4	7.6	7.8	7.5
Lucky Peak ⁴	8.2	8.4	8.6	8.9	9.1	9.3	9.5
Stateline ⁵	24.7	24.8	25.0	25.0	1.7	0.0	0.0
Columbia Ridge ⁶	6.5	6.6	6.7	6.9	7.0	7.1	7.3
King County West Point ⁶	2.1	2.2	2.3	2.3	2.4	2.4	2.5
High Ross ⁸	12.8	13.1	13.1	0.1	0.1	0.1	0.1
BPA Wheeling ¹	42.2	43.0	43.9	44.3	45.7	46.1	47.5
Other Wheeling ⁹	0.9	0.9	0.9	4.7	4.8	4.9	5.0
Total LT Power Contracts	276.4	280.9	286.6	280.4	264.1	265.6	272.4

¹Increases by 4% biennially, effective October 1 of odd-numbered years.

City Light's largest contract is with the Bonneville Power Authority (BPA). In 2017 City Light converted its prior combination of Block and Slice products to an all Block product. BPA power and wheeling rates are assumed to increase at 4% every 2 years, effective in October of odd years. After BPA announces its final rates for fiscal year 2020, any differences between fiscal year 2020 actual costs and the costs based on the assumptions below will be passed-through or credited to City Light customers via the BPA pass-through mechanism (SMC 21.49.081).

² Priest Rapids costs are expected to decline because City Light's share of the project will shrink as Grant County PUD's load grows.

³ Reflects City Light's apportioned allotment of production O&M costs, growing with inflation.

⁴ Reflects production O&M cost growing with inflation.

⁵ Stateline wind costs will grow gradually as outlined in the integration and exchange contract with PacifiCorp. The contract expires at the end of 2021 with the last payment in 2022. City Light has already contracted to receive RECs from the Stateline Project starting in 2022 (which are included in O&M), but will not continue to purchase the power.

⁶ Cost inflates per contract terms.

⁸ Expenses for the High Ross contract will decrease significantly after 2020 to reflect the end of the 25-year debt service payments outlined in the contract. The amount of energy received is unchanged.

⁹ Other Wheeling reflects an exchange agreement for the Lucky Peak output for 2018-2020 which will assign the associated transmission to the counterparty, reducing expenses by \$3 million. Starting in 2021, this expense is reinstated, as Lucky Peak energy will be retained.

BPA DETAIL

\$ Millions	2018	2019	2020	2021	2022	2023	2024
Block Power	170.0	172.8	176.9	178.9	183.9	186.0	191.3
Wheeling	42.2	43.0	43.9	44.3	45.7	46.1	47.5
Total BPA Costs	212.3	215.8	220.8	223.2	229.6	232.1	238.8
Annual Change		1.7%	2.3%	1.1%	2.9%	1.1%	2.9%

Power revenues are comprised of Net Wholesale Revenue, other miscellaneous power revenues, and long-term power sale obligations. The below table details these assumptions.

POWER REVENUES, NET DETAIL

\$, Millions	2018	2019	2020	2021	2022	2023	2024
Net Wholesale Revenue ¹	44.8	55.0	50.0	50.0	40.0	40.0	40.0
Power Contracts ²							
Article 49 to PO County	2.1	2.2	2.2	2.3	2.3	2.4	2.4
Priest Rapids	1.8	1.6	1.5	1.4	1.4	1.3	1.2
BPA Credit for South Fork Tolt	3.2	3.1	3.1	3.0	2.9	2.9	2.8
BPA Residential Exchange Credit	5.7	4.3	-	-	-	-	-
Power Marketing Net ³	4.5	4.0	1.4	1.4	1.4	1.4	1.4
Transmission Sales ⁴	5.0	3.4	3.4	3.4	3.3	3.0	3.0
Total	67.1	73.6	61.6	61.5	51.2	50.9	50.8

¹ Net Wholesale Revenue (NWR) is the revenue from selling surplus energy on the wholesale market, net of purchases for load balancing. 2019-2022 NWR planning values were adopted as part of prior strategic plans and represent a gradual downward shift reflecting less reliance on this volatile revenue source. 2022 is reduced to \$40 million to account for the expiration of the Stateline wind contract, which will reduce the energy surplus.

OTHER COSTS/REVENUES

This "other" category is made up of miscellaneous costs and revenues such as taxes, interest income and fees for retail services.

² In aggregate, revenue in this category will decline in 2020 when the lookback credit for BPA Residential Exchange expires.

³ Power marketing revenues (net of purchases) are earned from sales of auxiliary services associated with generation and transmission assets, such reserve capacity sales. Revenues are expected to decline in 2020 primarily because of lower Lucky Peak exchange premiums. The current 2-year exchange contract goes through 2019 and the premium is \$2.1 million per year. To be conservative no exchange premium is assumed for 2020 onward.

⁴ Starting in 2019, excess BPA 3rd AC transmission capacity will be marketed in the Western Energy Imbalance Market (EIM) and revenues will contribute to NWR.

OTHER COSTS DETAIL

\$, Millions	2018	2019	2020	2021	2022	2023	2024
State Taxes ¹	35.4	36.6	38.2	41.8	43.0	44.3	45.8
Franchise Payments & Other Taxes ²	6.4	6.8	7.2	7.4	7.7	7.9	8.2
<u>Uncollectable Revenues³</u>	6.6	7.0	7.4	7.7	7.9	8.2	8.5
Total Other Cost	48.4	50.4	52.8	56.8	58.7	60.4	62.6

¹ State taxes are 3.8734% of retail revenues, plus some other revenues and contributions. Not included are City taxes, which are 6% of total taxable revenues, but do not directly impact the revenue requirement because they are junior to debt service. They are treated as a "below the line" expenditure and are deducted from the additional 0.8x debt service coverage, reducing the amount of current year operating proceeds going to capital requirements.

OTHER REVENUE SOURCES DETAIL

\$, Millions	2018	2019	2020	2021	2022	2023	2024
Non-Base Rate Retail Revenue ¹	3.9	3.9	4.4	4.5	4.5	4.6	4.6
Other Revenue ²	19.4	19.5	19.6	19.7	19.8	19.9	20.0
Suburban Undergrounding ³	4.1	4.1	4.1	4.1	4.1	4.1	4.1
Property Sales ⁴	1.0	1.1	1.2	1.2	1.2	1.2	1.3
Interest Income ⁵	5.8	5.7	7.3	8.8	9.0	8.7	8.7
RSA Transfers, Net ⁶	<u>14.9</u>	(0.1)	(1.7)	(2.1)	(2.2)	(2.2)	(2.3)
Total Other Revenue Sources	49.1	34.3	34.8	36.1	36.4	36.2	36.4

¹ Non-base rate retail revenue includes revenues from retail customers for services or programs which are not dictated by the revenue requirement. Examples include: elective green power programs, distribution capacity charges and power factor charges.

² Payments associated with franchise contracts with the cities of Burien, Lake Forest Park, SeaTac, Shoreline, and Tukwila. Franchise payments range from 4% to 6% of total retail revenue in each franchise territory. Other taxes are miscellaneous taxes (e.g., B&O tax) to other jurisdictions where the utility has operations. The forecast projects only small increases in these taxes.

³ Uncollectible revenue is assumed to be 0.75% of retail revenues.

² Other revenue includes a broad range of income sources, such as late payment fees, payments for damages to property, transmission tower attachments, distribution pole attachments and account change fees. The items are expected to increase mildly over time.

³ Suburban undergrounding revenues are collected from customers in certain suburban cities for the repayment of discretionary undergrounding of parts of their distribution system.

⁴ Around \$1 million of property sales are assumed reflecting historical averages. No large sales are assumed in this forecast.

⁵ Interest income assumes City Cash Pool cash holdings accrue interest at an annual rate of 1.5%-2.0% on average. The increases reflect higher average cash balances, primarily from a growing bond reserve fund and a gradual increase in the interest rate.

⁶ These RSA transfers are the deposit into the RSA net of any RSA surcharge revenue. They primarily reflect interest earned by the RSA.

RETAIL SALES

The forecast of retail sales is based on the 2017 load forecast, which shows an average decrease of around 0.8% per year.

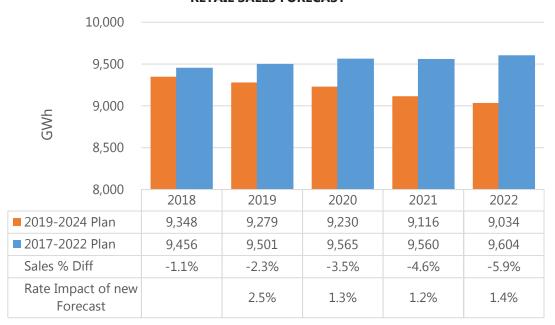
RETAIL SALES FORECAST

	2018	2019	2020	2021	2022	2023	2024
GWh							
Residential	3,132	3,147	3,165	3,140	3,119	3,096	3,081
Small and Medium	3,618	3,568	3,530	3,476	3,441	3,406	3,383
Large and High Demand	2,599	2,563	2,536	2,499	2,474	2,452	2,439
Total	9,348	9,279	9,230	9,116	9,034	8,955	8,903
Annual Change							
Residential		0.5%	0.6%	-0.8%	-0.7%	-0.7%	-0.5%
Small and Medium		-1.4%	-1.1%	-1.5%	-1.0%	-1.0%	-0.7%
Large and High Demand		-1.4%	-1.1%	-1.5%	-1.0%	-0.9%	-0.5%
Total		-0.7%	-0.5%	-1.2%	-0.9%	-0.9%	-0.6%

The forecast of retail sales has decreased since the 2017-2022 Plan. Under the existing rate design, almost all revenue is collected through per-kWh or energy rates, so fewer kWh means higher rates are needed to recover the same amount of revenue.

The chart and table below show the impact to the average rate increase resulting from the current retail sales forecast being lower than what was assumed in the 2017-2022 Strategic Plan. The 2019 retail rate increase would be 2.5% lower if the retail sales forecast was set at the previous levels.

RETAIL SALES FORECAST



RETAIL SALES FORECAST REDUCTIONS AND IMPACT ON AVERAGE RATES

	2018	2019	2020	2021	2022	2023	2024
Revenue Requirement, \$M		928.9	984.1	1,018.6	1,051.8	1,087.0	1,125.6
Retail Sales Forecast, GWh							
2019-2024 Plan	9,348	9,279	9,230	9,116	9,034	8,955	8,903
2017-2022 Plan	9,456	9,501	9,565	9,560	9,604		
Average Rate cents/kWh							
2019-2024 Plan	9.40	10.01	10.66	11.17	11.64	12.14	12.64
2017-2022 Plan	9.40	9.78	10.29	10.65	10.95		
Annual Rate Increase							
2019-2024 Plan		6.5%	6.5%	4.8%	4.2%	4.3%	4.1%
2017-2022 Plan		4.0%	5.2%	3.6%	2.8%		
Difference		2.5%	1.3%	1.2%	1.4%		

APPENDIX A: STRATEGIC ADJUSTMENTS

0&M

O&M strategic adjustments are O&M funding changes that are not captured in inflating the 2018 budget. "New funding" includes both new funding for initiatives authorized by past strategic plans, as well as adjustments and additions. The 2019-2024 initiatives do not add any incremental O&M. The table also shows restoration of one-time reductions designed to manage 2018 rate impacts, as well as new reductions to limit 2019-2020 rate increases to 6.5%.

0&M ADJUSTMENTS DETAIL

\$, Millions	2019	2020	2021	2022	2023	2024
Past initiatives and new funding						
Advanced metering initiative	0.9	-1.2	-1.5	-1.9	-1.9	-1.9
Customer service initiatives	1.6	-0.8	-0.4	0.2	1.4	2.5
Power supply, generation facilities	0.9	2.8	2.6	1.5	2.7	2.6
Asset management, testing, and switches	0.4	0.6	1.1	1.1	1.1	1.1
Seismic upgrades, security and safety	0.3	0.4	0.4	0.4	0.4	0.4
Restoring temporary 2018 budget reductions						
Asset and project management	2.0	2.0	2.0	2.0	2.0	2.0
Internships, memberships, and services	0.4	0.4	0.5	0.5	0.5	0.5
Fuel costs, training and facilities	0.8	0.8	0.8	0.8	0.8	0.8
Line clearance and operations overtime	0.9	0.9	0.9	0.9	0.9	0.9
Greenhouse gas offsets	0.7	0.7	0.7	0.7	0.7	0.7
One-time 2019-2020 reductions	-12.1	-2.8				
Total Adjustments to O&M	-3.2	3.8	7.0	6.1	8.6	9.5

CIP

The following table details the costs associated with new CIP funding that are not already in the 2018-2023 CIP Plan.

CIP ADDITIONS AND CHANGES

\$, Millions	2019	2020	2021	2022	2023	2024
Boundary Facilities Master Plan	-	8.0	2.5	2.5	3.0	1.5
Skagit Facilities Master Plan Phase 2	-	4.9	7.5	7.2	10.2	2.1
Powerhouse Systems	-	3.0	-	-	-	-
Power Plant Controller Replacement	-	2.5	2.5	-	-	-
Boundary Native Salmonid Hatchery	-	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)
Energy Management System SCADA Upgrade	-	2.0	-	-	-	-
Cable Replacement	-	6.0	18.0	36.0	36.0	36.0
Enterprise Software Upgrades	-	-	-	-	13.0	11.0
UW Underground Capacity Additions ¹	-	2.0	10.5	12.0	12.0	10.0
Sound Transit 3 (ST3) ²	-	0.7	0.4	0.6	0.6	0.6
Total at 100% Spending	-	21.2	40.7	57.7	74.2	60.6
Total after Reimbursements	-	18.9	32.0	47.5	64.0	52.0
¹ Estimated to be 80% reimbursable						
² Estimated to be 100% reimbursable						

MAJOR CIP PROJECTS 2018-2024 SPENDING, \$MILLIONS

Included in 2018-2023 Adopted CIP Budget

8351: Overhead Equipment Replacements	152.4
6987: Boundary - Licensing Mitigation	104.3
8366: Medium Overhead and Underground Services	94.4
8353: Underground Equipment Replacements	86.9
6986: Skagit - Relicensing	58.2
7125: Denny Substation Transmission Lines	50.3
8307: Alaskan Way Viaduct and Seawall Replacement - Utility Relocs	82.4
8452: Pole Attachments	62.6
8404: Denny Substation - Network	65.7
9101: Equipment Fleet Replacement	57.0
9969: Enterprise Software Solution Replacement Strategy	46.8
8363: Network Additions and Services: Broad Street Substation	51.6

While revenue requirement is proposed to increase each year, the resulting revenue collected is less than proposed by previous 2017-2022 Strategic Plan. The below chart compares the authorized revenue requirements between the 2017-2022 and 2019-2024 plans.

RETAIL REVENUE AUTHORIZED BY STRATEGIC PLAN VS ACTUAL/FORECAST

