

OFFICIAL STATEMENT

New Issue
Book-Entry Only

Moody's Rating: Aa2
Standard & Poor's Rating: AA
(See "Other Bond Information—Ratings on the Bonds.")

In the opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation, Seattle, Washington ("Bond Counsel"), under existing statutes, regulations, rulings, and judicial decisions, and assuming the accuracy of certain representations and compliance with certain covenants and requirements described herein, interest on the Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of calculating the federal alternative minimum tax imposed on individuals. See "Legal and Tax Information—Tax Matters" herein with respect to tax consequences relating to the Bonds.

THE CITY OF SEATTLE, WASHINGTON
MUNICIPAL LIGHT AND POWER

\$210,540,000
IMPROVEMENT REVENUE BONDS, 2019, SERIES A

\$140,275,000
REFUNDING REVENUE BONDS, 2019, SERIES B

DATED: RESPECTIVE DATE OF INITIAL DELIVERY

2019A BONDS DUE: APRIL 1 AS SHOWN ON PAGE i
2019B BONDS DUE: FEBRUARY 1 AS SHOWN ON PAGE ii

The City of Seattle, Washington (the "City"), will issue its Municipal Light and Power Improvement Revenue Bonds, 2019, Series A (the "2019A Bonds"), and its Municipal Light and Power Refunding Revenue Bonds, 2019, Series B (the "2019B Bonds"), as fully registered bonds under a book-entry only system, registered in the name of Cede & Co. as bond owner and nominee for The Depository Trust Company, New York, New York ("DTC"). Together, the 2019A Bonds and the 2019B Bonds are referred to as the "Bonds."

DTC will act as initial Securities Depository for the Bonds. Individual purchases of the Bonds will be made in Book-Entry Form, in denominations of \$5,000 or any integral multiple thereof within a maturity of a Series of the Bonds. Purchasers will not receive certificates representing their interest in the Bonds. Interest on the 2019A Bonds is payable semiannually on each April 1 and October 1, beginning April 1, 2020. Interest on the 2019B Bonds is payable semiannually on each February 1 and August 1, beginning February 1, 2020. The principal of and interest on the Bonds are payable by the City's Bond Registrar, currently the fiscal agent of the State of Washington (currently U.S. Bank National Association), to the Securities Depository (DTC), which is obligated to remit such payments to its participants for subsequent disbursement to Beneficial Owners of the Bonds, as described in "Description of the Bonds—Registration and Book-Entry Form" and in Appendix E.

The 2019A Bonds are being issued to finance certain capital improvements to and conservation programs for the City's municipal light and power plant and system (the "Light System"), to make a deposit to the Reserve Fund to satisfy the Reserve Fund Requirement, and to pay the costs of issuing the 2019A Bonds. The 2019B Bonds are being issued to refund certain of the City's outstanding Municipal Light and Power bonds and to pay the costs of issuing the 2019B Bonds. See "Use of Proceeds."

The 2019A Bonds are subject to redemption prior to maturity as described herein. The 2019B Bonds are not subject to redemption prior to maturity. See "Description of the Bonds—Redemption of Bonds."

The Bonds are issued as Parity Bonds and are a special limited obligation of the City payable from and secured solely by Gross Revenues of the Light System available after payment of Operating and Maintenance Expense ("Net Revenue") and by money in the Parity Bond Fund and the Reserve Fund. The pledge of Net Revenue to pay and secure the Parity Bonds constitutes a lien and charge upon Net Revenue prior and superior to all other charges whatsoever. The Bonds will be issued on parity with the Outstanding Parity Bonds and all Future Parity Bonds. Operating and maintenance expense includes the unconditional obligation of the City to make payments under certain power purchase contracts, as more fully described in "Power Resources and Cost of Power—Purchased Power Arrangements." See "Security for the Bonds."

The Bonds do not constitute general obligations of the City, the State of Washington (the "State"), or any political subdivision of the State, or a charge upon any general fund or upon any money or other property of the City, the State, or any political subdivision of the State not specifically pledged thereto by the legislation authorizing the issuance of the Bonds. Neither the full faith and credit nor the taxing power of the City, nor any revenues of the City derived from sources other than the Light System, are pledged to the payment of the Bonds.

The Bonds are offered when, as, and if issued, subject to the approving legal opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation, Seattle, Washington, Bond Counsel. The forms of Bond Counsel's opinions are attached hereto as Appendix B. Bond Counsel will also act as Disclosure Counsel to the City. It is expected that the 2019A Bonds will be available for delivery at DTC's facilities in New York, New York, or delivered to the Bond Registrar on behalf of DTC for closing by Fast Automated Securities Transfer, on or about October 16, 2019, and the 2019B Bonds will be available for delivery at DTC's facilities in New York, New York, or delivered to the Bond Registrar on behalf of DTC for closing by Fast Automated Securities Transfer, on or about November 5, 2019.

This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement to obtain information essential to the making of an informed investment decision.

Dated: October 1, 2019

The information within this Official Statement has been compiled from official and other sources considered reliable and, while not guaranteed as to accuracy, is believed by the City to be correct as of its date. The City makes no representation regarding the accuracy or completeness of the information in Appendix E—Book-Entry Transfer System, which has been obtained from DTC’s website, or other information provided by parties other than the City. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made by use of this Official Statement shall, under any circumstances, create any implication that there has been no change in the affairs of the City since the date hereof.

Information on website addresses set forth in this Official Statement is not incorporated into this Official Statement and cannot be relied upon to be accurate as of the date of this Official Statement, nor should any such information be relied upon in making investment decisions regarding the Bonds.

No dealer, broker, salesperson, or other person has been authorized by the City to give any information or to make any representations with respect to the Bonds other than those contained in this Official Statement and, if given or made, such information or representations must not be relied upon as having been authorized by the City. This Official Statement does not constitute an offer to sell or a solicitation of an offer to buy, nor shall there be any sale of the Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale.

The Bonds have not been registered under the Securities Act of 1933, as amended, and the Bond Ordinance has not been qualified under the Trust Indenture Act of 1939, as amended, in reliance upon exemptions contained in such acts. The Bonds have not been recommended by any federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this Official Statement. Any representation to the contrary may be a criminal offense.

The presentation of certain information, including tables of revenues and expenses, is intended to show recent historic information and is not intended to indicate future or continuing trends in the financial position or other affairs of the City or the Light System. No representation is made that past experience, as it might be shown by such financial and other information, will necessarily continue or be repeated in the future.

The information set forth in the Seattle City Light Department’s Audited Financial Statements that are included in Appendix C speaks only as of the date of the those statements and is subject to revision or restatement in accordance with applicable accounting principles and procedures. The City specifically disclaims any obligation to update this information except to the extent described under “Continuing Disclosure Agreement.”

Certain statements contained in this Official Statement do not reflect historical facts, but rather are forecasts and “forward-looking statements.” No assurance can be given that the future results shown herein will be achieved, and actual results may differ materially from the forecasts shown. In this respect, the words “estimate,” “forecast,” “project,” “anticipate,” “expect,” “intend,” “believe,” and other similar expressions are intended to identify forward-looking statements. The forward-looking statements in this Official Statement are subject to risks and uncertainties that could cause actual results to differ materially from those expressed in or implied by such statements. All estimates, projections, forecasts, assumptions, and other forward-looking statements are expressly qualified in their entirety by the cautionary statements set forth in this Official Statement. These forward-looking statements speak only as of the date they were prepared. The City specifically disclaims any obligation to update any forward-looking statements to reflect occurrences or unanticipated events or circumstances after the date of this Official Statement, except as otherwise expressly provided in “Continuing Disclosure Agreement.”

The CUSIP data herein are provided by CUSIP Global Services, managed on behalf of the American Bankers Association by Standard & Poor’s. CUSIP numbers are not intended to create a database and do not serve in any way as a substitute for CUSIP service. CUSIP numbers have been assigned by an independent company not affiliated with the City and are provided solely for convenience and reference. The CUSIP number for a specific maturity is subject to change after the issuance of the Bonds. The City takes no responsibility for the accuracy of the CUSIP numbers.

The order and placement of materials in this Official Statement, including the Appendices, are not to be deemed to be a determination of relevance, materiality, or importance, and this Official Statement, including the Appendices, must be considered in its entirety. The offering of the Bonds is made only by means of this entire Official Statement.

The website of the City or any City department or agency is not part of this Official Statement, and investors should not rely on information presented on the City’s website, or any other website referenced herein, in determining whether to purchase the Bonds. Information appearing on any such website is not incorporated by reference in this Official Statement.

MATURITY SCHEDULE

\$210,540,000

THE CITY OF SEATTLE, WASHINGTON MUNICIPAL LIGHT AND POWER IMPROVEMENT REVENUE BONDS, 2019, SERIES A

<u>Due April 1</u>	<u>Amounts</u>	<u>Interest Rates</u>	<u>Yields</u>	<u>Prices</u>	<u>CUSIP Numbers</u>
2020	\$ 3,520,000	5.00%	1.250%	101.707	812643 SS4
2021	3,250,000	5.00%	1.270%	105.372	812643 ST2
2022	3,420,000	5.00%	1.280%	108.973	812643 SU9
2023	3,595,000	5.00%	1.300%	112.472	812643 SV7
2024	3,780,000	5.00%	1.310%	115.928	812643 SW5
2025	3,975,000	5.00%	1.320%	119.318	812643 SX3
2026	4,175,000	5.00%	1.350%	122.501	812643 SY1
2027	4,390,000	5.00%	1.430%	125.169	812643 SZ8
2028	4,615,000	5.00%	1.480%	127.887	812643 TA2
2029	4,850,000	5.00%	1.550%	130.242	812643 TB0
2030	5,100,000	5.00%	1.610% ⁽²⁾	129.630	812643 TC8
2031	5,365,000	5.00%	1.670% ⁽²⁾	129.022	812643 TD6
2032	5,640,000	5.00%	1.720% ⁽²⁾	128.517	812643 TE4
2033	5,925,000	5.00%	1.780% ⁽²⁾	127.915	812643 TF1
2034	6,230,000	5.00%	1.830% ⁽²⁾	127.415	812643 TG9
2035	6,550,000	5.00%	1.870% ⁽²⁾	127.018	812643 TH7
2036	6,885,000	5.00%	1.910% ⁽²⁾	126.621	812643 TJ3
2037	7,240,000	5.00%	1.950% ⁽²⁾	126.226	812643 TK0
2038	7,610,000	5.00%	1.990% ⁽²⁾	125.833	812643 TL8
2039	8,000,000	5.00%	2.030% ⁽²⁾	125.441	812643 TM6
2040	8,410,000	5.00%	2.060% ⁽²⁾	125.148	812643 TN4
2041	8,840,000	5.00%	2.090% ⁽²⁾	124.855	812643 TP9
2042	9,295,000	5.00%	2.120% ⁽²⁾	124.564	812643 TQ7
2043	9,775,000	5.00%	2.150% ⁽²⁾	124.273	812643 TR5
2044	10,275,000	5.00%	2.160% ⁽²⁾	124.176	812643 TS3
2045	10,800,000	5.00%	2.170% ⁽²⁾	124.080	812643 TT1
2046	11,355,000	5.00%	2.180% ⁽²⁾	123.983	812643 TU8
2047	11,935,000	5.00%	2.190% ⁽²⁾	123.887	812643 TV6
2048	12,550,000	5.00%	2.200% ⁽²⁾	123.790	812643 TW4
2049	13,190,000	5.00%	2.210% ⁽²⁾	123.694	812643 TX2

(1) Calculated to the April 1, 2029, par call date.

MATURITY SCHEDULE

\$140,275,000

THE CITY OF SEATTLE, WASHINGTON

MUNICIPAL LIGHT AND POWER REFUNDING REVENUE BONDS, 2019, SERIES B

Due February 1	Amounts	Interest Rates	Yields	Prices	CUSIP Numbers
2021	\$ 21,795,000	5.00%	1.230%	104.619	812643 TY0
2022	22,910,000	5.00%	1.260%	108.228	812643 TZ7
2023	24,085,000	5.00%	1.270%	111.797	812643 UA0
2024	25,320,000	5.00%	1.280%	115.298	812643 UB8
2025	26,615,000	5.00%	1.290%	118.733	812643 UC6
2026	19,550,000	5.00%	1.290%	122.168	812643 UD4

THE CITY OF SEATTLE
CITY OFFICIALS AND CONSULTANTS

MAYOR AND CITY COUNCIL

Jenny A. Durkan Mayor

Council Member	Term Expiration
Sally Bagshaw	2019 ⁽¹⁾
Lorena González	2021
Bruce Harrell	2019 ⁽¹⁾
Lisa Herbold	2019 ⁽²⁾
Abel Pacheco	2019 ⁽¹⁾
Debora Juarez	2019 ⁽²⁾
Teresa Mosqueda	2021
Mike O'Brien	2019 ⁽¹⁾
Kshama Sawant	2019 ⁽²⁾

CITY ADMINISTRATION

Glen M. Lee Director of Finance
Peter Holmes City Attorney

SEATTLE CITY LIGHT DEPARTMENT

Debra Smith	General Manager and Chief Executive Officer
Jen Chan	Chief of Staff
James Baggs	Facilities and Oversight Services Officer
Kirsty Grainger	Interim Chief Financial Officer
Michael Haynes	Chief Operating Officer
Lynn Best	Chief Environmental Officer
Emeka Anyanwu	Energy Innovation and Resources Officer
DaVonna Johnson	People and Culture Officer
Bernie Ziemianek	Transmission and Distribution Operating Officer
Kelly Enright	Transformation and Customer Experience Director

BOND COUNSEL AND DISCLOSURE COUNSEL

Stradling Yocca Carlson & Rauth, a Professional Corporation
Seattle, Washington

MUNICIPAL ADVISOR

Piper Jaffray & Co.
Seattle, Washington

BOND REGISTRAR

Washington State Fiscal Agent
(currently U.S. Bank National Association)

(1) Open seat; incumbent not running for election at the general election to be held on November 5, 2019.

(2) Incumbent running for re-election at the general election to be held on November 5, 2019.

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OFFICIAL STATEMENT

THE CITY OF SEATTLE, WASHINGTON MUNICIPAL LIGHT AND POWER

\$210,540,000

\$140,275,000

IMPROVEMENT REVENUE BONDS, 2019, SERIES A

REFUNDING REVENUE BONDS, 2019, SERIES B

INTRODUCTION

The purpose of this Official Statement, which includes the cover, inside cover, and appendices, is to set forth certain information concerning The City of Seattle, Washington (the “City”), a municipal corporation duly organized and existing under and by virtue of the laws of the State of Washington (the “State”), the Seattle City Light Department (the “Department”), and its municipal light and power plant and system (the “Light System”), in connection with the offering of \$210,540,000 aggregate principal amount of the City’s Municipal Light and Power Improvement Revenue Bonds, 2019, Series A (the “2019A Bonds”), and \$140,275,000 aggregate principal amount of the City’s Municipal Light and Power Refunding Revenue Bonds, 2019, Series B (the “2019B Bonds”). The 2019A Bonds and the 2019B Bonds are referred to together in this Official Statement as the “Bonds.” This Official Statement contains certain information related to this offering and sale concerning the City, the Bonds, the Light System, and the Department.

Appendix A to this Official Statement is a copy of the ordinance authorizing the sale of the 2019A Bonds. See “Description of the Bonds—Authorization for the Bonds.” Appendix B includes the forms of legal opinions of Stradling Yocca Carlson & Rauth, a Professional Corporation, Seattle, Washington (“Bond Counsel”). Appendix C contains the audited 2018 financial statements of the Department. Appendix D provides demographic and economic information for the City. Appendix E is a description provided on its website by The Depository Trust Company, New York, New York (“DTC”), of DTC procedures for book-entry bonds. Capitalized terms that are not defined herein have the meanings set forth in the Bond Ordinance (defined below).

All of the summaries of provisions of the State Constitution and laws of the State, of ordinances and resolutions of the City, and of other documents contained in this Official Statement are subject to the complete provisions thereof and do not purport to be complete statements of such laws or documents, copies of which may be obtained from the City upon request. A full review should be made of the entire Official Statement. The offering of the Bonds to prospective investors is made only by means of the entire Official Statement.

DESCRIPTION OF THE BONDS

Authorization for the Bonds

The Bonds are to be issued by the City pursuant to the State Constitution, chapters 35.92, 39.46, and 39.53 of the Revised Code of Washington (“RCW”), and the Seattle City Charter. The 2019A Bonds are issued pursuant to Ordinance 125711, passed on November 19, 2018 (the “New Money Bond Ordinance”), and the 2019B Bonds are issued pursuant to Ordinance 125460, passed on November 20, 2017 (the “Refunding Bond Ordinance”). The New Money Bond Ordinance and the Refunding Bond Ordinance are referred to interchangeably in this Official Statement as the “Bond Ordinance.” A copy of the New Money Bond Ordinance is attached to this Official Statement as Appendix A. The Refunding Bond Ordinance is substantially similar to the New Money Ordinance, and a copy of the Refunding Bond Ordinance is available from the City Clerk’s office.

The New Money Bond Ordinance authorizes the issuance of the 2019A Bonds as Parity Bonds in a maximum aggregate amount not to exceed \$255 million and delegates to the Director of the Finance Division of the City’s Department of Finance and Administrative Services (the “Director of Finance”) the authority to execute, on behalf of the City, a certificate of bid award, a pricing certificate (the “Pricing Certificate”), and other documents (collectively, the “Bond Documents”) in accordance with the parameters set forth in the Bond Ordinance. The par amount of the 2019A Bonds is \$210,540,000 and represents the first and only issuance under this authorization. See “Capital Requirements—Financing Plans.”

The Refunding Bond Ordinance authorizes the issuance of refunding bonds in amounts sufficient to carry out the refunding of any Refundable Bonds and delegates to the Director of Finance the authority to execute Bond Documents on behalf of the City, in accordance with the parameters set forth in the Refunding Bond Ordinance.

Principal Amounts, Dates, Interest Rates, and Maturities

Each Series of the Bonds will be dated the date of its respective initial issuance and delivery (each, an “Issue Date”). The Bonds will mature on the dates and in the amounts set forth on pages i and ii of this Official Statement. Interest on the 2019A Bonds is payable semiannually on each April 1 and October 1, beginning April 1, 2020, at the rates set forth on page i of this Official Statement. Interest on the 2019B Bonds is payable semiannually on each February 1 and August 1, beginning February 1, 2020, at the rates set forth on page ii of this Official Statement. Interest on the Bonds will be computed on the basis of a 360-day year consisting of twelve 30-day months.

Registration and Book-Entry Form

Book-Entry Form. The Bonds initially will be issued in Book-Entry Form and registered in the name of the Securities Depository. The Bonds so registered will be held fully immobilized in Book-Entry Form by the Securities Depository in accordance with the provisions of the Letter of Representations. Neither the City nor the Bond Registrar, currently U.S. Bank National Association in Seattle, Washington (or such other fiscal agent or agents as the State may from time to time designate), will have any responsibility or obligation to participants of the Securities Depository or the persons for whom they act as nominees with respect to the Bonds regarding the accuracy of any records maintained by the Securities Depository or its participants of any amount in respect of principal of or interest on the Bonds, or any notice which is permitted or required to be given to Registered Owners under the Bond Ordinance (except such notice as is required to be given by the Bond Registrar to the Securities Depository). Registered ownership of a Bond initially held in Book-Entry Form, or any portion thereof, may not be transferred except (i) to any successor Securities Depository, (ii) to any substitute Securities Depository appointed by the City or such substitute Securities Depository's successor, or (iii) to any person if the Bond is no longer held in Book-Entry Form. For information about DTC and its book-entry system, see Appendix E—Book Entry Transfer System. The City makes no representation as to the accuracy or completeness of the information in Appendix E obtained from DTC. Purchasers of the Bonds should confirm this information with DTC or its participants.

Termination of Book-Entry System. Upon the resignation of the Securities Depository from its functions as depository, or upon a determination by the Director of Finance to discontinue utilizing the then-current Securities Depository, the Director of Finance may appoint a substitute Securities Depository. If the Securities Depository resigns from its functions as depository and no substitute Securities Depository can be obtained, or if the Director of Finance determines not to utilize a Securities Depository, then the Bonds will no longer be held in Book-Entry Form and ownership of the Bonds may be transferred only as provided in the Bond Ordinance.

Lost or Stolen Bonds. In case any Bond is lost, stolen, or destroyed, the Bond Registrar may authenticate and deliver a new bond or bonds of like amount, date, tenor, and effect to the Registered Owner(s) thereof upon the Registered Owner(s)' paying the expenses and charges of the City in connection therewith and upon filing with the Bond Registrar evidence satisfactory to the Bond Registrar that such bond or bonds were actually lost, stolen, or destroyed and of Registered Ownership thereof, and upon furnishing the City with indemnity satisfactory to both.

Payment of Bonds

Each Bond will be payable in lawful money of the United States of America on the dates and in the amounts as provided in the Bond Ordinance. Principal of and interest on each Bond designated as a Parity Bond will be payable solely out of the Parity Bond Fund. The Bonds are not general obligations of the City. No Bonds will be subject to acceleration under any circumstances.

Interest on each Bond not held in Book-Entry Form is payable by electronic transfer on the interest payment date, or by check or draft of the Bond Registrar mailed on the interest payment date to the Registered Owner at the address appearing on the Bond Register on the Record Date. The City, however, is not required to make electronic transfers except pursuant to a request by a Registered Owner in writing received at least ten days prior to the Record Date and

at the sole expense of the Registered Owner. Principal of each Bond not held in Book-Entry Form is payable upon presentation and surrender of the Bond by the Registered Owner to the Bond Registrar.

The Bond Ordinance defines “Record Date,” in the case of each interest or principal payment date, as the Bond Registrar’s close of business on the 15th day of the month preceding that interest or principal payment date. With regard to redemption of a Bond prior to its maturity, the Record Date means the Bond Registrar’s close of business on the day prior to the date on which the Bond Registrar sends the notice of redemption to the Registered Owner(s) of the affected Bonds.

Redemption of Bonds

Optional Redemption—2019A Bonds. The 2019A Bonds maturing before April 1, 2030, are not subject to redemption prior to maturity. The City reserves the right and option to redeem the 2019A Bonds maturing on and after April 1, 2030, prior to their stated maturity dates at any time on and after April 1, 2029, as a whole or in part, at a price equal to 100% of the stated principal amount to be redeemed plus accrued interest to the date fixed for redemption.

Mandatory Redemption—2019A Bonds. The 2019A Bonds are not subject to mandatory redemption prior to maturity.

Selection of 2019A Bonds for Redemption. If fewer than all of the outstanding 2019A Bonds are to be redeemed at the option of the City, the Director of Finance will select the maturity or maturities to be redeemed. If less than all of the principal amount of a maturity is to be redeemed, if the 2019A Bonds are held in Book-Entry Form, the portion of such maturity to be redeemed will be selected for redemption by the Securities Depository in accordance with the Letter of Representations, and if the 2019A Bonds are not then held in Book-Entry Form, the portion of such maturity to be redeemed will be selected by the Bond Registrar using such method of random selection as the Bond Registrar determines.

All or a portion of the principal amount of any 2019A Bond that is to be redeemed may be redeemed in any applicable Authorized Denomination. If less than all of the outstanding principal amount of any 2019A Bond is redeemed, upon surrender of that 2019A Bond to the Bond Registrar there will be issued to the Registered Owner, without charge, a new 2019A Bond (or 2019A Bonds, at the option of the Registered Owner) of the same seniority, maturity, and interest rate in any Authorized Denomination in the aggregate principal amount to remain outstanding.

Redemption—2019B Bonds. The 2019B Bonds are not subject to optional or mandatory redemption prior to maturity.

Notice and Effect of Redemption

Notice of Redemption. The City must cause notice of any intended redemption of 2019A Bonds to be given not less than 20 nor more than 60 days prior to the date fixed for redemption by first-class mail, postage prepaid, to the Registered Owner of any 2019A Bond to be redeemed at the address appearing on the Bond Register on the Record Date, and that requirement will be deemed to have been fulfilled when notice has been mailed as so provided, whether or not it is actually received by the Owner of any 2019A Bond. Interest on 2019A Bonds called for redemption will cease to accrue on the date fixed for redemption unless the 2019A Bond or 2019A Bonds called are not redeemed when presented pursuant to the call. See “—Registration and Book-Entry Form” and Appendix E.

Rescission of Notice of Redemption. In the case of an optional redemption, the notice may state that the City retains the right to rescind the redemption notice and the related optional redemption of 2019A Bonds by giving a notice of rescission to the affected Registered Owners at any time on or prior to the scheduled optional redemption date. Any notice of optional redemption that is rescinded by the Director of Finance will be of no effect, and the 2019A Bonds for which the notice of optional redemption has been rescinded will remain outstanding.

Purchase

The City reserves the right and option to purchase any or all of the Bonds of either Series at any time at any price acceptable to the City plus accrued interest to the date of purchase.

Failure to Pay Bonds

If any Bond of a Series is not paid when properly presented at its maturity or redemption date, the City will be obligated to pay, solely from the Seattle Municipal Light Revenue Parity Bond Fund (the “Parity Bond Fund”) and the other sources pledged in the Bond Ordinance, interest on that Bond at the same rate provided in that Bond from and after its maturity or redemption date until that Bond, principal, premium, if any, and interest, is paid in full or until sufficient money for its payment in full is on deposit in the Parity Bond Fund and that Bond has been called for payment by giving notice of that call to the Registered Owner of that Bond. See Appendix A—New Money Bond Ordinance—Sections 10 (Failure to Pay Bonds) and 24 (Defaults and Remedies).

Refunding or Defeasance of Bonds

The City may issue refunding bonds pursuant to the laws of the State or use money available from any other lawful source (i) to pay when due the principal of (including premium, if any) and interest on any Bond of either Series, or any portion thereof, included in a refunding or defeasance plan (the “Defeased Bonds”), (ii) to redeem and retire, release, refund, or defease the Defeased Bonds, and (iii) to pay the costs of such refunding or defeasance. If money and/or Government Obligations (defined below) maturing at a time or times and in an amount sufficient (together with known earned income from the investment thereof) to redeem and retire, release, refund, or defease the Defeased Bonds in accordance with their terms, is set aside in a special trust fund or escrow account irrevocably pledged to such redemption, retirement, or defeasance (the “Trust Account”), then all right and interest of the Owners of the Defeased Bonds in the covenants of the Bond Ordinance and in the Net Revenue and the funds and accounts pledged to the payment of such Defeased Bonds, other than the right to receive the funds so set aside and pledged, thereafter will cease and become void. Such Owners thereafter will have the right to receive payment of the principal of and interest or redemption price on the Defeased Bonds from the Trust Account. After establishing and fully funding such a Trust Account, the Defeased Bonds will be deemed to be no longer outstanding and the Director of Finance may then apply any money in any other fund or account established for the payment or redemption of the Defeased Bonds to any lawful purpose. Notice of refunding or defeasance will be given, and selection of Bonds for any partial refunding or defeasance will be conducted, in the manner provided for the redemption of Bonds. See “—Notice and Effect of Redemption.”

The term “Government Obligations” is defined in the Bond Ordinance to mean any government obligation as that term is defined in RCW 39.53.010. In the Pricing Certificate for each Series, the City has limited eligibility to the following types of securities (provided that such securities are then permissible under the applicable statute): (i) direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America, and bank certificates of deposit secured by such obligations; (ii) bonds, debentures, notes, participation certificates, or other obligations issued by the Banks for Cooperatives, the Federal Intermediate Credit Bank, the Federal Home Loan Bank system, the Export-Import Bank of the United States, Federal Land Banks, or the Federal National Mortgage Association; (iii) public housing bonds and project notes fully secured by contracts with the United States; and (iv) obligations of financial institutions insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation, to the extent insured or to the extent guaranteed as permitted under any other provision of State law.

USE OF PROCEEDS

Purpose

The 2019A Bonds are being issued to finance certain capital improvements to and conservation programs for the Light System, to make a deposit to the Reserve Fund to satisfy the Reserve Fund Requirement, and to pay the costs of issuing the 2019A Bonds. The 2019B Bonds are being issued to refund certain of the City’s outstanding Municipal Light and Power bonds and to pay the costs of issuing the 2019B Bonds. See “—Plan of Refunding.”

Sources and Uses of Funds

The proceeds of the Bonds will be applied as follows:

	2019A	2019B	Total
SOURCES OF FUNDS			
Par Amount of Bonds	\$ 210,540,000	\$ 140,275,000	\$ 350,815,000
Reoffering Premium	50,436,683	18,926,139	69,362,822
Total Sources of Funds	<u>\$ 260,976,683</u>	<u>\$ 159,201,139</u>	<u>\$ 420,177,822</u>
USES OF FUNDS			
Deposit to Project Fund	\$ 255,000,000	\$ -	\$ 255,000,000
Deposit to Reserve Fund	5,535,575	-	5,535,575
Deposit to Escrow Account	-	159,033,734	159,033,734
Payment of Costs of Issuance ⁽¹⁾	441,109	167,405	608,513
Total Uses of Funds	<u>\$ 260,976,683</u>	<u>\$ 159,201,139</u>	<u>\$ 420,177,822</u>

(1) Includes legal, financial advisory, and rating agency fees, costs of printing and posting the Official Statement, underwriter's discount, and other costs of issuing the Bonds.

Plan of Refunding

The City plans to refund the Municipal Light and Power Improvement and Refunding Revenue Bonds, 2010B, identified below (the "Refunded Bonds"), to achieve debt service savings.

REFUNDED BONDS						
Bond	Maturity Date	Par Amount	Coupon (%)	Call Price (%)	Call Date	CUSIP Numbers
<i>Municipal Light and Power Improvement and Refunding Revenue Bonds, 2010B</i>						
Serials	2/1/2021	\$ 24,075,000	5.000	100	2/1/2020	812643 DX9
	2/1/2022	25,310,000	5.000	100	2/1/2020	812643 DY7
	2/1/2023	26,605,000	5.000	100	2/1/2020	812643 DZ4
	2/1/2024	27,970,000	5.000	100	2/1/2020	812643 EA8
	2/1/2025	29,405,000	5.000	100	2/1/2020	812643 EB6
	2/1/2026	<u>22,480,000</u>	5.000	100	2/1/2020	812643 EC4
Total		<u>\$ 155,845,000</u>				

A portion of the proceeds of the 2019B Bonds will be deposited with U.S. Bank National Association, as Refunding Trustee, and will be invested in Government Obligations that will mature and bear interest at rates sufficient to pay the principal of and accrued interest on the Refunded Bonds on the redemption date of the Refunded Bonds. The Government Obligations and earnings thereon will be held solely for the benefit of the registered owners of the Refunded Bonds.

The mathematical accuracy of the computations of the adequacy of the maturing principal amounts of and interest on the Government Obligations and cash on deposit to be held by the Refunding Trustee to pay the principal of and accrued interest on the Refunded Bonds as described above will be verified by Causey Demgen & Moore P.C.

SECURITY FOR THE BONDS

Outstanding Parity Bonds

The Bonds are being issued on a parity with the Outstanding Parity Bonds, which currently include 19 series of bonds issued since 2010. See “Department Financial Information—Debt Service Requirements.”

OUTSTANDING PARITY BONDS

Bond Description	Original Par Amount	Outstanding Principal as of 10/1/2019
2010A Bonds	\$ 181,625,000	\$ 181,625,000
2010B Bonds	596,870,000	46,425,000 ⁽¹⁾
2010C Bonds	13,275,000	13,275,000
2011A Bonds	296,315,000	57,980,000
2011B Bonds	10,000,000	10,000,000
2012A Bonds	293,280,000	212,590,000
2012C Bonds	43,000,000	43,000,000
2013 Bonds	190,755,000	171,910,000
2014 Bonds	265,210,000	184,975,000
2015A Bonds	171,850,000	148,995,000
2016A Bonds	31,870,000	31,870,000
2016B Bonds	116,875,000	115,340,000
2016C Bonds	160,815,000	156,465,000
2017C Bonds	385,530,000	376,295,000
2018A Bonds	263,755,000	259,885,000
2018B-1 Bonds ⁽²⁾	50,135,000	50,135,000
2018B-2 Bonds ⁽²⁾	50,135,000	50,135,000
2018C-1 Bonds ⁽²⁾	49,245,000	48,615,000
2018C-2 Bonds ⁽²⁾	49,245,000	48,615,000
Total	\$3,219,785,000	\$ 2,208,130,000

(1) Excludes the Refunded Bonds.

(2) Issued as multimodal variable rate bonds.

Pledge of Revenue

The Bonds are issued as Parity Bonds and are a special limited obligation of the City, payable from and secured solely by Gross Revenues of the Light System available after payment of Operating and Maintenance Expense (“Net Revenue”) and by money in the Parity Bond Fund and the Municipal Light and Power Bond Reserve Fund (the “Reserve Fund”). The pledge of Net Revenue to pay and secure the Parity Bonds constitutes a lien and charge upon such Net Revenue prior and superior to all other charges whatsoever. The payments that the City has pledged to pay into the Parity Bond Fund consist of amounts sufficient to pay the Parity Bonds (including principal, sinking fund redemption, redemption premium (if any), and interest) as such payments become due. The City has additionally pledged to make payments into the Reserve Fund sufficient to satisfy the Reserve Fund Requirement. See “—Reserve Fund and Reserve Fund Requirement” below. The Bonds are issued on a parity with the Outstanding Parity Bonds and all Future Parity Bonds (which term includes Parity Payment Agreements), without regard to date of issuance or authorization and without preference or priority of right or lien with respect to participation of special funds in amounts from Net Revenue for payment thereof.

The Bond Ordinance defines “Net Revenue” for any period as Gross Revenues less Operating and Maintenance Expense. “Gross Revenues” include (i) all income, revenues, receipts, and profits derived by the City through the ownership and operation of the Light System, (ii) the proceeds received by the City directly or indirectly from the sale, lease, or other disposition of any of the properties, rights, or facilities of the Light System, (iii) Payment Agreement Receipts to the extent that such receipts are not offset by Payment Agreement Payments, and (iv) the investment income earned on money held in any fund or account of the City, including any bond redemption funds and the accounts therein, in connection with the ownership and operation of the Light System. Gross Revenues do not include (i) insurance proceeds compensating the City for the loss of a capital asset, (ii) income derived from investments irrevocably pledged to the payment of any defeased bonds payable from Gross Revenues, (iii) investment income earned on money in any fund or account created or maintained solely for the purpose of complying with the arbitrage rebate provisions of the Internal Revenue Code of 1986, as amended (the “Code”), (iv) any gifts, grants, donations, or other funds received by the City from any State or federal agency or other person if such gifts, grants, donations, or other funds are the subject of any limitation or reservation imposed by the donor or grantor or imposed by law or administrative regulation to which the donor or grantor is subject, limiting the application of such funds in a manner inconsistent with the application of Gross Revenues under the Bond Ordinance, (v) the proceeds of any borrowing for capital improvements (or the refinancing thereof), and (vi) the proceeds of any liability or other insurance (excluding business interruption insurance or other insurance of like nature insuring against the loss of revenues).

“Operating and Maintenance Expense” is defined in the Bond Ordinance to include all reasonable charges incurred by the City in causing the Light System to be operated and maintained in good repair, working order, and condition, including but not limited to all operating expenses under applicable generally accepted accounting principles included in the annual audited financial statements of the Light System, except those specifically excluded. The Bond Ordinance excludes from the definition of Operating and Maintenance Expense (i) extraordinary, nonrecurring expenses of the Light System or any judgments or amounts to be paid in settlement of claims against the Light System, (ii) non-cash expenses relating to a mark-to-market treatment of energy-related contracts, (iii) any costs or expenses (including interest expense) for new construction, replacements, or renewals of Light System property, (iv) Deferred Hydroelectric Project Relicensing Costs, the High Ross Capital Payments, or other similar payments under any agreement for the development or licensing of a capital improvement or asset, under which agreement the City agrees to make periodic payments in respect of the its share of the capital expense, (v) any allowance for depreciation, amortization, or similar recognitions of non-cash expense items made for accounting purposes only (including non-cash pension expense), (vi) any taxes levied by or paid to the City (or payments in lieu of taxes) upon the properties or earnings of the Light System, or (vii) any obligation authorized pursuant to ordinance or resolution specifically excluding the payment of such obligation from Operating and Maintenance Expense. Certain contingent payment obligations that are unrelated to debt obligations (such as power purchase agreements or commodity derivative instruments) are permitted to be treated as Operating and Maintenance Expense. See “Power Resources and Cost of Power—Wholesale Energy Risk Management” and “Various Factors Affecting the Electric Utility Industry—Contingent Payment Obligations Unrelated to Debt Obligations.”

The complete definitions of the capitalized terms summarized above can be found in Appendix A—New Money Bond Ordinance—Section 1.

The Bonds are not secured by a security interest in any physical plant or facility.

The Bonds do not constitute general obligations of the City, the State, or any political subdivision of the State, or a charge upon any general fund or upon any money or other property of the City, the State, or any political subdivision of the State not specifically pledged thereto by the Bond Ordinance. Neither the full faith and credit nor the taxing power of the City, nor any revenues of the City derived from sources other than the Light System, are pledged to the payment of the Bonds.

Priority Expenditure of Gross Revenue; Flow of Funds

The City has covenanted in the Bond Ordinances that all Gross Revenues are to be deposited as received in the Light Fund and used for the following purposes only, in the following order of priority:

- (i) To pay the Operating and Maintenance Expense of the Light System;

- (ii) To make all payments into the Parity Bond Fund required to be made in order to pay the interest on and principal of all Parity Bonds, including all Parity Bond Sinking Fund Requirements and all net payments under Parity Payment Agreements, when due;
- (iii) To make all payments required to be made (if any) into the Reserve Fund necessary to satisfy the Reserve Fund Requirement, and to make all payments (if any) required to be made under Section 15(c)(i)(B) into a special account within the Light Fund for the replacement of an Alternate Reserve Security as to which the City has received a notice of cancellation;
- (iv) To make all payments required to be made (if any) in respect of Intermediate Lien Reimbursement Obligations;
- (v) To make all payments into the Junior Lien Debt Service Fund required to be made in order to pay the interest on and principal of all Junior Lien Bonds, including all net payments under Junior Lien Payment Agreements and all Junior Lien Reimbursement Obligations, when due;
- (vi) To make all required payments into any revenue bond redemption fund created to pay and secure the payment of the principal of and interest on any revenue bonds or short-term obligations of the City having a charge and lien upon Net Revenue subordinate to the lien thereon for the payment of the principal of and interest on the Parity Bonds and the Junior Lien Bonds; and
- (vii) Without priority, for any of the following purposes: to retire by redemption or purchase any outstanding revenue bonds or revenue obligations of the Light System; to make necessary additions, betterments, repairs, extensions, and replacements of the Light System; to pay City taxes or other payments in lieu of taxes payable from Gross Revenues; to make deposits to the Rate Stabilization Account; or for any other lawful Light System purpose.

See “—Parity Payment Agreements” and “—Subordinate Obligations,” below.

By taking and holding the Bonds, the owners are also consenting to a future amendment to the Bond Ordinances that permits certain reimbursement obligations (“Parity Reimbursement Obligations”) of the City under any Qualified Insurance or Qualified Letter of Credit obtained for the benefit of the holders of the Parity Bonds (other than Qualified Insurance or a Qualified Letter of Credit obtained to satisfy all or a part of the Reserve Fund Requirement) entered into after the Parity Covenant Date to be secured by a charge and lien on Net Revenue equal in rank with the charge and lien upon such Net Revenue required to be paid into the Parity Bond Fund to pay and secure the payment of the principal of and interest on Parity Bonds. The City Council is expected to consider this amendment in November 2019 and the City expects it to go into effect as of the Parity Covenant Date, which is expected to occur during calendar year 2020. See “—Amendments—Springing Amendments” below.

Rate Covenant

In the Bond Ordinance, the City has covenanted, among other things, to establish from time to time and maintain such rates for electric energy as will maintain the Light System in sound financial condition and provide sufficient revenues to pay all Operating and Maintenance Expense, to pay into the Parity Bond Fund the amounts that are required by the Bond Ordinance to be applied to the payment of the principal of and interest on the Parity Bonds (which term includes Parity Payment Agreements, if any) until the Parity Bonds have been paid in full, and to pay all bonds, warrants, and indebtedness for which any revenues of the Light System have been pledged.

The Bond Ordinance does not include a requirement that the City set rates to achieve a specific level of debt service coverage on Parity Bonds over and above the debt service requirements. See Appendix A—New Money Bond Ordinance—Section 17(a)(ii). A coverage test is included as part of the test for issuing Future Parity Bonds. See “Department Financial Information—Financial Policies” and Appendix A—New Money Bond Ordinance—Section 18(a)(ii).

Reserve Fund and Reserve Fund Requirement

The City has created and is required to maintain the Reserve Fund for the purpose of securing the payment of the principal of and interest on the Parity Bonds (including all net payments due under any Parity Payment Agreements, if any). The Reserve Fund is a pooled reserve. See Appendix A—New Money Bond Ordinance—Section 15.

So long as any Parity Bonds (including any Parity Payment Agreements) are outstanding, the City has covenanted to set aside and pay out of Net Revenue, into the Reserve Fund, an amount necessary to provide for the Reserve Fund Requirement within the time and manner required by the Bond Ordinance.

The Bond Ordinance provides that, if the amount in the Reserve Fund is less than the Reserve Fund Requirement (taking into account the method of funding over five years in connection with the issuance of Future Parity Bonds), the City must transfer to the Reserve Fund money in an amount sufficient to restore the Reserve Fund to the Reserve Fund Requirement within 12 months after the date of such deficiency. The City will transfer such money first from Net Revenue and only thereafter from money in any construction fund or account established with respect to any issue of Parity Bonds, first taking money from the unrestricted portion thereof, then taking money from the restricted portion thereof). If the amount in the Reserve Fund is greater than the Reserve Fund Requirement, then and only then may the City withdraw such excess from the Reserve Fund and deposit such excess in the Light Fund.

The Reserve Fund is held by the City in a “special fund” as that term is used in State law; it is not held by an independent trustee. In the context of bankruptcy proceedings, notwithstanding State law, there can be no assurance that the funds on deposit therein would be held intact for the benefit of holders of the Parity Bonds.

Reserve Fund Requirement. Under the Bond Ordinance, the aggregate Reserve Fund Requirement for all Parity Bonds is equal to the sum of the Reserve Fund Requirements for each issue of Parity Bonds outstanding. The Bond Ordinance permits the City to establish the Reserve Fund Requirement (which may be zero) for each issue of the Bonds or of Future Parity Bonds in connection with approving the sale of each such issue. Solely for purposes of setting the Reserve Fund Requirement, all series issued pursuant to a common set of Bond Sale Terms are treated as a single “issue.”

The Pricing Certificate for each Series of the Bonds establishes the Reserve Fund Requirement for such Series as an amount equal to the additional amount necessary at the time of issuance to achieve an overall level of funding for the Reserve Fund that is equal to the maximum amount permitted by the Code as a “reasonably required reserve or replacement fund” for the Outstanding Parity Bonds. The incremental amount necessary to meet this requirement as to the Bonds will be calculated based on the debt service requirements for all Parity Bonds that are outstanding as of the respective Issue Dates for each Series. Upon the expiration or termination of the Surety Bond (see “—Method of Satisfying Reserve Fund Requirement” and “—Information Regarding the Surety Bond” below), the Reserve Fund Requirement will be recalculated to exclude the debt service requirements of the then-outstanding multimodal variable rate 2018B-1, 2018B-2, 2018C-1, and 2018C-2 Bonds and any other issue of Future Parity Bonds that is excluded pursuant to the documents authorizing such Future Parity Bonds.

The City currently has an Alternate Reserve Security in the form of a surety bond (the “Surety Bond”) purchased from Financial Security Assurance, Inc. (“FSA”). See “—Method of Satisfying the Reserve Fund Requirement” and “—Information Regarding the Surety Bond” below. Upon the expiration or termination of the Surety Bond, the incremental Reserve Fund Requirements for the 2018B-1, 2018B-2, 2018C-1, and 2018C-2 Bonds, if outstanding at that time, will be reduced to \$0, resulting in a reduction in the aggregate Reserve Fund Requirement. Nonetheless, all Parity Bonds then outstanding (including any series of Parity Bonds for which the incremental Reserve Fund Requirement has been set at \$0) will remain secured by the Reserve Fund, despite any resulting reduction in the overall amount of the Reserve Fund Requirement.

Method of Satisfying Reserve Fund Requirement. The Bond Ordinance delegates to the Director of Finance the authority to determine in the Pricing Certificate the method of funding the Reserve Fund Requirement for each issue of the Bonds and for Future Parity Bonds from among the following methods: (i) depositing an amount equal to the Reserve Fund Requirement for that issue of Future Parity Bonds into the Reserve Fund at one time on the Issue Date, (ii) making periodic deposits of Net Revenue (or other legally available funds) so that by five years from the date of such Future Parity Bonds, there will have been paid into the Reserve Fund an amount which, together with the money already on deposit therein, will be at least equal to the Reserve Fund Requirement for all Parity Bonds outstanding at the end of that five-year period, or (iii) by obtaining one or more Alternate Reserve Securities for specific amounts required to be paid into the Reserve Fund sufficient to satisfy the incremental additional Reserve Fund Requirement.

Under the Bond Ordinance, a surety bond qualifies as an Alternate Reserve Security for purposes of satisfying the Reserve Fund Requirement if the provider's ratings are in one of the top two rating categories at the time the policy is issued. See Appendix A—New Money Bond Ordinance—Section 1. The Bond Ordinance does not require that the Reserve Fund be funded with cash or an Alternate Reserve Security if the provider of qualified insurance is subsequently downgraded. See “—Information Regarding the Surety Bond.”

The City currently uses an Alternate Reserve Security in the form of a Surety Bond with a policy limit (the “Policy Limit”) that is currently \$72,628,356.44 to satisfy a large proportion of the aggregate Reserve Fund Requirement. See “—Information Regarding the Surety Bond.” As of September 20, 2019, the remainder of the Reserve Fund Requirement was satisfied by \$81,618,634 in cash held in the Reserve Fund.

As of the Issue Date of the 2019A Bonds, the aggregate Reserve Fund Requirement will be equal to \$159,782,564.95, which will be satisfied by the cash already on deposit and the Policy Limit of the Surety Bond, plus an additional deposit from 2019A Bond proceeds of \$5,535,574.51.

As of the Issue Date of the 2019B Bonds, the aggregate Reserve Fund Requirement will be reduced to \$158,681,281.09. Under the agreement with the provider of the Surety Bond, this reduction also reduces the Policy Limit by a like amount. The Reserve Fund Requirement will remain satisfied by the cash then on deposit in the Reserve Fund and the reduced Policy Limit of the Surety Bond. No proceeds of the 2019B Bonds will be deposited into the Reserve Fund. See “Use of Proceeds—Plan of Refunding.”

Information Regarding the Surety Bond. The Surety Bond was issued by FSA in 2005; FSA was acquired by Assured Guaranty Corporation in 2009. In 2009, Assured Guaranty Corporation changed the name of its FSA subsidiary to Assured Guaranty Municipal Corporation (“AGM”).

The Surety Bond secures all Parity Bonds and Future Parity Bonds (including Parity Payment Agreements) and expires on August 1, 2029. The City holds approximately \$46,500,000 in additional cash, apart from the amounts deposited in satisfaction of the Reserve Fund Requirement, that is intended to be used to satisfy the Reserve Fund Requirement upon the expiration or termination of the Surety Bond, as discussed above under “—Reserve Fund Requirement.”

Whenever the aggregate Reserve Fund Requirement is reduced, the Policy Limit is reduced irrevocably by a like amount. See “—Method of Satisfying Reserve Fund Requirement.” The Policy Limit would also be reduced temporarily to the extent of any draw on the Surety Bond. In that event, the Policy Limit would be reinstated (up to the limit in effect prior to the draw) upon reimbursement in accordance with the terms of the City's reimbursement agreement with AGM. The City's reimbursement obligation is subordinate to the City's obligation to pay the principal of and interest on the Parity Bonds.

As of the date hereof, AGM is rated A2 and AA by Moody's Investors Service and Standard & Poor's Ratings Services, respectively. AGM is subject to the informational requirements of the Exchange Act and in accordance therewith files reports, proxy statements, and other information with the U.S. Securities and Exchange Commission (“SEC”). Certain SEC filings of AGM are available on the company's website, www.assuredguaranty.com. Such reports, proxy statements, and other information may also be inspected and copied at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549.

Future Parity Bonds

The City has reserved the right to issue Future Parity Bonds (which term includes Parity Payment Agreements) for any lawful purpose of the City's Light System if the following Parity Conditions are met and complied with as of the issue date of such Future Parity Bonds, or as of the effective date of the Parity Payment Agreement, as appropriate:

- (i) No deficiency may then exist in the Parity Bond Fund or in any of the accounts therein; and
- (ii) Provision must be made to satisfy the Reserve Fund Requirement for all Parity Bonds then outstanding plus any additional amount required in connection with issuance and sale of the proposed Future Parity Bonds (if any) in accordance with the Bond Ordinance; and

- (iii) There must be on file with the City a Parity Certificate, as described below. However, if the proposed Future Parity Bonds (or any portion thereof) are to be issued for the purpose of refunding Outstanding Parity Bonds and the Annual Debt Service on the refunding portion of the proposed Future Parity Bonds is not more than \$5,000 greater than the Annual Debt Service on the Parity Bonds to be refunded thereby, then no Parity Certificate is required as to that portion issued for refunding purposes. If the requirements of the preceding sentence are not satisfied, Refunding Parity Bonds may alternatively be issued upon delivery of a Parity Certificate.

A Parity Certificate (if required) may be provided by either the Director of Finance or by a Professional Utility Consultant, as follows:

- (i) A Parity Certificate may be prepared by the Director of Finance, demonstrating that the amount of Adjusted Net Revenue in any 12 consecutive months out of the most recent 24 months preceding the delivery of the proposed series of Future Parity Bonds (the “Base Period”) was not less than 125% of Maximum Annual Debt Service in any future calendar year on all Parity Bonds then outstanding and the proposed series of Future Parity Bonds. For the purposes of a Parity Certificate delivered under this provision, the Director of Finance may further adjust Adjusted Net Revenue as described in the Bond Ordinance.
- (ii) A Parity Certificate may be prepared by a Professional Utility Consultant, demonstrating that the amount of the Adjusted Net Revenue in any 12 consecutive months out of the most recent 24 months preceding the delivery of the proposed Series of Future Parity Bonds (the “Base Period”) is not less than 125% of the amount of Maximum Annual Debt Service on all Parity Bonds and the proposed Future Parity Bonds in any future calendar year on all Parity Bonds then outstanding and the proposed series of Parity Bonds. For the purposes of a certificate delivered under this provision, Adjusted Net Revenue may be further adjusted by the Professional Utility Consultant as described in the Bond Ordinance.

See Appendix A—New Money Bond Ordinance—Section 18(a).

The Bond Ordinance defines “Adjusted Net Revenue” as Net Revenue, less any deposits into the Rate Stabilization Account (“RSA”) and plus any withdrawals from the RSA. See the discussion of the RSA under “Security for the Bonds—Rate Stabilization Account,” “Department Financial Information—Financial Policies,” and Appendix A—New Money Bond Ordinance—Section 19.

In calculating Net Revenue, the Parity Certificate (whether prepared by the Director of Finance or by a Professional Utility Consultant) may include the tax credit subsidy payments the City expects to receive from the federal government in respect to the interest on any tax credit subsidy bonds. See also “Other Considerations—Federal Sequestration and Other Federal Funding Considerations” for a discussion of the impact of sequestration on federal interest payments for certain Department bonds.

Nothing set forth in the Bond Ordinance prevents the City from issuing Refunding Parity Bonds to refund maturing Parity Bonds of the City for the payment of which money is not otherwise available.

Other Covenants

In the Bond Ordinance, the City has entered into other covenants, including those with respect to the sale or disposition of the Light System and the maintenance and operation of the Light System. See Appendix A—New Money Bond Ordinance—Section 17.

Amendments

The Bond Ordinance reserves to the City the right to amend or supplement the Bond Ordinance, in certain cases without the consent of Owners of the Bonds, and in other cases upon the written consent of Owners of certain percentages of the Outstanding Parity Bonds.

Springing Amendments. The City previously adopted a set of springing amendments that become effective on the Parity Covenant Date and additional springing amendments that become effective on the Second Parity Covenant

Date, each as defined in the Bond Ordinances. Purchasers of the Bonds are deemed to have consented to these amendments, which are further described below.

AMENDMENTS EFFECTIVE AS OF THE PARITY COVENANT DATE. The Parity Covenant Date will occur when the City has obtained the consent of the owners of at least 60% of the outstanding Parity Bonds to certain amendments. The owners of all Parity Bonds issued in 2016 or later, including the Bonds, have been deemed to have consented to this set of amendments and the City currently anticipates that the percentage of consenting owners will surpass the 60% threshold and the Parity Covenant Date will occur during calendar year 2020. The amendments that will go into effect on the Parity Covenant Date will amend Section 1 of the Bond Ordinance to adjust the calculation of Annual Debt Service in the case of Variable Interest Rate Bonds and Balloon Bonds. In addition, the amendment described in Section 23(g) of the Bond Ordinance permitting the Parity Reimbursement Obligations to be secured by a charge and lien on Net Revenue equal in rank with the charge and lien up on such Net Revenue required to be paid into the Parity Bond Fund to pay and secure the payment of the principal of and interest on Parity Bonds) is expected to be considered by the City Council in November 2019 and is expected to become effective as to the outstanding Parity Bonds (including the Bonds) as of the Parity Covenant Date. If it is not approved by the City Council prior to the Parity Covenant Date but is later adopted by the City Council, it will go into effect as to the then-outstanding Parity Bonds (including the Bonds) immediately upon its effective date.

AMENDMENTS EFFECTIVE AS OF THE SECOND PARITY COVENANT DATE. The Second Parity Covenant Date will occur when the City has obtained the consent of the owners of at least 60% of the outstanding Parity Bonds to certain amendments. The owners of all Parity Bonds issued in 2018 or later, including the Bonds, have been deemed to have consented to this set of amendments. The New Money Bond Ordinance also contains these springing amendments, which are set forth in Sections 1, 17, and 24. See Appendix A—New Money Bond Ordinance. The City Council is expected to consider corresponding amendments to the Refunding Bond Ordinance in November 2019, which will include these springing amendments. Purchasers of the 2019B Bonds are deemed to have consented to the amendment of the Refunding Bond Ordinance to include these springing amendments, which will be substantially the same as those springing amendments to Sections 1, 17, and 24 marked as going into effect on the Second Parity Covenant Date in the New Money Bond Ordinance.

Parity Payment Agreements

The City may enter into Parity Payment Agreements that constitute a charge and lien on Net Revenue equal to that of the Parity Bonds. A Parity Payment Agreement is a written contract entered into in connection with an issue of Future Parity Bonds, between the City and a Qualified Counterparty, for the purpose of managing and reducing the City's exposure to fluctuations or levels of interest rates or for other interest rate, investment, asset, or liability management purposes that provides for an exchange of payments based on interest rates, ceilings, or floors on such payments, options on such payments, or any combination thereof or any similar device. The City currently has no Parity Payment Agreements in effect.

"Parity Payment Agreement" is defined in the Bond Ordinance as a Payment Agreement which is entered into in compliance with the Parity Conditions and under which the City's payment obligations are expressly stated to constitute a lien and charge on Net Revenue equal in rank with the lien and charge upon such Net Revenue required to be paid into the Parity Bond Fund and the Reserve Fund to pay and secure the payment of principal of and interest on Parity Bonds in accordance with the Bond Ordinance. For purposes of determining percentages of ownership of Parity Bonds under the Bond Ordinance, Parity Payment Agreements are deemed to have no principal amount, and any consent or similar rights will be determined only as set forth in the applicable Parity Payment Agreement. The Parity Conditions described above for the issuance of Future Parity Bonds also apply to the City's incurring parity obligations under any Parity Payment Agreements. See Appendix A—New Money Bond Ordinance—Sections 1 and 18.

Rate Stabilization Account

The RSA has been created as a separate account in the Light Fund. The City may at any time deposit in the RSA Net Revenue and any other money received by the Light System and available to be used for this purpose. Thereafter, the City may withdraw any or all of the money from the RSA for inclusion in Adjusted Net Revenue for any applicable

year. Such deposits or withdrawals may be made up to and including the date 90 days after the end of the applicable year for which the deposit or withdrawal will be included as Adjusted Net Revenue. See the discussion of the RSA and the City's current policies under "Department Financial Information—Financial Policies—Rate Stabilization Account" and Appendix A—New Money Bond Ordinance—Section 19.

Defaults and Remedies; No Acceleration

Each of the following constitutes an Event of Default with respect to the Bonds:

- (i) If a default is made in the payment of the principal of (including Sinking Fund Requirements and any redemption premium thereon) or interest on any Parity Bond when the same become due and payable; or
- (ii) If the City defaults in the observance and performance of any other of the Parity Bond covenants, conditions, or agreements on the part of the City set forth in the Bond Ordinance or the applicable Parity Bond Documents (except as otherwise provided in the Bond Ordinance or in such Parity Bond Documents) and such default or defaults has continued for a period of six months (the "cure period") after the City has received from the registered owners of not less than 25% in principal amount of the Parity Bonds then outstanding (or from a Bond Owners' Trustee duly appointed as set forth in the Bond Ordinance) a written notice specifying and demanding the cure of such default. However, if such default is one which cannot be completely remedied within the cure period, it will not be an Event of Default with respect to the Parity Bonds, so long as the City has taken active steps within the cure period to remedy the default and is diligently pursuing such remedy.

In the event of a default, Bond owners would be permitted to pursue remedies available under State law, including the right to bring action against the City to compel the setting aside and payment of the amounts pledged to be paid into the Parity Bond Fund in respect of the then-Outstanding Parity Bonds.

Nothing contained in the Bond Ordinance will, in any event or under any circumstance, be deemed to authorize the acceleration of the maturity of principal on the Bonds, and the remedy of acceleration is expressly denied to the registered owners of the Bonds under any circumstances including, without limitation, upon the occurrence and continuance of an Event of Default. The City is liable for principal and interest payments only as they become due. In the event of multiple defaults in payment of principal of or interest on the Parity Bonds, the registered owners would be required to bring a separate action for each such payment not made. This could give rise to a difference in interests between registered owners of earlier and later maturing Parity Bonds. In addition, owners of variable rate Parity Bonds may have additional events of default, rights, and remedies under direct purchase or continuing covenant agreements that are not granted to Owners of the Bonds. See "Department Financial Information—Outstanding Variable Rate Parity Bonds."

Upon the Second Parity Covenant Date, bondholders' remedies will be limited as set forth in the springing amendments set forth in Section 24 of the New Money Bond Ordinance. See "—Amendments—Springing Amendments" above and Appendix A—New Money Bond Ordinance.

Subordinate Lien Obligations

Junior Lien Bonds. In the Bond Ordinance, the City has established a Junior Lien position and has reserved the right to issue Junior Lien Bonds (which term includes Junior Lien Payment Agreements and Junior Lien Reimbursement Obligations) or other obligations with a charge or lien upon the Net Revenue subordinate to the payments required to be made from Net Revenue into the Parity Bond Fund and the accounts therein. The City may in the future issue Future Junior Lien Bonds in accordance with a Junior Lien Additional Bonds Test, which would be junior to the Parity Bonds, but prior and superior to all other liens and charges. See Appendix A—New Money Bond Ordinance—Section 18(b). Junior Lien Bonds may not be subject to acceleration. See Appendix A—New Money Bond Ordinance—Section 24(b) and (d).

The Bond Ordinance authorizes the Director of Finance to designate some or all of the total par amount authorized as Junior Lien Bonds. In the Pricing Certificate, all of the Bonds have been designated as Parity Bonds and the City does not intend to issue any of total par amount of bonds authorized by the Bond Ordinance as Junior Lien Bonds. There are no currently outstanding Junior Lien Bonds.

Interfund Loans. The City is also authorized to make interfund loans to the Department for Department purposes from the City's common investment portfolio. See "Department Financial Information—City Investment Pool." Repayment by the Department of such interfund loans would be subordinate to any Outstanding Parity Bonds and Junior Lien Bonds.

Other Subordinate Lien Obligations. Nothing set forth in the Bond Ordinance prevents the City from issuing revenue bonds or other obligations that are a charge upon the Net Revenue junior and inferior to the payments required to be made therefrom into the Parity Bond Fund for the payment of the Parity Bonds, provided that such subordinate bonds may not be subject to acceleration under any circumstances.

SEATTLE CITY LIGHT DEPARTMENT

Introduction

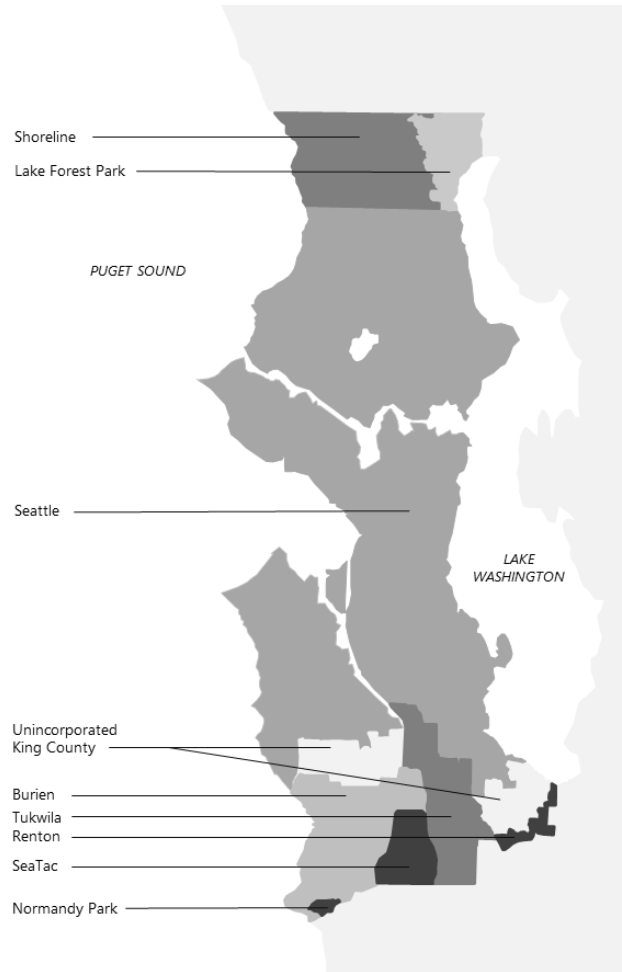
The Department is a municipally-owned electric utility. In 1905, the City began providing its customers with electricity generated by the Cedar Falls Hydroelectric Plant (the "Cedar Falls Project"), which was the first such municipally-owned facility in the nation. By 1910, operational responsibility for the City's electric system had been assigned to the Department. In 1951, the Department purchased from Puget Sound Power and Light Company certain generation, transmission, and distribution facilities serving the City's residents. The Department has operated without competition as the sole retail electricity provider in its service area since the 1951 purchase.

Service Area

The Department's 131-square-mile service area, depicted in the map in Figure 1, consists of all territory within the City plus areas extending three to four miles north and south of the City limits. The growth of the Department's electric load since 1951 has resulted exclusively from development within the service area. The population of the Department's service area is approximately 913,000.

Sales to customers located outside the City's boundaries but within the service area represent approximately 15% of retail power sales. See "Department Financial Information—Retail Rates—Rates for Customers Outside the City of Seattle."

FIGURE 1: SEATTLE CITY LIGHT DEPARTMENT'S SERVICE AREA MAP



Source: Seattle City Light Department, Financial Planning Unit

Management

The Department is a department of the City and is subject to ordinances and resolutions adopted by the City Council and approved by the Mayor. The Mayor and City Council approve the Department's budget, set rates, and approve debt issuance, along with other functions set forth in the City Charter. The Department is under the direction of a General Manager and Chief Executive Officer, who is appointed by the Mayor and confirmed by the City Council, subject to reconfirmation every four years.

City of Seattle Ordinance 123256 created the City Light Review Panel (the "Review Panel") as an advisory board and specified the professions and qualifications that the members of the Review Panel should have. One is to be an economist, preferably with a background in energy economics or commodity risk management. Another is to be a financial analyst, preferably with a background in financing large capital projects. Five are to represent the Department's customer groups: residential, commercial, industrial, suburban franchise, and low income. These representatives should have knowledge and experience in areas such as the electricity industry, financial planning and budgeting, and navigating City government.

The Mayor and City Council appoint members of the Review Panel, and the term of appointment is generally three years. The Review Panel is charged with reviewing, assessing, and providing feedback on the Department's Strategic Plan (see "—2019-2024 Strategic Plan"), financial policies, cost allocation, rate design, operational efficiency and other issues requested by the Mayor or City Council, or that the Review Panel believes the Mayor and City Council should consider.

In October 2018, a new General Manager and Chief Executive Officer was appointed, following the resignation of the prior General Manager. As a result, the Department has been reorganized into seven operating units: Facilities and Oversight Services; Financial Services; Utility Operations and Transmission and Distribution Engineering; Environment, Land and Licensing; Energy Innovation and Resources; People and Culture; and Transformation and Customer Experience

Brief descriptions of the backgrounds of certain key officials of the Department are provided below:

Debra Smith, General Manager and Chief Executive Officer, joined the Department in October 2018. Prior to joining the Department, she served as CEO and General Manager of the Central Lincoln People's Utility District, which provides electricity on Oregon's central coast, since 2013. She previously spent more than 17 years in various roles, including Assistant General Manager and Chief Financial Officer, at the Eugene Water and Electric Board, another public utility in Oregon. Ms. Smith holds a bachelor's degree in Finance from Arizona State University.

Jen Chan, Chief of Staff, joined the General Manager's Office in May 2019. Prior to joining the Department, she was with the City of Seattle for more than 20 years in multiple leadership roles on policy, programming, financial, and operational issues ranging from public safety, human services, public health, capital projects, public/private partnerships, and organizational change management. In addition, she served as the founding Associate Director of Operations for a start-up organization aimed at closing the academic achievement gap across the region. Ms. Chan holds a Bachelor of Arts from Tufts University and a master's of Social Work from the University of Washington.

James Baggs, Facilities and Oversight Services Officer, joined the Department in 2011 as Chief Compliance Officer. Since that time, he has also served as the Interim General Manager and Chief Executive Officer, the Customer Service, Communications, and Regulatory Affairs Officer, and the Interim Power Supply and Environmental Affairs Officer. Prior to joining the Department, he was the Director of Regulatory Compliance at Idaho Power Company, where he also held a variety of positions including Manager of Rates and Contracts, General Manager of Customer Service and Metering, General Manager of Regional Operations, and General Manager of Grid Operations and Planning. Mr. Baggs holds a bachelor's degree in Economics from the University of Colorado and a master's degree in Agricultural and Natural Resource Economics from the University of Arizona.

Kirsty Grainger, Interim Chief Financial Officer, has been with the Department since 2007, serving in various roles in Corporate Performance and Finance. She regularly holds the position of Finance Director. Before joining the Department, she worked at Puget Sound Energy and at pharmaceutical company Eli Lilly. Ms. Grainger holds a bachelor's degree in Mathematics from Whitman College and master's degree in Engineering-Economic Systems and Operations Research (now Management Science and Engineering) from Stanford University.

Michael Haynes, P.E., Chief Operating Officer, was appointed to this position in April 2019 and has responsibility for all utility operating functions and engineering services. He joined the Department in 2000 and previously held the titles of Power Supply Officer, Energy Generation Operations and Engineering Officer, and Director of Power Production. He has an extensive background in hydroelectric power generation and engineering. Prior to joining the Department, he served in program management and engineering roles at HDR, Inc., and Puget Sound Energy. Mr. Haynes holds a bachelor's degree in Mechanical Engineering from Seattle University.

Lynn Best, Ph.D., Chief Environmental Officer, was appointed to this position in 2016. She joined the Department in 1982 as a Senior Environmental Analyst. Since that time, she has been promoted to a manager position in Environmental Affairs and then to the position of Director of Environmental Affairs and Real Estate. Dr. Best received her Bachelor of Science degree from the Massachusetts Institute of Technology and her doctorate from the University of Washington.

Emeka Anyanwu, Energy Innovation and Resources Officer, joined the Department in 2018. He assumed his current role as part of the Department's reorganization in April 2019, after previously serving as Engineering and Technology Innovation Officer. Prior to joining the Department, he spent 16 years at Kansas City Power & Light Company in various roles in leadership and transmission and distribution operations. Mr. Anyanwu has a B.S. in Electrical Engineering from Iowa State University and a Master of Business Administration from Rockhurst University

DaVonna Johnson, People and Culture Officer, joined the Department in 2004 and was appointed to her current position in 2009. Prior to her appointment to this position, she served as the Talent Acquisition and Development Manager in Human Resources. Before joining the Department, she worked for the City for five years and has worked in both the public and private sectors. Ms. Johnson has bachelor's and master's degrees in Business Administration from Washington State University.

Bernie Ziemianek, Ph.D., Transmission and Distribution Operating Officer, joined the Department in 2006 as Energy Delivery Operations Director. Prior to joining the Department, he was the Public Utility Director for The City of Ukiah, California, and the Director of Research and Development for the Electric Power Research Institute ("EPRI") in the areas of Transmission and Distribution, Renewables, and Advanced Grid Infrastructure Technologies. Before joining EPRI, he worked for Pennsylvania Power and Light Company, where he held a variety of positions. Mr. Ziemianek holds a bachelor's and doctorate degree in Electrical Engineering from Drexel University, a master's degree in Electrical Engineering from Lehigh University, and an Executive MBA from Duke University.

Kelly Enright, Transformation and Customer Experience Director, joined the Department in 2007 as Customer Care Director. She has almost 35 years of experience with the electric utility industry, including serving eight years as the General Manager and CEO of Vermont Electric Cooperative. Ms. Enright received a bachelor's degree in Business Administration from Trinity College of Vermont and did her graduate work in Organizational Leadership at St. Michael's College in Colchester, Vermont.

Department Employment and Labor Relations

As of July 2019, the Department had approximately 1,790 authorized full-time equivalent positions. Department employees participate in the City's pension plan and other post-employment retirement benefits. See "The City of Seattle—Pension Plans" and "—Other Post-Employment Benefits," and Appendix C—2018 Audited Financial Statements of the Department—Notes 13 and 14.

State law requires municipal agencies to bargain in good faith with the recognized bargaining agents. Approximately 93% of the Department's regular full-time employees are represented by labor unions. Most of the Department's 15 labor unions are part of the Coalition of City Unions.

The collective bargaining agreement with the IBEW Local 77 bargaining unit that is specific to City Light expires on January 22, 2021. The collective bargaining agreement with AFSCME, the exclusive bargaining agent for the Department's managers, strategic advisors, and some supervisors, expired on December 31, 2018, and is in the process of being negotiated. The Department's union contracts are negotiated city-wide through the Department of Human Resources. See "The City of Seattle—Labor Relations."

Approximately half of the Department's workforce is eligible to retire in the next five years. The Department currently has workforce development programs in place to reduce its attrition risk and retain its current employees. The highest retirement risk is in the engineering staff, followed by skilled trades. The Department has a robust internship program that currently enrolls more than 80 high school and college students. The Department operates its own apprenticeship program to ensure that it has high voltage workers available to meet the Department's needs. Currently 80% of the existing skilled trade workers were trained through the Department's apprenticeship program.

2019-2024 Strategic Plan

The City Council adopted Resolution 31819 approving the 2019-2024 Strategic Plan on July 9, 2018. The 2019-2024 Strategic Plan identifies four strategic priorities: (i) upgrade customer service practices to meet evolving customer needs and expectations; (ii) keep customers' bills affordable and stable by implementing strategies to control costs, capture new revenues, and restructure rates; (iii) deliver robust and innovative programs to promote the efficient use of clean energy and protect the shared ecosystem; and (iv) continue progress on core business through investments in infrastructure and workforce. The fundamentals of the 2019-2024 Strategic Plan are similar to prior plans.

The 2019-2024 Strategic Plan endorses a plan to propose rate increases averaging 4.5% annually from 2019 to 2024, excluding any Bonneville Power Administration ("BPA") rate pass-throughs or RSA surcharges. The retail rate increases for 2019 and 2020 are higher than the average, at 5.8% and 5.4% per year, respectively, and were approved through the City Council rate-setting process on November 19, 2018. See "Department Financial Information—Retail

Rates.” The 2019-2024 Strategic Plan also endorsed the size of the Department’s adopted Capital Improvement Program (“CIP”) for 2019-2024. See “Department Financial Information—Retail Rates” and “Capital Requirements.”

In addition to other financial pressures anticipated in previous plans, the 2019-2024 Strategic Plan incorporates a forecast for retail customer sales that is lower than previous forecasts. In 2017, the Department adopted a new retail sales forecasting methodology that incorporates impacts of new codes and standards as well as expected trends in energy efficiency in areas such as lighting and appliances. It also includes expectations of modest growth in the adoption of customer solar panels and electric vehicles. Even though the City has experienced strong population growth in the past few years, the Department’s retail sales have been relatively flat, primarily due to continued adoption of energy efficiency measures. The Department anticipates an eventual slowdown in growth but expects energy efficiency adoption to remain robust, yielding declining retail customer sales overall. The Department assumes that retail customer sales will decline 0.8% per year on average over 2019-2024, but also recognizes the high level of uncertainty when forecasting retail customer sales. Declining retail customer sales account for approximately 1.0% of the projected 4.5% annual average rate increase for 2019-2024. In September 2018, the Department updated its official load forecast, which showed lower retail sales of 0.7% per year on average relative to the values used in the 2019-2024 Strategic Plan. The Department expects to finalize an updated retail sales forecast in early October 2019, and expects that it will continue to project a decrease in retail load along a slightly steeper decline than is shown in the current forecast.

Building on themes from the 2019-2024 Strategic Plan, the Department’s General Manager and CEO has further outlined five additional priorities: (i) increased investment in customer-focused technology; (ii) enhancement of the workplace experience; (iii) revenue stabilization through rate redesign; (iv) increased electrification of transportation and other areas of existing fossil fuel usage to promote decarbonization and increase retail sales; and (v) development of partnerships and joint strategies with other City departments.

Enterprise Risk and Emergency Response

The Department evaluates and monitors all strategic risks at the enterprise level, including:

EMERGENCY RESPONSE. The Department has an active Emergency Management Program that meets Federal Emergency Management Agency (“FEMA”) standards and conducts semi-annual exercises and testing of its emergency response program. The Department’s Continuity of Operations Plan defines the Department’s program to prepare for an emergency. It establishes a response organization structure (consistent with the National Incident Management System and Incident Command System structure) designed to enhance coordination with other agencies and improve outage restoration responses. An Incident Management Team, comprised of approximately 200 trained management and staff members, can be activated during any increased readiness mode and serves the function of managing the Department’s emergency response activities.

SEISMIC RISKS. Due to the risk of seismic activity in the Puget Sound region and the age of portions of the utility infrastructure, the Department maintains a seismic hazard assessment program for substations and facilities consistent with requirements identified in documents and standards such as the International Building Code. As upgrades and/or improvements are made to these substations and facilities, appropriate seismic mitigation features are incorporated into the infrastructure. The seismic hazard assessment also includes a method for establishing priorities within the Department’s service territory beginning with control centers substations and service centers. Similar attention is applied to the generation facilities as part of ongoing Federal Energy Regulatory Commission (“FERC”) licensing and reporting obligations.

CYBERSECURITY. Cyber attacks continue to become more sophisticated and are increasingly capable of impacting control systems and components. The Department, working in conjunction with the Seattle Information and Technology Department (“Seattle IT”), has instituted processes, training, and controls to maintain the reliability of its systems and protect against cyber threats as well as mitigate intrusions and plan for business continuity via data recovery. See “The City of Seattle—Emergency Management and Preparedness—Cybersecurity.” Work plans specific to the Department are developed to address issues and recommendations to support the cybersecurity program. The Department’s program to protect critical

infrastructure also conforms to North American Electric Reliability Corporation (“NERC”) Critical Infrastructure Protection Standards. FERC/NERC standards regularly evolve and change, with Critical Infrastructure Protection Standard requirements some of the most dynamic. The Department established structured and coordinated processes to ensure Department compliance with prior enforcement obligations for new standards along with new infrastructure, systems, or contractual obligations. See “Transmission and Distribution—Federal Regulations.”

PHYSICAL PLANT SECURITY. Physical attacks on critical energy infrastructure also present an increased concern to the electric utility industry. The Department’s physical security program includes extensive measures for physical protection, including on-site security officers, fences, camera systems, access control, security monitoring by the Security Monitoring Center, and extensive mobile patrol presence. The Department has developed a number of security processes in collaboration with local, regional, and federal law support and actively shares best practices with national, regional, and local electrical utility security departments.

DISASTER RECOVERY. The Department has formalized its information technology, business continuity, and disaster recovery program. The Department has built and currently conducts operations from an out-of-region co-located data center, and instituted various iterative processes in support of Departmental resiliency and rapid recoverability.

PROPERTY INSURANCE. City hydroelectric generation and transmission equipment and certain other utility systems and equipment are not covered by a property insurance policy. See “The City of Seattle—Risk Management.”

POWER RESOURCES AND COST OF POWER

Overview of Resources

The Department has three major power sources: the Boundary Hydroelectric Project (the “Boundary Project”), the Skagit Hydroelectric Project, which includes the Ross, Diablo and Gorge hydroelectric plants (the “Skagit Project”), and a long-term contract with BPA. Together, these three sources provide approximately 113% of the energy needed to meet the Department’s retail demand under average water conditions. Under firm water conditions, the Department’s owned and contracted resources are sufficient to meet 100% of retail sales on an annual basis. Firm water conditions are defined as the lowest water conditions observed for 12 consecutive months during the period 1929 to 2008. The firm period for the Boundary Project and federal dams remarketed by BPA is 1936-1937; the firm period for the Skagit Project is 1943-1944. The Boundary Project and the Skagit Project together include four large hydroelectric facilities and, combined with three small hydroelectric facilities (the Newhalem Creek Hydroelectric Project (the “Newhalem Project”), the Cedar Falls Project, and the Tolt River South Fork Hydroelectric Project (the “South Fork Tolt Project”)), generated approximately 6.4 million megawatt hours (“MWh”) of electrical energy in 2018, which was about 46% of the Department’s total resources. Like most non-federal hydroelectric projects in the U.S., all of the Department’s hydroelectric plants except the Cedar Falls Project are licensed by FERC. See Table 1—Owned and Purchased Power Resources for 2018 and “—Department-Owned Resources—Small Hydro-Cedar Falls Project.” Output from the Department’s hydroelectric plants can vary significantly from year to year due to the variability in water conditions.

The Department and 15 other public and investor-owned utilities in the Pacific Northwest have agreed to coordinate the operation of their power generation systems through the Pacific Northwest Coordination Agreement (the “Coordination Agreement”), in order to maximize the firm capability and reliability of the coordinated system. The Coordination Agreement went into effect in 1965 and terminates in 2024. Though members are considering whether to extend the Coordination Agreement, no decisions have been made and no negotiations are currently underway.

The Department is planning to join the California Independent System Operator’s (“CAISO”) Western Energy Imbalance Market (“EIM”), a real-time wholesale energy trading market that enables participants to buy and sell energy when needed, and has announced an April 2020 go-live date. City Light and the other EIM participants will

provide load and resource information to CAISO, which will then dispatch all resources to serve all load at the lowest price given the supply resources and available transmission.

Table 1 lists the Department's owned and purchased power resources as of June 30, 2019, and gives estimates of output under firm and average water conditions based on historical data. Table 2 provides actual output for power resources, including exchanges and market sales and purchases, for the past five years. Table 3 provides actual payments by the Department for purchased resources. The Department does not assign individual capital or debt service allocations to Department-owned resources and, therefore, does not calculate a comprehensive cost of power for each resource. See "—Wholesale Market Sales and Purchases" for a discussion of the 2018 water year and market prices.

TABLE 1
OWNED AND PURCHASED POWER RESOURCES FOR 2018
(AS OF AUGUST 30, 2019)

	Nameplate Capability (MW)	Energy Available Under Firm Water Conditions (MWh) ⁽¹⁾	Energy Available Under Average Water Conditions (MWh) ⁽²⁾	Year FERC License Expires	Year Contract Expires
Department-Owned Resources					
Boundary Project ⁽³⁾	1,118	2,674,340	3,635,408	2055	N/A
Skagit Project					
Gorge	173	698,909	924,426	2025	N/A
Diablo	169	583,621	785,879	2025	N/A
Ross	460	556,354	743,696	2025	N/A
Small Hydro Projects ⁽⁴⁾	48	149,962	147,805	Varies	N/A
Department's Share of Purchased Resources					
BPA Block ⁽⁵⁾		4,303,346	4,303,346	N/A	2028
Priest Rapids	6	16,552	20,987	2052	2052
CBH ⁽⁶⁾	64	237,755	245,092	2030/2032	2022/2027
High Ross ⁽⁷⁾	72	310,222	310,246	N/A	2066
Lucky Peak ⁽⁸⁾	113	236,814	293,622	2030	2038
Stateline ⁽⁹⁾	175	N/A	371,162	N/A	2021
Small Renewables ⁽¹⁰⁾	20	N/A	105,408	N/A	Various

- (1) Firm water conditions represent the lowest sequence of streamflows experienced in the Pacific Northwest over a historical period of record (1929-2008). The firm energy capability of hydroelectric resources is the amount of electrical energy produced under low water conditions, current operating constraints, generation technology, and availability. Actual water conditions would be expected to be better than firm water conditions about 95% of the time.
- (2) Figures in this column represent the average historical amount of electrical energy that would be produced over all of the water conditions in the period 1929-2008.
- (3) Amounts are net of the 48 megawatts ("MW") obligated to Public Utility District No. 1 of Pend Oreille County ("Pend Oreille PUD") under contract between the Department and Pend Oreille PUD. See "--Department-Owned Resources--Boundary Project."
- (4) Includes the Newhalem Project (FERC license expires in 2027), the Cedar Falls Project (not subject to FERC licensing requirements), and the South Fork Tolt Project (FERC license expires in 2029).
- (5) The Department does not own a fixed percentage of nameplate capacity. See "--Purchased Power Arrangements--Bonneville Power Administration." Since October 1, 2017, the Department's long-term contract power purchase from BPA has been only the Block product, which provides a fixed amount of power that varies each month. The purchase is the largest in the winter when the Department's retail requirements are highest.
- (6) Columbia Basin Hydropower ("CBH") (formerly Grand Coulee Project Hydroelectric Authority ("GCPHA")), the Department's 50% share of installed capacity of five hydroelectric plants, has varying FERC license expiration dates. The plants are part of an irrigation project and do not provide capacity in the Department's winter peak period.
- (7) The Department's contract with British Columbia provides capacity from November through March in an amount equal to 532 MW minus the actual peak capability of the Ross Plant for each week, which varies between 50 MW and 150 MW depending on water conditions.
- (8) The project is part of an irrigation project and does not provide capacity in the Department's winter peak period.
- (9) The project is not a hydroelectric project; therefore, average output is based on historic performance under the contract.
- (10) Small renewables are Columbia Ridge and King County West Point. Average output is based on historic performance under each contract.

Source: *Seattle City Light Department, Power Production Division and Regional Affairs*

TABLE 2
HISTORICAL ENERGY RESOURCES
(MWh)

	2014	2015	2016	2017	2018
Department-Owned Generation					
Boundary Project	4,249,957	3,469,855	3,888,316	3,825,302	4,008,235
Skagit Hydroelectric Project					
Gorge	1,057,865	953,628	1,036,540	998,676	947,000
Diablo	857,757	775,025	870,216	692,828	626,127
Ross	796,513	684,687	791,415	741,493	690,006
Cedar Falls/Newhalem	65,687	47,571	68,429	83,461	89,250
South Fork Tolt	63,589	49,118	52,348	54,803	58,518
Subtotal	7,091,368	5,979,884	6,707,264	6,396,563	6,419,136
Energy Purchases					
Bonneville	5,155,271	4,971,459	5,138,417	5,482,904	4,435,838
Priest Rapids	21,961	23,698	25,249	24,532	25,732
CBH	272,842	258,678	253,628	228,789	241,236
High Ross	307,873	310,102	308,478	313,973	310,700
Lucky Peak	308,334	278,001	340,474	463,403	347,669
Stateline Wind Project	357,325	299,551	373,389	330,161	342,873
Columbia Ridge ⁽¹⁾	68,920	94,271	99,487	96,096	102,617
Seasonal and Other Exchange ⁽²⁾	411,555	664,887	676,186	581,909	547,638
Wholesale Market Purchases ⁽³⁾	900,527	1,379,168	936,289	904,362	1,167,441
Subtotal	7,804,608	8,279,815	8,151,597	8,426,129	7,521,744
Total Department Resources	14,895,976	14,259,699	14,858,861	14,822,692	13,940,880
Minus Offsetting Energy Sales					
Firm Energy Sales and Marketing Losses ⁽⁴⁾	393,844	331,897	344,383	328,666	344,435
Seasonal and Other Exchange ⁽²⁾	507,117	692,073	773,443	825,753	593,928
Wholesale Market Sales ⁽⁵⁾	4,083,391	3,548,507	4,044,452	3,695,173	3,329,288
Total Net Energy Resources	9,911,624	9,687,222	9,696,583	9,973,100	9,673,229

(1) The Columbia Ridge project was expanded in August 2014, effectively doubling the output.

(2) Includes exchange contracts such as those involving the Northern California Power Agency (“NCPA”), which expired on April 30, 2018, Sacramento Municipal Utility District (“SMUD”), Grant County Public Utility District, and Lucky Peak exchange. The arrangement with SMUD for Burlington Renewable Biomass expired on July 31, 2017, and was not renewed. See “—Purchased Power Arrangements.” Deliveries to NCPA ended on April 30, 2018.

(3) Purchases to compensate for low water conditions and to balance loads and resources.

(4) Energy provided to Pend Oreille PUD under an agreement to support the Boundary Project’s FERC license. Figures on this line also include incremental transmission losses due to expanded activity in the wholesale market.

(5) Wholesale market sales are highly dependent on regional hydro flows. Regional hydro flows measured at The Dalles Dam on the Columbia River between January and July were 107% in 2014, 83% in 2015, 96% in 2016, 135% in 2017, and 117% in 2018.

Source: Seattle City Light Department, Accounting Division

TABLE 3
COST OF PURCHASED POWER SUPPLY RESOURCES
(\$000)

	2014	2015	2016	2017	2018
BPA ⁽¹⁾	\$ 152,282	\$ 153,176	\$ 157,412	\$ 164,802	\$ 161,382
Priest Rapids	3,174	3,163	2,314	1,913	1,478
CBH	6,047	6,642	6,166	6,830	6,723
High Ross	13,439	13,445	13,437	13,445	13,456
Lucky Peak	6,289	6,278	6,860	9,345	7,818
State Line Wind Project	23,686	20,787	24,777	22,077	23,892
Columbia Ridge - Biogas	5,469	6,929	7,377	6,723	7,554
SMUD - Biomass ⁽²⁾	1,628	1,810	1,344	916	-
Seasonal and Other Exchange ⁽²⁾⁽³⁾	4,330	9,421	7,725	6,370	7,753
Total	\$ 216,344	\$ 221,651	\$ 227,412	\$ 232,421	\$ 230,056
Contracted Resources (MWh)	6,904,081	6,900,647	7,215,308	7,521,767	6,354,303
Average Unit Cost (Dollars/MWh) ⁽⁴⁾	\$ 32.66	\$ 34.03	\$ 33.60	\$ 32.57	\$ 38.28

(1) Net of billing credits received from BPA for the South Fork Tolt Project.

(2) The arrangement with SMUD for Burlington Renewable Biomass expired on July 31, 2017, and was not renewed.

(3) Includes exchanges with NCPA, SMUD, Grant PUD, and Lucky Peak exchange.

(4) Average cost of purchased power supply resources excluding exchanges and wholesale market purchases.

Source: *Seattle City Light Department, Accounting Division*

Department-Owned Resources

The Department owns and operates the Boundary Project in northeastern Washington, the Skagit Project in western Washington, and three smaller hydroelectric plants in western Washington: the Newhalem Project, the Cedar Falls Project, and the South Fork Tolt Project.

Dam Safety. The Department's Dam Safety Program manages the FERC and State regulatory compliance program for protecting life, health, property, and the environment of the Department's regulated projects by implementing and coordinating FERC's Owners Dam Safety Program, including the physical security program, cybersecurity program, public safety program, and development of a web-based asset management and compliance tool. The Chief Dam Safety Engineer/Dam Safety Program Manager responsible for the Owners Dam Safety Program reports to the Energy Generation Engineering Operations Director. FERC annually issues a letter listing a reminder of operating license responsibilities that is signed by the Chief Dam Safety Engineer to inform changes in the dam safety program and crucial responsibilities to ensure that the Department's hydroelectric projects are operated and maintained in compliance with FERC Regulations and the terms and conditions of the Department licenses, including the conditions prescribed by resource agencies for exemptions.

The Department operates, manages, and maintain its dams in a safe manner as described in FERC's Owners Dam Safety Program. The Department regularly inspects all its projects to ensure safety, and has current Emergency Action Plans, Surveillance and Monitoring Plans, and ongoing operations and maintenance ("O&M") and CIP projects for all its dams. FERC requirements apply at the Boundary, Skagit, and South Fork Tolt Projects. The Department anticipates increases in O&M and CIP work during the 2019-2023 timeframe for project improvements resulting from recent seismic hazard assessments, focused spillway inspections, detailed gate inspections and analyses, and five-year independent consultant inspection reviews for the Boundary, Skagit, and South Fork Tolt Projects, including several updated FERC requirements resulting from the 2017 Oroville Dam incident in California, when the Oroville Dam's main and emergency spillways were significantly damaged. The Department also anticipates further work or license requirements resulting from pending 2019 FERC audits, including a renewed focus on risk-informed decision making,

related appurtenant structures (outlet works, power plants), organizational structures, and Owners Dam Safety Program audits.

The Boundary Project. The Boundary Project is located on the Pend Oreille River in northeastern Washington near the British Columbia and Idaho borders. The plant was placed in service in 1967 and is a significant contributor to the Department's ability to meet its load requirements. The Boundary Project has a current net nameplate capability of 1,118 MW and expected net power output of 3.6 million MWh under average water conditions. The Department delivers up to 48 MW of energy to Pend Oreille PUD. In September 2016, FERC granted the Department's request to amend the FERC license and revise the annual charges due to recent efficiency upgrades to two of the generating units. The Boundary Project provides between 20% and 30% of the Department's total resource requirements and supplied approximately 29% of the Department's total resources in 2018.

The FERC license for the Boundary Project received in 2013 has a 42-year term and incorporates the terms and conditions of a settlement filed by the Department in 2010 (the "Settlement") among the Department, the Bureau of Indian Affairs, the National Park Service, the U.S. Fish and Wildlife Service ("USFWS"), the U.S. Forest Service, the Kalispel Tribe, the Washington State Department of Fish and Wildlife ("WDFW"), the Washington State Department of Ecology ("Ecology"), The Lands Council, American Whitewater, the Selkirk Conservation Alliance, and Pend Oreille PUD (collectively referred to as the "Settlement Parties"). Pend Oreille PUD is the licensee for the Sullivan Lake Hydroelectric Project (the "Sullivan Lake Project"), which is adjacent to the Boundary Project. As part of the Settlement, Pend Oreille PUD has surrendered the license for the Sullivan Lake Project to FERC, and the project has been decommissioned by the Department and Pend Oreille PUD. The Settlement and new license conditions made no material changes to previous operations at the Boundary Project, which is a significant benefit to the Department's customers, given the load-following nature of operations at the Boundary Project described below. Pursuant to the Settlement and FERC license conditions, the Department will build facilities at the Boundary Project to improve survival of target species (Bull Trout, Westslope Cutthroat Trout, and Mountain Whitefish) or implement appropriate non-operational measures to improve survival of target species, construct upstream passage, improve the habitat condition and function of tributaries draining to Boundary Reservoir, acquire land for wildlife habitat restoration and management, construct a native fish propagation facility, and construct improvements to improve water quality. The levelized cost of these measures over the license term is estimated to be less than \$5/MWh in 2018 dollars; the total estimated cost in 2018 dollars for the remainder of the license period is \$328 million. A portion of the Department's CIP includes the environmental and other improvements to the Boundary Project that meet the requirements of the Settlement and FERC license. The various mitigation provisions included in the FERC license will be implemented over the term of the license. See "Capital Requirements."

The Settlement also seeks to minimize the impact of the Sullivan Lake Project surrender proceeding on the Pend Oreille PUD ratepayers, while at the same time preserving the Department's operational flexibility at the Boundary Project. An important aspect of the Boundary Project's value to the Department and the region is its flexibility and reliability; the Boundary Project can ramp up or down quickly within the hour and in immediate response to customer demand and regional, variable renewable energy. The tributary restoration measures that the Department proposes to undertake in Sullivan Creek, the primary tributary to Boundary Reservoir, together with other protection, mitigation, and enhancement measures described in the Settlement, are expected to provide substantial natural resource benefits.

The Department has historically delivered up to 48 MW of energy to Pend Oreille PUD at the Boundary Project's production cost. The Department has agreed to continue delivery to Pend Oreille PUD at this level through the term of the FERC license for the Boundary Project.

In 2010, the Department and Pend Oreille County reached agreement on impact payments related to the Boundary Project for 2010-2019. The Department will pay a total of \$19 million, to be paid in quarterly payments over a ten-year period that began in 2010, to Pend Oreille County and other affected local governments and school districts. Pend Oreille County supported FERC's issuance of the license consistent with the Settlement.

As authorized in the High Ross Agreement (described below under "—Skagit Project"), British Columbia Hydro ("B.C. Hydro") increased the reservoir elevation of its Seven Mile Project on the Pend Oreille River in 1988, thereby extending its reservoir across the international border to the tail-race of the Boundary Project. A contract between the City and B.C. Hydro was signed in 1989 to provide energy to the Department in the amount of the encroachment of

Seven Mile Reservoir on the Boundary Project concurrent with the High Ross Agreement. In 2018, this encroachment amounted to 0.3% of the Boundary Project's electrical energy output.

In January 2018, the Department completed the FERC-required five-year and annual dam safety inspections at the Boundary Project, including identification of Potential Failure Modes to focus surveillance, monitoring, and prioritized improvements. The dam was determined to be safe for operations. The Department will continue to work with FERC and an independent consultant team on future studies and analysis to ensure continued safe operations of the Boundary Project. Daily, weekly, and monthly visual inspections and quarterly manual readings of all instruments are conducted by the Department's dam safety staff. Annual dam safety inspections are performed by FERC and Department staff.

See "Environmental Matters—Endangered Species Act" for a discussion of the impact of the Endangered Species Act on the Boundary Project. See "—Purchased Power Arrangements—Columbia River Treaty" for a discussion of potential impacts to Boundary Project operations.

Skagit Project. The Gorge, Diablo, and Ross hydroelectric plants, which comprise the Skagit Project, began operation in 1924, 1936, and 1952, respectively. The Skagit Project is located on a 35-mile stretch of the Skagit River above Newhalem, Washington, approximately 120 miles northeast of Seattle. Power is delivered to the Department's service area via two double-circuit Department-owned 230,000-volt transmission lines. The Ross Plant, located upstream of the other two projects, has a reservoir with usable storage capacity of 1,052,000 acre-feet. Because the Diablo Plant, with usable storage capacity of 50,000 acre-feet, and the Gorge Plant, with usable storage capacity of 6,600 acre-feet, are located downstream from the Ross Dam, their operation is coordinated with water releases from the Ross Reservoir, and the three plants are operated as a single system. The combined nameplate capability of the three plants is 802 MW. Expected power output under average water conditions is 2.4 million MWh. The Skagit Project supplied approximately 16% of the Department's total resources in 2018.

The three Skagit Project developments are licensed as a unit by FERC under a license that expires in 2025. The Department began the relicensing process in 2017. As a condition of the FERC license, the Department has taken and will continue to take various mitigating actions relating to fisheries, wildlife, erosion control, archaeology, historic preservation, recreation, and visual quality resources. Independent safety inspections of the Skagit Project required by the FERC license and initiated in 2016 revealed no significant dam safety issues, and the final report was submitted to FERC in December 2017. Daily, weekly, and monthly visual inspections and quarterly manual readings of all instruments are conducted by the Department's dam safety staff. Annual dam safety inspections are performed by FERC and Department staff. Department staff completed five-year inspections at the Skagit Project in 2016-2017.

Although the original plans for the Skagit Project included raising the height of Ross Dam by 122.5 feet to maximize the hydroelectric potential of the plant, the Canadian province of British Columbia protested on environmental and other grounds. After a protracted period of litigation and negotiation, an agreement (the "High Ross Agreement") was reached under which British Columbia agreed to provide the Department, for 80 years commencing in 1986, with power equivalent to the planned increase in the output of the Ross Plant in lieu of the Department's construction of the addition in exchange for payments from the City, as described in the following paragraph. The agreement is subject to review by the parties every ten years. The most recent review concluded in 1998 and did not result in any changes to the agreement. Both parties mutually waived the 2009 periodic review. There are no plans to initiate a contract review of the High Ross Agreement at this time.

The Department's annual payments to British Columbia include a fixed charge of \$21.8 million annually through 2020, which represents the estimated debt service costs that would have been incurred had the addition been constructed and financed with bonds. In 2000, the Department began deferring \$9.1 million of the total \$21.8 million annual payment, and will start amortizing the deferred portion over 15 years starting in 2021. Payment of equivalent maintenance and operation costs and certain other charges began in 1986 and will continue for 80 years. The power delivered from B.C. Hydro under this agreement amounted to 310,700 MWh in 2018. The Department's contract with British Columbia provides capacity from November through March in an amount equal to 532 MW minus the actual peak capability of the Ross Plant, which fluctuates with reservoir levels and the number of units in service, and from April through October in an amount up to 150 MW minus system losses.

If British Columbia discontinues power deliveries, the High Ross Agreement authorizes the Department to proceed with the originally proposed construction and obligates British Columbia to return to the Department sufficient funds to permit the Department to increase the height of Ross Dam and make other improvements as originally proposed. This obligation has been guaranteed by the federal government of Canada.

In August 2015, the Goodell Creek wildfire forced the shutdown of major 230 kV transmission lines connected to the Skagit Project and caused the Department to spill and purchase supplemental power and reserves. The fire never reached the project, but damage was sustained to a transmission tower, several distribution poles, a feeder and communication lines, and a portion of the wooden saddles supporting a steel penstock. FEMA reimbursements are expected to offset approximately 75% of this cost, with insurance and State funds covering a portion of the remaining cost. Supplemental energy purchases to make up for stranded generation and capacity due to the fire are estimated at about \$1.0 million. All costs associated with the fire were expensed in 2015, and the claim for reimbursements is now closed. As of July 2019, the Department's claims for reimbursement for costs of repairs, firefighting, evacuation, and emergency management were estimated at \$2.3 million. The Department has received approximately \$1.6 million in reimbursements and is waiting for an additional \$0.6 million in reimbursements. Prior to and since this wildfire incident, the Department has been integrating best management practices for reducing wildfire risk in areas within and adjacent to company towns, generation sites, and transmission rights of way. These practices are designed to reduce the potential wildfire risk for the Department's remote infrastructure.

Small Hydro.

CEDAR FALLS PROJECT. The Cedar Falls Project, built in 1905, is located on the Cedar River, approximately 30 miles southeast of Seattle. The Cedar Falls Project was constructed before the adoption of the Federal Water Power Act of 1920 and is not subject to licensing by FERC, making it a State-jurisdictional project under Ecology. Cedar Falls Project power is delivered through an interconnection with Puget Sound Energy. The nameplate capability of the plant is 30 MW. Power production in 2018 at the Cedar Falls Project was 89,250 MWh. As a State-jurisdictional project, the Cedar Falls Project is not required to have independent inspections. However, the Department chose to conduct an independent inspection in 2013 and received the final report on the project in 2014. The report concluded that the project is suitable for continued safe and reliable operation, with some recommendations that the Department is implementing. The most recent periodic inspection by the State was conducted in 2016 and concluded that the project was in good condition and safe for operations. Daily, weekly, and monthly visual inspections and drain measurements are performed by the Department and Seattle Public Utilities ("SPU") crews.

NEWHALEM PROJECT. The Newhalem Project is located on Newhalem Creek, a tributary of the Skagit River, and was built in 1921 to supply power for the construction of the Skagit Project. The plant was rebuilt and modernized in 1970. It is operated under a FERC license that expires on January 31, 2027. The plant's power is delivered directly to the Gorge Plant station service bus. The nameplate capability of the plant is 2.3 MW. The Newhalem Project had not generated power since 2015, due in part to certain repairs associated with the Goodell Creek fire, but began generating power again in June 2018. Five-year inspections by FERC are not required of the Newhalem Project, due to its size and low criticality; however, FERC inspections are conducted approximately every three years. In-house review of the project is performed annually. Several features of the diversion system will undergo a detailed inspection in 2018 to identify any issues with continued operation of the facility.

SOUTH FORK TOLT PROJECT. The South Fork Tolt Project is located approximately 30 miles east of Seattle on the south fork of the Tolt River and was placed in commercial operation in 1995. The South Fork Tolt Project operates under a 40-year FERC license that expires in 2029. The nameplate capability of the installed unit is 16 MW. Power production at the South Fork Tolt Project in 2018 was 58,518 MWh. To reduce its cost of power from the South Fork Tolt Project, the Department entered into a Billing Credits Generation Agreement with BPA in 1993, under which BPA makes payments to the Department that have the effect of making the cost of power from the South Fork Tolt Project approximately equal to the cost of equivalent power from BPA. This agreement expires in 2028. Payments to the Department under the agreement commenced in 1996 and amounted to \$3.2 million in 2018. Without this agreement, the cost of power would still be relatively low, as all project debt has been paid off and the only expenses are associated with operations and capital refurbishment.

The FERC-mandated five-year dam safety inspection was completed in 2017 and concluded that the South Fork Tolt Project was in good condition. The 2018 annual inspection of the South Fork Tolt Project included a Special Spillway Inspection as required by FERC due to the 2017 incident at the Oroville Dam in California. The Department has reviewed the inspection results and submitted a plan and schedule to FERC for additional assessments of what changes to operations, maintenance, or inspections are appropriate. Daily, weekly, and monthly visual inspections and manual readings of all instruments are conducted by SPU dam safety staff. Annual dam safety inspections are performed by FERC. See “Department-Owned Resources—Dam Safety.”

Purchased Power Arrangements

In 2018, the Department purchased approximately 54% of its total resources from other utilities and energy suppliers in the region, including BPA, under long-term purchase contracts. Some of these contracts obligate the Department to pay its share of the costs of the generating facilities providing the power, including debt service on bonds issued to finance construction, whether or not it receives any power. The Department treats payment of such costs as part of its purchased power expense and includes such costs in its operating and maintenance expenses. See “Security for the Bonds—Pledge of Revenue.”

The Department regularly purchases power under the WSPP Inc. (formerly Western Systems Power Pool) Agreement and the Power Sales Agreement with BPA, described below under “Bonneville Power Administration.” Some of those agreements include an obligation on the part of the Department to post collateral contingent upon the occurrence or nonoccurrence of certain future events, such as future credit ratings or payment defaults. The Department also has entered into, and may in the future enter into, agreements that include an obligation on the part of the Department to make payments or post collateral contingent upon the occurrence or nonoccurrence of certain future events that are beyond the control of the Department. Such contingent obligations are permitted to be characterized as maintenance and operation charges and would be payable from Gross Revenues of the Department prior to the payment of Parity Bond debt service.

Bonneville Power Administration. BPA markets power from the Federal Columbia River Power System (the “Federal System”), comprised of 31 federal hydroelectric projects, several non-federally-owned hydroelectric and thermal projects in the Pacific Northwest region, and various contractual rights. Currently, under low water conditions, approximately 7,025 average annual megawatts are available annually for sale, at BPA’s cost-based rate to preference customers, including the Department. One average annual megawatt (“aMW”) is the number of megawatt hours of electric energy used, transmitted, or provided over the course of a year and is equal to 8,760 MWh. The federal hydroelectric projects are built and operated by the U.S. Bureau of Reclamation and the U.S. Army Corps of Engineers (the “Corps”), and are located primarily in the Columbia River basin. The Federal System currently produces more than 33% of the electric power consumed in the region. BPA’s transmission system includes more than 15,000 circuit miles of transmission lines and provides about 75% of the high-voltage bulk transmission capacity in the Pacific Northwest. Its service area covers more than 300,000 square miles and has a population of about 12 million.

Federal law requires BPA to meet certain firm loads in the Pacific Northwest placed on BPA by contract by various preference customers. BPA sells electric power at cost-based wholesale rates to more than 125 utility, industrial, and governmental customers in the Pacific Northwest. In its wholesale power sales, BPA is required by law to give preference to consumer- or publicly-owned utilities and to customers in the Pacific Northwest region.

The Department’s Power Sales Agreement with BPA provides for purchases of power by the Department over the 17-year period beginning October 1, 2011. Until October 1, 2017, power was delivered in two products: a shaped block product (“Block”), which is power provided in pre-determined amounts at pre-determined times, and a slice of the system product (“Slice”), which is a proportionate amount of power if, as, and when generated by the Federal System. The Department’s Slice and Block deliveries were approximately equal on an annual basis. The BPA contract requires prior notice by the Department before the Department may use, or discontinue using, a generating resource to serve the Department’s own firm loads.

The Department exercised an option under the Power Sales Agreement to switch products and requested a switch to 100% Block effective October 1, 2017, which is earlier than the contract specified date. BPA approved the Department’s request. The Department’s BPA purchase will be for the same amount of power, for firm water

conditions, of 490 aMW, which will vary from a high of 810 aMW in January 2020 to a low of zero aMW in June 2020.

Under the BPA contract, the amount of power that BPA's preference customers (including the Department) may purchase under BPA's cost-based rate (the "Tier 1 Rate") is limited to an amount equal to the generating output of the current Federal System, with some limited amounts of augmentation. Any incremental purchases by preference customers from BPA above this base amount of power would be purchased at a different rate (the "Tier 2 Rate"), reflecting the incremental cost to BPA of obtaining additional power to meet such incremental load. Each preference customer's right to purchase power at Tier 1 Rates is based in part on the proportion that its net requirements bore to all preference customers' net requirements placed on BPA in a defined period prior to Federal Fiscal Year ("FFY") 2011. The Department currently purchases all of the power it receives under the BPA contract at the Tier 1 Rate. The Department made three separate decisions not to purchase additional energy from BPA, during the contract periods 2012-2014, 2015-2019, and 2020-2024, and will evaluate the remaining future purchase based on need and cost.

BPA Rates. BPA is required by federal law to recover all of its costs through the power and transmission rates it charges its customers. As of October 1, 2019, BPA's average net cost for Tier 1 power will be \$35.62 per MWh, excluding delivery charges and without a financial reserves policy ("FRP") surcharge. In 2019, BPA finalized a policy setting minimum and maximum financial reserves by business line and agency-wide. The policy includes mechanisms to increase revenue collection if reserves fall below the minimum and to use reserves should they accumulate above the maximum. BPA will make a decision about whether to impose the surcharge on applicable power rates by November 30, 2019. BPA conducts a rate case every two years, but the rates are subject to a cost recovery adjustment clause that allows power rates to increase within a two-year rate period if certain events occur. On July 25, 2019, BPA published rates effective for the period October 1, 2019, to September 30, 2021. The Tier 1 average net cost change was -0.1% without the FRP surcharge, and may be up to a 1.4% increase if BPA were to impose the maximum surcharge. See "Department Financial Information—Retail Rates—Automatic BPA Rate Pass-Through."

There are many factors that have impacted and could impact BPA's cost of service and rates, including federal legislation, BPA's obligations regarding its outstanding federal debt, number of customers, water conditions, fish and other environmental regulations, capital needs of the Federal System, outcome of various litigation, regional transmission issues, natural gas prices, and the economy. See "Department Financial Information—Retail Rates—Automatic BPA Rate Pass-Through."

Energy Northwest. The City is a member of Energy Northwest, a municipal corporation and joint operating agency organized under State law, whose members currently include 27 public utility districts and cities within the State. Energy Northwest has the authority to acquire, construct, and operate plants, works, and facilities for the generation and transmission of electric power.

Energy Northwest was originally engaged in the construction of five nuclear generating facilities (Projects 1 through 5), only one of which (Columbia Generating Station, formerly Project 2) was placed in commercial operation, in 1984. Construction of the others was terminated in the 1980s and 1990s. The Department, Energy Northwest, and BPA entered into separate Net Billing Agreements with respect to Projects 1 and 3 and the Columbia Generating Station (the "Net Billed Projects"), under which the Department purchased a share of the Net Billed Projects from Energy Northwest and assigned that share to BPA. The Department's share of each is as follows: 8.605% of Project 1, 7.193% of the Columbia Generating Station, and 7.206% of Project 3.

Under the Net Billing Agreements, the Department is obligated to pay Energy Northwest its share of the total annual costs of the Net Billed Projects, including debt service on approximately \$5.1 billion of bonds outstanding on the Net Billed Projects, and accept assignment of the shares of defaulting participants, subject to a cap of 25% of the Department's share. BPA is obligated to credit the Department the same amount of the Department's share (plus any assigned shares) under any power sales agreement between BPA and the Department. These obligations exist regardless of the status, operability, or output of the Net Billed Projects. To the extent that BPA cannot credit the Department because the Department's obligations under a power sales agreement are not sufficient to allow BPA to credit the Department its full share, BPA is obligated, after certain assignment procedures, to pay the uncredited and unassigned amount to the Department, subject to available appropriations.

Subsequently, in 2006, Energy Northwest and BPA executed agreements with respect to the Net Billed Projects (the “Direct Pay Agreements”) pursuant to which BPA agreed to pay directly to Energy Northwest all costs (including the debt service on the outstanding bonds) for the Net Billed Projects, including the Department’s share. Since 2006, this has resulted in no payments by or credits to the Department under the Net Billing Agreements. If BPA fails to make a payment or the parties terminate the Direct Pay Agreements, the original obligations of the Net Billing Agreements would resume. BPA has always met all of its obligations to Energy Northwest.

Columbia River Treaty. The U.S. and Canada entered into the 1964 Columbia River Treaty (the “Treaty”) to increase reservoir capacity in the Canadian reaches of the Columbia River basin for the purposes of power generation and flood control. Although the Treaty does not expire under its own terms, either the U.S. or Canada may elect to terminate it by providing not less than ten years’ notice. The Treaty impacts stream flow and power generation in the Columbia River and some of its tributaries. The Treaty’s computation of energy benefits that result from the Canadian improvements to upstream storage is of particular interest to utilities because it creates an energy return obligation (the “Canadian Entitlement”) for U.S. operators of Columbia River dams, including BPA. Treaty modernization (described further below) could impact energy received under the Department’s BPA and Priest Rapids Project contracts, as well as stream flows and generation at the Boundary Project. See “—Purchased Power Arrangements—Bonneville Power Administration” and “—Priest Rapids Project” and “—Department-Owned Resources—Boundary Project.”

In 2013, the United States Entity (which is comprised of BPA and the Corps) sent a final regional recommendation concerning the future of the Treaty to the U.S. Department of State (the “State Department”), which includes modernizing the Treaty to more fairly reflect the distribution of operational benefits between the U.S. and Canada, to ensure that flood risk management and other key river uses are preserved, and to address key ecosystem functions in a way that complements the significant investments made since 1964 to protect Columbia River basin fish and wildlife. The Department has been an active participant in the United States Entity’s regional review process leading up to the final regional recommendation and supports that recommendation. Engagement between negotiators for the U.S. and Canada is underway, without any timeline for completion of negotiations.

Priest Rapids Project. Under two agreements effective through 2052, the Department purchases a portion of the output of the Priest Rapids Project. The Department is currently obligated to purchase 6.14% of the Priest Rapids Project’s output after Grant Public Utility District (“Grant PUD”) meets its retail load. As Grant PUD’s retail load increases, less electrical energy is available for the Department. The Department currently receives about 2 aMW from these contracts. The Department also receives a portion of the revenues from an auction of 30% of the Priest Rapids Project’s power, totaling \$2.4 million per year in 2016 and 2017, \$1.5 million in 2018, and \$1.8 million in 2019. Under the contracts, the Department is responsible for its percentage share of the costs of the Priest Rapids Project, including debt service on bonds issued to finance improvements to the Priest Rapids Project.

Columbia Basin Hydropower (formerly Grand Coulee Project Hydroelectric Authority). The Department, in conjunction with the City of Tacoma Department of Public Utilities, Light Division (“Tacoma Power”), has power purchase agreements with three Columbia River basin irrigation districts for the acquisition of power from five hydroelectric plants under 40-year contracts expiring between 2022 and 2027. These plants, which utilize water released during the irrigation season, are located along irrigation canals in eastern Washington. The plants generate power only in the summer and thus have no winter peak capability. Plant output and costs are shared equally between the Department and Tacoma Power. In 2018, the Department received 241,326 MWh from the project.

High Ross Agreement. See “—Department-Owned Resources—Skagit Project.”

Lucky Peak. The Lucky Peak Hydroelectric Power Plant (“Lucky Peak”) was developed by three Idaho irrigation districts and one Oregon irrigation district (the “Districts”) and began operation in 1988. Its FERC license expires in 2030. The plant is located on the Boise River, approximately ten miles southeast of Boise, Idaho, at the Lucky Peak Dam and Reservoir. Power generation was 347,669 MWh in 2018. The nameplate capacity is 113 MW, but the plant operates only during the irrigation season, so it provides no peak capacity during the Department’s winter peak period.

In 1984, the Department entered into a power purchase and sales contract with the Districts under which the Department purchases all power generated by Lucky Peak, in exchange for payment of costs associated with the plant

and royalty payments to the Districts. The Department also signed a transmission services agreement with Idaho Power Company (“Idaho Power”) to provide for transmission of power from Lucky Peak to a point of interconnection with the BPA transmission system.

Stateline. An agreement with J.P. Morgan Ventures Energy Corp. (“J.P. Morgan”), which became effective on January 1, 2002, provides for the Department’s purchase of wind-generated power and associated renewable energy credits (“RECs”) from the Stateline Wind Project (“Stateline”) in eastern Washington and Oregon. In 2016, with the Department’s consent, J.P. Morgan sold its interest in Stateline to Exelon Corporation. Wind power received by the Department has a maximum delivery rate of 175 MW per hour; historical output has been about 27% of the maximum delivery rate. The project contributes to the Department’s I-937 compliance. See “—Washington’s Renewable Portfolio Standard (Initiative 937).” The contract ends in 2021; the Department has not currently exercised a renewal or extension of the contract but has the option to do so in the future. However, the Department agreed to buy RECs from Stateline for the period 2022-2026, which will extend the I-937 compliance component of the project. The Department received 342,873 MWh of wind-generated power under the Stateline purchase contract in 2018.

The Department also entered into a related ten-year agreement with PacifiCorp to purchase integration and exchange services for all of the Department’s 175 MW share of Stateline output. Under this agreement, PacifiCorp delivers the Department’s share of Stateline output to the Department two months after it is generated. The integration and exchange agreement with PacifiCorp terminates after final delivery in February 2022.

Small Renewables.

BURLINGTON RENEWABLE BIOMASS. In 2007 the Department entered into an agreement with SMUD that expired on July 31, 2017. Under that expired agreement, SMUD purchased the output from the Sierra Pacific Industries Burlington Biomass Facility. The Department provided scheduling and delivery services to SMUD for up to 15 MW of power at the California-Oregon border and received financial compensation for these services. The Department purchased from SMUD all of the renewable energy and environmental attributes associated with the resource output in excess of 15 MW. The arrangement is no longer in effect, and the Department no longer receives renewable energy or environmental attributes from this source.

COLUMBIA RIDGE LANDFILL GAS. The Department began taking delivery from Columbia Ridge in Arlington, Oregon, in 2009 under a 20-year agreement. The plant, which has a nameplate capacity of 6.4 MW and generates an average of 50,500 MWh per year, burns methane produced by the decomposition of solid waste in the landfill. Waste Management Renewable Energy (“WMRE”) is the developer, owner, and operator of the project. The Department has firm transmission for project output to the Department’s retail load. WMRE added six MW of additional generation in summer 2014, and the Department is buying the output from the expansion under contract. The Department received 102,671 MWh of power under the Columbia Ridge purchase contracts in 2018.

KING COUNTY WEST POINT TREATMENT PLANT. In 2010, the Department executed a power purchase agreement with King County (the “County”) for the output of a cogeneration plant at the West Point Wastewater Treatment Facility in Seattle, which began commercial operation in 2014. The 4.6 MW plant is providing about 2 aMW of electrical energy and associated renewable energy credits. The contract has specific prices and annual escalation and extends until 2034.

Seasonal and Other Exchanges. The NCPA exchange agreement, previously entered into in 1995, ended on April 30, 2018, and is no longer in effect. Until its termination, the agreement provided for the Department to deliver 60 MW of capacity and 90,580 MWh of power to NCPA in the summer. In return, NCPA delivered 46 MW of capacity and 108,696 MWh of power to the Department in the winter.

Since 2007, the Department has entered into agreements to exchange the entire output of the Lucky Peak project for a fixed amount of firm winter energy. For calendar years 2016 through 2019, the counterparty is Morgan Stanley Capital Group, which will also take on and pay for the associated transmission services from Idaho Power. The Department is considering seasonal exchange of the output in the future.

Wholesale Market Sales and Purchases

The Department has historically bought and sold power in wholesale power markets to balance its loads and resources. The amount of wholesale power purchased or sold has varied with water conditions and with changes in the Department’s loads and firm resource base. On an annual basis, the Department expects to be a net seller of power in the wholesale market, even under adverse water conditions. See “—Integrated Resource Plan.” Market sales are the highest during the spring and early summer, when river flows and runoff are the highest. Market sales are the lowest, and the Department may purchase power, in the late summer and early fall, when river flows and runoff are the lowest.

In 2018, hydro flows were above average on rivers where the Department’s primary generation hydro facilities are located. The hydro flows at Boundary Project and Ross Dam were 118% and 106% of the historical average, respectively. Regionally, January through July flows at The Dalles Dam were 135% of the historical average. The average revenue per MWh realized from surplus sales in 2018 was \$21.78/MWh. Net wholesale revenue in 2018 was \$49.9 million, lower than the budgeted amount of \$60 million. As of August 21, 2019, net wholesale revenue for 2019 is forecast to be \$14.8 million, \$40.2 million below the budgeted amount of \$55.0 million. This variance will be transferred from the RSA. See “Department Financial Information—Management Discussion of Historical Operating Results 2014-2018,” “—Expectations for 2019 Operating Results,” and “—Financial Policies—Rate Stabilization Account.”

Table 4 displays the Department’s purchases and sales of power in the wholesale market over the 2014-2018 period.

TABLE 4
SUMMARY OF WHOLESALE MARKET SALES AND PURCHASES

	2014	2015	2016	2017	2018
Cost of Wholesale Purchases (\$000) ⁽¹⁾	\$ 23,404	\$ 37,658	\$ 21,414	\$ 19,880	\$ 22,576
Wholesale Market Purchases (MWh in 000s)	901	1,379	936	904	1,167
Average Cost (\$/MWh)	\$ 25.98	\$ 27.31	\$ 22.88	\$ 21.99	\$ 19.35
Revenue from Sales (\$000) ⁽¹⁾	\$ 111,993	\$ 76,819	\$ 74,632	\$ 70,422	\$ 72,509
Wholesale Market Sales (MWh in 000s)	4,083	3,549	4,044	3,695	3,329
Average Revenue (\$/MWh)	\$ 27.43	\$ 21.65	\$ 18.45	\$ 19.06	\$ 21.78
Net Wholesale Revenue (\$000) ⁽¹⁾	\$ 88,589	\$ 39,161	\$ 53,218	\$ 50,542	\$ 49,933
Sales Net of Purchases (MWh in 000s)	3,182	2,170	3,108	2,791	2,162

(1) Shown as gross, prior to netting of bookouts. Audited financial statements are shown net of bookouts (only short-term bookouts netted against purchases while both short-term and long-term bookouts netted against sales). Bookouts occur when energy is financially settled net without physical delivery, upon agreement among the counterparties, because sales and purchases were separately transacted for delivery at the same time and point of delivery.

Source: *Seattle City Light Department, Accounting Division*

Wholesale Energy Risk Management

The Department sells its surplus power in the wholesale power markets, and the revenue generated is used to offset costs that would otherwise be borne by the Department’s retail ratepayers. The Department’s wholesale energy marketing activities are managed by its Power Management Division, and the Department’s risk management activities are carried out by its Risk Oversight Division. Additionally, the Department’s Risk Oversight Council (“ROC”) serves as the primary body with the authority and responsibility for overseeing and implementing the Department’s Wholesale Energy Risk Management (“WERM”) Policy and leading the Department’s energy risk management efforts. ROC is comprised of four voting and four non-voting members: the Facilities and Oversight Services Officer (Chair), Director of Risk Oversight (Acting-Chair), Chief Financial Officer, and Energy Innovation and Resources Officer. Each have a single vote. The four non-voting members are the Director of Power Management, Director of Finance, Manager of Power Marketing, and Risk Oversight Strategic Advisor. ROC meets

at least twice per month to review recent events in the wholesale power markets and the Department's market positions, exposures, WERM Policy compliance, and portfolio-balancing strategies and plans.

Under the WERM Policy, the Department has the authority to enter into agreements to manage various risks associated with power transactions as long as any agreements are not purely speculative and can be tied to managing an underlying power purchase, asset, or price risk. The Department has not entered into any hedging agreements under an International Swaps and Derivatives Master Agreement. However, the Department does enter into certain forward purchase and sale of electricity contracts that meet the Governmental Accounting Standards Board ("GASB") definition of a "derivative instrument," and they are intended to result in the purchase or sale of electricity delivered and used in the normal course of operations. See Appendix C—2018 Audited Financial Statements of the Department—Note 18.

Energy Market Risk. For the Department, energy market risk is the risk of adverse water conditions and fluctuations in the price of wholesale electricity. Factors that contribute to energy market risk include regional planned and unplanned generation plant outages, transmission constraints or disruptions, the number of active creditworthy market participants willing to transact, and environmental regulations that influence the availability of generation resources.

To limit energy risk exposure, the Department is not authorized to buy or sell physical energy and associated products in the wholesale energy market more than 60 months prior to the hour of delivery. For longer-term transactions, City Council approval is required. The Department's principal objective is to ensure that the Department meets retail customer demand in a way that generates additional value from its generation portfolio, with due consideration of risk. Risk tolerance levels are documented in the WERM Procedures document.

The Department's exposure to variable output from its hydroelectric resources and market price risk is managed by the Director of Power Management under the supervision of the Energy Innovation and Resources Officer, with oversight and approval from ROC. The Department engages in market transactions to meet its load obligations and to realize earnings from surplus energy resources. Except for limited intraday and interday transactions, to take advantage of the ability to store water at certain generating facilities, the Department does not take speculative market positions in anticipation of generating revenue.

With historically about 6% to 13% of the Department's revenue coming from wholesale energy market sales, the Department emphasizes the management of risks of this activity. Policies, procedures, and processes have been established to manage, control, and monitor these risks and ensure proper segregation of duties.

Credit Risk. If a counterparty fails to perform on its contractual obligation, the Department may find it necessary to procure or sell electricity at current market prices, which may be unfavorable compared to the contract price. If a counterparty fails to pay its obligation in a timely manner, this has an impact on the Department's revenue and cash flow. As with market risk, the Department has policies and procedures in place to mitigate credit risk.

Wholesale counterparties are assigned credit limits based on evaluations of their financial condition, including consideration of liquidity, cash flow, credit ratings, and other indicators from debt and capital markets as deemed appropriate. Credit limits are also used to manage counterparty concentration risk. There is potential for the concentration of credit risk related to geographic location, as a large number of counterparties with which the Department transacts are in the western U.S. This concentration of counterparties and of geographic location may impact the Department's overall exposure to credit risk, either positively or negatively, because counterparties may be similarly affected by changes in conditions.

Credit limits, exposures, and credit quality are actively monitored. Despite such efforts, defaults by counterparties may occur. The Department's risk policies and some of its contracts require either party to post collateral if certain conditions occur. Posted collateral may be in the form of cash or letters of credit and may represent prepayment or credit exposure assurance. The Department is not currently posting collateral under any of its contracts and does not expect to do so.

Washington’s Renewable Portfolio Standard (Initiative 937 and Senate Bill 5116 (2019))

I-937. I-937 was approved by State voters in 2006. Under I-937, utilities such as the Department with more than 25,000 retail customers in the State are required to serve certain percentages of retail load with eligible renewable resources and/or purchase equivalent RECs. This requirement increases over time: 3% of load by January 1, 2012, 9% by January 1, 2016, and 15% by January 1, 2020. I-937 also requires utilities to pursue all available conservation that is cost-effective, reliable, and feasible, and imposes deadlines for meeting conservation targets. I-937 has been codified as “The Energy Independence Act” (chapter 19.285 RCW).

The law specifies what types of renewable generation are eligible to meet the renewable portfolio standard. Existing hydropower is not considered a renewable resource, but incremental hydropower is considered renewable if it is the result of efficiency improvements completed after March 30, 1999. The City considers I-937 during the preparation of its Integrated Resource Plans (“IRP”) and the potential for cost-effective, reliable, and feasible conservation measures that could be derived from more efficient energy use by customers and by the Department’s production and distribution facilities.

The Department met I-937’s 3% renewable energy target for 2012 to 2015, and has under contract adequate eligible RECs and resources to comply with the 9% target in effect from 2016 to 2020. The Department continues to evaluate compliance options, and estimates that, with its current renewable resources and recent acquisitions of RECs, it will be in compliance with I-937’s January 1, 2020, target.

I-937 allows for alternative compliance options if a utility has no load growth or if the utility reaches a cost cap on spending for eligible resources. For the period in which the Department has no load growth as defined by I-937, it will use the no load growth compliance option. The Department used the no load growth compliance option for 2019.

Senate Bill 5116 (“SB 5116”). In May 2019, the Washington Legislature passed SB 5116, which the Governor signed into law, specifying the sources of electricity that all utilities in the State must meet. The law specifies that, by 2030, 80% of retail sales must be met with generation sources that do not emit greenhouse gases, and sets a goal that, by 2045, 100% of retail sales must be met with sources that do not emit greenhouse gases. The law includes provisions to study the effects of these goals on cost and reliability, and provides off-ramps and alternative compliance means.

The Department will be evaluating compliance strategies for SB 5116 requirements in the near future. The utility is well positioned to meet the 2030 requirements, given its low carbon energy portfolio, and will develop strategies to meet the 2045 goal.

Conservation

The Department measures energy conservation results in terms of cost, amount, and duration of savings using regionally and nationally recognized methods. In 2018, the Department achieved 14.77 aMW (129,377 MWh) of energy savings from completed projects, which cost the Department \$37.2 million in incentives and expenditures associated with the delivery of the energy savings. Total savings in place in 2018 amounted to approximately 172 aMW (1,507,276MWh), representing more than 15% of the Department’s total energy needs in 2018. The Department’s retail load has been declining since 2011, due in part to its robust conservation program. See “Department Financial Information—Management Discussion of Historical Operating Results 2014-2019.”

Under I-937, the Department is required to establish two-year conservation targets. For the 2018-2019 biennium, the I-937 total energy savings target is 24.50 aMWh. However, the Department’s IRP identified a slightly more aggressive annual energy savings target of 26.8 aMW, which the Department is on track to meet. The Department expects to establish its 2020-2021 I-937 energy savings target in the third quarter of 2019.

The Department’s Conservation Resources Division has a long-standing relationship with BPA. Through various contractual agreements over a 30-year period, BPA has provided funding for energy conservation activities, including \$10.5 million for energy conservation activities over FFY 2018 and 2019, which funded approximately 15% of the Department’s total energy savings delivered during this time period. In addition to the current funding, BPA is providing technical assistance for industrial projects and offering regional conservation programs to the Department.

For FFY 2020 and FFY 2021 the Department is estimated to have an energy efficiency incentive budget of approximately \$10 million, which will be received in calendar year 2019.

Integrated Resource Plan

The Department's IRP evaluates a range of resource portfolios that are designed to meet its future resource needs and the State's I-937 renewable portfolio standard. A key objective of the IRP is to ensure that expected long-term customer demand can be met with dependable resources under variable hydro and weather conditions. The IRP preferred resource portfolio is selected after being evaluated against four criteria: reliability, cost, environmental impact, and risk. The main feature of the preferred portfolio is typically conservation.

The Department's 2018 IRP progress report and update affirms its conservation-centered resource strategy. The IRP considers conservation its first-choice resource in meeting expected demand growth. Conservation savings are expected to exceed demand growth over the course of the 20-year study, despite continued regional economic and related population growth. The Department expects to be net surplus in resources for more than a decade. The IRP update indicates that additional RECs may need to be acquired between 2021 and 2024 unless the Department qualifies for alternative compliance options under no load growth or if the utility reaches a cost cap on spending for eligible resources.

The resource strategy continues to be:

- (i) Acquire cost-effective conservation;
- (ii) Acquire RECs and/or renewable resources, whichever is more cost-effective, for compliance with I-937; and
- (iii) Make increased use of the flexibility available in existing power contracts for meeting seasonal variability in supply and demand.

The recommended resource strategy continues the Department's policy of obtaining affordable power with low environmental impacts for its ratepayers while making the most of its existing resources. Conservation is the first choice resource, followed by purchases and sales of 60 months or less that reshape seasonal resources to better match seasonal changes in customer demand.

The Department expects to complete its next update of the IRP by September 1, 2020.

TRANSMISSION AND DISTRIBUTION

Introduction

The Department owns transmission facilities for the delivery of energy from the Skagit Project to the Department's service area. The Department also owns transmission lines interconnecting the Boundary and Cedar Falls Projects to other utilities' transmission systems that allow delivery to the Department's customers or to wholesale markets. See "—Transmission Contracts—Transmission Arrangements with BPA" and "—Other Transmission Contracts." In addition, the Department has entered into contracts with BPA and others to provide additional transmission capacity for the Boundary Project and all contracted resources that require transmission. These owned facilities and contracted transmission capacity provide the Department with sufficient capacity for meeting its projected winter peak load and delivering the maximum output from all remote resources.

Department-Owned Transmission

The Department owns and operates 656 miles of transmission facilities. The principal transmission lines are the generation interconnection lines transmitting power from the Skagit Project to the Department's service area. Other important facilities include the tie lines connecting the Boundary, South Fork Tolt, and Cedar Falls Projects with BPA's and Puget Sound Energy's transmission grid and transmission within the Department's service area.

In 1994, the Department signed an agreement with BPA for the acquisition of ownership rights to one-thirtieth (160 MW at full rating) of the transmission capability over BPA's share of the Third AC Intertie, which connects the

Pacific Northwest with California. The benefits from this investment include avoidance of BPA's transmission charges associated with power sales and the ability to conduct exchanges over the Intertie and enter into long-term firm contracts with out-of-State utilities.

Transmission Contracts

Transmission Arrangements with BPA. The bulk of the Department's remote generation (the Boundary Project, BPA products, and other long-term contracts) and other market transactions utilize BPA's point-to-point ("PTP") transmission service agreement. See "Power Resources and Cost of Power—Department-Owned Resources—Boundary Project." The agreement with BPA provides the Department with 1,962 MW of transmission capacity through 2025. The Department has the right to extend the current terms, and plans to negotiate a suitable extension prior to 2025. This capacity amount ensures that the Department can deliver the maximum output of the Boundary Project and the BPA purchase contract to its customers. Effective October 1, 2019, BPA has raised its PTP transmission and other associated rates by a cumulative 3.2% for the rate period FFY 2020-2021.

Power supplied to the Department by B.C. Hydro under the High Ross Agreement is transmitted over BPA's lines under a separate PTP transmission service agreement extending through 2035. This agreement has been assigned to Powerex Corporation, a British Columbia corporation tasked with carrying out certain responsibilities of B.C. Hydro with respect to the High Ross Agreement, including the delivery of High Ross power. Under the provisions of the transmission assignment agreement, Powerex pays BPA directly for all costs associated with the High Ross PTP contract. See "Power Resources and Cost of Power—Department-Owned Resources—Skagit Project."

Other Transmission Contracts. The Department transmits power under contracts with Idaho Power for the transmission of power from Lucky Peak, with Avista and Grant PUD for transmission of power from Columbia Basin Hydropower, with Puget Sound Energy for transmission of power from the Cedar Falls and South Fork Tolt Projects, and with other utilities. The Department also has a contract with PacifiCorp for integration and exchange of output from Stateline.

The Department may require additional purchases of transmission in the future to accommodate the delivery of power from additional resource acquisitions to the Department's retail customers. The Department may purchase short-term and/or non-firm transmission for its sales of power in the wholesale market and may sell excess transmission that is not needed to serve load and balance resources.

ColumbiaGrid

ColumbiaGrid, formed in 2006 by a group of investor-owned and public utilities, including the Department, and BPA, currently provides inter-utility regional transmission planning services to its members in the Pacific Northwest. ColumbiaGrid is not a Regional Transmission Organization under FERC policies but provides services on a bilateral, contractual basis. ColumbiaGrid's planning role enables the Department to meet federal requirements for regional transmission planning. Beginning in 2020, Columbia Grid will transition to a new organization called Northern Grid. This transition will broaden the scope and improve the level of planning services.

Open Access Transmission Services

The Department currently has no open access transmission customers but is committed to offering comparable service upon receiving a valid transmission service request. In 2009, the City Council approved legislation authorizing the Department to implement and administer an open access transmission tariff. The Department periodically updates its open access transmission tariff, which is not filed with FERC but is publicly available on the City Clerk's website.

Retail Service

The Department owns, operates, and maintains overhead and underground transmission and distribution facilities within its 131-square-mile service territory. The distribution system consists of 2,654 miles of overhead and underground wiring. The Department operates 16 major substations throughout the service area, which supply power to the distribution system's primary feeders and ultimately to the Department's retail customers. Most of the distribution system is looped radial design, which means that a single feeder provides electrical energy to customers.

Customers in the downtown Seattle, University District, and First Hill neighborhoods are served by a more reliable multiple-feeder network.

Operation and Maintenance

The Department updates its load forecast periodically to track changes in electricity consumption throughout the distribution system. Based on this forecast, the Department makes provisions and recommendations for capacity projects related to transmission, substation, communications, and distribution facilities to serve the system loads.

The Department's System Control Center controls hydroelectric power operations and monitors delivery of power to the service area. Staff use a real-time Energy Management System that provides information about loads and resources to the power dispatchers so they can properly balance load and resources and respond to system disturbances.

The Department's Outage Management System is designed to improve operational efficiencies and provide timely information to customers while staff are responding to service interruptions. The Department installed a work and asset management system, the foundational technology for an asset management practice, to assist in work scheduling and asset cost tracking and act as a data repository.

The Department inspects the vaults through which transmission lines run, and maintenance programs have been established for steel lattice tower and monopole transmission equipment. The Department conducts periodic inspections and maintenance on batteries that supply control power to protection systems for certain higher capacity transmission lines. Protective relays are tested and maintained on a periodic basis to satisfy NERC requirements.

Since 2009, the Department has inspected approximately 91,000 wood poles in the service area and replaced 11,300 wood poles between 2010 and 2018. In April 2019, an incident occurred involving the simultaneous failure of a section of 26 wood poles during a high wind event. In response to this incident, the Department has engaged an outside team of engineers and scientists to review the causes of the failure. The Department expects to receive its final report in October 2019.

Under the Cable Replacement program, started in 2008 to replace the aging underground cable system in order to improve system reliability, the Department has rejuvenated more than 133 miles of direct buried cables to extend the life of the cables, installed duct systems, and replaced miles of underground cable in the distribution system.

Federal Regulations

The Department's Regulatory Affairs Office ("Regulatory Affairs") manages the Department's regulatory programs associated with transmission and wholesale sale of power. Regulatory Affairs ensures compliance, oversees regulatory interactions, and advises on regulatory matters that could affect proposed activities. The Department's central oversight program concerns bulk power system reliability, with moderate programs for other pertinent regulatory areas. The Director of Regulatory Affairs reports to the Facilities and Oversight Services Officer, and has direct access to the General Manager and Chief Executive Officer. Regulatory Affairs functions independently of the Department's operating divisions.

Reliability Compliance Program. Because the Department owns, operates, and uses the bulk power system, Section 215 of the Federal Power Act requires the Department to comply with electric reliability standards. The objective of the Department's reliability compliance program is to achieve compliance with FERC reliability standards and foster a culture of compliance in support of the Department's mission to deliver reliable power to its customers. The Internal Compliance Program Policy documents the Department's regulatory compliance program for FERC reliability standards, providing the framework and key elements of the Department's Internal Compliance Program and describing the responsibilities of the Department's officers and employees. The program incorporates a compliance framework of five interdependent elements, including policies and operating procedures, communication and training, assessment, processes for addressing and remedying compliance concerns, and periodic operating division review, and is designed to ensure compliance and prevent, detect, and correct non-compliance.

Regulatory Affairs conducts assessments on both a regular and periodic basis. Assessments may be performed internally or by external consultants. Regulatory Affairs uses risk assessment to determine when a periodic assessment

should occur and to determine FERC reliability standards to evaluate in the assessment. Risk criteria include substantially complex standards, standards with a Department compliance violation history, or standards affected by changes in Department operational practices and/or personnel. Regular assessments occur triennially and annually. Regulatory Affairs engages a consultant to perform the triennial assessment for both due diligence and independence, and to aid Department preparation for its regulatory compliance audit. Annual assessments occur as part of the Department's self-certification process.

The Western Electricity Coordinating Council ("WECC") audits the Department triennially; WECC completed its last audit of the Department in 2017. An 18-member WECC Audit Team reviewed Department compliance for 23 reliability standards (13 Operations and Planning Standards and ten Cyber Security Standards), which comprise 49 individual requirements. Consistent with the Electric Reliability Enterprise Risk-Based Compliance Monitoring and Enforcement Program, WECC performed an Inherent Risk Assessment of the Department. The results of the Inherent Risk Assessment identified the standard scope for audit, about a quarter of the nearly 90 reliability standards applicable to the Department.

The WECC Audit Team found no potential non-compliance in its review of the Operations and Planning Standards and identified potential non-compliance ("PNC") of eight requirements associated with the Cyber Security Standards. In 2018, WECC Enforcement resolved five PNCs through issuance of three Compliance Exceptions and two Expedited Settlement Agreements. A Compliance Exception is a zero-penalty disposition and will be excluded from the Department's official compliance record, while an Expedited Settlement Agreement is used to address lower-risk events of non-compliance. The Department expects the final disposition of the remaining three PNCs to occur in 2019. The Department completed mitigation work to address possible security deficiencies in 2018.

Regulatory Affairs conducts Standard Assurance Projects to ensure Department compliance associated with regulatory and operational change. Regulatory Affairs, together with the responsible Department operating divisions, establishes structured and coordinated processes to ensure Department compliance with prior enforcement obligation for new standards infrastructure, systems, or contractual obligations. Recent Standard Assurance Projects included the new Denny Substation, the Department's initiative to contract with the CAISO for Reliability Coordinator services, new standard implementation for CIP-013-1 Cyber Security—Supply Chain Risk Management, and a contract with the Bonneville Power Administration ("BPA") to implement security enhancements for the BPA Boundary switchyard. Although BPA owns the switchyard, both BPA and the Department own equipment in the switchyard. The security enhancements work to reduce risk of unauthorized equipment access, software vulnerabilities, and cyber incidents..

Federal Energy Market Legislation. Section 222 of the Federal Power Act prohibits electric energy market manipulation. The catalyst for these regulations was the market manipulation associated with the 2000-2001 Western energy crisis. The regulations and rules broadly apply to and affect municipal utilities such as the Department. The Department requires annual training for employees with responsibilities associated with the purchase and sale of energy and transmission, finance/risk management, and regulatory compliance.

Federal legislation allows the Commodity Futures Trading Commission to regulate clearing and exchange requirements for the purchase and sale of commodity derivatives, including energy derivatives, which legislation affects entities that transact with municipal utilities.

DEPARTMENT FINANCIAL INFORMATION

Historical Sales

Residential customers make up roughly one-third of total customer sales. Retail power sales in the Department's service area are most affected by economic growth and weather conditions, mainly temperature. Annual peak load occurs in the winter season, due to the use of electricity for residential space heating. Short winter days also increase the consumption of power for both residential and nonresidential lighting. Increased load on hot summer days is due to nonresidential air conditioning. Summer peak load is well below winter peak load.

Table 5 shows that the number of residential and non-residential customers has been increasing during the last five years, at an average annual growth rate of 2.6%. Retail energy sales largely varied with weather between 2014 and

2018. After a 2% decrease in retail energy sales in 2015 due to unseasonably warm weather throughout most of the year, retail energy sales were flat in 2016, a cold 2017 drove retail energy sales up by 2%, and significantly warmer than normal weather during parts of 2018 drove sales down by almost 4%. Peak energy sales for the period 2014-2018 were 1,870 MW in January 2017 compared to the record peak load of 2,055 MW recorded in December 1990 due to unusually cold weather.

TABLE 5
RETAIL CUSTOMER ACCOUNTS, POWER SALES AND ENERGY REQUIREMENTS

	2014	2015	2016	2017	2018
Average Number of Customer Accounts ⁽¹⁾					
Residential	374,619	381,419	397,074	403,888	410,664
Non-Residential	40,437	41,391	50,258	50,608	50,859
Total Customer Accounts	415,055	422,810	447,333	454,496	461,523
Energy Sales (MWh) ⁽²⁾					
Residential	2,987,711	2,914,563	2,917,984	3,132,079	2,992,914
Non-Residential	6,352,873	6,242,931	6,262,454	6,276,580	6,081,148
Total Energy Sales	9,340,584	9,157,494	9,180,438	9,408,659	9,074,062
Peak Demand (MW)	1,867	1,689	1,785	1,870	1,764
Energy Requirements (MWh)					
Total Energy Sales	9,340,584	9,157,494	9,180,438	9,408,659	9,074,062
Energy used in Operation	29,717	25,195	24,912	26,691	25,642
System Losses ⁽³⁾	541,323	504,533	491,233	537,750	573,525
Total Energy Requirements ⁽⁴⁾	9,911,624	9,687,222	9,696,583	9,973,100	9,673,229

(1) Beginning in September 2016, the Department began recording Service Agreements rather than customer accounts as part of the implementation of the new retail electric billing system. One customer account can have several Service Agreements for the different types of services. Service Agreements determine how the Department and SPU charge customers for services provided. No revisions were made to prior year customer counts.

(2) Amounts include an allocation for the net change in unbilled revenues.

(3) Includes transmission and distribution losses.

(4) Firm energy required in the Department's service area.

Source: *Seattle City Light Department, Accounting Division*

Largest Customers

Table 6 provides a list of the Department’s ten largest customers in 2018.

TABLE 6
TOP TEN CUSTOMERS⁽¹⁾

Customer	Customer Profile	Annual Dollars Billed	% Total Retail Revenue
University of Washington	Higher Education	\$ 29,156,237	3.36%
Nucor Corporation	Steel Manufacturer	26,660,248	3.07%
Boeing Company	Airplane Manufacturer	14,607,676	1.68%
King County	Government	10,895,798	1.25%
Sabey Corporation	Developer	9,798,025	1.13%
Ardagh	Building Materials Manufacturer	7,284,232	0.84%
City of Seattle ⁽²⁾	Government	7,010,423	0.81%
Martin Selig	Developer	5,186,568	0.60%
Century Link	Telecom	5,566,069	0.64%
2001 Sixth	Data Center	5,222,741	0.60%
Total		\$ 121,388,017	13.97%

(1) Beginning in September 2016, the Department began recording Service Agreements rather than customer accounts as part of the implementation of the new retail electric billing system. One customer account can have several Service Agreements for the different types of services. Service Agreements determine how the Department and SPU charge customers for services provided. No revisions were made to prior year customer counts. In 2018, the Department changed its method of reporting its top ten customers to define a customer based on a specific Service Agreement, resulting in some differences from top ten reports published in previous years.

(2) Includes street lighting, which covers both the costs to provide electricity to street lights and the costs to install, service, repair, and replace street lights.

Source: *Seattle City Light Department, Finance Division*

Financial Policies

In 2010, the City Council established revised financial policies and additional parameters for the RSA within the Light Fund. The financial policies include three main elements: (i) additional parameters for the funding, operation, and expenditure of amounts in the RSA, together with the creation of automatic rate surcharges to replenish the RSA, (ii) a rate-setting guideline to maintain debt service coverage, and (iii) a requirement for revenue funding a portion of the Department’s capital program. Each provision is discussed in greater detail below.

Rate Stabilization Account. The RSA is drawn down to supplement revenues when surplus power sales revenues are below the budgeted amount (due to low water or lower wholesale prices, for example), and deposits are made to the RSA if surplus power sales exceed expectations. The financial policies specify the target size of the RSA between \$100 million and \$125 million and authorize the collection of a temporary automatic surcharge on electric rates in the event the RSA drops to \$90 million or below. Pursuant to City ordinance, the City Council is required to take action to bring the RSA balance down to \$125 million within a period of 12 or fewer months if, at any time, the balance exceeds \$125 million. See “—Retail Rates—Rate Changes 2011-2019” and “Security for the Bonds—Rate Stabilization Account.”

The RSA has been in use since January 1, 2011. The RSA balance of \$89.1 million in June 2016 fell below the surcharge trigger of \$90 million, which caused the automatic implementation of a 1.5% surcharge on August 1, 2016. The surcharge currently remains in place. The RSA balance is currently forecasted to fall below the \$80 million threshold at the end of Q3 2019, which will trigger an additional 1.5% surcharge effective November 1, 2019. See “Department Financial Information—Expectations for 2019 Operating Results.”

TABLE 7
AUTOMATIC SURCHARGES

RSA Balance	Action
Less than or equal to \$90 million but greater than \$80 million	Automatic 1.5% surcharge
Less than or equal to \$80 million but greater than \$70 million	Automatic 3.0% surcharge
Less than or equal to \$70 million but greater than \$50 million	Automatic 4.5% surcharge
Less than or equal to \$50 million	City Council must initiate rate review within 45 days and determine actions to replenish RSA to \$100 million within 12 months

The 2019-2024 Strategic Plan includes a transition to less dependence on sales of surplus wholesale power that aligns with lower expected net wholesale volumes and market prices. The reduction is being implemented gradually over the period 2013-2022. See “Seattle City Light Department—2019-2024 Strategic Plan.”

Debt Service Coverage. The Department’s financial policies require setting rates designed to achieve a debt service coverage ratio (Net Revenue divided by Debt Service) of 1.80x based on the annual Department budget. See Table 12—Historical Debt Service Coverage. The Bond Ordinance requires that gross revenues be sufficient to pay the Department’s maintenance and operation expenses and provide for the payments required to be made into the Parity Bond Fund.

Funding of Capital Improvement Program. The Department’s policy is to fund its CIP so that on average, over the term of any given six-year CIP, approximately 40% of the expenditures will be funded with cash from operations, including contributions to fund connections or extensions. The percentage of cash from operations available to fund the CIP in a given year varies, depending on the Department’s revenues and expenses. See “Capital Requirements—Financing Plans.”

City Investment Pool

The City’s Finance Department invests the Department’s funds. See “The City of Seattle—Investments” and Appendix C—2018 Audited Financial Statements of the Department—Note 5. The City’s Director of Finance is authorized to make loans to individual funds participating in the City’s common investment portfolio (the “Investment Pool”), including the Light Fund, by carrying such funds in a negative cash position for a period of up to 90 days, or for a longer period upon approval by the City Council by ordinance, to the extent such loans can be supported prudently by the Investment Pool and the borrowing fund is reasonably expected to be able to repay the loan. Such loans bear interest at the Investment Pool’s rate of return. Currently there are no Investment Pool loans to the Department. However, the current forecast indicates that short-term borrowing will be needed in September and October 2019, which will be repaid with the proceeds of the 2019A Bonds. See “The City of Seattle—Investments—Interfund Loans.”

Taxation and Intergovernmental Payments

The Department pays a utility tax to the City equal to 6% of Gross Revenues from retail sales, less certain adjustments. The proceeds of this tax are deposited into the City’s General Fund. The City Charter does not permit the Department to pay taxes to the City’s General Fund “until ample provision has been made for the servicing of the debts and obligations of the utility and for necessary betterments and replacements for the current year.” A State public utility tax is paid at a rate of 3.8734% of Gross Revenues from sales within the State, less certain adjustments.

Certain contractual payments are made to Pend Oreille and Whatcom Counties for services rendered by these jurisdictions where the Department has generating facilities. In addition, under the terms of franchise agreements with several suburban cities, the Department makes monthly payments to the cities of Shoreline, Burien, Lake Forest Park, SeaTac, and Tukwila (the “Franchise Cities”) in amounts ranging from 4% to 6% of the revenue from rates charged to customers residing in those cities. The Department is in the process of negotiating a franchise agreement with the County for the unincorporated service area. See “—Retail Rates—Rates for Customers Outside the City of Seattle.”

The Department incorporates expected payments to the suburban cities into the retail rates that it charges retail customers residing in those cities. See “—Retail Rates.”

Retail Rates

Rate Setting. The City Council has exclusive jurisdiction with respect to establishing and revising the Department’s retail rates. State law requires that rates be fair, nondiscriminatory, and fixed to produce revenue that is adequate to pay operation and maintenance expenses of the Department and to meet all debt service requirements payable from such revenue. In its retail rate-setting capacity, the City Council is not subject to control by the Washington Utilities and Transportation Commission, but it is subject to certain rate-making provisions of the Public Utility Regulatory Policies Act of 1978 (“PURPA”). The Department has never been cited for failing to comply with PURPA, and believes that it is operating in compliance with PURPA’s requirements.

Since 1980, the City Council has conducted periodic reviews of the Department’s rate levels and rate structure, normally at intervals of two or three years. In the course of its rate reviews, the City Council holds public meetings to consider the Department’s proposed operating budget, capital improvements plan, load forecast, and resource plans. Based on these planning documents, as approved by the City Council, the Department’s staff estimates the Department’s revenue requirements and develops a rate proposal that is expected to produce the required amount of revenue and will allocate the revenue requirement among the various rate classes in accordance with adopted City policies. The City Council makes final decisions regarding rates through passage of a rate ordinance.

The current rate-setting objectives recommended by the Review Panel include maintaining transparency so that customers easily understand what services they are paying for, establishing rates sufficient to meet the annual revenue requirement, maintaining cost-based rates that are stable and predictable, encouraging the efficient use of resources needed to provide electrical service, designing rates that reflect the City’s Climate Action Plan with the goal of decarbonization, maintaining affordable rates for all customers including discounted rates for qualified low-income residential customers, and providing for customer choice in rates and billing options to reflect the diversity of customers’ energy needs and interest. The Department has a rate redesign initiative underway with the goal of meeting these objectives and providing customers a variety of pricing programs and pilots that will empower customers to manage how they consume and pay for the energy they need. The Department’s rates for 2019 and 2020 were approved by the City Council on November 19, 2018.

Automatic BPA Rate Pass-Through. The City Council passed an ordinance in 2001 that allows the Department to pass through to its customers the financial impact of any increase or decrease in rates charged by BPA. The pass-through was amended by City Council ordinance in 2013 to clarify that the pass-through applies to both power and transmission rate changes. The Department uses forecast values for future BPA costs when it sets retail rates. When final BPA rates/costs are adopted, any differences in costs will be passed through to the Department’s customers via a per-kWh credit or charge. These rate changes take effect without passage of a new ordinance by the City Council. Current BPA rates are effective through September 2019. BPA recently released its record of decision for its 2019 FFY rates and the Department’s specific impacts included no increase to power rates and a 3.18% increase to transmission rates. In addition, the volume of Block sales that the Department purchases will decline by approximately 3%, resulting in decreased power costs. Per the terms of the BPA rate pass-through, this translates into a rate decrease of 0.19 cents per kWh on all retail energy charges that will become effective November 1, 2019. See “Power Resources and Cost of Power—Purchased Power Arrangements.”

TABLE 8
RATE CHANGES, 2010-2019

Effective Date	Percent Change	Type
January 1, 2010	13.8%	Base Rate Increase
May 1, 2010 ⁽¹⁾	4.5%	RSA Surcharge
October 1, 2010	0.5%	BPA Pass-Through
January 1, 2011	4.3%	Base Rate Increase
January 1, 2012	3.2%	Base Rate Increase
January 1, 2013	4.4%	Base Rate Increase
October 1, 2013	1.2%	BPA Pass-Through
January 1, 2014	5.6%	Base Rate Increase
January 1, 2015	4.2%	Base Rate Increase
October 1, 2015	1.0%	BPA Pass-Through
January 1, 2016	4.9%	Base Rate Increase
August 1, 2016 ⁽²⁾	1.5%	RSA Surcharge
January 1, 2017	5.6%	Base Rate Increase
October 1, 2017	-1.6%	BPA Pass-Through
January 1, 2018	5.6%	Base Rate Increase
January 1, 2019 ⁽³⁾	5.8%	Base Rate Increase
November 1, 2019 ⁽⁴⁾	-1.9%	BPA Pass-Through
January 1, 2020 ⁽⁵⁾	5.4%	Base Rate Increase

(1) Temporary surcharge to help initially fund the RSA; lifted as of December 31, 2010.

(2) Temporary surcharge effective until the quarter-end RSA balance is \$100 million or more. The surcharge rate remains in effect. See “— Financial Policies—Rate Stabilization Account.”

(3) Reflects rates currently in effect.

(4) Anticipated BPA pass-through.

(5) Approved by City Council on November 19, 2018.

Rates for Customers Outside the City of Seattle. The Department provides electric service to the residents and businesses in the Franchise Cities and unincorporated parts of the County under individual franchise agreements. The agreements grant the Department a non-exclusive franchise to operate within the right-of-way owned by the Franchise Cities and the County, and establish terms and conditions under which the Department works with the Franchise Cities and the County on a variety of related issues, including rates as established by the City Council, fees, and operational requirements. Rates for Department customers in the Franchise Cities and unincorporated parts of the County are up to 8% higher than rates for customers located within the Seattle city limits. The exact rate difference varies and depends on the terms of each franchise agreement.

Fifteen-year franchise agreements are currently in place for all five Franchise Cities. Recently renewed agreements expire in 2029 (Shoreline) and 2030 (Lake Forest Park, SeaTac, and Burien), while one (Tukwila) expired in March 2018. Tukwila’s franchise renewal discussions are ongoing; Tukwila and the Department have agreed to continue services under the existing agreement until a new agreement is reached, which is not expected during 2019. The Department has two franchise agreements with the County that have expired, but services are continuing to be provided to those unincorporated areas under the expired contracts. The Department is in negotiations with the County to renew its expired agreements. The Franchise Cities represent approximately 85% of the Department’s retail power sales outside the City but within the service area; the unincorporated areas of the County represent approximately 15%.

The franchise agreements include provisions for payment for service levels that exceed the standard levels normally provided by the Department. The Department currently collects revenue from customers in Shoreline and Burien to reimburse the capital costs of seven completed undergrounding projects: five in Shoreline and two in Burien. These

undergrounding charges will be in effect for approximately 25 years, or until the Department has been reimbursed with interest for the capital cost of the projects.

The Department's service area also includes portions of the cities of Normandy Park and Renton, which represent less than 1% of sales outside the City's boundaries. These areas are charged the suburban rates but do not have franchise agreements with the Department.

Voluntary Green Power Program. Pursuant to State law, since 2002 the Department has provided customers the option of making voluntary payments to fund new renewable resources. Currently, there is one voluntary green power program for residential and non-residential customers, Green Up, which allows customers to purchase green power at a retail price of \$15 per MWh. Green Up revenues are used to acquire RECs, to administer and market the program, and to invest in local solar projects and education programs through Green Up Grants. Monthly payments for residential customers are \$3, \$6, or \$12 (for 200, 400, or 800 kWh per month). Suggested (marketed) monthly payments for non-residential customers are \$15 or \$150, although non-residential customers may participate at any level they choose. They may also purchase RECs separately from their bill, for example, to earn LEED (Leadership in Energy and Environmental Design) credits, or to purchase green power for events. As of December 31, 2018, 12,359 customers participated in Green Up through payments on their bills. Green Up revenue in 2018 totaled \$1.25 million. REC purchases on behalf of Green Up customers totaled 83,333 MWh in 2018. Green Up is certified and annually audited by Green-e, a clean energy certification program offered by the non-profit Center for Resource Solutions.

Rate and Bill Comparisons. Table 9 shows average rates and bills paid by the various customer classes, and Table 10 compares annual amounts paid by the Department's customers and the customers of neighboring utilities. In addition to being competitive within the Puget Sound region, the Department's rates are among the lowest of large cities in the United States, according to a comparison of the largest 25 cities based on the Edison Electric Institute Winter 2019 Typical Bills and Average Rates Report and direct survey.

TABLE 9
AVERAGE RATE IN CENTS PER KWH AND MONTHLY BILLS⁽¹⁾
(AS OF JUNE 30, 2019)

	Average Revenue in Cents per kWh							Average Monthly Bills (\$)						
	City Standard	City Network ⁽²⁾	Burien	Lake Forest Park	SeaTac and Shoreline	Suburban ⁽³⁾	Tukwila	City Standard	City Network ⁽²⁾	Burien	Lake Forest Park	SeaTac and Shoreline	Suburban ⁽³⁾	Tukwila
Residential														
500 kWh per month	11.0	(4)	11.6	11.8	11.8	11.0	11.7	55	(4)	58	59	59	55	59
1,000 kWh per month	12.1		12.7	13.0	13.0	12.1	12.9	121		127	130	130	121	129
2,000 kWh per month	12.7		13.3	13.6	13.6	12.7	13.5	254		266	272	271	254	270
Small General Service														
10,000 kWh per month (40kW)	10.0	(4)	10.3	10.5	10.5	10.0	10.5	1,003	(4)	1,033	1,053	1,052	1,003	1,048
Medium General Service														
20,000 kWh per month (60kW)	8.8	11.7	9.4	9.5	9.5	8.8	9.5	1,762	2,349	1,871	1,906	1,904	1,762	1,901
200,000 kWh per month (500kW)	8.6	11.3	9.2	9.3	9.3	8.6	9.3	17,230	22,655	18,305	18,640	18,620	17,230	18,595
Large General Service														
400,000 kWh per month (1,000kW)	8.5	10.6	8.9	9.2	9.2	8.4	9.1	34,047	42,576	35,753	36,875	36,721	33,670	36,239
1,800,000 kWh per month (5,000kW)	8.6	10.9	9.0	9.3	9.3	8.5	9.2	155,064	195,616	162,859	167,945	167,249	153,368	165,073
High Demand General Service														
6,000,000 kWh per month (20,000kW)	8.3	(5)	(5)		(5)	(5)	9.0	496,221	(5)	(5)		(5)	(5)	539,503
18,000,000 kWh per month (60,000kW)	8.3						9.0	1,488,663						1,618,509

(1) The Department's rates include municipal taxes and a 1.5% surcharge effective August 1, 2016.

(2) City Network includes Medium and Large General Service customers in downtown Seattle that are served by an underground, interconnected distribution network, which provides a higher level of reliability than typical radial distribution. City Network's higher rates reflect the higher costs of building and maintaining this type of distribution service.

(3) All jurisdictions outside the City of Seattle, except the cities of Burien, Lake Forest Park, SeaTac, Shoreline, and Tukwila.

(4) Residential and Small General Service customers receiving network service are charged City standard rates.

(5) All High Demand General Service customers are located in Seattle or Tukwila.

Source: Seattle City Light Department, Finance Division

TABLE 10
ANNUAL BILL COMPARISONS WITH OTHER PUGET SOUND UTILITIES
(AS OF JUNE 30, 2019)

<u>Monthly Use</u>		Seattle	Puget Sound	Snohomish	Tacoma
<u>kWh</u>	<u>kW</u>	<u>City Light (\$)⁽¹⁾</u>	<u>Energy (\$)⁽²⁾</u>	<u>County PUD (\$)⁽³⁾</u>	<u>Power (\$)⁽⁴⁾</u>
Residential					
100		173	204	205	299
500		659	639	662	684
1,000		1,455	1,279	1,325	1,166
3,000		4,637	3,936	3,974	3,092
Small General Service					
300	1	361	491	488	559
3,000	10	3,611	3,791	3,593	3,106
12,000	40	14,443	14,789	13,942	11,597
Medium General Service					
150,000	500	160,860	182,936	167,233	136,687
200,000	500	206,760	221,641	211,626	165,077
360,000	900	372,168	397,879	379,733	296,389
Large General Service					
300,000	1,000	317,549	364,528	332,975	272,437
1,000,000	5,000	1,132,695	1,430,208	1,214,979	1,074,540
2,500,000	7,500	2,609,138	2,918,741	2,709,579	2,179,146
High Demand General Service					
6,000,000	20,000	5,954,652	7,264,999	6,631,155	5,430,960
18,000,000	60,000	17,863,955	21,792,308	19,890,483	16,291,008
24,000,000	60,000	22,928,207	26,436,914	25,217,619	19,697,832
Last Rate Change		1/1/19	5/1/19	10/1/2017	4/1/2019

(1) The Department's rates include municipal taxes and a 1.5% surcharge effective August 1, 2016.

(2) Puget Sound Energy's Large Demand General Service is compared to the Department's Medium, Large, and High Demand General Service. Bills are adjusted by 6% to reflect city taxes.

(3) Snohomish PUD's General Service, Medium Load, is compared to the Department's Medium, Large, and High Demand General Service. Bills are adjusted by 6% to reflect the City of Everett's utility tax rate.

(4) Tacoma Power's Small General Service is compared to the Department's Small General Service. Electric rates include municipal taxes.

Source: *Seattle City Light Department, Finance Division*

Billing and Collection Processes

The City's utility billing function is co-managed by both SPU and the Department. SPU provides customer service through the call center and walk-in center. The Department operates and manages the billing system. SPU and the Department bill and reimburse each other for these services.

The Department currently bills the majority of its residential customers and some small commercial customers bi-monthly and all other customers monthly. All bills are due within 21 days of receipt.

The Department has established various payment programs for its customers, including a levelized payment program to allow for monthly payments and an Automatic Bill Payment program. The majority of the customers on the

levelized payment program are billed bi-monthly. An exception is made when a customer is enrolled in both the levelized payment plan and the automatic bill payment program, in which case all of the billed amount is drafted from the customer's bank account by the bill due date.

If the customer is not able to pay the entire amount of the billed charges by the due date, the Department allows the customer to make payment plans. Customers also have the option to either make a one-time online payment or sign up for recurring automatic online payments using debit/credit cards or bank account information, as long as the account is in good standing.

Accounts receivable write-offs by the Department in 2018 were \$9.8 million, or 1.13%, of retail electrical energy sales revenue, compared to write-offs of \$5.4 million, or 0.61%, in 2017. As permitted by State law, the Department's collection policy provides for disconnection of power for nonpayment of amounts due the Department.

The current billing system was implemented in 2016 after a series of delays. The City recently received a lawsuit alleging improper billings of Department customers and seeking class action certification on behalf of similarly situated customers. See "Litigation—Other Litigation."

Historical Operating Results 2014-2018

Table 11 presents information on operating results for the period 2014-2018, along with revenue available for debt service. Revenue available for debt service is then used in Table 12 to calculate the debt service coverage ratio in each of those years.

The financial statements of the Light Fund as of and for the fiscal year ended December 31, 2018, included herein as Appendix C, have been audited by Baker Tilly Virchow Krause, LLP ("Baker Tilly"), independent accountants, as stated in its report appearing herein. The City has not requested that Baker Tilly provide consent for inclusion of its audited financial statements in this Official Statement, and neither the City's independent auditors nor the State Auditor nor any other independent accountants have compiled, examined, or performed any procedures with respect to this Official Statement or any financial information contained herein, nor have they expressed any opinion or any other form of assurance on such information, and they assume no responsibility for, and disclaim any association with, this Official Statement and such information.

TABLE 11
SUMMARY OF HISTORICAL OPERATING RESULTS
(\$000)

	2014	2015	2016	2017	2018
OPERATING REVENUES:					
Retail power revenues	\$ 720,777	\$ 736,582	\$ 788,029	\$ 875,235	\$ 868,611
Short-term wholesale power revenues	96,815	61,219	62,909	60,868	61,025
Other power-related revenues ⁽¹⁾⁽²⁾⁽³⁾	50,825	36,833	32,558	35,791	45,923
Transfers from/(to) rate stabilization account ⁽⁴⁾	(4,369)	23,363	(142)	(2,264)	(3,518)
Other operating revenues	22,395	24,860	19,821	20,080	19,573
Total Operating Revenues	\$ 886,443	\$ 882,857	\$ 903,175	\$ 989,710	\$ 991,614
OPERATING EXPENSES:					
Long-term purchased power—Bonneville and other	\$ 214,262	\$ 213,621	\$ 219,795	\$ 224,857	\$ 217,765
Short-term wholesale power purchases	14,912	26,812	15,048	15,223	18,524
Other power expenses	65,843	59,597	60,052	65,358	70,243
Transmission ⁽⁵⁾	52,833	54,289	53,488	52,514	54,200
Distribution	59,753	65,052	63,522	60,402	61,927
Customer service	37,621	38,302	42,636	49,390	55,723
Conservation	27,271	29,122	30,217	32,505	32,945
Administrative and general ⁽⁶⁾	75,774	92,108	104,998	128,687	96,189
Taxes	80,007	81,114	85,202	94,765	91,766
Depreciation and amortization	105,813	112,000	120,808	128,768	123,956
Total Operating Expenses	\$ 734,089	\$ 772,017	\$ 795,766	\$ 852,469	\$ 823,238
Net Operating Revenue ⁽⁷⁾	\$ 152,354	\$ 110,840	\$ 107,409	\$ 137,241	\$ 168,376
Adjustments to Net Operating Revenue ⁽⁸⁾					
City Taxes ⁽⁹⁾	\$ 44,608	\$ 45,534	\$ 48,456	\$ 54,414	\$ 53,410
Depreciation and amortization	105,813	112,000	120,807	128,768	123,956
Depreciation and amortization included in operating and maintenance expenses ⁽¹⁰⁾	24,679	27,132	29,871	32,412	32,996
Pension expense ⁽¹¹⁾	-	27,912	40,797	37,055	21,985
Pension contributions ⁽¹¹⁾	-	(24,883)	(25,331)	(23,714)	(24,657)
Valuation on exchange power, net ⁽²⁾⁽³⁾	271	634	16	20	875
BPA Conservation Augmentation/Agreement revenue ⁽¹²⁾	(722)	(946)	(1,233)	(1,592)	(1,884)
Investment income ⁽¹³⁾	5,430	6,746	7,342	7,422	10,946
Non-cash expenses ⁽¹⁴⁾	1,935	(320)	1,806	2,362	841
Other ⁽¹⁵⁾	7,004	1,943	1,988	2,405	1,564
Total Adjustments	\$ 189,018	\$ 195,752	\$ 224,519	\$ 239,552	\$ 220,032
Net Revenue Available for Debt Service	\$ 341,372	\$ 306,592	\$ 331,928	\$ 376,793	\$ 388,408

NOTES TO TABLE:

- (1) Includes conservation and renewable credits under the power sales contract with BPA, the recognition of payments from BPA for the purchase of conservation savings, revenue from deliveries of power to Pend Oreille PUD pursuant to the Boundary Project's FERC license, and other energy credits.
- (2) Effective January 1, 2016, the Department adopted GASB Statement No. 72, *Fair Value Measurements and Application*. Non-monetary transactions are measured at fair value and are valued at market.
- (3) Includes significant activity for the valuation of energy delivered under seasonal exchanges, basis sales, and other power exchange contracts. Energy exchanges have both revenue and expense components; therefore, a net revenue or expense adjustment is made for a given year.
- (4) Transfers from/(to) the RSA in accordance with Ordinance 123260, primarily to address fluctuations in surplus power sales.
- (5) Includes revenue from the short-term sale of excess transmission capacity.
- (6) 2016 increase is primarily the result of an \$11.3 million increase in pension expense due to the actual performance of plan investments compared to the expected rate of return.
- (7) Operating income per audited financial statements.
- (8) Significant non-cash transactions are adjusted from Net Operating Revenue to calculate Revenue Available for Debt Service. Furthermore, some types of revenue in addition to Operating Revenue are included to calculate Revenue Available for Debt Service. These adjustments are listed in the remaining lines in this table, and are unaudited.
- (9) City taxes are excluded because the lien of such taxes on revenue is junior to debt service in accordance with the Bond Ordinance.
- (10) The majority of the depreciation and amortization (non-cash) expenses included in Operating and Maintenance Expense are for amortization of conservation expenses that are recognized over a 20-year period.
- (11) Pension expense is the amount recorded for compliance with GASB Statement No. 68, implemented in 2015, a non-cash item. Pension contributions are the Department's cash contributions to the Seattle City Employees' Retirement System.
- (12) Payments received for conservation measures are initially recorded as unearned revenue. The adjustment represents the amount of revenue amortized and recognized over future periods for financial reporting, a non-cash transaction.
- (13) Investment income is not included in Total Revenue in this table; therefore, an adjustment is made to Net Operating Revenue, consisting primarily of interest earnings from the City's cash pool and interest receipts from suburban underground charges. This amount excludes unrealized gains and losses, which are non-cash adjustments.
- (14) Effective 2018, includes adjustment for GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, in addition to primarily claim expenses and capital project expenditures from prior years that were determined not to be capital expenditures.
- (15) Includes proceeds from sale of properties, principal receipts from suburban underground charges from local jurisdictions, and miscellaneous items. In 2014, the line item labeled Other included a one-time true-up downward adjustment to unbilled revenue of \$4.1 million, a non-cash transaction recorded in 2014.

Source: Audited Financials through Net Operating Revenue; the remainder is unaudited information; Seattle City Light Department, Accounting Division

Historical Debt Service Coverage. The Bond Ordinance does not define a "coverage requirement" beyond what is necessary to pay all Operating and Maintenance Expense, to pay into the Parity Bond Fund the amounts required to be applied to the payment of debt service on the Outstanding Parity Bonds, to pay into the Junior Lien Debt Service Fund the amounts (if any) required to be paid into that fund in respect of outstanding Junior Lien Bonds, and to pay all other indebtedness to which revenues of the Light System have been pledged. See "Security for the Bonds—Rate Covenant" and Appendix A—New Money Bond Ordinance—Section 17(a)(ii). The test for the issuance of Future Parity Bonds requires delivery of a Parity Certificate demonstrating coverage of Net Revenue equal to 125% of Maximum Annual Debt Service on all Parity Bonds then outstanding plus the proposed series of Future Parity Bonds, with certain permitted adjustments. See "Security for the Bonds—Future Parity Bonds" and Appendix A—New Money Bond Ordinance—Section 18(a)(ii).

Historically, the ordinances authorizing bonds have not provided a definition for the phrases describing operating and maintenance expense as used in those ordinances in the definitions of Net Revenue, the rate covenant, and the Parity Conditions. Nonetheless, the Department has historically calculated the operating expenses for these purposes in accordance with applicable Generally Accepted Accounting Principles ("GAAP"). For purposes of clarification, beginning in 2017 ordinances authorizing the issuance of Parity Bonds, including the Bond Ordinance, have adopted a definition for the term "Operating and Maintenance Expense" that is consistent with its historical practice. See Appendix A—New Money Bond Ordinance—Section 1.

The debt service coverage calculations set forth below are intended to reflect compliance with the rate covenant and the Future Parity Bond covenant contained in the Bond Ordinance and described under “Security for the Bonds” and for no other purpose. Such calculations reflect the application of non-recurring or extraordinary accounting transactions permitted under the Bond Ordinance and GAAP.

In providing a rating on the Bonds, certain rating agencies may have performed independent calculations of coverage ratios using their own internal formulas and methodology, which may not reflect the provisions of the Bond Ordinance. See “Other Bond Information—Ratings on the Bonds.” The City makes no representation as to any such calculations, and such calculations should not be construed as a representation by the City as to past or future compliance with any bond covenants or the availability of particular revenues for the payment of debt service, or for any other purpose.

TABLE 12
HISTORICAL DEBT SERVICE COVERAGE
(\$000)

	2014	2015	2016	2017	2018
Net Revenue Available for Debt Service ⁽¹⁾	\$ 341,372	\$ 306,592	\$ 331,928	\$ 376,793	\$ 388,408
Debt Service on Parity Bonds ⁽¹⁾	184,756	189,573	196,548	203,264	212,427
Debt Service Ratio-Times Covered on Parity Bonds ⁽²⁾	1.85	1.62	1.69	1.85	1.83

(1) Net of federal subsidy payments. See “Other Considerations—Federal Sequestration and Other Federal Funding Considerations.”

(2) Net Revenue Available for Debt Service (see Table 11) divided by Debt Service on Parity Bonds.

Source: *Seattle City Light Department, Accounting Division*

Management Discussion of Historical Operating Results 2014-2018

This section provides a discussion of operating results for the period 2014-2018, based on information in Tables 11 and 12, and an expanded discussion for the period 2017-2018, based on a summary of the Management’s Discussion and Analysis included in Appendix C—2018 Audited Financial Statements of the Department.

Summary 2014-2018. Retail revenues increased from \$720.8 million in 2014 to \$868.6 million in 2018, primarily due to the Department’s average system rate increases during this period (see “—Retail Rates”). This increase in retail revenues also reflects the increase in the number of customers, from 415,055 in 2014 to 461,523 in 2018 (customer counts were changed to Service Agreements with the implementation of the new billing system in 2016).

Net wholesale revenue (excluding bookouts) varied during this period, ranging from a high of \$88.6 million in 2014 to a low of \$39.2 million in 2015. This variability is primarily due to fluctuations in hydro volumes, wholesale power market prices, and retail load. The RSA has been in place since January 1, 2011, and less-than-budgeted net wholesale revenue in 2018, offset primarily by greater RSA rate surcharge revenue, resulted in a net cash transfer to the RSA from operating cash. An RSA rate surcharge of 1.5% has been in effect since August 1, 2016, as the RSA balance dropped below \$90.0 million at the end of June 2016, and currently remains in place. The RSA balance was \$96.9 million at the end of 2018. See “—Financial Policies—Rate Stabilization Account.”

Debt service on Parity Bonds increased from \$184.8 million in 2014 to \$212.4 million in 2018. Debt service coverage ranged from a high of 1.85x in 2014 and 2017 to a low of 1.62x in 2015, reflecting the effect of \$25.2 million lower than planned retail revenue. The debt service coverage for 2018 was 1.83x, higher than projected, primarily driven by significantly lower than planned O&M spending coming from both intentional spending reductions and a higher than planned volume of overhead costs allocated to capital. Lower O&M spending was partially offset by lower retail revenue, due in part to lower than planned retail sales. The Department’s financial policies require the Department to set electric rates designed to achieve a debt service coverage ratio of 1.80x, based on the annual Department budget. Table 12 shows that, historically, the Department was able to achieve this level of coverage except for years 2015 and 2016.

Billed retail sales decreased approximately 3.6% between 2017 and 2018, partially due to significantly lower heating load in 2018 compared to 2017. The majority of the change in the Department's billed retail sales from 2014-2018 is attributed to impacts of weather. On a weather-adjusted basis, retail sales are estimated to be relatively flat, showing only a small gradual decline over this time period. The number of customers has been growing significantly but the use per customer has been declining because of efficiencies including LED lighting, appliance standards, and improved building standards. The Department's robust conservation program is also contributing to the declining use per customer. See "Capital Requirements—Conservation." The Department's adopted 2018 retail sales forecast projects a gradual decline of retail sales over the next six years. See "Seattle City Light Department—2019-2024 Strategic Plan."

Operating Revenues—2018 vs. 2017. Retail revenues in 2018 were \$868.6 million, \$6.6 million or 0.8% lower than in 2017. Retail revenues increased because of a 5.6% average system rate increase effective January 1, 2018, and the 1.5% RSA rate surcharge effective August 1, 2016, but were offset by lower consumption due to warmer weather during January and the last two months of the year, resulting in lower overall retail revenues compared to 2017. The number of retail customers increased to 461,523 in 2018, a 1.5% increase from 2017.

Net wholesale revenue was \$49.9 million, a decrease of \$0.6 million, or 0.1% from 2017. Wholesale power sales were \$61.0 million in 2018, a decrease of \$0.2 million from 2017, whereas wholesale power purchases increased by \$3.3 million to \$18.5 million. The decrease in net wholesale revenue was influenced by lower generator availability during the second quarter and lower energy prices. These were offset by temporarily higher energy prices in October caused by a British Columbia pipeline explosion that positively affected net wholesale revenue.

Other power-related revenues, including valuation of power exchanges, increased by \$10.1 million to \$45.9 million. Other power-related purchases, including valuation of power exchanges, increased by \$9.2 million to \$20.7 million in 2018, resulting in net other power-related revenues of \$25.3 million in 2018, a net increase of \$0.9 million or 3.8% from net other power-related revenues of \$24.4 million in 2017. The net increase was due in part to additional ancillary contracts in 2018. In 2018, net transfers to the RSA unearned revenue account were \$3.5 million, the net effect of the RSA rate surcharge revenues, transfers from the RSA unearned revenue account for lower wholesale power revenues compared to budget, and interest earnings. In 2017, net transfers to the RSA were \$2.3 million, the result of similar comparable components with different amounts.

Revenues from other sources decreased slightly by \$0.5 million, totaling \$19.6 million in 2018.

Operating Expenses—2018 vs. 2017. In 2018, long-term purchased power (BPA and other) decreased by \$7.1 million to \$217.8 million, primarily due to changing to Block power purchases only, effective October 2017, and because of a higher Slice true-up credit compared to 2017.

Other power expenses, including generation, power exchanges, and other at \$70.2 million, were \$4.8 million higher. In 2017, higher generation costs were incurred primarily for an abandoned plan to replace the AC/DC electrical supply system at the Skagit Project's Ross dam, which did not recur in 2018. These were offset by higher power exchanges and other ancillary contracts. Transmission expenses, including wheeling, were \$54.2 million, an increase of \$1.7 million from 2017. See "Power Resources and Cost of Power—Department-Owned Resources—Skagit Project." Distribution expenses increased by \$1.5 million to \$61.7 million.

Other operating and maintenance expenses for customer service, conservation, and administrative and general ("A&G"), at \$184.9 million, decreased by \$25.7 million from 2017. Customer service expenses were higher by \$6.3 million, driven by higher bad debt expense for retail sales and sundry billings. Retail sales' customary collection activities and related late fees were modified for most of the year in response to billing concerns from customers after the new billing system was implemented in 2016. See "Litigation—Other Litigation." Normal collection activities resumed in November. Sundry billings experienced an increase in allowance for older aged receivables concerning time and material billings and pole attachment billings that have a slower review process by customers. Conservation expense increased by \$0.4 million.

A&G expense decreased a net \$32.5 million. A&G cost reductions of \$16.8 million combined with a \$15.7 million larger allocation of A&G costs to capital projects had the net effect of reducing A&G expense.

Cost reductions included a \$13.1 million lower annual adjustment to the net pension expense required by GASB Statement No. 68 (“GASB 68”) than was recorded in 2017 because of strong investment returns. Estimated expenses for claims/lawsuits and workers compensation decreased a combined \$7.2 million, based on the most recent actuarial report for respective estimated losses. General year-end estimated accruals were also lower by \$4.3 million. There were cost increases of \$7.8 million for higher general fund cost allocations, COLA salary adjustments, general plant maintenance, and other.

The higher A&G cost allocation of \$15.7 million was due to a different allocation process, with implementation of the new financial system in 2018 combined with an increase in the amount of capital work during the year.

Taxes in 2018 were \$91.8 million, a decrease of \$3.0 million from 2017. Higher taxes due to increased billed retail electric revenue were offset by favorable tax credits at the end of the year. Tax credits were higher for solar energy participants and for interdepartmental streetlights revenue allowed for the period January 2013-June 2017 from a recent State tax audit.

Depreciation and amortization, at \$124.0 million, decreased by \$4.8 million, due mainly to retirements and certain high depreciation assets transitioning to fully depreciated by the end of 2018.

Net Operating Revenue—2018 vs. 2017. Net operating revenue in 2018 was \$168.4 million, \$31.1 million higher than in 2017. Higher operating revenues, as noted above, combined with significantly lower operating expenses, particularly A&G, led to the increased net operating revenue compared to 2017.

Although not included in Table 11, changes in nonoperating revenues and expenses provide additional information on the financial condition of the Department.

Nonoperating revenues increased by \$4.3 million to \$17.6 million in 2018. The largest increase was for higher interest earnings totaling \$3.9 million because of a higher rate of return for the City cash pool, higher interest earnings on bond proceeds, and a lower unrealized loss fair value adjustment for pooled investments.

Nonoperating expenses, at \$83.4 million, were higher by \$8.0 million. Higher interest costs because of more bonds being outstanding in 2018, along with increased refunding loss amortization, were offset by a slight increase in interest charged to construction projects and higher bond premium amortization.

Capital contributions and grants increased by \$14.3 million to \$59.6 million in 2018. The increase was due to increased activity for pole attachment projects, increased large service connections, and related higher amperage fees charged, all due in part to the strong local economy. There were no capital grants in 2018.

Expectations for 2019 Operating Results

As of August 21, 2019, the full-year forecast indicates that the Department’s debt service coverage ratio is expected to be 1.87x, above the City Council-adopted financial policy target of 1.80x. Retail sales from base rates are expected to come in slightly lower than the level assumed for rate-setting purposes. However, this is offset by lower long-term purchased power costs, higher net power marketing revenue, and a reversal of uncollectible revenue written off in 2018. Low snowpack and drought conditions have significantly reduced the amount of surplus energy that the Department sells on the wholesale market. Combined generation volumes for the Skagit and Boundary Projects for the calendar year are forecasted to be 82% of the average of the past five years. Net wholesale revenue is forecasted to be \$14.8 million, \$40.2 million below the budgeted amount of \$55.0 million. This variance will be transferred from the RSA. As of June 30, 2019, the RSA balance was \$90.8 million. The 2019 reduction in the RSA balance, net of surcharge revenue, is expected to be \$24.4 million. The forecasted RSA 2019 year-end balance is \$71.1 million. There has been a 1.5% RSA surcharge in effect since August 1, 2016, and while there is considerable uncertainty associated with forecasting, the current forecast has the RSA balance dropping below \$80 million at the end of Q3 2019. If that occurs, it would trigger an additional 1.5% RSA surcharge in Q4 2019. The expected revenue from the RSA surcharges in 2019 is expected to be approximately \$16.4 million (\$14.4 million deposited into the RSA after reduction for taxes). See “—Financial Policies—Rate Stabilization Account.” Net income is expected to be approximately \$153.6 million.

Debt Service Requirements

As of September 20, 2019, the principal amount of Outstanding Parity Bonds totaled \$2,363,975,000 (including the Refunding Candidates). See “Security for the Bonds—Outstanding Parity Bonds.” Principal and interest payments due on the Department’s Outstanding Parity Bonds are shown in Table 13. See “Capital Requirements—Financing Plans” for a discussion of the Department’s future financing plans.

Outstanding Variable Rate Parity Bonds

As of September 20, 2019, the City has \$197,500,000 of variable rate Parity Bonds outstanding, including \$100,270,000 Municipal Light and Power Revenue Bonds, 2018B-1 and 2018B-2 (SIFMA Index) and \$97,230,000 Municipal Light and Power Revenue Bonds, 2018C-1 and 2018C-2 (SIFMA Index).

Subordinate Obligations

In the Bond Ordinance, the City has established a Junior Lien position and has reserved the right to issue Junior Lien Bonds (which term includes Junior Lien Payment Agreements and Junior Lien Reimbursement Obligations) in the future under certain conditions set forth in the Bond Ordinance. There are no currently outstanding Junior Lien Bonds. See “Security for the Bonds—Subordinate Lien Obligations.”

TABLE 13
DEBT SERVICE REQUIREMENTS

Year	Outstanding Parity Bonds ⁽²⁾			The 2019A Bonds			The 2019B Bonds			Total Parity Bonds		
	Principal	Interest ⁽³⁾⁽⁴⁾	Total	Principal	Interest	Total	Principal	Interest	Total	Principal	Interest ⁽³⁾⁽⁴⁾	Total
2019 ⁽¹⁾	\$ 119,410,000	\$ 111,338,015	\$ 230,748,015	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 119,410,000	\$ 111,338,015	\$ 230,748,015
2020	119,025,000	96,643,435	215,668,435	3,520,000	10,000,375	13,520,375	-	5,182,382	5,182,382	122,545,000	111,826,192	234,371,192
2021	94,040,000	92,834,871	186,874,871	3,250,000	10,269,750	13,519,750	21,795,000	6,468,875	28,263,875	119,085,000	109,573,496	228,658,496
2022	92,620,000	88,355,961	180,975,961	3,420,000	10,103,000	13,523,000	22,910,000	5,351,250	28,261,250	118,950,000	103,810,211	222,760,211
2023	93,695,000	83,796,851	177,491,851	3,595,000	9,927,625	13,522,625	24,085,000	4,176,375	28,261,375	121,375,000	97,900,851	219,275,851
2024	95,965,000	79,173,452	175,138,452	3,780,000	9,743,250	13,523,250	25,320,000	2,941,250	28,261,250	125,065,000	91,857,952	216,922,952
2025	84,425,000	74,425,498	158,850,498	3,975,000	9,549,375	13,524,375	26,615,000	1,642,875	28,257,875	115,015,000	85,617,748	200,632,748
2026	88,470,000	70,416,838	158,886,838	4,175,000	9,345,625	13,520,625	19,550,000	488,750	20,038,750	112,195,000	80,251,213	192,446,213
2027	86,080,000	66,131,849	152,211,849	4,390,000	9,131,500	13,521,500	-	-	-	90,470,000	75,263,349	165,733,349
2028	87,925,000	62,480,305	150,405,305	4,615,000	8,906,375	13,521,375	-	-	-	92,540,000	71,386,680	163,926,680
2029	82,090,000	58,896,589	140,986,589	4,850,000	8,669,750	13,519,750	-	-	-	86,940,000	67,566,339	154,506,339
2030	67,720,000	55,703,812	123,423,812	5,100,000	8,421,000	13,521,000	-	-	-	72,820,000	64,124,812	136,944,812
2031	70,360,000	52,905,707	123,265,707	5,365,000	8,159,375	13,524,375	-	-	-	75,725,000	61,065,082	136,790,082
2032	73,130,000	49,980,567	123,110,567	5,640,000	7,884,250	13,524,250	-	-	-	78,770,000	57,864,817	136,634,817
2033	76,035,000	46,937,688	122,972,688	5,925,000	7,595,125	13,520,125	-	-	-	81,960,000	54,532,813	136,492,813
2034	79,010,000	43,956,105	122,966,105	6,230,000	7,291,250	13,521,250	-	-	-	85,240,000	51,247,355	136,487,355
2035	82,145,000	40,917,082	123,062,082	6,550,000	6,971,750	13,521,750	-	-	-	88,695,000	47,888,832	136,583,832
2036	90,620,000	37,652,728	128,272,728	6,885,000	6,635,875	13,520,875	-	-	-	97,505,000	44,288,603	141,793,603
2037	80,490,000	34,147,925	114,637,925	7,240,000	6,282,750	13,522,750	-	-	-	87,730,000	40,430,675	128,160,675
2038	83,545,000	31,053,648	114,598,648	7,610,000	5,911,500	13,521,500	-	-	-	91,155,000	36,965,148	128,120,148
2039	86,720,000	27,843,242	114,563,242	8,000,000	5,521,250	13,521,250	-	-	-	94,720,000	33,364,492	128,084,492
2040	90,025,000	24,478,126	114,503,126	8,410,000	5,111,000	13,521,000	-	-	-	98,435,000	29,589,126	128,024,126
2041	79,480,000	21,375,838	100,855,838	8,840,000	4,679,750	13,519,750	-	-	-	88,320,000	26,055,588	114,375,588
2042	66,000,000	18,879,425	84,879,425	9,295,000	4,226,375	13,521,375	-	-	-	75,295,000	23,105,800	98,400,800
2043	68,715,000	16,616,500	85,331,500	9,775,000	3,749,625	13,524,625	-	-	-	78,490,000	20,366,125	98,856,125
2044	60,540,000	14,260,000	74,800,000	10,275,000	3,248,375	13,523,375	-	-	-	70,815,000	17,508,375	88,323,375
2045	53,815,000	12,300,900	66,115,900	10,800,000	2,721,500	13,521,500	-	-	-	64,615,000	15,022,400	79,637,400
2046	40,195,000	6,785,900	46,980,900	11,355,000	2,167,625	13,522,625	-	-	-	51,550,000	8,953,525	60,503,525
2047	28,420,000	1,448,400	29,868,400	11,935,000	1,585,375	13,520,375	-	-	-	40,355,000	3,033,775	43,388,775
2048	14,995,000	299,900	15,294,900	12,550,000	973,250	13,523,250	-	-	-	27,545,000	1,273,150	28,818,150
2049	-	-	-	13,190,000	329,750	13,519,750	-	-	-	13,190,000	329,750	13,519,750
Total	\$ 2,335,705,000	\$ 1,422,037,154	\$ 3,757,742,154	\$ 210,540,000	\$ 195,113,375	\$ 405,653,375	\$ 140,275,000	\$ 26,251,757	\$ 166,526,757	\$ 2,686,520,000	\$ 1,643,402,286	\$ 4,329,922,286

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- (1) Reflects full year of debt service.
- (2) Excludes the Refunded Bonds.
- (3) Reflects taxable rates on bonds issued as taxable bonds with a federal subsidy, but does not reflect the interest credit associated with those bonds. For a description of the effect of federal sequestration on these direct-pay tax credit bonds, see "Other Considerations—Federal Sequestration and Other Federal Funding Considerations."
- (4) Assumes interest rates on variable rate bonds ranging from 3.00% to 4.00%, per the Department's financial plan.

CAPITAL REQUIREMENTS

Every year during its annual budget process, the City adopts a six-year CIP, which outlines anticipated investments over that time frame. The Department's CIP is a part of the City's CIP. The current adopted CIP covers calendar years 2019-2024. The Department owns, maintains, and operates a multi-billion-dollar physical plant that includes power generation hydroelectric plants, transmission lines, distribution system, substations, and other utility assets. The Department's CIP is the vehicle for repairing, upgrading, and expanding this infrastructure. This section describes the adopted 2019-2024 CIP and other capital requirements that the Department intends to implement over the period 2019-2024. Any amounts listed for specific projects are for expenses expected to occur only during the period 2019-2024 and may not represent the total cost of the project.

Central Utility/General Plant

These expenses are related to General Plant and include investments in non-electrical system assets including buildings and facilities, such as the North and South Service Centers, and investments in office-related computer equipment, information and communications systems, furniture, and mobile equipment. Over the six-year planning period, the largest expenditures are expected to be for the replacement of fleet equipment (\$44.1 million), for North and South Service Center improvements (\$13.7 million), and for miscellaneous building improvements (\$11.4 million).

Distribution

Distribution plant includes substations, poles, wires and cables, transformers, manholes, vaults, ducts, and other electrical equipment and infrastructure needed to deliver power from the substation to the customer connection at home or business in both network and non-network areas. Over the six-year planning period, the largest projects are expected to be replacement of underground equipment (\$161.6 million) and overhead equipment (\$91.7 million), and overhead and underground service connection work for Medium General Service customers (\$68.8 million). See "Adopted CIP and Conservation and Other CIP Requirements—Denny Substation Update."

External Projects

These projects include work related to relocating infrastructure for transportation projects, investments in streetlight assets, various undergrounding work, and Seattle IT projects. Over the six-year planning period, the largest projects are expected to be the Alaskan Way Viaduct and seawall replacement (\$55.8 million), transportation streetlights (\$34.1 million), and work on streetlights, including arterial residential streetlights and floodlights (\$27.1 million).

Power Supply

Power supply includes generation facilities used to produce electricity. Typical assets are reservoirs, dams, waterways, waterwheels, turbines, generators, and accessory electrical equipment. A large percentage of generation investment is dedicated to core Department functions that maintain or add to generation infrastructure and ensure system reliability and power availability to customers, including the Department's generator and turbine runner rebuild programs. Over the six-year planning period, the largest projects are expected to be license mitigation at the Boundary Project (\$88.3 million), relicensing at the Skagit Project (\$50.5 million), and minor improvement programs at the Boundary Project (\$36.6 million).

Transmission

Transmission plant includes poles, towers, and conductors used to carry electricity from generation facilities to substations. Over the six-year planning period, the largest projects are expected to be transmission lines for the Denny Substation (\$50.6 million), transmission reliability (\$18.7 million), and transmission line inductor installations (\$10.4 million).

Conservation

Conservation programs offer financial incentives (such as rebates, discounts, and loans) to customers who produce energy savings by installing approved energy-saving equipment or weatherization measures or by designing a building to exceed energy code requirements. Program costs include program administration, audits, and inspections, and the costs of designing and installing energy savings measures. The current expenditure level is expected to achieve

60.7 aMW of cumulative annual energy savings (an average of 10.1 aMW annual achievement per year) between 2019 and 2024.

High Ross Agreement Payment Amortization

The City Council has directed the Department to amortize a portion of the annual payment to B.C. Hydro under the High Ross Agreement. The Department pays B.C. Hydro \$21.8 million each year from 2000 through the final capital payment in 2020; \$9.1 million of the annual payment is deferred and \$12.7 million is recognized as an expense. From 2021 through 2035, the remaining balance of deferred costs will be amortized. The deferred portion of the payments to B.C. Hydro is capitalized and therefore is treated as a component of capital requirements. See “Power Resources and Cost of Power—Department-Owned Resources—Skagit Project” for a discussion of the High Ross Agreement.

Relicensing, Mitigation, and Other Costs

In addition to including capital expenditures for environmental mitigation in the CIP, the Department pays in the year incurred, but for planning purposes defers and capitalizes, certain operation and maintenance expenditures for environmental mitigation. These deferred operation and maintenance expenditures are for mitigation measures similar to those included in the CIP; however, they differ from those in the CIP in that they are for measures on land or structures belonging to entities other than the Department and involve payments to the owners. Recipients of these payments include a variety of nonprofit organizations and governmental agencies with which the Department has entered into contracts for environmental mitigation pursuant to the terms of relicensing settlement agreements. The Department also defers environmental remediation expenditures, most of which are related to the Duwamish Waterway cleanup activities. Other deferred costs include City and State taxes on suburban undergrounding to match the timing of the repayment by customers of the Franchise Cities.

Adopted CIP and Conservation and Other Capital Requirements

The Department does not as a matter of course make public projections as to future sales, earnings, or other results. However, the Department has prepared the prospective financial information as set forth in Table 14 to provide readers of this Official Statement information related to projected capital expenditures of the Department. This information was not prepared with a view toward securities disclosure or with a view toward complying with the guidelines established by the American Institute of Certified Public Accountants with respect to prospective financial information, but, in the view of the Department, the information was based on reasonable information available to the Department as of the date presented, reflects the best currently available estimates and judgments, and presents, to the best of management’s knowledge and belief, the expected course of action and the expected future capital expenditures of the Department. However, this information is not fact and should not be relied upon as being necessarily indicative of future results. Potential purchasers of the Bonds and the readers of this Official Statement are cautioned not to place undue reliance on the prospective information.

TABLE 14
ADOPTED CAPITAL IMPROVEMENT AND CONSERVATION PROGRAMS AND OTHER CAPITAL REQUIREMENTS
(\$million)

	2019	2020	2021	2022	2023	2024	Total
Central Utility Projects	\$ 31.9	\$ 22.4	\$ 26.5	\$ 25.0	\$ 10.3	\$ 8.5	\$ 124.5
Distribution	135.3	160.2	234.6	212.4	223.1	213.7	1,179.3
External Projects ⁽¹⁾	48.8	42.1	38.6	30.1	18.3	17.3	195.2
Power Supply	83.9	77.4	71.0	67.6	57.9	62.1	419.9
Transmission	18.6	9.1	45.2	4.0	5.3	4.1	86.2
Total CIP	\$ 318.5	\$ 311.1	\$ 415.8	\$ 339.0	\$ 315.0	\$ 305.8	\$ 2,005.2
Conservation ⁽²⁾	\$ 31.8	\$ 36.8	\$ 37.6	\$ 38.3	\$ 39.1	\$ 39.9	\$ 223.4
High Ross Payment Amortization ⁽²⁾	9.1	9.1	-	-	-	-	18.2
Environmental Mitigation Deferred O&M Costs	1.4	1.3	1.4	1.4	1.4	1.4	8.4
Toxic Cleanup Deferred O&M Costs	6.0	2.1	2.4	2.4	3.9	5.6	22.5
Relicensing, Mitigation, and Other Costs	7.5	3.4	3.7	3.8	5.3	7.1	30.8
Total Funds Required	\$ 366.8	\$ 360.4	\$ 457.1	\$ 381.2	\$ 359.3	\$ 352.7	\$ 2,277.6
Sources of Funds							
Cash from Operating Account	\$ 66.7	\$ 92.1	\$ 191.2	\$ 144.2	\$ 142.5	\$ 121.4	\$ 758.1
Cash from Contributions	51.9	51.9	44.2	45.2	42.9	41.5	277.6
Cash from Bond Sale	248.2	216.4	221.6	191.8	174.0	189.9	1,241.9
Total Funds Available	\$ 366.8	\$ 360.4	\$ 457.1	\$ 381.2	\$ 359.3	\$ 352.7	\$ 2,277.6

- (1) Includes Alaskan Way Viaduct and seawall replacement. See “Other Considerations—Considerations Related to Alaskan Way Viaduct Replacement Program and Waterfront Seattle Program.”
- (2) The City Council passed resolutions authorizing the debt financing and/or deferral of certain costs in accordance with GASB Statement No. 62, Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements. Programmatic conservation costs are amortized to expense over 20 years. The deferred portion of annual payments to B.C. Hydro under the High Ross Agreement, which amounts to \$9.1 million per year in years 2000 through 2020, will be amortized over 15 years beginning in 2021. See “Power Resources and Cost of Power—Department-Owned Resources.” Includes relicensing, mitigation, toxic cleanup, and other costs such as City and State taxes on suburban undergrounding. These costs are deferred and amortized to expense over the respective project license period or other relevant period.

Source: Seattle City Light Department, Finance Division

Denny Substation Update. Due to project delays and cost overruns the Denny Substation and Denny Network projects are expected to exceed their adopted budgets. The Denny Substation project has expected cost overruns, primarily due to project delays from the general contractor’s inability to meet schedule milestones. Likewise, the Denny Network project was significantly delayed, which the contractor attributes to multiple mobilizations and demobilizations. Neither the Denny Substation nor the Denny Network contractor has initiated litigation but both contractors are negotiating with the City to determine and allocate responsibility for cost overruns. The Department is currently developing a specific plan to offset cost overruns attributable to the City by rescoping, delaying, or canceling other CIP projects.

Estimates of potential Department liability are described in Note 20 to the Department’s 2018 audited financial statements attached as Appendix C. These estimates were prepared in accordance with applicable accounting principles based on facts and circumstances known at the time and do not necessarily reflect a current expectation about how cost responsibility may be allocated among the parties.

Financing Plans

Capital requirements of \$2,277.6 million from 2019 through 2024 (including \$2,005.2 million of the CIP and \$272.4 million of certain capitalized costs) are expected to be financed through a combination of cash from operations, contributions in aid of construction, capital grants, and the proceeds of the Bonds and Future Parity Bonds. The

Department projects that bond proceeds will fund approximately 62% of the net capital requirements (total funds required less contributions) over the period 2019-2024, with the remaining 38% funded by cash from operations. This is slightly lower than the 40% policy target. See “Department Financial Information—Financial Policies.” The City expects to issue additional Parity Bonds in an aggregate principal amount of approximately \$225 million in late 2020.

ENVIRONMENTAL MATTERS

Impact of Environmental Matters

The Department manages its legal obligations for environmental protection through programs that are expected to produce compliance with regulations. Although the Department cannot predict the outcome or effect of the matters described in this section, the Department does not expect that any of these matters will affect adversely the ability of the City to pay the principal of and interest on the Bonds.

Routine operations in connection with the generation and delivery of electric power are regulated by federal, state, and local laws that prescribe standards, work practices, and training requirements, requiring extensive documentation to ensure the protection of the environment and human health. Noncompliance creates the potential for violations that can result in civil and criminal penalties and substantial fines. Some of these laws also impose strict liability for environmentally damaging releases, including costs of investigation and cleanup, damages, restoration, and the costs of agency oversight and enforcement.

Waste Management and Disposal Issues

Department operations generate a variety of wastes, including dangerous wastes. The Department’s efforts have reduced waste generation and disposal costs, and the Department maintains those reduced levels. The Department promotes compliance with federal and State dangerous waste regulations through use of operations manuals, staff training, and periodic internal inspections or audits. Besides the dangerous waste regulations, internal inspections are used to monitor compliance with other laws, including the Toxic Substances Control Act, Clean Water Act, and Underground Storage Tank regulations.

Contaminated Site Liability

As of December 31, 2018, the Department had recorded environmental liability amounts net of recoveries of \$107.8 million under the GASB reporting requirements. This amount is evaluated semi-annually and is subject to adjustment based on future developments.

No assurances can be given that other contaminated sites do not exist or will not be discovered in the future. The Department’s policy has been to undertake voluntary cleanup action when contamination is discovered during regular maintenance and construction.

Lower Duwamish Waterway. In 2001, the U.S. Environmental Protection Agency (“EPA”) listed the Lower Duwamish Waterway as a Superfund site. A remedial investigation (“RI”) and feasibility study (“FS”) were completed in 2012 pursuant to an Administrative Settlement Agreement Order on Consent entered into among the City, the County, the Port of Seattle, and The Boeing Company. EPA released its Record of Decision in 2014, estimating the cost of its selected approach to be \$342 million, with a seven-year construction period beginning in 2022. The cost was estimated in 2014 dollars as if the entire seven years of work took place in that year. Given that construction is not scheduled to begin until late 2023 or early 2024, the costs will be greater than the EPA estimate. The initial estimate was recalculated to its 2018 current value using a starting point of the undiscounted estimated cost of \$394.0 million plus an inflation factor of 1.038 annually. The recalculation resulted in an increase in estimated environmental liability of \$12.3 million for the Department, bringing the revised estimated total project cost to \$504.2 million. The revised estimated liability is calculated in accordance with GAAP. The City is participating in a confidential, voluntary allocation process among parties that may be liable for some of the cleanup costs. That process is expected to finish in 2020. The Department and SPU have been sharing the City’s portion of costs for the investigation and will do so for the remediation, though the final allocation of those costs between the Department and SPU will be determined as part of the process for allocating all of the costs among the parties. See Appendix C—2018 Audited Financial Statements of the Department—Note 15.

Harbor Island—East Waterway. The East Waterway was designated as a Superfund site in 2001 as an operable unit of the overall Harbor Island Superfund Site, which was listed by EPA in 1983. Current potentially responsible parties include the City, the Port of Seattle, the County, and Seattle Iron & Metals Corporation (“SIMC”). Potential Department liability derives from Department transformers sold to SIMC, from which contaminants are thought to have drained into the waterway. A Supplemental Remedial Investigation (“SRI”), with the Port of Seattle taking the lead, was completed in 2017. EPA approval of the FS was received in 2019. The City has agreed to an interim sharing of on-going costs of the SRI/FS with the Port of Seattle and the County. The Department expects that EPA will publish the proposed plan in late 2019. See Appendix C—2018 Audited Financial Statements of the Department—Note 15.

Georgetown Steam Plant. The Department signed an order with Ecology to investigate and possibly remove contamination in an area that encompasses North Boeing Field, the Department’s property known as the Georgetown Steam Plant, and the King County Airport. The draft RI report was submitted to Ecology in June 2016; Ecology has not approved the RI and the timing for completion of the FS is unknown but not anticipated before 2021. The Department completed interim actions at the Georgetown Steam Plant property in 2012. See Appendix C—2018 Audited Financial Statements of the Department—Note 15.

Skagit Facilities. The Department signed an Administrative Settlement Agreement Order on Consent “the Agreement”) with the National Park Service (“NPS”) to perform removal actions under the Superfund program at three sites located within the North Cascades National Park Complex, Ross Lake National Recreation Area, in Whatcom County. Specifically, under the Agreement, the Department will conduct Non Time-Critical Removal Actions on the Newhalem Penstock Site and the Diablo Dry Dock facility, and a Time-Critical Removal Action at the Ladder Creek Settling Tank. All three sites house facilities that were formerly or are currently operated by the Department, but on NPS land. The removal actions are therefore being performed under the Superfund program with NPS as the lead agency. Removal activities at the Ladder Creek site are complete and awaiting approval of final reporting. Engineering Evaluation and Cost Analysis work is beginning on the Newhalem Penstock and Diablo Dry Dock facility sites.

Endangered Species Act

The Endangered Species Act (“ESA”) is administered by the USFWS and the National Oceanic and Atmospheric Administration (“NOAA”). Recovery plans for ESA-listed fish affect Department operations and power purchases.

Columbia and Snake River Biological Opinions. The three federal action agencies responsible for operating the Federal System—the Corps, the Bureau of Reclamation, and BPA—have been engaged in ESA Section 7 consultation for many years. As a result of litigation, NOAA Fisheries has been required to develop a series of Biological Opinions that provide the basis for the species recovery plans that NOAA has developed for the Columbia and Snake River fisheries. These recovery plans seek to protect and recover listed species including salmon, steelhead, Bull Trout, and sturgeon by regulating stream flow and other aspects of hydropower operations in the watersheds. The Biological Opinion for the 14 dams in the Federal System has been the subject of ongoing litigation in U.S. District Court (Oregon). Most recently, the U.S. District Court rejected the federal government’s recovery plan for Columbia River salmon and steelhead in an opinion and order filed in 2016. The court remanded the 2014 Biological Opinion completed by NOAA Fisheries, but left it in place so that ongoing recovery actions could continue, while ordering NOAA to complete a new Biological Opinion by the end of 2018. NOAA Fisheries issued a new Biological Opinion in March 2019 that carries forward a number of Reasonable and Prudent measures from previous biological opinions and a new spill operation agreement that was developed by Washington and Oregon and the Nez Perce Tribe. The court order also required an updated Environmental Impact Statement (“EIS”) for Columbia River Systems Operations that will need to be completed by the Corps, the Bureau of Reclamation, and BPA by 2020. The outcome of this litigation, the new Biological Opinion, and the new EIS for the Federal System may affect the price and supply of power that the Department purchases from BPA and Grant PUD. See “Power Resources and Costs of Power—Purchased Power Arrangements.”

The Department’s power generation at the Boundary Project has been affected by NOAA’s salmon and steelhead recovery plans and the Biological Opinions on which they were based. Specifically, the Biological Opinions require reservoirs upstream from the Boundary Project to store more water during the winter for release in the spring and summer when it is needed for downstream juvenile fish migration. Therefore, generation at the Boundary Project is

reduced in the fall and winter, when the region experiences its highest sustained energy demand. The water not released in the fall and winter from reservoirs upstream from the Boundary Project on the Pend Oreille River is released in the spring and summer, when it is sometimes spilled because the Boundary Project does not have sufficient hydraulic capacity to use all the available water for generation. This reduces the Boundary Project's firm capability under the terms of the Coordination Agreement. See "Power Resources and Cost of Power—Overview of Resources." Any new recovery plan or Biological Opinion issued by NOAA will likely result in changes in flows that could have an impact on the Boundary Project. For a discussion of additional environmental issues and the Boundary project, see "Power Resources and Cost of Power—Department-Owned Resources—Boundary Project."

Recovery efforts for Bull Trout affect the cost of operations at the Boundary Project, but not power generation. The 2013 FERC license for the Boundary Project requires the Department to enhance the habitat for Bull Trout and suppress non-native trout. See "Power Resources and Cost of Power—Department-Owned Resources."

Skagit, Tolt, and Cedar Rivers ESA-Listed Fish. ESA fish listings that may affect Department operations in western Washington include Bull Trout, Chinook Salmon, and steelhead. Bull Trout was listed as a threatened species by the USFWS in 1999. The Skagit River populations of Bull Trout are among the healthiest in the U.S. due to excellent habitat, cold water, and abundant food supply. Bull Trout are also found in Chester Morse Lake, in the Cedar River in the vicinity of the Cedar Falls Project. Incidental observations of Bull Trout have occurred in the mainstream Tolt River downstream of the South Fork Tolt Project. The Skagit River downstream of the Skagit Project is listed as Critical Habitat for Bull Trout by the USFWS, as are the major tributaries to the three project reservoirs. Bull Trout populations have been increasing in the Skagit Project reservoirs and tributaries since the mid-2000s, and the populations have remained large and stable in the river downstream of the reservoirs. The USFWS considers the lower and upper Skagit River as Bull Trout "strongholds" because of the large and diverse Bull Trout populations present in these core areas. The Cedar River and reservoir is excluded from the Critical Habitat designations for this species because of the adoption of the Cedar River Habitat Conservation Plan. The Tolt River is excluded from the Critical Habitat designation. A final recovery plan for Bull Trout was released by the USFWS in 2015.

Chinook Salmon in Puget Sound were listed as threatened by NOAA Fisheries in 1999, and are present in the Skagit, Cedar, and Tolt Rivers downstream of the Department's hydroelectric facilities. Chinook Salmon populations increased to 30-year-high levels on the Skagit River from 2004 through 2006, declined below long-term average levels from 2007 through 2011, returned to average levels between 2012 and 2014, and then increased above average levels in 2015 and 2016. Skagit Chinook Salmon populations dropped to average levels in 2017 and below average levels in 2018. The Skagit River continues to support the largest populations of Chinook Salmon in Puget Sound. The Skagit, Cedar, and Tolt Rivers downstream of the Department's hydroelectric facilities were designated as Critical Habitat for Chinook Salmon by NOAA Fisheries. The Department's dams on the Skagit and Tolt Rivers are located above natural passage barriers to salmon and steelhead.

Steelhead were listed as threatened by NOAA Fisheries in 2007. Winter steelhead populations are located in the Skagit, Cedar, and Tolt Rivers downstream of the Department's hydroelectric facilities. The South Fork Tolt River also has one of the few summer steelhead populations in the Puget Sound region, and summer steelhead are also present in the Skagit River. Steelhead populations declined to 30-year-low levels in most Puget Sound rivers during the early 2000s. Steelhead returns to the Skagit River basin declined below long-term average levels from 2006 through 2012, increased above average values from 2013 through 2016, then dropped back down to average values in 2017 and 2018. The Skagit River continues to support the largest steelhead populations in the Puget Sound region. A draft recovery plan for Puget Sound steelhead was completed by NOAA Fisheries and released for public review on December 13, 2018. The Department worked directly with NOAA Fisheries and other federal and State agencies and tribal governments on the development of this recovery plan. The final recovery plan for Puget Sound steelhead is expected to be published by NOAA Fisheries in February 2020.

Department Mitigation Efforts. The Department has undertaken a wide range of actions to reduce and mitigate potential adverse impacts of its operations on these listed fish species. On the Cedar River, the Department's activities are covered by a Habitat Conservation Plan that governs operations of the Cedar Falls Project with regard to all listed species and by an incidental take permit. Both the Skagit and South Fork Tolt Projects were licensed through a collaborative process involving State and federal regulatory agencies, including NOAA Fisheries, USFWS, WDFW, and tribes. These agreements include extensive measures to protect fish, including flow management measures and non-flow measures such as habitat restoration, conservation land acquisition, and research and monitoring. In

addition, the Department is continuing an ESA habitat restoration, conservation land acquisition, and research program that supports the recovery of Bull Trout, Chinook Salmon, and steelhead populations in the Skagit and Tolt River watersheds. This program has funded several major habitat restoration projects for the three listed fish species in the Skagit and Tolt River watersheds. The Department has also acquired more than 3,500 acres of high quality habitat for ESA-listed fish species in these watersheds for permanent conservation protection. Monitoring and research studies by the Department are continuing in partnership with WDFW, the National Park Service, USFWS, Skagit River System Co-op, and the Upper Skagit Tribe to determine the population status of and the factors potentially limiting Bull Trout, Chinook Salmon, and steelhead populations downstream of the Skagit Project, and Bull Trout populations in the three Skagit River reservoirs. In addition, monitoring and research studies are continuing in partnership with the Tulalip Tribes and WDFW on the South Fork Tolt River focused on Chinook Salmon and both summer and winter steelhead. These studies continue to be used to develop recovery plans and actions in cooperation with State and federal agencies, tribes, and regional salmon recovery organizations to improve habitat conditions for ESA-listed fish species.

The Skagit Project Biological Opinion for Chinook Salmon and steelhead was completed by NOAA Fisheries in 2012. It included four additional flow protection measures that the Department had already adopted voluntarily. The Skagit Project Biological Opinion for Bull Trout was completed by the USFWS in 2013 and included the same flow protection measures contained in the NOAA Fisheries Biological Opinion, as well as specific habitat conservation measures and population monitoring requirements. Continuing these required conservation measures will have no significant effect on the Department's operations at the Skagit Project.

Clean Water Act

As a condition for certain federal actions, including the licensing of hydroelectric projects, Section 401 of the federal Clean Water Act ("CWA") requires states to provide a "water quality certification." Section 401 certification demonstrates that discharges comply with state water quality standards, including various physical and chemical parameters. Section 401 has been interpreted to authorize states to condition their certification on standards for minimum stream flows to protect fish.

An agreement with State and federal agencies on minimum flows for the Newhalem Project was incorporated into the FERC license issued in 1997. These minimum flows were required for the Section 401 certification issued in 1996. Ecology implemented new water quality standards in 2007, intended to protect aquatic uses, including federally-listed fish species such as Bull Trout, Chinook Salmon, and steelhead. In 2011, Ecology issued a Section 401 certification as part of the FERC license for the Boundary Project. See "Power Resources and Cost of Power—Department-Owned Resources—Boundary Project." The Department also participates in other water quality regulatory processes.

On March 29, 2019, Ecology issued a short-term modification to the Water Quality standards that modifies the adjusted total dissolved gas ("TDG") criteria for eight federal dams on the lower Snake and lower Columbia Rivers. This short-term modification allows for a maximum TDG level of 120% in the forebays of these dams during the spring water spill season. While the maximum allowable TDG level under the State's water quality criteria is 110%, Ecology provides for adjustments to this criterion to aid fish passage over hydroelectric dams. Ecology elevated the maximum adjusted TDG level at these dams from 115% to 120%. This short-term modification will allow for increased spill at the dams during portions of the day to potentially improve survival rates of juvenile salmon and steelhead. This modification to the TDG standards at the eight federal dams will occur for a period of up to three years. The impact of this short-term modification on the Department is expected to be minimal.

In August 2015, a new rule defining the "waters of the United States" under the CWA went into effect. Promulgated by EPA and the Corps, the rule redefines what individual bodies of water are jurisdictional under the CWA and thus subject to federal permitting requirements. The rule clarifies that certain tributaries, wetlands, and ditches connected to designated "waters of the United States" are also protected under the CWA. Following legal challenges throughout the country, a nationwide stay of the rule was issued by the U.S. Court of Appeals (Sixth Circuit) in October 2015. In May 2016, the U.S. Supreme Court ruled that landowners can challenge "waters of the United States" rulings in federal court. The final rule was published in the *Federal Register* on February 6, 2018, but won't be applicable until 2020. On December 11, 2018, the EPA and the Corps proposed a revised definition of "water of the United States" that seeks to clarify federal authority under the Clean Water Act. The agencies' proposal is the second step in a two-step process to review and revise the definition of "waters of the United States" consistent with the February 2017

Presidential Executive Order entitled “Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the ‘Waters of the United States’ Rule.” The proposed definition would replace the approach in the 2015 rule and the pre-2015 regulations. The proposed rule was published in the Federal Register on February 14, 2019, and the public comment period closed on April 15, 2019. EPA and the Corps will finalize the revised definition after reviewing public comments. The impact of the rule and the revised definition on the Department is expected to be minimal.

Renewable Energy and Greenhouse Gas Mitigation

In 2000, the City Council set a long-term goal for the Department to achieve greenhouse gas neutrality while meeting all of the electricity needs of the City. In 2005, the Department became the first electric utility in the country to achieve zero net greenhouse gas emissions. It has maintained that carbon-neutral status every year since.

The Department has a very low emission factor as reported to and verified through the Climate Registry. The Department’s greenhouse gas emissions are so low because the Department currently uses hydroelectric resources for 86% of the power it provides. The Department’s carbon emissions are further reduced by its aggressive energy efficiency and conservation programs. Renewable energy projects have been added to the Department’s resource mix. See “Power Resources and Cost of Power—Purchased Power Arrangements.” The Department’s Green Up program offers its retail customers the opportunity to further support the acquisition of renewable energy credits. See “Department Financial Information—Retail Rates—Voluntary Green Power Program.” In addition, the Department’s IRP relies only on new renewables and conservation to meet future load growth. The Department purchases greenhouse gas offsets for the emissions it does generate.

Federal and State initiatives have been proposed to address global climate change by controlling or monitoring greenhouse gas emissions, encouraging renewable energy development, and implementing other measures. In 2019, the State passed its Clean Energy Bill. A rulemaking process will be undertaken to determine how the bill is implemented, and these details will inform how the bill will affect the Department. The Department reports to EPA a small amount of emissions of a potent greenhouse gas used in electrical equipment, but any associated cost impacts resulting from future legislation are expected to be low. The Department has no fossil fuel plants and very small operational emissions. In addition, IRP analyses suggest that a carbon tax or carbon cap and trade regime could increase the competitiveness of the Department’s wholesale power sales, because 86% is from power resources with no CO₂ emissions.

Climate Change

The Department continues to research and monitor potential effects of climate change on the Department’s business. In 2016, the Department completed a Climate Change Vulnerability Assessment and Adaptation Plan to identify potential actions to reduce risks associated with climate change and has begun implementing the plan. The Department is a member of the U.S. Department of Energy Partnership for Energy Sector Climate Resilience, developing best practices to increase resilience to climate change and extreme weather. The Department also actively participates in the Center for Energy Advancement through Technological Innovation as part of the Climate Change Opportunities, Risk and Adaptation working group evaluating the effects of climate change on hydropower operations and planning within the industry.

The Department’s resource mix is 86% hydro-based generation. The physical effects of climate change are expected to affect the amount, timing, and availability of hydroelectric generation in the future. In cooperation with the University of Washington’s Civil and Environmental Engineering Department (“UWCEE”), the Department is studying how projected changes in temperature, rainfall, and snowpack could affect glaciers and streamflow in the region and thus future output from its hydropower generating plants and other hydropower purchases.

The climate change studies described in the 2010 through 2016 IRPs suggest both increases and decreases in annual generation but gradually increasing runoff during the winter peak demand period, accompanied by gradually decreasing runoff during the late summer and fall. Data provided by the University of Idaho suggest that warmer temperatures may also cause small decreases in winter electricity demand, while summer demand may increase, as described in the 2016 IRP. The projected effects of climate change on hydropower generation and demand are much less adverse for the Department as a winter-peaking utility than for summer-peaking utilities.

In cooperation with the University of Washington's Climate Impacts Group, the Department conducted research on future changes in lightning potential and windstorms due to climate change in western Washington. The study showed little change in these extreme weather events. The Department will be less affected by changes in extreme weather and sea level rise than other City departments, but coordinates with other City departments to understand potential risks. The Department is currently funding research with UWCEE on the changes in landslide hazards from climate change. The Department continues to monitor new information on potential climate change effects through its Climate Change Initiative as part of the 2019-2024 Strategic Plan.

In addition, various legislative proposals have been introduced before the City Council to consider policies generally characterized as "green new deal" proposals. The City cannot predict whether any of these legislative proposals will be approved by the City Council or what effect any might have if enacted.

VARIOUS FACTORS AFFECTING THE ELECTRIC UTILITY INDUSTRY

Certain Considerations Specific to the Electric Utility Industry

The electric utility industry in general has been, and in the future may be, affected by a number of factors which could impact the financial condition and competitiveness of many electric utilities, including the Department, and the level of utilization of generating and transmission facilities. Such factors include, among others:

- (i) effects of compliance with changing environmental, safety, licensing, regulatory, and legislative requirements;
- (ii) changes resulting from conservation and demand-side management programs on the timing and use of electric energy;
- (iii) changes resulting from a national energy policy;
- (iv) effects of competition from other electric utilities (including increased competition resulting from mergers, acquisitions, and "strategic alliances" of competing electric and natural gas utilities and from competitors transmitting less expensive electricity from much greater distances over an interconnected system) and new methods of, and new facilities for, producing low-cost electricity;
- (v) the repeal of certain federal statutes that would have the effect of increasing the competitiveness of many investor-owned utilities;
- (vi) increased competition from independent power producers and marketers, brokers, and federal power marketing agencies;
- (vii) "self-generation" or "distributed generation" (such as microturbines and fuel cells) by industrial and commercial customers and others;
- (viii) effects of inflation on the operating and maintenance costs of an electric utility and its facilities;
- (ix) changes from projected future load requirements;
- (x) increases in costs and uncertain availability of capital;
- (xi) shifts in the availability and relative costs of different fuels (including the cost of natural gas);
- (xii) increases or decreases in the price of energy purchased or sold on the open market that may occur in times of high peak demand or supply;
- (xiii) issues with transmission capacity and integrating wind power generation;
- (xiv) inadequate risk management procedures and practices with respect to, among other things, the purchase and sale of energy and transmission capacity;
- (xv) other legislative changes, voter initiatives, referenda, State-wide propositions, sequestration, and other failures of Congress to act;
- (xvi) effects of changes in the economy;
- (xvii) effects of possible manipulation of the electric markets;

- (xviii) natural disasters or other physical calamities, including, but not limited to, earthquakes, tsunamis, floods, mud slides, volcanic eruptions, wildfires, droughts, and wind storms;
- (xix) man-made physical and operational disasters, including but not limited to terrorism, security (including cybersecurity) breaches, cyber attacks, and collateral damage from untargeted computer viruses;
- (xx) variations in the weather and changes in the climate; and
- (xxi) failures of or other issues with infrastructure.

Any of these factors (as well as other factors) could have an adverse effect on the financial condition of any given electric utility and likely will affect individual utilities, including the Department, in different ways. The Department is unable to predict what impact such factors will have on its business operations and financial condition. The discussion provided in this section does not purport to be comprehensive or definitive, and these matters are subject to change subsequent to the date hereof. Extensive information on the electric utility industry is available from the legislative and regulatory bodies and other sources in the public domain, and potential purchasers of the Bonds should obtain and review such information.

Contingent Payment Obligations Unrelated to Debt Obligations

The City, through the Department, has in the past and may in the future enter into various agreements, such as power purchase agreements or commodity derivative instruments, under which the City may be obligated to make payments or post collateral contingent upon certain future events within or beyond the City’s control. These types of arrangements are entered into in the ordinary course of business, independently of any issuance of bonds or other financial obligations payable from the Net Revenue of the Light System, and are not related to any particular debt obligation. Such contingent payment obligations are permitted to be treated as operation and maintenance charges payable from Gross Revenues prior to the payment of principal of and interest on the Parity Bonds. See “Power Resources and Cost of Power—Purchased Power Arrangements” and “—Wholesale Energy Risk Management.”

THE CITY OF SEATTLE

The following provides general information about the City.

Municipal Government

Incorporated in 1869, the City is the largest city in the Pacific Northwest and is the seat of King County.

The City is a general purpose government that provides a broad range of services typical of local municipalities, such as streets, parks, libraries, human services, law enforcement, firefighting and emergency medical services, planning, zoning, animal control, municipal court, and utilities. The City owns and operates water, electric, solid waste, and drainage and wastewater utilities, although the County provides wastewater treatment service. The County also provides certain services throughout the County and within the City, including courts of general jurisdiction, felony prosecution and defense, jail, public health, and transit services.

The City is organized under the mayor-council form of government and operates under its City Charter. The Mayor, the city attorney, and the Municipal Court judges are all elected to four-year terms. The nine City Council members are elected to staggered four-year terms.

Mayor. The Mayor serves as the chief executive officer of the City. The Mayor presents to the City Council annual statements of the financial and governmental affairs of the City, budgets, and capital improvement plans. The Mayor signs, or causes to be signed on behalf of the City, all deeds, contracts, and other instruments.

City Council. As the policy-making legislative body of the City, the City Council sets tax levies and utility rates, makes appropriations, and adopts and approves the annual operating budget and capital improvement plans for the City. The City Council members serve on a full-time basis.

Municipal Court. The State Constitution provides for the existence of county superior courts as the courts of general jurisdiction and authorizes the State Legislature to create other courts of limited jurisdiction. The Seattle Municipal Court has limited jurisdiction over a variety of cases, including misdemeanor criminal cases, traffic and parking infractions, collection of fines, violation of no-contact or domestic violence protection orders, and civil actions for enforcement of City fire and housing codes. The Municipal Court has seven judges. Municipal Court employees report to the judges.

Financial Management

City financial management functions are provided by the Department of Finance and Administrative Services.

Accounting. The accounting and reporting policies of the City conform to generally accepted accounting principles for municipal governments and are regulated by the State Auditor's Office, which maintains a resident staff at the City to perform a continual current audit as well as an annual, post-fiscal year audit of City financial operations. The Accounting Services Division of the Department of Finance and Administrative Services maintains general supervision over the accounting functions of the City.

Auditing. The State Auditor is required to examine the affairs of all local governments at least once every three years; the City is audited annually. The examination must include, among other things, the financial condition and resources of the City, compliance with the State Constitution and laws of the State, and the methods and accuracy of the accounts and reports of the City. Reports of the State Auditor's examinations are required to be filed in the office of the State Auditor and in the Department of Finance and Administrative Services. The City's Comprehensive Annual Financial Report for 2017 is available at the following link:

<http://www.seattle.gov/Documents/Departments/FAS/FinancialServices/CAFR/comprehensive-annual-financial-report-2017.pdf>

The State Auditor's Office has authority to conduct independent performance audits of State and local government entities. The Office of the City Auditor also reviews the performance of a wide variety of City activities such as span of control, City-wide collections, special events permitting, and specific departmental activities.

Municipal Budget. City operations are guided by a budget prepared under the direction of the Mayor by the City Budget Office pursuant to State statute (chapter 35.32A RCW) and based in part on General Fund revenue forecasts prepared by the City's Department of Finance and Administrative Services. The proposed budget is submitted to the City Council by the Mayor each year not later than 90 days prior to the beginning of the next fiscal year. Currently the fiscal year of the City is January 1 through December 31. The City Council considers the proposed budget, holds public hearings on its contents, and may alter and revise the budget at its discretion, subject to the State requirement that budgeted revenues must at least equal expenditures. The City Council is required to adopt a balanced budget at least 30 days before the beginning of the next fiscal year, which may be amended or supplemented from time to time by ordinance. The Mayor may choose to approve the City Council's budget, veto it, or permit it to become law without the Mayor's signature. The Mayor does not have line-item veto power.

The 2019 budget was adopted on November 19, 2018. The City's adopted General Fund budget was approximately \$1.39 billion in 2019, compared to \$1.31 billion in 2018.

Investments

Authorized Investments. Chapter 35.39 RCW permits the investment by cities and towns of their inactive funds or other funds in excess of current needs in the following: United States bonds, United States certificates of indebtedness, State bonds or warrants, general obligation or utility revenue bonds of its own or of any other city or town in the State, its own bonds or warrants of a local improvement district that are within the protection of the local improvement guaranty fund law, and any other investment authorized by law for any other taxing district. Under chapter 39.59 RCW, a city or town also may invest in the following: bonds of any local government in the State that have at the time of investment one of the three highest credit ratings of a nationally recognized rating agency, general obligation bonds of any other state or local government of any other state that have at the time of the investment one of the three highest credit ratings of a nationally recognized rating agency, registered warrants of a local government in the same county as the government making the investment; certificates, notes, or bonds of the United States, or other obligations of the United States or its agencies, or of any corporation wholly owned by the government of the United States; or United

States dollar-denominated bonds, notes, or other obligations that are issued or guaranteed by supranational institutions, provided that, at the time of investment, the institution has the United States government as its largest shareholder; Federal Home Loan bank notes and bonds, Federal Land Bank bonds and Federal National Mortgage Association notes, debentures, and guaranteed certificates of participation, or the obligations of any other government-sponsored corporation whose obligations are or may become eligible as collateral for advances to member banks as determined by the Board of Governors of the Federal Reserve system; bankers' acceptances purchased on the secondary market; commercial paper purchased in the secondary market, provided that any local government of the State that invests in such commercial paper must adhere to the investment policies and procedures adopted by the Washington State Investment Board; and corporate notes purchased on the secondary market, provided that any local government of the State that invests in such notes must adhere to the investment policies and procedures adopted by the Washington State Investment Board.

Money available for investment may be invested on an individual fund basis or may, unless otherwise restricted by law, be commingled within one common investment portfolio. All income derived from such investment may be either apportioned to and used by the various participating funds or used for the benefit of the general government in accordance with City ordinances or resolutions.

Authorized Investments for Bond Proceeds. Funds derived from the sale of bonds or other instruments of indebtedness will be invested or used in such manner as the initiating ordinances, resolutions, or bond covenants may lawfully prescribe. In addition to the eligible investments discussed above, bond proceeds may also be invested, subject to certain restrictions, in mutual funds with portfolios consisting of (i) only United States government bonds or United States government-guaranteed bonds issued by federal agencies with average maturities of less than four years; bonds of the State or of any local government in the State that have at the time of the investment one of the four highest credit ratings of a nationally recognized rating agency; general obligation bonds of any other state or local government of any other state that have at the time of the investment one of the four highest credit ratings of a nationally recognized rating agency; (ii) bonds of states and local governments or other issuers authorized by law for investment by local governments that have at the time of investment one of the two highest credit ratings of a nationally recognized rating agency; or (iii) securities otherwise authorized by law for investment by local governments.

City Investments. The information in this section does not pertain to pension funds that are administered by the City (see "Pension Plans") and certain refunding bond proceeds that are administered by trustee service providers.

All cash-related transactions for the City, including its utilities, are administered by the Department of Finance and Administrative Services. City cash is deposited into a single bank account, and cash expenditures are paid from a consolidated disbursement account. Investments of temporarily idle cash may be made, according to existing City Council-approved policies, by the Treasury Division of the Department of Finance and Administrative Services in securities described above under "Authorized Investments."

State statutes, City ordinances, and Department of Finance and Administrative Services policies require the City to minimize market risks by safekeeping all purchased securities according to governmental standards for public institutions and by maintaining safety and liquidity above consideration for returns. Current City investment policies require periodic reporting on the City's investment portfolio to the Mayor and the City Council. The City's investment operations are reviewed by the City Auditor and by the State Auditor.

As of December 31, 2018, the combined investment portfolios of the City, not including pensions, totaled \$2,468.6 million at market value. The City's investment portfolios consist solely of City funds. As of December 31, 2018, the earnings yield on the City's investment portfolios was 2.02%, and the weighted average maturity of the City's investment portfolios was 1,214 days. Approximately 21%, or \$516 million, was invested in securities with maturities of three months or less. The City held no securities with maturities longer than 15 years.

Investments were allocated as follows:

U.S. Government Agencies	40%
U.S. Government ⁽¹⁾	18%
Taxable Municipals	15%
U.S. Government Agency Mortgage-Backed	12%
State Local Government Investment Pool	6%
Commercial Paper	5%
Repurchase Agreements	4%
Bank Deposit Notes	0%

(1) Includes FDIC-backed and U.S. Department of Housing and Urban Development securities.

Note: may not add to 100% due to rounding.

Interfund Loans. The City is authorized to make interfund loans from the City’s common investment portfolio to individual funds, bearing interest payable by the borrowing fund. The Director of Finance may approve interfund loans for a duration of up to 90 days and may establish a rate of interest on such loans. Loans of a longer duration require City Council approval. As of December 31, 2018, the City had outstanding four interfund loans totaling \$16.1 million, in amounts ranging from \$658,000 to \$5.7 million, including interfund loans for the Waterfront LID improvements to be reimbursed with proceeds of the Waterfront LID Bonds. See “Other Considerations—Considerations Related to Alaskan Way Viaduct Replacement Program and Waterfront Seattle Program—Waterfront Local Improvement District.”

Risk Management

The City purchases excess liability insurance to address general, automobile, professional, public official, and other exposures. Currently the City’s excess liability policy provides \$135 million limits above a \$6.5 million self-insured retention per occurrence, but coverage excludes partial or complete failure of any of the City’s hydroelectric dams. The City also purchases all risk property insurance, including earthquake and flood perils, that provide up to \$500 million in limits subject to a schedule of deductibles and sublimits. Earthquakes and floods are subject to annual aggregate limits of \$100 million. City hydroelectric generation and transmission equipment and certain other utility systems and equipment are not covered by the property insurance policy. Cybersecurity risks are currently self-insured.

The City insures a primary level of fiduciary, crime liability, inland marine, and various commercial general liability, medical, accidental death and dismemberment, and miscellaneous exposures. Surety bonds are purchased for certain public officials and notaries.

Pension Plans

The information below describes pension plans available to City employees generally. City employees are eligible for coverage by one of the following defined benefit pension plans: Seattle City Employees’ Retirement System (“SCERS”), Firefighters’ Pension Fund, Police Relief and Pension Fund, and LEOFF. The first three are administered by the City and are reported as pension trust funds as part of the City’s reporting entity. The State administers LEOFF through the State Department of Retirement Systems (“DRS”).

Pursuant to an agreement with various City labor unions, the City Council passed legislation in August 2016 that created a new defined benefit retirement plan, SCERS Plan 2 (“SCERS 2”), covering non-uniformed employees. The new plan is open to employees first hired on or after January 1, 2017. SCERS 2 includes, among other adjustments to SCERS Plan 1 (“SCERS 1”), a slight decrease in benefit levels, raising the minimum retirement age, and deferring retirement eligibility by increasing the age-plus-years-of-service required for retirement with full benefits. The City expects SCERS 2 to provide a more cost-effective method for the City to provide retirement benefits to its employees. It does not affect uniformed employees. The historical information provided in this section relates only to SCERS 1.

Additional detail on the existing plans is available from SCERS and DRS on their respective websites (SCERS: <http://www.seattle.gov/retirement/>; DRS: <http://www.drs.wa.gov/>).

Permanent non-uniformed City employees and certain grandfathered employees of the County (and a predecessor agency of the County) are eligible for membership in SCERS. Newly-hired uniformed police and fire personnel are generally eligible for membership in LEOFF. The Seattle Firefighters' Pension Fund and Police Relief and Pension Fund have been closed to new members since 1977.

GASB 67/68 Reporting. GASB Statement No. 67 ("GASB 67") and GASB 68 modified the accounting and financial reporting of pensions by pension plans (GASB 67) and by state and local government employers (GASB 68), but did not alter the funding requirements under State law and City ordinance for members, employers, or the State. The SCERS annual report for the fiscal year ended December 31, 2018, and DRS's Comprehensive Annual Financial Reports for LEOFF for the fiscal year ended June 30, 2018, were prepared in accordance with GASB 67. The City's financial statements for the fiscal year ended December 31, 2017, were prepared in accordance with GASB 68. The City's Comprehensive Annual Financial Report for 2017 is available on the City's website.

The 2018 Financial Statements, attached as Appendix C, have been prepared in accordance with GASB 68. The Seattle City Light Fund reported a liability of \$232.5 million and \$288.88 million, representing its proportionate share of NPL for SCERS as of December 31, 2018, and December 31, 2017, respectively. The effect of this recognition is reflected in its Balance Sheets and its Statement of Revenues, Expenses and Changes in Net Position in the 2018 Financial Statements. The NPL was measured as of December 31, 2017, and December 31, 2016, and the TPL used to calculate the NPL was based on the actuarial valuations as of January 1, 2017, and January 1, 2016, . The Seattle City Light Fund's proportion of the NPL was based on contributions to SCERS during the fiscal years ended December 31, 2017, and December 31, 2016. The Seattle City Light Fund's proportionate share was 21.00% and 22.13% for the years ended December 31, 2018, and December 31, 2017, respectively. Schedules of the Seattle City Light Fund's proportionate share of NPL and contributions are provided as required supplementary information to the Department's 2018 Financial Statements.

Seattle City Employees' Retirement System. SCERS is a cost-sharing multiple-employer defined benefit public employee retirement plan, administered in accordance with Chapter 4.36 of the Seattle Municipal Code ("SMC"), by the Retirement System Board of Administration (the "Board"). The Board consists of seven members, including the Chair of the Finance Committee of the City Council, the City's Director of Finance, the City's Human Resources Director, two active members and one retired member of the system, and one outside board member who is appointed by the other six board members. Elected and appointed Board members serve for three-year terms.

SCERS is a pension trust fund of the City and provides retirement, death, and disability benefits under SCERS 1 and SCERS 2. Employees first entering the system on or after January 1, 2017, are enrolled in SCERS 2, with limited exceptions for certain exempt employees and those with service credit prior to January 1, 2017. Members already enrolled in SCERS 1 do not currently have an option to switch to SCERS 2.

Under SCERS 1, retirement benefits vest after five years of credited service, while death and disability benefits vest after ten years of service. Retirement benefits are calculated as 2% multiplied by years of creditable service, multiplied by average salary, based on the highest 24 consecutive months. The benefit is actuarially reduced for early retirement. Under SCERS 2, retirement benefits vest after five years of credited service, while death and disability benefits vest after ten years of service. Retirement benefits are calculated as 1.75% multiplied by years of creditable service, multiplied by average salary, based on the highest 60 consecutive months. The benefit is actuarially reduced for early retirement.

According to the most recent actuarial valuation (with a valuation date as of January 1, 2019), which was completed on May 29, 2019 (the "2018 Actuarial Valuation"), there were 6,792 retirees and beneficiaries receiving benefits, and 9,388 active members of SCERS. There are an additional 1,332 terminated employees in SCERS who are vested and entitled to future benefits and another 1,303 who are not vested and not entitled to benefits beyond contributions and accumulated interest. From January 1, 2018, to January 1, 2019, the net number of active members in SCERS increased by 1.5%, the net number of retirees receiving benefits increased by 3.6%, and the net number of vested terminated members increased by 3.6%.

Certain demographic data from the 2018 Actuarial Valuation are shown below:

TABLE 15
PLAN MEMBER DEMOGRAPHIC INFORMATION, SCERS

<u>Age Range</u>	<u>Retirees and Beneficiaries</u>		<u>Active Employees</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
<25	-		115	1.2%
25-39	-		2,534	27.0%
40-49	7 ⁽¹⁾	0.1% ⁽¹⁾	2,408	25.6%
50-59	292	4.4%	2,698	28.7%
60-69	2,506	37.4%	1,510	16.1%
70+	3,900	58.2%	123	1.3%

(1) Includes everyone under the age of 50.

Source: 2018 Actuarial Valuation

FINANCIAL CONDITION AND ACTUARIAL VALUATIONS. As a department of the City, SCERS is subject to the City’s internal control structure and is required by SMC 4.36.140.D to transmit a report to the City Council annually regarding the financial condition of SCERS (the “SCERS Annual Report”). The most recent SCERS Annual Report, for the years ended December 31, 2018, and December 31, 2017, was transmitted on June 12, 2019, by CliftonLarsonAllen LLP.

On July 17, 2014, the Washington State Auditor’s Office issued a finding of a significant deficiency in internal controls over financial reporting relating to SCERS account reconciliations as set forth in the financial statements for the year ending December 31, 2013. As described, the finding stated that general ledger accounts were not analyzed and reconciled with subsidiary information on a monthly basis. The City responded to this finding by stating that SCERS would work with the City’s central accounting unit to establish a common understanding of how investments and investment activities should be reflected in the City’s general ledger. A copy of that audit report is available on the State Auditor’s website (www.sao.wa.gov).

Milliman Consultants and Actuaries, as consulting actuary, has evaluated the funding status of SCERS annually since 2010. The most recent actuarial report, the 2018 Actuarial Valuation (with a valuation date as of January 1, 2019), is available on the City’s website at <http://www.seattle.gov/retirement/about-us/board-of-administration#actuarialreports>. Since 2010, the City has had actuarial valuations prepared annually.

At its July 2018 meeting, the Board adopted new assumptions to be used for the 2018 Actuarial Valuation. The new assumptions are based on the 2018 Investigation of Experience Report. The adopted assumptions included a decrease in the investment return assumption, a decrease in the consumer price inflation assumption, and an overall increase in life expectancies. The following summarizes some key assumptions utilized in the 2018 Actuarial Valuation and compares those to the assumptions used in the prior actuarial valuation.

TABLE 16
ACTUARIAL ASSUMPTIONS

	2018	2017
Investment return	7.25%	7.50%
Price inflation	2.75%	3.25%
Wage growth (price inflation plus wage inflation)	3.50%	4.00%
Expected annual average membership growth	0.50%	0.50%
Interest on member contributions made on or after January 1, 2012 ⁽¹⁾	4.00%	4.75%

(1) Contributions made prior to January 1, 2012, are assumed to accrue interest at 5.75%.

Source: 2018 and 2017 Actuarial Valuations

As of January 1, 2019 (as set forth in the 2018 Actuarial Valuation), the actuarial value of net assets available for benefits was \$2,877 million and the actuarial accrued liability was \$4,217 million. An Unfunded Actuarial Accrued Liability (“UAAL”) exists to the extent that actuarial accrued liability exceeds plan assets. Per the 2018 Actuarial Valuation, the UAAL increased from \$1,186.6 million as of January 1, 2018, to \$1,339.3 million as of January 1, 2019. The funding ratio decreased from 69.9% as of January 1, 2018, to 68.2% as of January 1, 2019, which decrease is primarily due to the changes to assumptions previously described and investment performance that deviated significantly from expectations in the prior actuarial valuation. For the year ending December 31, 2018, SCERS assets experienced an investment loss of about 3.7% on a market basis (net of investment expenses), a rate of return much lower than the assumed rate of 7.50% for 2018. The result is an actuarial loss on assets for 2018, but only one-fifth of this gain will be recognized in the current year actuarial value of assets (“AVA”). Unlike most public pension systems, prior to January 1, 2011, all valuations were reported on a mark-to-market basis. Consequently, the full impact of annual asset gains or losses occurring in recent years was reflected in each actuarial valuation. To improve its ability to manage short-term market volatility, the City adopted a five-year asset smoothing methodology in 2011 that recognizes the asset gain or loss occurring in each year evenly over a five-year period. Under this methodology, combined with prior years’ asset gains and losses, the 2018 return was a positive 5.5% on an actuarial value basis.

The following table provides historical plan funding information for SCERS:

TABLE 17
HISTORICAL SCERS SCHEDULE OF FUNDING PROGRESS⁽¹⁾
(\$000,000)

Actuarial Valuation Date (January 1)⁽²⁾	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)⁽³⁾	Unfunded AAL (UAAL)	Funding Ratio	Covered Payroll⁽⁴⁾	UAAL as % of Covered Payroll
2010	\$ 1,645.3	\$ 2,653.8	\$ (1,008.5)	62.0%	\$ 580.9	173.6 %
2011 ⁽⁵⁾	2,013.7	2,709.0	(695.4)	74.3%	563.2	123.5 %
2012 ⁽⁵⁾	1,954.3	2,859.3	(905.0)	68.3%	557.0	162.5 %
2013 ⁽⁵⁾	1,920.1	3,025.3	(1,105.2)	63.5%	567.8	194.6 %
2014 ⁽⁵⁾	2,094.3	3,260.1	(1,165.8)	64.2%	597.9	195.0 %
2015 ⁽⁵⁾	2,266.7	3,432.6	(1,165.9)	66.0%	630.9	184.8 %
2016 ⁽⁵⁾	2,397.1	3,605.1	(1,208.0)	66.5%	641.7	188.3 %
2017 ⁽⁵⁾	2,564.1	3,766.4	(1,202.3)	68.1%	708.6	169.7 %
2018 ⁽⁵⁾	2,755.2	3,941.8	(1,186.6)	69.9%	733.3	161.8 %
2019 ⁽⁵⁾	2,877.4	4,216.7	(1,339.3)	68.2%	779.1	171.9 %

- (1) For accounting purposes under GASB 67/68, UAAL is replaced with net pension liabilities. However, because the City continues to set its contribution rates based on an actuarially required contribution based on the UAAL and funding ratios calculated under the pre-GASB 67/68 methodology, both methods are currently reported in the SCERS actuarial valuations and annual reports.
- (2) Actuarial valuations were performed biennially until 2010, after which the City began performing an actuarial valuation annually.
- (3) Actuarial present value of benefits less actuarial present value of future normal cost. Based on Entry Age Actuarial Cost Method, defined below under "SCERS Contribution Rates."
- (4) Covered Payroll shown for the prior calendar year; includes compensation paid to all active employees on which contributions are calculated.
- (5) Beginning with the January 1, 2011, actuarial valuation, SCERS has used five-year asset smoothing.

Source: 2018 Actuarial Valuation

In accordance with GASB 67, the 2018 SCERS audited financial statements included a calculation of Total Pension Liability ("TPL") and Net Pension Liability ("NPL") based on the actuarial valuation dated as of January 1, 2018, rolled forward using generally accepted actuarial procedures (assuming a 7.25% investment rate of return and 3.50% salary increases) to December 31, 2018, as follows: TPL was calculated to be \$4,236.7 million, plan fiduciary net position ("Plan Net Position") was calculated to be \$2,717.4 million, and NPL was calculated to be \$1,519.2 million, for a funding ratio (Plan Net Position as a percentage of TPL) of 64.1%.

SCERS CONTRIBUTION RATES. Member and employer contribution rates for SCERS 1 and SCERS 2 are established separately by Chapter 4.36 of the SMC. The SMC provides that the City contribution for SCERS 1 must match the normal contributions of SCERS 1 members and does not permit the employer rate to drop below the employee rate. There is no similar restriction in the SMC with respect to SCERS 2. The SMC also requires that the City contribute, in excess of the matching contributions, the amount determined by the most recent actuarial valuation that is required to fully fund the plan. Contribution rates are recommended annually by the Board, based on the system's actuarial valuation. Benefit and contribution rates are set by the City Council.

The Actuarially Required Contribution ("ARC") rate is based on amortizing the required contribution over 30 years, meaning that the total contribution rate must be sufficient to pay for the costs of benefits earned during the current year, as well as the annual cost of amortizing the plan's UAAL over 30 years. The City Council may from time to time set the amortization period by resolution, and in 2013, it passed a resolution

to close the 30-year amortization period for calculating UAAL as of the January 1, 2013, actuarial valuation. As a result, for purposes of the 2018 Actuarial Valuation calculation, a 24-year amortization period was used. This policy may be revised by the City Council in future years. The 2018 Actuarial Valuation was prepared using the Entry Age Normal Cost (“EANC”) method. Under the EANC method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percent of the individual’s projected compensation between entry age into the system and assumed exit age (e.g., termination or retirement).

Current and historical contribution rates for SCERS, based on a percentage of employee compensation (exclusive of overtime), are shown in the table below.

**TABLE 18
EMPLOYER AND EMPLOYEE SCERS CONTRIBUTION RATES**

Calendar Years (beginning Jan. 1)	Employer Rate	Employee Rate	Total Contribution Rate	Total ARC ⁽¹⁾	% of Total ARC Contributed	Total ARC per GASB 27 ⁽²⁾	% of Total ARC Contributed per GASB 27
2012	11.01%	10.03%	21.04%	21.04%	100%	21.87%	96%
2013	12.89%	10.03%	22.92%	22.92%	100%	24.05%	95%
2014	14.31%	10.03%	24.34%	24.34%	100%	25.63%	95%
2015	15.73%	10.03%	25.76%	25.76%	100%	26.38%	98%
2016	15.23%	10.03%	25.26%	25.26%	100%	N/A	N/A
2017	15.29%	10.03%	25.32%	25.32%	100%	N/A	N/A
2018	15.23% ⁽³⁾	10.03%	25.26%	25.00%	101% ⁽³⁾	N/A	N/A
2019	15.26% ⁽³⁾	9.85% ⁽⁴⁾	25.11%	24.40% ⁽⁵⁾	103% ⁽³⁾	N/A	N/A
2020	16.14%	9.65% ⁽⁴⁾	25.79%	25.79% ⁽⁵⁾	100%	N/A	N/A

- (1) Reflects total actuarial required contribution (i.e., employer plus employee contribution rates). Since November 21, 2011, this rate has been used for City budgeting purposes.
- (2) The primary difference between the Total ARC calculation and that calculated under GASB Statement No. 27 is that the Total ARC calculation uses a 0.50% membership growth assumption, while GASB specifies an assumption of no membership growth. The GASB rate calculations take into account the lag between the determination of the ARC and the expected contribution date associated with that determination (for example, contribution rates for calendar year 2012 were based on the ARC determined as part of the January 1, 2011, actuarial valuation). Beginning in 2016, GASB Statement No. 27 was superseded by GASB 68, so this calculation is no longer performed.
- (3) The City contribution rate is intentionally more than the total ARC in an effort to reduce the projected increase in future contribution rates. See Table 19.
- (4) Reflects a blended employee contribution rate based on rates for SCERS 1 and SCERS 2 members.
- (5) The ARC for 2019 and 2020 reflects a blended normal cost for SCERS 1 and SCERS 2.

Source: Seattle Municipal Code; 2018 and 2019 Budgets; Annual Actuarial Valuation Reports

In 2011, the City Council adopted Resolution 31334, affirming the City’s intent to fully fund the annual ARC each year with its budget. See Table 18—Employer and Employee SCERS Contribution Rates and Table 19—Projected Actuarially Required Total Contribution Rates for SCERS by Employer and Employee.”

The City’s contracts with all labor unions that represent SCERS members limit the ability of the City to pass on increases to pension contribution rates to the employee portion. Prior contracts permitted 1% increases in 2011 and 2012 to be reflected in the employee contribution rates, but have eliminated any additional cost-sharing. Future increases to pension contribution rates will be reflected in the City’s employer contribution.

As indicated in Table 18, the Total ARC is increasing to 25.79% as a percent of payroll beginning in January 1, 2020. This compares to the 24.40% Total ARC in the prior year. The employees’ share will average 9.65% between SCERS 1 and SCERS 2. The employer’s share needed to meet the Total ARC is increasing from 14.55% to 16.14%, the majority of which increase is due to the July 2018 adoption of new

actuarial assumptions for the 2018 Actuarial Valuation (described above). These assumptions account for 0.98% of the increase in ARC. Another 0.40% is the result of net asset losses on the actuarial value of the plan's assets due to lower than assumed investment returns during 2018. The 2019 employer contribution rate of 15.26% in 2019 is higher than the 14.55% needed to meet the Total ARC. The City is anticipating increasing its employer contribution rate for 2020 to at least 16.14%, in order to meet the projected Total ARC in 2020.

Projected total actuarially required contribution rates for SCERS reported in the 2018 Actuarial Valuation are shown in the table below:

TABLE 19
PROJECTED ACTUARIALLY REQUIRED TOTAL CONTRIBUTION RATES FOR SCERS
BY EMPLOYER AND EMPLOYEE

Contribution Year⁽¹⁾	Assuming 7.25% Returns	Confidence Range⁽²⁾
2020	16.14%	16.14-16.14
2021	16.57%	15.72-17.37
2022	16.74%	14.90-18.49
2023	16.95%	13.86-19.90
2024	17.58%	13.00-21.97
2025	17.58%	11.16-23.64

(1) Contribution year lags valuation year by one. For example, contribution year 2020 is based on the 2018 Actuarial Valuation (as of January 1, 2019) results, amortized over 24 years beginning in 2019 if the contribution rate change takes place in 2020.

(2) Confidence range for asset returns between the 5th and 95th percentile.

Source: 2018 Actuarial Valuation

Employer contributions were \$112.1 million in 2017, of which \$23.7 million was from the Seattle City Light Fund, and \$117.7 million in 2018, of which \$24.7 million was from the Seattle City Light Fund. The employer share for employees of each of the utility funds is allocated to and paid out of the funds of each respective utility.

INVESTMENT OF SCERS PLAN FUNDS. In accordance with chapter 35.39 RCW, the Board has established an investment policy for the systematic administration of SCERS funds. The investment of SCERS funds is governed primarily by the prudent investor rule, as set forth in RCW 35.39.060. SCERS invests retirement funds for the long term, anticipating both good and poor performing financial markets. Contributions into SCERS 1 and SCERS 2 are invested together.

The market value of SCERS' net assets decreased by \$135.4 million (-4.7%) during 2018, including member and employer contributions of \$194.1 million and net loss from investment activity totaling \$106.6 million. Deductions increased by \$13.4 million in 2018, primarily attributed to a \$11.2 million increase in retiree benefit payments.

Table 20 shows the historical market value of SCERS' assets (as of each December 31). Table 21 shows the historical investment returns on SCERS for the last ten years.

TABLE 20
SCERS MARKET VALUE OF ASSETS

Year (As of December 31)	Market Value of Assets (MVA)⁽¹⁾
2009	\$ 1,645.3
2010	1,812.8
2011	1,753.5
2012	1,951.4
2013	2,216.9
2014	2,322.7
2015	2,313.0
2016	2,488.5
2017	2,852.9
2018	2,717.4

(1) In millions.

Source: SCERS Actuarial Valuations

TABLE 21
SCERS INVESTMENT RETURNS

Year (As of December 31)	One-Year Annualized Return
2009	10.8% ⁽¹⁾
2010	12.7%
2011	-0.4%
2012	12.8%
2013	15.0%
2014	5.3%
2015	0.1%
2016	8.4%
2017	15.7%
2018	-3.7%

(1) Calculated before fees.

Source: SCERS Annual Reports

Table 22 below shows the historical distribution of SCERS investments over the last five years. Table 23 shows similar information for the past two years under a revised investment class categorization.

**TABLE 22
HISTORICAL SCERS DISTRIBUTION OF INVESTMENTS BY CLASS**

Investment Categories (January 1)	2018	2017	2016	2015	2014
Fixed Income	24.0%	22.9%	28.4%	24.2%	23.7%
Domestic and International Stocks	57.0%	57.4%	53.3%	60.0%	60.8%
Real Estate	10.8%	12.2%	12.8%	11.0%	10.6%
Alternative Investments	8.2%	7.4%	5.4%	4.8%	4.9%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: SCERS Actuarial Valuations

**TABLE 23
HISTORICAL SCERS DISTRIBUTION: REVISED INVESTMENT CLASS CATEGORIZATION**

Investment Categories (January 1)	2019	2018
Diversifying Strategies	2.0%	1.9%
Fixed Income	28.9%	24.6%
Infrastructure	0.9%	0.4%
Private Equity	8.1%	5.2%
Public Equity	48.8%	57.1%
Real Estate	11.3%	10.8%
Total	100.0%	100.0%

In accordance with SCERS' Investment Policy, the Board retains external investment managers to manage components of the SCERS portfolio. Managers have authority to determine investment strategy, security selection, and timing, subject to the Investment Policy, specific manager guidelines, legal restrictions, and other Board direction. Managers do not have authority to depart from their guidelines. These guidelines specify eligible investments, minimum diversification standards, and applicable investment restrictions necessary for diversification and risk control.

The Investment Policy defines eligible investments to include securities lending transactions. Through a custodial agent, SCERS participates in a securities lending program whereby securities are lent from the system's investment portfolio on a collateralized basis to third parties (primarily financial institutions) for the purpose of generating additional income to the system. The market value of the required collateral must meet or exceed 102% of the market value of the securities lent. Lending is limited to a volume of less than \$75 million.

Firefighters' Pension Fund; Police Relief and Pension Fund. The Firefighters' Pension Fund and the Police Relief and Pension Fund are single-employer pension plans that were established by the City in compliance with chapters 41.18 and 41.20 RCW.

All City law enforcement officers and firefighters serving before March 1, 1970, are participants in these plans and may be eligible for a supplemental retirement benefit plus disability benefits under these plans. Some disability benefits may be available to such persons hired between March 1, 1970, and September 30, 1977. Since the effective date of LEOFF in 1970, no payroll for employees was covered under these City plans, and the primary liability for pension benefits for these City plans shifted from the City to the State LEOFF plan described below. The City remains liable for all benefits of employees in service at that time plus certain future benefits in excess of LEOFF benefits. Generally, benefits under the LEOFF system are greater than or equal to the benefits under the old City plan. However,

because LEOFF benefits increase with the consumer price index (CPI-Seattle) while some City benefits increase with wages of current active members, the City's projected liabilities vary according to differences between wage and CPI increase assumptions.

These pension plans provide retirement benefits, death benefits, and certain medical benefits for eligible active and retired employees. Retirement benefits are determined under chapters 41.18 and 41.26 RCW for the Firefighters' Pension Fund and under chapters 41.20 and 41.26 RCW for the Police Relief and Pension Fund. As of January 1, 2019, membership in these plans consisted of 619 fire employees and survivors and 685 police employees and survivors. See "Other Post-Employment Benefits" below for a discussion of medical benefits paid to retirees.

In 2015, GASB released Statement No. 73 ("GASB 73"), replacing accounting requirements previously mandated under GASB Statements Nos. 25 and 27 for public pension plans that are not within the scope of GASB 68. The City has determined that both the Firefighters' Pension Fund and the Police Relief and Pension Fund are outside the scope of GASB 67 and GASB 68, and therefore the accounting and financial reporting for these pension plans has been prepared in accordance with GASB 73.

These pension plans do not issue separate financial reports. The most recent actuarial valuations, dated January 1, 2019, use the EANC method and value plan assets at fair value. The actuarial valuation for the firefighters' pension fund uses the following long-term actuarial assumptions: inflation rate (CPI), 2.25%; investment rate of return, 6.00%; and projected salary increases, 2.75%. The actuarial valuation for the Police Relief and Pension Fund uses the following long-term actuarial assumptions: inflation rate (CPI), 2.25%; investment rate of return, 4.00%; and projected salary increases, 2.75%. Postretirement benefit increases are projected based on salary increase assumptions for benefits that increase based on salary and based on CPI assumptions for benefits based on CPI.

Since both pension plans were closed to new members effective October 1, 1977, the City is not required to adopt a plan to fund the actuarial accrued liability of these plans. In 1994, the City established an actuarial fund for the Firefighters' Pension Fund and adopted a policy of fully funding the actuarial accrued liability ("AAL") by the year 2018 (which was subsequently extended to 2028). In accordance with GASB 73, the plan had a TPL of \$85.9 million as of December 31, 2018, a decrease of \$12.7 million from the TPL of \$98.6 million as of December 31, 2017. As of January 1, 2019, the actuarial value of net assets available for benefits in the Firefighters' Pension Fund was \$20.8 million, and the AAL was \$72.9 million. As a result, the UAAL was \$52.1 million and the funded ratio was 28.5%. In the January 1, 2018, actuarial valuation, the UAAL was \$57.2 million and the funded ratio was 24.9%. The City's employer contribution to the fund in 2018 was \$8.4 million; there were no current member contributions. Under State law, partial funding of the Firefighters' Pension Fund may be provided by an annual property tax levy of up to \$0.225 per \$1,000 of assessed value within the City. The City does not currently levy this additional property tax, but makes contributions out of the General Fund levy. The fund also receives a share of the State tax on fire insurance premiums.

The City funds the Police Relief and Pension Fund as benefits become due. In accordance with GASB 73, the plan had a TPL of \$80.5 million as of December 31, 2018, a decrease of \$12.4 million from the TPL of \$92.9 million as of December 31, 2017. As of January 1, 2019, the actuarial value of net assets available for benefits in the Police Relief and Pension Fund was \$5.8 million, and the AAL was \$89.2 million. As a result, the UAAL was \$83.4 million and the funded ratio was 6.5%. In the January 1, 2018, actuarial valuation, the UAAL was \$85.1 million and the funded ratio was 9.3%. The City's employer contribution to the fund in 2018 was \$11.8 million; there were no current member contributions. The fund also receives police auction proceeds of unclaimed property.

Law Enforcement Officers' and Fire Fighters' Retirement System. Substantially all of the City's current uniformed firefighters and police officers are enrolled in LEOFF. LEOFF is a State-wide, multiple-employer defined benefit plan administered by the DRS. Contributions by employees, employers, and the State are based on gross wages. LEOFF participants who joined the system by September 30, 1977, are Plan 1 members. LEOFF participants who joined on or after October 1, 1977, are Plan 2 members. For all of the City's employees who are covered under LEOFF, the City contributed \$15.3 million in 2017 and \$14.7 million in 2016. The following table outlines the contribution rates of employees and employers under LEOFF.

TABLE 24
LEOFF CONTRIBUTION RATES EXPRESSED AS A PERCENTAGE OF COVERED PAYROLL
(AS OF JULY 1, 2019)

	Plan 1	Plan 2
Employer	0.18% ⁽¹⁾	5.33% ⁽¹⁾
Employee	0.00	8.59%
State	N/A	3.44%

(1) Includes a 0.18% DRS administrative expense rate.

Source: Washington State Department of Retirement Systems

While the City’s current contributions represent its full current liability under the retirement systems, any unfunded pension benefit obligations could be reflected in future years as higher contribution rates. The State Actuary’s website includes information regarding the values and funding levels for LEOFF.

According to the Office of the State Actuary’s June 30, 2017, valuation, LEOFF had no UAAL. LEOFF Plan 1 had a funded ratio of 131% and LEOFF Plan 2 had a funded ratio of 109%. The assumptions used by the State Actuary in calculating the accrued actuarial assets and liabilities are a 7.7% annual rate of investment return for LEOFF Plan 1 and a 7.5% annual rate of investment return for LEOFF Plan 2, 3.75% general salary increases, 3.0% consumer price index increase, and annual growth in membership of 1.25%. Liabilities were valued using the EANC method and assets were valued using the AVA, which defers a portion of the annual investment gains or losses over a period of up to eight years. As of December 31, 2017, the City reported an asset of \$181.3 million for its proportionate share of the NPL as follows: \$54.0 million for LEOFF Plan 1 and \$127.3 million for LEOFF Plan 2. Schedules of the Seattle City Light Fund’s proportionate share of NPL and of the Seattle City Light Fund’s contributions are provided as required supplementary information to the Department’s 2018 Financial Statements.

For additional information, see Note 11 to the City’s 2017 Comprehensive Annual Financial Report, which is available on the City’s website.

Other Post-Employment Benefits

The City has liability for two types of OPEB: (i) an implicit rate subsidy for health insurance covering employees retiring under SCERS 1, SCERS 2, or LEOFF Plan 2 and dependents of employees retiring under LEOFF Plan 1, and (ii) medical benefits for eligible beneficiaries of the City’s Firefighters’ Pension Fund and Police Relief and Pension Fund. The implicit rate subsidy is the difference between (i) what retirees pay for their health insurance as a result of being included with active employees for rate-setting purposes, and (ii) the estimated required premiums if their rates were set based on claims experience of the retirees as a group separate from active employees.

For the fiscal year ending December 31, 2017, the City assessed its OPEB liability in order to satisfy the reporting requirements specified by GASB Statement No. 45 (“GASB 45”). For the fiscal year ending December 31, 2018, the City will assess its OPEB liability in accordance with GASB Statement No. 75 (“GASB 75”). While GASB 45 and GASB 75 require reporting and disclosure of the unfunded OPEB liability, they do not require that it be funded. The City will implement GASB 75 and GASB Statement No. 74 for financial reporting for the fiscal year ended December 31, 2018.

The City funds its OPEB liabilities on a pay-as-you-go basis.

The City commissions a biennial valuation report on its OPEB liabilities associated with the implicit rate subsidy for health insurance covering employees retiring under the SCERS 1, SCERS 2, or LEOFF plans. The last valuation was as of January 1, 2018, and was the first valuation prepared in accordance with GASB 75. It showed the UAAL for the implicit rate subsidy decreased to \$61.1 million from \$65.7 million in the prior valuation. The City’s GASB 75 estimated annual expense in 2018 was calculated at \$5.5 million, which compares to the GASB 45 annual OPEB cost of \$7.0 million in 2017. The valuation of the OPEB liability associated with the City’s Firefighters’ Pension Fund and Police Relief and Pension Fund is updated annually. The most recent valuations were prepared in accordance

with GASB 45. As of January 1, 2019, the UAAL for OPEB in the City's Firefighters' Pension Fund was \$239.8 million. The annual expense recognized for 2018 was a negative \$16.8 million due to the recognition of changes in actuarial assumptions. The estimated annual contribution for 2018 was \$11.5 million. As of January 1, 2019, the UAAL for OPEB in the Police Relief and Pension Fund was \$266.1 million. The annual expense recognized for 2018 was a negative \$6.8 million due to the recognition of changes in actuarial assumptions. The estimated annual contribution for 2018 was \$14.5 million.

For additional information regarding the City's OPEB liability, see Note 11 to the City's 2017 Comprehensive Annual Financial Report.

State Paid Family and Medical Leave Insurance

Starting January 1, 2020, the State will be the fifth state in the nation to offer paid family and medical leave benefits to State workers, including State and local government employees. The Paid Family and Medical Leave program is a State-wide insurance program that ensures paid leave for State workers when they need time off to give or receive care. Eligible workers are those who have worked at least 820 hours (equivalent to 20.5 full-time weeks) in the qualifying period before the leave begins. The program will typically cover 12 weeks of leave (up to 18 weeks in certain circumstances). Workers receive between \$100 and \$1,000 per week, depending on their income. The program is funded by employer and employee premiums, and will be administered by the Employment Security Department. Assessments for premiums began on January 1, 2019, and benefits can be taken starting January 1, 2020.

As of January 1, 2019, the City began paying assessments for premiums based on a percentage of wages. The initial rate of this assessment is 0.4% of wages that are subject to the federal social security tax. The 2019 assessment is expected to be approximately \$4,750,000, of which approximately \$2,215,000 will be paid from the General Fund and \$1,279,000 will be paid by the City's various utilities.

State Long-Term Care Services and Supports Benefit Program

In 2019, the State created a Long-Term Services and Supports ("LTSS") Trust Program, pursuant to House Bill 1087, which will provide certain long-term care benefits to eligible beneficiaries. All individuals employed in the State (including employees of local governments such as the City) may become eligible to receive the benefit when they have paid the LTSS trust premiums while working at least 500 hours per year for either ten years with at least five years uninterrupted, or three of the last six years. A program participant who may receive benefits must have been assessed by the State Department of Social and Health Services with needing assistance with at least three daily living tasks, must be at least 18 years old (and must not have been disabled before the age of 18), and must reside in the State. There is a lifetime cap on the benefit for any individual equal to 365 benefit units, which are assigned a dollar value adjusted annually at a rate not exceeding the CPI. Benefits may be accessed beginning January 1, 2025, and will be paid directly to LTSS providers on behalf of eligible beneficiaries. Administration of the LTSS Trust Program is divided among multiple existing State health and human services agencies and two newly created State bodies, the LTSS Trust Council and the LTSS Trust Commission.

The LTSS Trust Program will be funded through premiums assessed beginning January 1, 2022, at a rate of 0.58% of each employee's wages within the State. Rates will be adjusted every two years by the State Pension Funding Council (based on actuarial studies and valuations to be performed by the State Actuary) to maintain financial solvency of the LTSS Trust, but not to exceed 0.58%. Employers will be required to remit premiums on behalf of all employees other than employees who demonstrate that they have long-term care insurance. There is no employer contribution required under State law. Collective bargaining agreements existing on October 19, 2017, are not required to be reopened or to apply the LTSS Trust Program requirements until the existing agreement is reopened, renegotiated, or expires.

Labor Relations

As of March 2019, the City had 37 separate departments and offices with approximately 13,410 regular and temporary employees. Twenty-five different unions and 51 bargaining units represent the approximately 75% of regular City employees whose employment is governed by 30 different collective bargaining agreements.

Of the 30 collective bargaining agreements, the City is in contract negotiations for 25 new agreements to replace those that expired December 31, 2018, which include the Seattle Fire Fighters, the Coalition of City Unions, and other non-

Coalition unions. The contract negotiations with the Seattle Fire Chiefs also expired on December 31, 2018, and negotiations to replace that contract are expected to begin sometime after the conclusion of negotiations with the Seattle Fire Fighters. These open contracts cover almost 7,800 of the approximately 9,800 City employees, including temporary workers, covered by collective bargaining agreements. There is no expected date by which the agreements that are currently in negotiations will be reached, and unions continue to operate under current or expired contracts.

The City has current collective bargaining agreements in place with SPOG (expires December 31, 2020), IBEW Local 77—Seattle City Light (expires January 22, 2021), IBEW Local 77—Seattle Department of Transportation (expires January 22, 2021), and the Seattle Police Management Association (expires December 31, 2019).

The agreement with SPOG was approved by the City Council on November 13, 2018, and replaces the prior contract which had expired in December 2014 and under which covered employees had been working since its expiration. As part of the agreement, the City made a one-time retroactive payment of approximately \$65 million related to salaries and pension benefits accrued during the four years since the expiration of the previous contract.

Additionally, on May 22, 2019, the U.S. District Court judge overseeing a 2012 consent decree entered in the U.S. Department of Justice’s inquiry into the Seattle Police Department entered an order finding that the new SPOG contract fails to adequately address police officer accountability and is not in compliance with the consent decree. The City is evaluating options for complying with the District Court’s order. The City estimates additional costs of approximately \$100,000 per month until resolution of the issue to the satisfaction of the court.

United States Supreme Court Decision in Janus v. AFSCME. The U.S. Supreme Court issued a decision in *Janus v. AFSCME* on June 27, 2018. The primary issue in *Janus* was whether public employees can be compelled to pay representation fees as a condition of employment. The Court held that “[n]either an agency fee nor any other payment to the union may be deducted from a nonmember’s wages, nor may any other attempt be made to collect such a payment, unless the employee affirmatively consents to pay.” In light of the *Janus* ruling and its inconsistency with the contracts in effect at the time of the ruling, the City has entered into Memoranda of Understanding with nearly all of the affected bargaining units addressing the provisions of the dues deduction article(s) in each collective bargaining agreement and expects new provisions compliant with *Janus* to be incorporated in the next round of contracts.

Emergency Management and Preparedness

The City’s Office of Emergency Management (“OEM”) is responsible for coordinating the City’s resources and responsibilities in dealing with emergencies. The OEM prepares for emergencies, coordinates with regional, State, and federal response agencies, provides education to the community about emergency preparedness, plans for emergency recovery, and works to mitigate known hazards. It has identified and assessed many types of hazards that may impact the City, including geophysical hazards (*e.g.*, earthquakes, landslides, tsunamis, seismic seiches, volcanic eruptions, and lahars), infectious disease outbreaks, intentional hazards (*e.g.*, terrorism, active shooter incidents, breaches in cybersecurity, and civil disorder), transportation incidents, fires, hazardous materials, infrastructure failure, and unusual weather conditions (*e.g.*, floods, snow, water shortages, and wind storms). However, the City cannot anticipate all potential hazards and their effects, including any potential impact on the economy of the City or the region.

If a disaster were to damage or destroy a substantial portion of the taxable property within the City, the assessed value of such property could be reduced, which could result in a reduction of property tax revenues. Other revenue sources, such as sales tax and lodging tax, could also be reduced. In addition, substantial financial and operational resources of the City could be required during any emergency event or disaster and could be diverted to the subsequent repair of damage to City infrastructure.

The City’s emergency management program was assessed by a third-party team of emergency management professionals according to the Emergency Management Accreditation Program standards and was accredited in 2016. The City will seek reaccreditation in 2021.

Climate Change. There are potential risks to the City associated with changes to the climate over time and from increases in the frequency, timing, and severity of extreme weather events. The City is preparing for a changing climate and the resulting economic, infrastructure, health, and other community impacts by integrating consideration

of climate change into decision making and identifying mitigation and adaptation actions to enhance the resilience of services and infrastructure. The City passed Resolution 31447 in June 2013 adopting a Climate Action Plan to provide long-term planning direction and guide climate protection and adaptation efforts through 2030. In April 2018, the Mayor's Office released an updated "Climate Action Plan" that focuses on a set of short- and long-term actions that provide a roadmap for the City to act on the leading contributors of greenhouse gases: transportation and buildings. It builds on prior studies and plans implemented by the Office of Sustainability and the Environment ("OSE") that detail strategies and actions that can be taken to improve the climate preparedness of City infrastructure and services and to facilitate coordination across City government. The OSE plans include sector-specific strategies for transportation; buildings, and energy (including specific energy consumption and greenhouse gas emissions reduction targets for City buildings); trees and green space; food access; a healthy environment; and environmental justice. The City has also developed more specific plans addressing utility operations (including drainage, water supply, solid waste, and the electric system) and community preparedness. The City cannot predict how or when various climate change risks may occur nor can it quantify the impact on the City, its population, or its operations. Over time, the costs could be significant and could have a material adverse effect on the City's finances by requiring greater expenditures to counteract the effects of climate change.

Cybersecurity. Cybersecurity threats continue to become more sophisticated and are increasingly capable of impacting the confidentiality, integrity, and availability of City systems and applications, including those of critical controls systems. Seattle IT, working in conjunction with various City departments, has and continues to institute processes, training, and controls to maintain the reliability of its systems and protect against cybersecurity threats as well as mitigate intrusions and plan for business continuity via data recovery. Cybersecurity incident response plans are reviewed regularly, and tabletop and other exercises are conducted annually to assess the effectiveness of those plans. Seattle IT and third-party professional services also conduct cybersecurity assessments with the intent to identify areas for continual improvement, and develop work plans to address issues and support the cybersecurity program. This includes technical vulnerability assessments, penetration testing, and National Institute of Standards and Technology ("NIST") 800-53a cybersecurity risk assessments. Seattle IT continuously reviews and updates processes and technologies to mature security practices according to the NIST Cybersecurity Framework. Cybersecurity risks create potential liability for exposure of nonpublic information and could create various other operational risks. The City cannot anticipate the precise nature of any particular breach or the resulting consequences, and currently self-insures for any cybersecurity-related losses.

OTHER CONSIDERATIONS

Federal Sequestration and Other Federal Funding Considerations

Federal Sequestration. The sequestration provisions of the Budget Control Act of 2011 ("Sequestration") went into effect on March 1, 2013, and are currently scheduled to remain in effect through federal fiscal year 2024. The only direct impact of sequestration on the Department for FFY 2019 and FFY 2020 is expected to be a reduction of 6.2% and 5.9%, respectively, in the amount the Department originally expected to receive from the federal government in connection with its Municipal Light and Power Revenue Bonds, 2010A (Taxable Build America Bonds—Direct Payment); Municipal Light and Power Revenue Bonds; 2010C (Taxable Recovery Zone Economic Development Bonds—Direct Payment); Municipal Light and Power Improvement Revenue Bonds, 2011B (Taxable New Clean Renewable Energy Bonds—Direct Payment); Municipal Light and Power Improvement Revenue Bonds, 2012C (Taxable New Clean Renewable Energy Bonds—Direct Payment); and Municipal Light and Power Revenue Bonds, 2016A (Taxable New Clean Renewable Energy Bonds—Direct Payment). Because of this reduction, the Department received approximately \$434,000 less in interest subsidies than originally anticipated for 2018. The Department has sufficient revenues to pay the interest without these subsidies. Sequestration was originally in effect through FFY 2021 and has subsequently been extended through FFY 2029.

The City cannot predict whether the current Congress and administration will continue to implement Sequestration or other federal funding policies in the same manner as under the previous administration. Further, the City cannot predict whether Sequestration or other federal funding policies may be enacted or implemented in a way that negatively or disproportionately affects certain cities or regions that adopt policies that are inconsistent with the current federal administration's policy priorities.

Other Federal Funding Considerations Relating to “Sanctuary Cities” Executive Order and Related Matters. On March 29, 2017, the City filed a challenge to President Trump’s January 25, 2017, Executive Order (the “Order”) which directs reductions in or denial of federal funds to local jurisdictions that refuse to assist in federal immigration enforcement activities. Following resolution of a similar challenge against the Order by the Ninth Circuit Court of Appeals in *City and County of San Francisco v. Trump*, the district court deciding Seattle’s case (*City of Seattle v. Trump*) granted the City declaratory judgment and ruled that the Order violates the U.S. Constitution. At this time, it is unclear how, whether, or when actions might be taken to reduce funding to any local jurisdiction pursuant to this Order. Nonetheless, the City expects that, if the administration were able to implement reductions, the City would likely be one of many local jurisdictions affected. The City cannot predict the outcome of the multiple pending lawsuits and appeals challenging the Order.

Separate from the Order, the Department of Justice grants additional points to applicants for the Community Oriented Policing Services grant program that chose an “illegal immigration” focus area and that agreed to take certain immigration-related measures. In *Los Angeles v. Barr*, the Ninth Circuit recently ruled this policy to be lawful encouragement of immigration cooperation rather than illegal coercion. This decision is not yet final and may be subject to reconsideration by the Ninth Circuit or U.S. Supreme Court review. If the decision stands, the effect on the City’s federal grant applicants cannot be predicted.

The City expects that it would have the flexibility to respond to any direct financial reductions or eliminations of federal funding if they were to occur. There are several major transportation infrastructure projects underway for which the City has applied for or expects to receive federal funding, which could be restructured, deferred, or canceled. Some City projects or programs are supported by federal dollars granted to another agency or by way of partnership with other agencies potentially affected by the Order or other funding reduction, and the City uses some of its federal money to support other local agencies. Moreover, much of the City’s federal funding is provided on a reimbursable basis and there is a risk that the City could expend funds on the expectation of federal reimbursement that could potentially be at risk for reduction or elimination. At this point, it is impossible to precisely identify how, whether, or when any such revenues could be affected by implementation of the Order or other federal funding reduction. Nonetheless, if reductions were to be implemented, any projects or programs previously supported by reduced federal funding could be resized and/or deferred, if necessary, including those funded in part with proceeds of the Bonds. Alternatively, funding from other sources could be redirected to those projects or programs.

The City cannot predict whether reductions in federal funding based on federal immigration policy may occur, when they could be implemented, what form they could take, or whether the City’s declaratory judgment (or other court rulings) would be effective at curtailing any such reductions. In summary, the City expects that it would be able to redirect funding or reduce expenditures in a manner that does not affect the City’s ability to repay the Bonds.

Considerations Related to Alaskan Way Viaduct Replacement Program and Waterfront Seattle Program

The Alaskan Way Viaduct Replacement Program (“AWVR Program”) consists of multiple projects, the most significant of which are the State’s replacement of the State Route 99 (“SR 99”) Alaskan Way Viaduct with the SR 99 Tunnel (the “State’s Viaduct Replacement Project”) and the Waterfront Seattle Program, each described below.

City Contracts with the State. The various projects comprising the AWVR Program are separate public projects by separate lead public agencies being implemented in a coordinated and phased manner pursuant to a series of written agreements. The City has a series of written agreements with the Washington State Department of Transportation (“WSDOT”) relating to the coordination of projects within the AWVR Program, covering various issues such as the protection, repair, and relocation of the City’s utility infrastructure impacted by or constructed as part of the State’s Viaduct Replacement Project. In general, these agreements provide that the City is responsible for relocating certain utility infrastructure that conflicts with the State’s projects and the State is responsible for avoiding damage and repairing or replacing damaged utility infrastructure as defined in the agreements. The City’s utilities have budgeted according to the agreements for the State’s Viaduct Replacement Project, plus necessary contingencies. The City has also entered into an agreement with WSDOT regarding the New Alaskan Way Roadway. The City is working with the State to closely coordinate the construction of the New Alaskan Way Roadway with the State’s Viaduct Replacement Project. Although the State is responsible for the cost of constructing the New Alaskan Way Roadway (after removal of the Alaskan Way Viaduct), the City will be responsible for the construction project.

State's Viaduct Replacement Project. The State's project to replace the Alaskan Way Viaduct with a bored tunnel has been completed and the SR 99 Tunnel was opened to vehicles in February 2019. The State expects to begin tolling the SR 99 Tunnel in fall 2019. The SR 99 Tunnel construction was undertaken pursuant to a contract between WSDOT and a joint venture named Seattle Tunnel Partners. The City is not a party to that contract, and responsibility for any direct cost overruns will be governed by that contract; the City has no direct contractual liability. Demolition of the Alaskan Way Viaduct is nearly complete and work to fill the decommissioned Battery Street Tunnel and to complete various surface street improvements near the tunnel's entrances is currently underway. This portion of the State's Viaduct Replacement Project is expected to be completed in 2020.

Waterfront Seattle Program. The Waterfront Seattle Program consists of multiple projects to redevelop the City's central waterfront, including seawall replacement, the creation of approximately 20 acres of new and improved parks and public space, and improved connectivity in and around the City's central waterfront area. There is also coordination between the Waterfront Seattle Program and redevelopment projects undertaken by other public agencies in the central waterfront area, including the Pike Place Market Preservation and Development Authority.

The Waterfront Seattle Program includes or will include various City capital improvements that span the City's central waterfront area from Pioneer Square to Belltown. The overall budget is approximately \$724 million, excluding seawall replacement and utility relocations and upgrades. The major elements of the seawall replacement project were completed in 2017 and were financed primarily with voter-approved bonds; the final portion of that project has been recently completed as part of the Waterfront Seattle Program. The State's contribution for various improvements is expected to be approximately \$195 million, with certain costs relating to a pedestrian overpass connecting to the State ferry terminal still under negotiation.

The City's funding plan for the remaining approximately \$529 million of the Waterfront Seattle Program (excluding the seawall) includes a mix of funding sources from various City revenues (*e.g.*, commercial parking tax, real estate excise tax), grant funding, approximately \$110 million in private philanthropy (currently being raised by the nonprofit Friends of the Waterfront), and approximately \$160 million in local improvement district assessments from the Waterfront Local Improvement District, described below. The various projects (other than the seawall replacement) will be phased, with the first elements nearing completion and construction finishing by late 2023.

Waterfront Local Improvement District. On January 29, 2019, the City Council adopted Ordinance 125760 (the "LID Ordinance"), creating Local Improvement District No. 6751 (the "Waterfront LID"). The Waterfront LID will impose and collect special assessments to pay for a portion (approximately \$160 million) of the estimated costs of specific improvements identified in the LID Ordinance, which include the Promenade, Overlook Walk, Pioneer Square Street Improvements, Union Street Pedestrian Connection, Pike/Pine Streetscape Improvements, and Waterfront Park. Two lawsuits challenging the formation of the Waterfront LID were filed, and were subsequently consolidated into a single action. The lawsuit is currently in the discovery phase, and the City cannot currently estimate when it will be resolved.

The LID improvements are to be undertaken as part of the Waterfront Seattle Program and are expected to be partially funded by the issuance of Waterfront LID Bonds, which will be payable from the special assessments and will not be a general obligation of the City. However, they are expected to be secured by the City's LID Guaranty Fund. Special assessments will be imposed sufficient to pay or reimburse the City for up to \$160 million of the costs of these improvements, plus the costs of issuing the Waterfront LID Bonds and making a Guaranty Fund deposit. The City plans to issue the Waterfront LID Bonds within the next two to three years, depending on the result of the challenge to the formation of the Waterfront LID and the timing of steps necessary to finalize the Waterfront LID assessment roll. Interim financing for the LID improvements is being provided by means of an interfund loan authorized by the City Council.

Considerations Specific to the Department. The AWVR Program, including State's Bored Tunnel Project, the Seawall Project, and the Waterfront Seattle Program, involves the relocation and construction of various components of the City's utility infrastructure, including infrastructure that is or will be owned by the Department. The budgeted CIP for each City utility, including that of the Department, incorporates the estimated cost and timing of expenditures associated with its respective utility infrastructure projects. See "Capital Requirements—Distribution." Any revision in the scope or timing may lead to an increase in the ultimate cost of these various utility infrastructure projects.

INITIATIVE AND REFERENDUM

State-Wide Measures

Under the State Constitution, Washington voters may initiate legislation (either directly to the voters, or to the State Legislature and then, if not enacted, to the voters) and require that legislation passed by the State Legislature be referred to the voters. Any law approved in this manner by a majority of the voters may not be amended or repealed by the State Legislature within a period of two years following enactment, except by a vote of two-thirds of all the members elected to each house of the State Legislature. After two years, the law is subject to amendment or repeal by the State Legislature in the same manner as other laws. The State Constitution may not be amended by initiative.

Initiatives and referenda are submitted to the voters upon receipt of a petition signed by at least 8% (initiative) and 4% (referendum) of the number of voters registered and voting for the office of Governor at the preceding regular gubernatorial election.

In recent years, several State-wide initiative petitions to repeal or reduce the growth of taxes and fees, including City taxes, have garnered sufficient signatures to reach the ballot. Some of those tax and fee initiative measures have been approved by the voters and, of those, some remain in effect while others have been invalidated by the courts.

One such State-wide initiative, Initiative 976 (“I-976”), qualified for submission to the State Legislature in the 2019 legislative session and was not acted upon by the State Legislature prior to adjournment. I-976 is therefore expected to appear on the November 2019 State-wide ballot. I-976 purports to reduce vehicle license fees collected by the State and amends or repeals certain statutes that relate to vehicle license fees collected by local governments, such as the City. The City cannot predict whether any challenge may be filed preventing the measure from appearing on the ballot, whether it would pass if voted on, or what the effect of the measure might be (if any) on the City’s revenue from vehicle license fees. The State Office of Financial Management has prepared a fiscal note, which is available on its website, estimating the fiscal impact State-wide, if the measure were to go into effect as written.

Additional tax and fee initiative measures continue to be filed on a regular basis, but it cannot be predicted whether any more such initiatives might gain sufficient signatures to qualify for submission to the State Legislature and/or the voters or, if submitted, whether they ultimately would become law.

Local Measures

Under the City Charter, Seattle voters may initiate City Charter amendments and local legislation, including modifications to existing legislation, and through referendum may prevent legislation passed by the City Council from becoming law.

LEGAL AND TAX INFORMATION

No Litigation Relating to the Bonds

There is no litigation pending with process properly served on the City questioning the validity of the Bonds or the power and authority of the City to issue the Bonds. There is no litigation pending or threatened which would materially affect the City’s ability to meet debt service requirements on the Bonds.

Other Litigation

Because of the nature of its activities, the Department is subject to legal actions that arise in the ordinary course of business of running a municipal electric power utility, including various lawsuits and claims involving claims for money damages. (See Appendix C—2018 Audited Financial Statements of the Department—Notes 10, 11, 15, and 20.) Based on its past experience and the information currently known, the Department has concluded that its ability to pay principal of and interest on the Bonds on a timely basis will not be impaired by the aggregate amount of uninsured liabilities of the Department and the timing of any anticipated payments of judgments that might result from suits and claims.

On August 21, 2019, a complaint was filed in King County Superior Court alleging that the City improperly billed some of the Department’s electric customers based upon an estimated usage of electricity. The Plaintiff is seeking to

have his complaint certified as a class action, and seeks unspecified damages in an amount to be proven at trial. The City was served with the complaint on August 21, 2019, and began evaluating the complaint. The trial is currently scheduled to begin on August 17, 2020. The Department's ultimate liability is indeterminate.

Approval of Counsel

Legal matters incident to the authorization, issuance, and sale of the Bonds by the City are subject to the approving legal opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation, Seattle, Washington, Bond Counsel. The forms of the opinions of Bond Counsel with respect to the Bonds are attached hereto as Appendix B. Each opinion of Bond Counsel is given based on factual representations made to Bond Counsel and under existing law as of the respective date of initial delivery of each Series of the Bonds. Bond Counsel assumes no obligation to revise or supplement its opinions to reflect any facts or circumstances that may thereafter come to its attention or any changes in law that may thereafter occur. The opinion of Bond Counsel is an expression of its professional judgment on the matters expressly addressed in its opinion and does not constitute a guarantee of result. Bond Counsel will be compensated only upon the issuance and sale of the Bonds.

Limitations on Remedies and Municipal Bankruptcies

Any remedies available to the owners of the Bonds are in many respects dependent upon judicial actions which are in turn often subject to discretion and delay and could be both expensive and time-consuming to obtain. If the City fails to comply with its covenants under the Bond Ordinance or to pay principal of or interest on the Bonds, there can be no assurance that available remedies will be adequate to fully protect the interests of the owners of the Bonds.

The rights and obligations under the Bonds and the Bond Ordinance may be limited by and are subject to bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium, and other laws relating to or affecting creditors' rights, to the application of equitable principles, and the exercise of judicial discretion in appropriate cases.

A municipality such as the City must be specifically authorized under state law in order to seek relief under Chapter 9 of the U.S. Bankruptcy Code (the "Bankruptcy Code"). Washington State law permits any "taxing district" (defined to include cities) to voluntarily petition for relief under the Bankruptcy Code. A creditor cannot bring an involuntary bankruptcy proceeding under the Bankruptcy Code against a municipality, including the City. The federal bankruptcy courts have broad discretionary powers under the Bankruptcy Code.

The opinions to be delivered by Stradling Yocca Carlson & Rauth, a Professional Corporation, as Bond Counsel, concurrently with the issuance of the Bonds, will be subject to limitations regarding bankruptcy, reorganization, insolvency, fraudulent conveyance, moratorium, and other similar laws relating to or affecting creditors' rights. Copies of the proposed forms of opinions of Bond Counsel are set forth in Appendix B.

Tax Matters

In the opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation, Seattle, Washington, Bond Counsel, under existing statutes, regulations, rulings and judicial decisions, interest on the Bonds is excluded from gross income for federal income tax purposes, and is not an item of tax preference for purposes of calculating the federal alternative minimum tax imposed on individuals.

Bond Counsel's opinion as to the exclusion from gross income for federal income tax purposes of interest on the Bonds is based upon certain representations of fact and certifications made by the City and others and is subject to the condition that the City complies with all requirements of the Internal Revenue Code of 1986, as amended (the "Code"), that must be satisfied subsequent to the issuance of the Bonds to assure that interest on the Bonds will not become includable in gross income for federal income tax purposes. Failure to comply with such requirements of the Code might cause the interest on the Bonds to be included in gross income for federal income tax purposes retroactive to the date of issuance of the Bonds. The City will covenant to comply with all such requirements.

The amount by which a Beneficial Owner's original basis for determining loss on sale or exchange in the applicable Bond (generally, the purchase price) exceeds the amount payable on maturity (or on an earlier call date) constitutes amortizable bond premium, which must be amortized under Section 171 of the Code; such amortizable bond premium reduces the Beneficial Owner's basis in the applicable Bond (and the amount of tax-exempt interest received), and is not deductible for federal income tax purposes. The basis reduction as a result of the amortization of bond premium

may result in a Beneficial Owner realizing a taxable gain when a Bond is sold by the Beneficial Owner for an amount equal to or less (under certain circumstances) than the original cost of the Bond to the Beneficial Owner. Purchasers of the Bonds should consult their own tax advisors as to the treatment, computation and collateral consequences of amortizable bond premium.

Bond Counsel's opinions may be affected by actions taken (or not taken) or events occurring (or not occurring) after the date hereof. Bond Counsel has not undertaken to determine, or to inform any person, whether any such actions or events are taken or do occur. The Bond Ordinance and the Tax Certificate relating to the Bonds permit certain actions to be taken or to be omitted if a favorable opinion of a bond counsel is provided with respect thereto. Bond Counsel expresses no opinion as to the effect on the exclusion from gross income for federal income tax purposes of interest on any Bond if any such action is taken or omitted based upon the advice of counsel other than Bond Counsel.

Although Bond Counsel will render an opinion that interest on the Bonds is excluded from gross income for federal income tax purposes provided that the City continues to comply with certain requirements of the Code, the ownership of the Bonds and the accrual or receipt of interest with respect to the Bonds may otherwise affect the tax liability of certain persons. Bond Counsel expresses no opinion regarding any such tax consequences. Accordingly, before purchasing any of the Bonds, all potential purchasers should consult their tax advisors with respect to collateral tax consequences relating to the Bonds.

The Internal Revenue Service (the "IRS") has initiated an expanded program for the auditing of tax-exempt bond issues, including both random and targeted audits. It is possible that the Bonds will be selected for audit by the IRS. It is also possible that the market value of the Bonds might be affected as a result of such an audit of the Bonds (or by an audit of similar bonds). No assurance can be given that in the course of an audit, as a result of an audit, or otherwise, Congress or the IRS might not change the Code (or interpretation thereof) subsequent to the issuance of the Bonds to the extent that it adversely affects the exclusion from gross income of interest on the Bonds or their market value.

SUBSEQUENT TO THE ISSUANCE OF THE BONDS THERE MIGHT BE FEDERAL, STATE, OR LOCAL STATUTORY CHANGES (OR JUDICIAL OR REGULATORY CHANGES TO OR INTERPRETATIONS OF FEDERAL, STATE, OR LOCAL LAW) THAT AFFECT THE FEDERAL, STATE, OR LOCAL TAX TREATMENT OF THE BONDS INCLUDING THE IMPOSITION OF ADDITIONAL FEDERAL INCOME OR STATE TAXES BEING IMPOSED ON OWNERS OF TAX-EXEMPT STATE OR LOCAL OBLIGATIONS, SUCH AS THE BONDS. THESE CHANGES COULD ADVERSELY AFFECT THE MARKET VALUE OR LIQUIDITY OF THE BONDS. NO ASSURANCE CAN BE GIVEN THAT SUBSEQUENT TO THE ISSUANCE OF THE BONDS STATUTORY CHANGES WILL NOT BE INTRODUCED OR ENACTED OR JUDICIAL OR REGULATORY INTERPRETATIONS WILL NOT OCCUR HAVING THE EFFECTS DESCRIBED ABOVE. BEFORE PURCHASING ANY OF THE BONDS, ALL POTENTIAL PURCHASERS SHOULD CONSULT THEIR TAX ADVISORS REGARDING POSSIBLE STATUTORY CHANGES OR JUDICIAL OR REGULATORY CHANGES OR INTERPRETATIONS, AND THEIR COLLATERAL TAX CONSEQUENCES RELATING TO THE BONDS.

CONTINUING DISCLOSURE AGREEMENT

Basic Undertaking to Provide Annual Financial Information and Notice of Listed Events. To meet the requirements of SEC Rule 15c2-12(b)(5) ("Rule 15c2-12"), as applicable to a participating underwriter for the Bonds, the City will execute the Continuing Disclosure Agreement (the "CDA") for the benefit of holders of the Bonds, as follows.

Annual Financial Information. The City will provide or cause to be provided, either directly or through a designated agent, to the Municipal Securities Rulemaking Board (the "MSRB"), in an electronic format as prescribed by the MSRB:

- (a) annual financial information and operating data of the type included in this Official Statement as generally described below ("annual financial information"). The timely filing of unaudited financial statements will satisfy the requirements and filing deadlines described below under "Type of Annual Financial Information Undertaken to be Provided," so long as audited financial statements are filed if and when they are otherwise prepared and available to the City; and
- (b) timely notice (not in excess of ten business days after the occurrence of the event) of the occurrence of any of the following events with respect to the Bonds:

- (1) principal and interest payment delinquencies;
- (2) non-payment related defaults, if material;
- (3) unscheduled draws on debt service reserves reflecting financial difficulties;
- (4) unscheduled draws on credit enhancements reflecting financial difficulties;
- (5) substitution of credit or liquidity providers, or their failure to perform;
- (6) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notice of Proposed Issue (IRS Form 5701-TEB), or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;
- (7) modifications to rights of holders of the Bonds, if material;
- (8) Bond calls (other than scheduled mandatory redemptions of Term Bonds), if material, and tender offers;
- (9) defeasances;
- (10) release, substitution, or sale of property securing repayment of the Bonds, if material;
- (11) rating changes;
- (12) bankruptcy, insolvency, receivership, or similar event of the City, as such "Bankruptcy Events" are defined in Rule 15c2-12;
- (13) the consummation of a merger, consolidation, or acquisition involving the City or the sale of all or substantially all of the assets of the City other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
- (14) appointment of a successor or additional trustee or the change of name of a trustee, if material;
- (15) incurrence of a financial obligation of the City, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the City, any of which affect security holders, if material; and
- (16) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation of the City, any of which reflect financial difficulties.

For purposes of this undertaking, the term "financial obligation" means a (i) debt obligation; (ii) a derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) a guarantee of (i) or (ii). The term "financial obligation" does not include municipal securities as to which a final official statement has been provided to the MSRB consistent with the Rule.

The City also will provide or cause to be provided to the MSRB timely notice of a failure by the City to provide required annual financial information on or before the date specified below.

Type of Annual Financial Information Undertaken to be Provided. The annual financial information that the City undertakes to provide will consist of:

- (i) annual financial statements of the Light System prepared in accordance with generally accepted accounting principles applicable to governmental units (except as otherwise noted therein), as such principles may be changed from time to time and as permitted by State law;
- (ii) a statement of outstanding Parity Bonds, Junior Lien Bonds (if any), and any other bonded indebtedness secured by Net Revenue of the Light System;
- (iii) debt service coverage ratios for the then-Outstanding Parity Bonds, Junior Lien Bonds (if any), and any other bonded indebtedness secured by Net Revenue of the Light System;
- (iv) sources of Light System power and the MWh produced by those sources; and

- (v) the average number of customers, revenues, and energy sales by customer class.

Annual financial information, as described above, will be provided to the MSRB not later than the last day of the ninth month after the end of each fiscal year of the City (currently, a fiscal year ending December 31), as such fiscal year may be changed as required or permitted by State law, commencing with the City's fiscal year ended December 31, 2019. The annual financial information may be provided in a single document or in multiple documents, and may be incorporated by specific reference to documents available to the public on the Internet website of the MSRB or filed with the SEC.

Amendment of CDA. The CDA is subject to amendment after the primary offering of the Bonds without the consent of any holder of any Bond, or any broker, dealer, municipal securities dealer, participating underwriter, rating agency, or the MSRB, under the circumstances and in the manner permitted by Rule 15c2-12, including:

- (i) The amendment may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identify, nature, or status of the City, or type of business conducted;
- (ii) The undertaking, as amended, would have complied with the requirements of the rule at the time of the primary offering, after taking into account any amendments or interpretations of the rule, as well as any change in circumstances; and
- (iii) The amendment does not materially impair the interests of holders, as determined either by parties unaffiliated with the City (e.g., bond counsel or other counsel familiar with federal securities laws), or by approving vote of bondholders pursuant to the terms of the Bond Ordinance at the time of the amendment.

The City will give notice to the MSRB of the substance (or provide a copy) of any amendment to the CDA and a brief statement of the reasons for the amendment. If the amendment changes the type of annual financial information to be provided, the annual financial information containing the amended information will include a narrative explanation of the effect of that change on the type of information to be provided.

Termination of CDA. The City's obligations under the CDA will terminate upon the legal defeasance, prior repayment, or payment in full of all of the outstanding Bonds. In addition, the City's obligations under the CDA will terminate if those provisions of Rule 15c2-12 that require the City to comply with the CDA become legally inapplicable in respect of the Bonds for any reason, as confirmed by an opinion of nationally recognized bond counsel or other counsel familiar with federal securities laws delivered to the City, and the City provides timely notice of such termination to the MSRB.

Remedy for Failure to Comply with CDA. The City has agreed to proceed with due diligence to cause any failure to comply with the CDA to be corrected as soon as practicable after the City learns of that failure. No failure by the City (or any other obligated person) to comply with the CDA will constitute a default in respect of the Bonds. The sole remedy of any holder of a Bond will be to take such actions as that holder deems necessary, including seeking an order of specific performance from an appropriate court, to compel the City or other obligated person to comply with the CDA.

Compliance with Continuing Disclosure Undertakings of the City. The City has entered into undertakings to provide annual information and the notice of the occurrence of certain events with respect to all bonds issued by the City subject to Rule 15c2-12. The City's review of its compliance during the past five years did not reveal any failure to comply, in a material respect, with any undertakings in effect during this time. In preparation for this offering, the City has begun an internal review and will be revising its internal procedures and training in preparation for compliance with the amendments to Rule 15c2-12, which are reflected in events (15) and (16) described in the undertaking for the Bonds.

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APPENDIX A

NEW MONEY BOND ORDINANCE

Ordinance 125711, passed by the City Council on November 19, 2018, which is set forth in this appendix, authorized the issuance of the 2019A Bonds. Ordinance 125460 authorized the issuance of the 2019B Bonds and is substantially similar to Ordinance 125711.

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CITY OF SEATTLE

ORDINANCE 125711

COUNCIL BILL 119394

AN ORDINANCE relating to the electric system of The City of Seattle; adopting a system or plan of additions and betterments to and extensions of the existing municipal light and electric power generation, transmission, and distribution system of the City; authorizing the issuance and sale of municipal light and power revenue bonds for the purposes of providing funds to pay part of the cost of carrying out that system or plan, providing for the reserve fund requirement (if any), and paying the costs of issuance of the bonds; providing parameters for the bond sale terms including conditions, covenants, and other sale terms; describing the lien of the bonds and authorizing their issuance as either senior lien parity bonds or as junior lien bonds; and ratifying and confirming certain prior acts.

WHEREAS, The City of Seattle (the "City") owns, operates and maintains a municipal light and electric power generation, transmission, and distribution system (the "Light System") which Light System has from time to time required various additions, improvements, betterments, and extensions; and

WHEREAS, the City needs to acquire and construct certain additions, improvements, and betterments to and extensions of the Light System (the "Plan of Additions") as described in this ordinance, and needs to borrow funds to pay a portion of the costs of carrying out such Plan of Additions; and

WHEREAS, the City currently has outstanding certain municipal light and power revenue bonds (as identified in Exhibit A, the "Outstanding Parity Bonds") having a charge and lien upon Gross Revenues of the Light System available after payment of Operating and Maintenance Expense ("Net Revenue") prior and superior to all other charges whatsoever; and

WHEREAS, pursuant to the Outstanding Parity Bond Ordinances, the City reserved the right to issue additional municipal light and power revenue bonds ("Future Parity Bonds") having

1 a lien and charge on Net Revenue of the Light System on parity with the lien and charge
2 of the Outstanding Parity Bonds, upon satisfaction of certain conditions (the “Parity
3 Conditions”); and

4 WHEREAS, pursuant to the Outstanding Parity Bond Ordinances, the City also reserved the
5 right to issue additional municipal light and power revenue bonds or other obligations
6 having a lien and charge on Net Revenue of the Light System that is junior and
7 subordinate to the lien and charge of the Outstanding Parity Bonds (the “Junior Lien
8 Bonds”); and

9 WHEREAS, after due consideration, the City has determined that it is in the best interest of the
10 City and its ratepayers to authorize, subject to the provisions of this ordinance, the
11 issuance and sale of municipal light and power revenue bonds as either Parity Bonds or
12 Junior Lien Bonds to pay part of the cost of the Plan of Additions, to provide for the
13 reserve fund requirement (if any), and to pay the costs of issuance of those bonds; NOW,
14 THEREFORE,

15 **BE IT ORDAINED BY THE CITY OF SEATTLE AS FOLLOWS:**

16 Section 1. **Definitions.** As used in this ordinance, the following capitalized terms
17 shall have the meanings set forth below.

18 “**Accreted Value**” means with respect to any Capital Appreciation Bond (a) as of any
19 Valuation Date, the amount determined for such Valuation Date in accordance with the
20 applicable Bond Documents, and (b) as of any date other than a Valuation Date, the sum of
21 (i) the Accreted Value on the preceding Valuation Date and (ii) the product of (A) a fraction, the
22 numerator of which is the number of days having elapsed from the preceding Valuation Date and
23 the denominator of which is the number of days from such preceding Valuation Date to the next

1 succeeding Valuation Date, calculated based on the assumption that Accreted Value accrues
2 during any semiannual period in equal daily amounts on the basis of a year of twelve 30-day
3 months, and (B) the difference between the Accreted Values for such Valuation Dates.

4 **“Adjusted Net Revenue”** means Net Revenue, less any deposits into the Rate
5 Stabilization Account and plus any withdrawals from the Rate Stabilization Account. In
6 calculating Net Revenue, the City may include the Tax Credit Subsidy Payments the City
7 expects to receive from the federal government in respect to the interest on any Tax Credit
8 Subsidy Bonds (or with respect to which the federal government will provide direct payments).
9 In a Parity Certificate, Adjusted Net Revenue is subject to further adjustment as set forth in
10 Section 18(a)(ii). In a Junior Lien Coverage Certificate, Adjusted Net Revenue is subject to
11 further adjustment as set forth in Section 18(b)(ii).

12 **“Alternate Reserve Security”** means Qualified Insurance or a Qualified Letter of Credit
13 that is used by the City to satisfy part or all of the Reserve Fund Requirement, and that is not
14 cancelable on less than five years’ notice.

15 **“Annual Debt Service”** means, with respect to either Parity Bonds (or a series of Parity
16 Bonds) (**“Annual Parity Bond Debt Service”**) or Junior Lien Bonds (or a series of Junior Lien
17 Bonds) (**“Annual Junior Lien Debt Service”**), as applicable, the sum of the amounts required
18 in a calendar year to pay the interest due in such calendar year (excluding interest to be paid from
19 the proceeds of the sale of bonds), the principal of Serial Bonds maturing in such calendar year,
20 and the Sinking Fund Requirements for any Term Bonds due in such calendar year. Additionally,
21 for purposes of this definition:

22 (a) **Calculation of Interest Due – Generally.** Except as otherwise provided below,
23 interest shall be calculated based on the actual amount of accrued, accreted, or otherwise

1 accumulated interest that is payable in respect of the relevant series of Parity Bonds or Junior
2 Lien Bonds, as applicable, taken as a whole, at the rate or rates set forth in the applicable Bond
3 Documents.

4 (b) **Capital Appreciation Bonds.** The principal and interest portions of the Accreted
5 Value of Capital Appreciation Bonds becoming due at maturity or by virtue of a Sinking Fund
6 Requirement shall be included in the calculations of accrued and unpaid and accruing interest or
7 principal in such manner and during such period of time as is specified in the Bond Documents
8 applicable to such Capital Appreciation Bonds.

9 (c) **Variable Interest Rate Bonds.**

10 (i) **Assumed Interest on Variable Interest Rate Parity Bonds.** The amount
11 of interest deemed to be payable on any series of Parity Bonds that are Variable Interest Rate
12 Bonds shall be calculated on the assumption that the interest rate on those bonds is equal to the
13 rate that is 90% of the average RBI during the four calendar quarters ending at least 15 days
14 preceding the quarter in which the calculation is made. *Upon the Parity Covenant Date, the*
15 *following sentence shall replace the immediately preceding sentence: The amount of interest*
16 *deemed to be payable on any series of Parity Bonds that are Variable Interest Rate Bonds shall*
17 *be calculated on the assumption that the interest rate on those bonds is equal to the highest*
18 *12-month rolling average of the SIFMA Municipal Swap Index over the preceding ten years.*
19 *And, upon the Second Parity Covenant Date, a five-year look-back period shall be substituted*
20 *for the ten-year period referenced in the immediately preceding sentence.*

21 (ii) **Assumed Interest on Variable Interest Rate Junior Lien Bonds.** The
22 amount of interest deemed to be payable on any series of Junior Lien Bonds that are Variable
23 Interest Rate Bonds shall be calculated on the assumption that the interest rate on those bonds is

1 equal to the highest 12-month rolling average (ending with the month preceding the date of the
2 calculation) of the SIFMA Municipal Swap Index over the preceding five years.

3 **(d) Interest on Bonds with Respect to Which a Payment Agreement is in Force.**

4 In general, debt service on any bonds (Parity Bonds or Junior Lien Bonds, as applicable) with
5 respect to which a Payment Agreement is in force shall be based on the net economic effect on
6 the City expected to be produced by the terms of the applicable Bond Documents and the terms
7 of the Payment Agreement. For example, if the net effect of the Payment Agreement on a series
8 of bonds otherwise bearing interest at a variable interest rate is to produce an obligation bearing
9 interest at a fixed rate, the relevant series of bonds shall be treated as fixed rate bonds. And if the
10 net effect of the Payment Agreement on a series of bonds otherwise bearing interest at a fixed
11 interest rate is to produce an obligation bearing interest at a variable interest rate, the relevant
12 series of bonds shall be treated as Variable Interest Rate Bonds.

13 Accordingly, the amount of interest deemed to be payable on any series of Parity Bonds
14 (or Junior Lien Bonds, as applicable) with respect to which a Payment Agreement is in force
15 shall be an amount equal to the amount of interest that would be payable at the rate or rates
16 stated in or determined pursuant to the applicable Bond Documents, plus Payment Agreement
17 Payments, minus Payment Agreement Receipts. For the purposes of calculating as nearly as
18 practicable Payment Agreement Receipts and Payment Agreement Payments under a Payment
19 Agreement that includes a variable rate component determined by reference to a pricing
20 mechanism or index that is not the same as the pricing mechanism or index used to determine the
21 variable rate interest component on the series of bonds to which the Payment Agreement is
22 related, it shall be assumed that: (i) the fixed rate used in calculating Payment Agreement
23 Payments will be equal to 105% of the fixed rate specified by the Payment Agreement, and

1 (ii) the pricing mechanism or index specified by the Payment Agreement is the same as the
2 pricing mechanism or index specified by the applicable Bond Documents. Notwithstanding the
3 other provisions of this definition, the City shall not be required to (but may in its discretion)
4 take into account in determining Annual Debt Service the effects of any Payment Agreement that
5 has a term of ten years or less.

6 (e) **Parity Payment Agreements; Junior Lien Payment Agreements.** For any
7 period during which Payment Agreement Payments under a Parity Payment Agreement (or
8 Junior Lien Payment Agreement, as applicable) are taken into account in determining Annual
9 Debt Service on the related Parity Bonds (or Junior Lien Bonds, as applicable) under
10 subsection (d), no additional debt service shall be taken into account with respect to that Parity
11 Payment Agreement (or a Junior Lien Payment Agreement, as applicable). However, for any
12 period during which Payment Agreement Payments are not taken into account under
13 subsection (d) because the Parity Payment Agreement (or Junior Lien Payment Agreement, as
14 applicable) is not then related to any outstanding Parity Bonds (or Junior Lien Bonds, as
15 applicable), payments on that Payment Agreement shall be taken into account by assuming:

16 (i) **If City is Obligated to Make Payments Based on Fixed Rate.** If the City
17 is obligated to make Payment Agreement Payments based on a fixed rate and the Qualified
18 Counterparty is obligated to make payments based on a variable rate index, it shall be assumed
19 that payments by the City will be based on the assumed fixed payor rate, and that payments by
20 the Qualified Counterparty will be based on a rate equal to the average rate determined by the
21 variable rate index specified by the Payment Agreement during the four calendar quarters
22 preceding the quarter in which the calculation is made.

1 (ii) **If City is Obligated to Make Payments Based on Variable Rate Index.**

2 If the City is obligated to make Payment Agreement Payments based on a variable rate index and
3 the Qualified Counterparty is obligated to make payments based on a fixed rate, it shall be
4 assumed that payments by the City will be based on a rate equal to the average rate determined
5 by the variable rate index specified by the Payment Agreement during the four calendar quarters
6 preceding the quarter in which the calculation is made, and that the Qualified Counterparty will
7 make payments based on the fixed rate specified by the Payment Agreement.

8 (f) **Balloon Bonds. *Upon the Parity Covenant Date, the following sentence shall***
9 ***become effective: In calculating Annual Debt Service for any series of Parity Bonds, the City***
10 ***may in its discretion treat the debt service requirements with respect to Parity Bonds that are***
11 ***Balloon Bonds (including principal of and interest on such bonds at the applicable rate or***
12 ***rates) as being amortized in approximately equal annual installments over a period equal to***
13 ***the longer of 30 years or the remaining term of such series of Parity Bonds.***

14 In calculating Annual Debt Service for any series of Junior Lien Bonds, the City may in
15 its discretion treat the debt service requirements with respect to Junior Lien Bonds that are
16 Balloon Bonds (including principal of and interest on such bonds at the applicable rate or rates)
17 as being amortized in approximately equal annual installments over a period equal to the longer
18 of 30 years or the remaining term of such series of Junior Lien Bonds.

19 (g) **Adjustments for Defeased Bonds.** For purposes of determining compliance with
20 the rate covenants set forth in Sections 17(a)(ii) and 17(b)(ii), calculating the Reserve Fund
21 Requirement, and making coverage ratio calculations in connection with the delivery of a Parity
22 Certificate or Junior Lien Coverage Certificate, Annual Debt Service shall be adjusted as set
23 forth in Section 20(d).

1 (h) **Intermediate and Junior Lien Reimbursement Obligations.** If any payment
2 under an Intermediate Lien Reimbursement Obligation or under a Junior Lien Reimbursement
3 Obligation is then due and payable, or is then reasonably expected to become due and payable,
4 the reasonably estimated amount and timing of such payment, calculated in accordance with
5 applicable generally accepted accounting principles and as reflected in the annual financial
6 statements of the Light System, shall be included in calculating Annual Junior Lien Debt Service
7 for purposes of delivering a Junior Lien Coverage Certificate.

8 **“Authorized Denomination”** means \$5,000 or any integral multiple thereof within a
9 maturity of a Series, or such other minimum authorized denominations as may be specified in the
10 applicable Bond Documents.

11 **“Average Annual Debt Service”** means, for purposes of calculating the Reserve Fund
12 Requirement with respect to all Parity Bonds outstanding at the time of calculation, the sum of
13 the Annual Parity Bond Debt Service remaining to be paid to the last scheduled maturity of the
14 applicable Parity Bonds, divided by the number of years such Parity Bonds are scheduled to
15 remain outstanding.

16 **“Balloon Bonds”** means any series of either Parity Bonds or Junior Lien Bonds, as
17 applicable, the aggregate principal amount (including Sinking Fund Requirements) of which
18 becomes due and payable in any calendar year in an amount that constitutes 25% or more of the
19 initial aggregate principal amount of such series.

20 **“Beneficial Owner”** means, with regard to a Bond, the owner of any beneficial interest
21 in that Bond.

22 **“Bond”** means a municipal light and power revenue bond issued pursuant to this
23 ordinance.

1 **“Bond Counsel”** means a lawyer or a firm of lawyers, selected by the City, of nationally
2 recognized standing in matters pertaining to bonds issued by states and their political
3 subdivisions.

4 **“Bond Documents”** means (a) (i) with respect to any Series of the Bonds, this ordinance
5 (including any amendatory or supplemental ordinances), (ii) with respect to a series of Parity
6 Bonds other than a Series of the Bonds, the applicable Parity Bond Ordinance(s), and (iii) with
7 respect to any Junior Lien Bonds other than a Series of the Bonds, the applicable Junior Lien
8 Bond Ordinance(s); (b) the authenticated bond form; and (c) the written agreement(s) setting
9 forth the Bond Sale Terms and additional terms, conditions, or covenants pursuant to which such
10 bond was issued and sold, as set forth in any one or more of the following (if any): (i) a sale
11 resolution, (ii) a bond purchase contract (as defined in the applicable authorizing ordinance),
12 (iii) a bond indenture or a fiscal agent or paying agent agreement (other than the State fiscal
13 agency contract), and (iv) a direct purchase or continuing covenant agreement.

14 **“Bond Owners’ Trustee”** means a bank or trust company organized under the laws of
15 the State, or a national banking association, appointed in accordance with Section 24(e) of this
16 ordinance to act as trustee on behalf of the owners, from time to time, of either the Outstanding
17 Parity Bonds or the Outstanding Junior Lien Bonds, as the case may be.

18 **“Bond Purchase Contract”** means a written offer to purchase a Series of the Bonds
19 pursuant to certain Bond Sale Terms, which offer has been accepted by the City in accordance
20 with this ordinance. In the case of a competitive sale, the Purchaser’s bid for a Series, together
21 with the official notice of sale and a Pricing Certificate confirming the Bond Sale Terms, shall
22 comprise the Bond Purchase Contract.

1 **“Bond Register”** means the books or records maintained by the Bond Registrar for the
2 purpose of registering ownership of each Bond.

3 **“Bond Registrar”** means the Fiscal Agent (unless the Director of Finance appoints a
4 different person to act as bond registrar with respect to a particular Series), or any successor
5 bond registrar selected in accordance with the Registration Ordinance.

6 **“Bond Sale Terms”** means the terms and conditions for the sale of a Series of the Bonds
7 approved by the Director of Finance consistent with the parameters set forth in Section 5,
8 including the amount, date or dates, denominations, interest rate or rates (or mechanism for
9 determining the interest rate or rates), payment dates, final maturity, redemption rights, price,
10 and other terms, conditions or covenants. In connection with a negotiated sale or private
11 placement, the Bond Sale Terms shall be set forth in the Bond Purchase Contract; in connection
12 with a competitive sale, the Bond Sale Terms shall be set forth in a Pricing Certificate.

13 **“Book-Entry Form”** means a fully registered form in which physical bond certificates
14 are registered only in the name of the Securities Depository (or its nominee), as Registered
15 Owner, with the physical bond certificates held by and “immobilized” in the custody of the
16 Securities Depository or its designee, where the system for recording and identifying the transfer
17 of the ownership interests of the Beneficial Owners in those Bonds is neither maintained by nor
18 the responsibility of the City or the Bond Registrar.

19 **“CIP”** means the portion or portions of the “2018-2023 Capital Improvement Program”
20 adopted by the City in Ordinance 125475 relating to the Light System, together with those
21 portions of any previously adopted capital improvement program of the City relating to the Light
22 System, as the CIP may be amended, updated, supplemented, or replaced from time to time by
23 ordinance.

1 **“Capital Appreciation Bond”** means any Parity Bond or Junior Lien Bond, all or a
2 portion of the interest on which is compounded and accumulated at the rates or in the manner,
3 and on the dates, set forth in the applicable Bond Documents, and is payable only upon
4 redemption or on the maturity date of such Capital Appreciation Bond. A Parity Bond or a Junior
5 Lien Bond that is issued as a Capital Appreciation Bond, but which later converts to an
6 obligation on which interest is paid periodically, shall be a Capital Appreciation Bond until the
7 conversion date and thereafter shall no longer be a Capital Appreciation Bond, but shall be
8 treated as having a principal amount equal to its Accreted Value on the conversion date. For
9 purposes of (a) receiving payment of the redemption premium, if any, on a Capital Appreciation
10 Bond that is redeemed prior to maturity, or (b) computing the principal amount of Parity Bonds
11 (or Junior Lien Bonds, a applicable) held by the Owner of a Capital Appreciation Bond in
12 connection with any notice, consent, request, or demand pursuant to this ordinance or for any
13 purpose whatsoever, the principal amount of a Capital Appreciation Bond shall be deemed to be
14 its Accreted Value at the time that such notice, consent, request, or demand is given or made.

15 **“City”** means The City of Seattle, Washington, a municipal corporation duly organized
16 and existing under the laws of the State.

17 **“City Council”** means the City Council of the City, as duly and regularly constituted
18 from time to time.

19 **“Code”** means the Internal Revenue Code of 1986, or any successor thereto, as it has
20 been and may be amended from time to time, and regulations thereunder.

21 **“Conservation Plan”** means the Conservation Potential Assessment 2016 of the City
22 with respect to the Light System endorsed by the City Council in Resolution 31631, adopted

1 January 11, 2016, as that plan may be amended, updated, supplemented or replaced from time to
2 time, to the extent that funds are appropriated by the City therefor.

3 **“Construction Account”** means such fund, subfund or account within the Light Fund as
4 may be designated from time to time by the Director of Finance for the payment of costs of the
5 Plan of Additions.

6 **“Continuing Disclosure Agreement”** means, for each Series that is sold in an offering
7 subject to federal securities regulations requiring a written undertaking to provide continuing
8 disclosure, a continuing disclosure agreement entered into pursuant to Section 22 in substantially
9 the form attached as Exhibit B.

10 **“DTC”** means The Depository Trust Company, New York, New York.

11 **“Deferred Hydroelectric Project Relicensing Costs”** means certain costs required by
12 the Federal Energy Regulatory Commission to be incurred as a condition of the renewal of
13 licenses for the Light System’s hydroelectric projects, which costs are treated in the same
14 manner as capital expenditures.

15 **“Director of Finance”** means the Director of the Finance Division of the Department of
16 Finance and Administrative Services of the City, or any other officer who succeeds to
17 substantially all of the responsibilities of that office.

18 **“Event of Default”** has the meaning given in Section 24. A “Parity Bond Event of
19 Default” shall refer to those Events of Default relating to nonpayment of Parity Bonds, or
20 defaults in respect of the Parity Bond covenants set forth herein and in the applicable Parity
21 Bond Documents giving rise to remedies available to the owners of Parity Bonds. A “Junior Lien
22 Bond Event of Default” shall refer to those Events of Default relating to nonpayment of Junior
23 Lien Bonds, or in respect of the Junior Lien Bond covenants set forth herein and in the applicable

1 Junior Lien Bond Documents giving rise to remedies available to the owners of Junior Lien
2 Bonds.

3 **“Fiscal Agent”** means the fiscal agent of the State, as the same may be designated by the
4 State from time to time.

5 **“Future Junior Lien Bonds”** means, with reference to any Series designated as Junior
6 Lien Bonds, any revenue obligations of the Light System issued or entered into after the Issue
7 Date of such Series, the payment of which constitutes a charge and lien upon Net Revenue equal
8 in priority with the charge and lien upon such revenue for the payment of the amounts required
9 to be paid into the Junior Lien Debt Service Fund to pay and secure payment of the Junior Lien
10 Bonds (including Junior Lien Payment Agreements and Junior Lien Reimbursement
11 Obligations), in accordance with the priority of payment set forth in Section 14. Future Junior
12 Lien Bonds may include Junior Lien Payment Agreements issued in compliance with the Junior
13 Lien Additional Bonds Test.

14 **“Future Parity Bond Ordinance”** means any ordinance passed by the City Council
15 providing for the issuance and sale of a series of Future Parity Bonds, and any other ordinance
16 amending or supplementing the provisions of any such ordinance.

17 **“Future Parity Bonds”** means, with reference to any Series designated as Parity Bonds,
18 any revenue obligations of the Light System issued or entered into after the Issue Date of such
19 Series, the payment of which constitutes a charge and lien upon Net Revenue equal in priority
20 with the charge and lien upon such revenue for the payment of the amounts required to be paid
21 into the Parity Bond Fund and the Reserve Fund to pay and secure payment of the Parity Bonds
22 (including Parity Payment Agreements), in accordance with Section 14. Future Parity Bonds may

1 include Parity Payment Agreements and any other obligations issued in compliance with the
2 Parity Conditions.

3 **“Government Obligations”** means, unless otherwise limited in the Bond Documents for
4 a particular Series of the Bonds, any government obligation as that term is defined in RCW
5 39.53.010, as now in effect or as may hereafter be amended.

6 **“Gross Revenues”** means (a) all income, revenues, receipts and profits derived by the
7 City through the ownership and operation of the Light System; (b) the proceeds received by the
8 City directly or indirectly from the sale, lease or other disposition of any of the properties, rights
9 or facilities of the Light System; (c) Payment Agreement Receipts, to the extent that such
10 receipts are not offset by Payment Agreement Payments; and (d) the investment income earned
11 on money held in any fund or account of the City, including any bond redemption funds and the
12 accounts therein, in connection with the ownership and operation of the Light System. Gross
13 Revenues do not include: (i) insurance proceeds compensating the City for the loss of a capital
14 asset; (ii) income derived from investments irrevocably pledged to the payment of any defeased
15 bonds payable from Gross Revenues; (iii) investment income earned on money in any fund or
16 account created or maintained solely for the purpose of complying with the arbitrage rebate
17 provisions of the Code; (iv) any gifts, grants, donations or other funds received by the City from
18 any State or federal agency or other person if such gifts, grants, donations or other funds are the
19 subject of any limitation or reservation imposed by the donor or grantor or imposed by law or
20 administrative regulation to which the donor or grantor is subject, limiting the application of
21 such funds in a manner inconsistent with the application of Gross Revenues hereunder; (v) the
22 proceeds of any borrowing for capital improvements (or the refinancing thereof); and (vi) the

1 proceeds of any liability or other insurance (excluding business interruption insurance or other
2 insurance of like nature insuring against the loss of revenues).

3 **“High Ross Agreement”** means the agreement dated as of March 30, 1984, between the
4 City and Her Majesty the Queen in Right of the Province of British Columbia relating to the
5 City’s High Ross Dam.

6 **“High Ross Capital Payments”** means the deferred portion of the annual capital
7 payments required to be made by the City under Section 5 of the High Ross Agreement,
8 representing the annual cost that would have been incurred by the City for the construction of the
9 High Ross Dam.

10 **“Intermediate Lien Reimbursement Obligation”** means any payment or
11 reimbursement obligation incurred under a written agreement entered into in connection with a
12 series of Parity Bonds or to obtain Qualified Insurance or a Qualified Letter of Credit, under
13 which the City’s payment obligations are expressly stated to constitute a lien and charge on Net
14 Revenue junior in rank to the lien and charge upon such Net Revenue required to be paid into the
15 Parity Bond Fund to pay and secure the payment of the Parity Bonds, but senior to the lien and
16 charge upon such Net Revenue required to be paid into the Junior Lien Debt Service Fund to pay
17 and secure the payment of the Junior Lien Bonds.

18 **“Issue Date”** means, with respect to a Bond, the initial date on which that Bond is issued
19 and delivered to the initial Purchaser in exchange for its purchase price.

20 **“Junior Lien Additional Bonds Test”** means the conditions set forth in Section 18(b)
21 for issuing additional Junior Lien Bonds (including Junior Lien Payment Agreements and Junior
22 Lien Reimbursement Obligations).

1 **“Junior Lien Bond”** means, generally, any bond or obligation secured by a lien and
2 charge on Net Revenue that is junior and subordinate to the lien and charge of the Parity Bonds,
3 but prior and superior to other liens and charges, in accordance with the priority of payment set
4 forth in Section 14. The term Junior Lien Bond may refer to (a) any Bond of a Series issued
5 pursuant to this ordinance that is so designated by the Director of Finance upon satisfaction of
6 the Junior Lien Additional Bonds Test, (b) any Future Junior Lien Bond; (c) any Junior Lien
7 Payment Agreement; and (d) any Junior Lien Reimbursement Obligation.

8 **“Junior Lien Bond Documents”** means those Bond Documents applicable to a series of
9 Junior Lien Bonds.

10 **“Junior Lien Bond Ordinance”** means this ordinance, and any other ordinance passed
11 by the City Council in the future authorizing the issuance and sale of any Future Junior Lien
12 Bonds, including any ordinance amending or supplementing the provisions of any Junior Lien
13 Bond Ordinance.

14 **“Junior Lien Coverage Certificate”** means a certificate delivered pursuant to Section
15 18(b)(ii), for purposes of satisfying the Junior Lien Additional Bonds Test in connection with the
16 issuance of Future Junior Lien Bonds.

17 **“Junior Lien Debt Service Fund”** means the special fund of the City known as the
18 Seattle Municipal Light Revenue Junior Lien Debt Service Fund established within the Light
19 Fund pursuant to Ordinance 125459 for purpose of paying and securing the principal of and
20 interest on Junior Lien Bonds and securing obligations under Junior Lien Payment Agreements
21 and Junior Lien Reimbursement Obligations.

22 **“Junior Lien Payment Agreement”** means any Payment Agreement, which is entered
23 into in compliance with the Junior Lien Additional Bonds Test, and under which the City’s

1 payment obligations are expressly stated to constitute a lien and charge on Net Revenue equal in
2 rank with the lien and charge upon such Net Revenue required to be paid into the Junior Lien
3 Debt Service Fund to pay and secure the payment of the Junior Lien Bonds in accordance with
4 Section 14. For purposes of determining percentages of ownership of Junior Lien Bonds under
5 this ordinance or under any Bond Documents, Junior Lien Payment Agreements shall be deemed
6 to have no principal amount, and any consent or similar rights (if any) shall be determined only
7 as set forth in the applicable Junior Lien Payment Agreement.

8 **“Junior Lien Reimbursement Obligation”** means any reimbursement obligation
9 incurred under a written reimbursement agreement (or similar agreement) entered into in
10 connection with a series of Junior Lien Bonds to obtain Qualified Insurance or a Qualified Letter
11 of Credit, under which the City’s payment obligations are expressly stated to constitute a lien and
12 charge on Net Revenue equal in rank with the lien and charge upon such Net Revenue required
13 to be paid into the Junior Lien Debt Service Fund to pay and secure the payment of the Junior
14 Lien Bonds. For purposes of determining percentages of ownership of Junior Lien Bonds under
15 this ordinance or under any Bond Documents, Junior Lien Reimbursement Obligations shall be
16 deemed to have no principal amount, and any consent or similar rights (if any) shall be
17 determined only as set forth in the applicable Junior Lien Reimbursement Obligations.

18 **“Letter of Representations”** means the Blanket Issuer Letter of Representations
19 between the City and DTC dated October 4, 2006, as it may be amended from time to time, or an
20 agreement with a substitute or successor Securities Depository.

21 **“Light Fund”** means the special fund of the City of that name heretofore created and
22 established by the City Council.

1 **“Light System”** means the municipal light and power generation, transmission, and
2 distribution system now belonging to or which may hereafter belong to the City.

3 **“MSRB”** means the Municipal Securities Rulemaking Board.

4 **“Maximum Annual Debt Service”** means, with respect to Parity Bonds or Junior Lien
5 Bonds, as applicable, the maximum amount of Annual Debt Service that shall become due in the
6 current calendar year or in any future calendar year with respect to those Parity Bonds (or Junior
7 Lien Bonds, as applicable) that are outstanding as of the calculation date.

8 **“Net Revenue”** for any period means Gross Revenues less Operating and Maintenance
9 Expense.

10 **“Omnibus Refunding Ordinance”** means Ordinance 125460, passed by the City
11 Council on November 20, 2017, authorizing the issuance of Refunding Bonds (as such ordinance
12 may be amended from time to time) or any other ordinance of the City passed in the future,
13 pursuant to which the Bonds (or any Series of the Bonds) are designated as Refundable Bonds.

14 **“Operating and Maintenance Expense”** means all reasonable charges incurred by the
15 City in causing the Light System to be operated and maintained in good repair, working order
16 and condition, including but not limited to all operating expenses under applicable generally
17 accepted accounting principles included in the annual audited financial statements of the Light
18 System, except those excluded in this definition. Operating and Maintenance Expense does not
19 include: (a) extraordinary, nonrecurring expenses of the Light System or any judgments or
20 amounts to be paid in settlement of claims against the Light System, (b) non-cash expenses
21 relating to a mark-to-market treatment of energy-related contracts, (c) any costs or expenses
22 (including interest expense) for new construction, replacements, or renewals of Light System
23 property, (d) Deferred Hydroelectric Project Relicensing Costs, the High Ross Capital Payments,

1 or other similar payments under any agreement for the development or licensing of a capital
2 improvement or asset, under which agreement the City agrees to make periodic payments in
3 respect of its share of the capital expense, (e) any allowance for depreciation, amortization, or
4 similar recognitions of non-cash expense items made for accounting purposes only (including
5 non-cash pension expense), (f) any taxes levied by or paid to the City (or payments in lieu of
6 taxes) upon the properties or earnings of the Light System, or (g) any obligation authorized
7 pursuant to ordinance or resolution specifically excluding the payment of such obligation from
8 Operating and Maintenance Expense.

9 **“Outstanding Junior Lien Bonds”** means, with reference to a particular Series of Junior
10 Lien Bonds issued pursuant to this ordinance, those Junior Lien Bonds that are outstanding as of
11 the Issue Date of such Series.

12 **“Outstanding Parity Bonds”** means those outstanding Parity Bonds identified in
13 Exhibit A. When used in reference to a particular date or series of Parity Bonds, Outstanding
14 Parity Bonds shall mean those Parity Bonds (including any Parity Bonds issued subsequent to the
15 date of this ordinance) that are outstanding as of that date or as of the issue date of such series.

16 **“Owner”** means, without distinction, the Registered Owner and the Beneficial Owner of
17 a Bond.

18 **“Parity Bond”** means, generally, any bond or obligation secured by a lien and charge on
19 Net Revenue that is prior and superior to any other liens or charges whatsoever, in accordance
20 with the priority of payment set forth in Section 14. The term Parity Bond may refer to: (a) the
21 Outstanding Parity Bonds identified in Exhibit A; (b) each Series of the Bonds designated by the
22 Director of Finance as a Series of Parity Bonds upon satisfaction of the Parity Conditions;

1 (c) any Future Parity Bonds; and (d) any Parity Payment Agreement entered into upon
2 satisfaction of the Parity Conditions.

3 **“Parity Bond Documents”** means those Bond Documents applicable to a series of Parity
4 Bonds.

5 **“Parity Bond Fund”** means the special fund of the City known as the Seattle Municipal
6 Light Revenue Parity Bond Fund established within the Light Fund pursuant to Ordinance 92938
7 for the purpose of paying and securing the payment of principal of and interest on Parity Bonds.

8 **“Parity Bond Ordinance”** means any ordinance passed by the City Council providing
9 for the issuance and sale of any Series of Parity Bonds, and any other ordinance amending or
10 supplementing the provisions of any Parity Bond Ordinance.

11 **“Parity Certificate”** means a certificate delivered pursuant to Section 18(a)(ii) for
12 purposes of satisfying the Parity Conditions in connection with the issuance of Future Parity
13 Bonds.

14 **“Parity Conditions”** means, (a) for purposes of establishing that a Series of the Bonds
15 may be issued on parity with the Parity Bonds outstanding as of the Issue Date of such Series,
16 the conditions for issuing Future Parity Bonds set forth in the Parity Bond Ordinances relating to
17 those Parity Bonds that are then outstanding; and (b) for purposes of issuing Future Parity Bonds
18 on parity with a Series of the Bonds, the conditions described in the preceding clause (a) together
19 with the conditions set forth in Section 18(a).

20 **“Parity Covenant Date”** means the earlier of (a) the date on which the City has obtained
21 consents of the requisite percentage of Registered Owners of the Parity Bonds then outstanding,
22 in accordance with the provisions of the applicable Outstanding Parity Bond Documents; or
23 (b) the date on which all of the following Outstanding Parity Bonds have been redeemed or

1 defeased: Municipal Light and Power Improvement and Refunding Revenue Bonds, 2008;
2 Municipal Light and Power Revenue Bonds, 2010A (Taxable Build America Bonds – Direct
3 Payment); Municipal Light and Power Improvement and Refunding Revenue Bonds, 2010B;
4 Municipal Light and Power Revenue Bonds, 2010C (Taxable Recovery Zone Economic
5 Development Bonds – Direct Payment); Municipal Light and Power Improvement and
6 Refunding Revenue Bonds, 2011A; Municipal Light and Power Improvement Revenue Bonds,
7 2011B (Taxable New Clean Renewable Energy Bonds – Direct Payment); Municipal Light and
8 Power Improvement and Refunding Revenue Bonds, 2012A; Municipal Light and Power
9 Improvement Revenue Bonds, 2012C (Taxable New Clean Renewable Energy Bonds – Direct
10 Payment); Municipal Light and Power Improvement and Refunding Revenue Bonds, 2013;
11 Municipal Light and Power Improvement and Refunding Revenue Bonds, 2014; and Municipal
12 Light and Power Revenue Bonds, 2015A.

13 **“Parity Payment Agreement”** means a Payment Agreement that is entered into in
14 compliance with the Parity Conditions and under which the City’s payment obligations are
15 expressly stated to constitute a lien and charge on Net Revenue equal in rank with the lien and
16 charge upon such Net Revenue required to be paid into the Parity Bond Fund and the Reserve
17 Fund to pay and secure the payment of principal of and interest on Parity Bonds in accordance
18 with Section 14. For purposes of determining percentages of ownership of Parity Bonds under
19 this ordinance or under any Bond Documents, Parity Payment Agreements shall be deemed to
20 have no principal amount, and any consent or similar rights (if any) shall be determined only as
21 set forth in the applicable Parity Payment Agreement.

22 **“Payment Agreement”** means a written agreement entered into by the City and a
23 Qualified Counterparty, as authorized by any applicable laws of the State, for the purpose of

1 managing or reducing the City's exposure to fluctuations or levels of interest rates, or for other
2 interest rate, investment, or asset or liability management purposes, and which provides for (i) an
3 exchange of payments based on interest rates, ceilings, or floors on such payments, (ii) options
4 on such payments; (iii) any combination of the foregoing, or (iv) any similar device. A Payment
5 Agreement may be entered into on either a current or forward basis. A Payment Agreement must
6 be entered into in connection with (or incidental to) the issuance, incurring, or carrying of
7 particular bonds, notes, bond anticipation notes, commercial paper, or other obligations for
8 borrowed money (which may include leases, installment purchase contracts, or other similar
9 financing agreements or certificates of participation in any of the foregoing).

10 **"Payment Agreement Payments"** means the amounts periodically required to be paid
11 by the City to a Qualified Counterparty pursuant to a Payment Agreement.

12 **"Payment Agreement Receipts"** means the amounts periodically required to be paid by
13 a Qualified Counterparty to the City pursuant to a Payment Agreement.

14 **"Permitted Investments"** means any investments or investment agreements permitted
15 for the investment of City funds under the laws of the State, as amended from time to time.

16 **"Plan of Additions"** means the system or plan of additions to and betterments and
17 extensions of the Light System adopted by ordinance, including but not limited to the CIP, the
18 Conservation Plan, the High Ross Capital Payments and the Deferred Hydroelectric Project
19 Relicensing Costs. The Plan of Additions includes all amendments, updates, supplements or
20 replacements to the CIP, the Conservation Plan, the High Ross Capital Payments and the
21 Deferred Hydroelectric Project Relicensing Costs, all of which shall automatically constitute
22 amendments to the Plan of Additions upon approval by ordinance. The Plan of Additions
23 includes the purchase and installation of all materials, supplies, appliances, equipment (including

1 but not limited to data processing hardware and software and conservation equipment) and
2 facilities, the acquisition of all permits, licenses, franchises, property and property rights, other
3 capital assets and all engineering, consulting and other professional services and studies (whether
4 performed by the City or by other public or private entities) necessary or convenient to carry out
5 the Plan of Additions. The Plan of Additions also may be modified to include other
6 improvements without amending the CIP, the Conservation Plan, the High Ross Capital
7 Payments and the Deferred Hydroelectric Project Relicensing Costs, if the City determines by
8 ordinance that those amendments or other improvements constitute a system or plan of additions
9 to or betterments or extensions of the Light System.

10 **“Pricing Certificate”** means a certificate executed by the Director of Finance as of the
11 pricing date confirming the Bond Sale Terms for the sale of a Series of the Bonds to the
12 Purchaser in a competitive sale, in accordance with the parameters set forth in Section 5.

13 **“Professional Utility Consultant”** means the independent person(s) or firm(s) selected
14 by the City having a favorable reputation for skill and experience with electric systems of
15 comparable size and character to the Light System in such areas as are relevant to the purposes
16 for which they were retained.

17 **“Purchaser”** means the entity or entities who have been selected by the Director of
18 Finance in accordance with this ordinance to serve as underwriter, purchaser or successful bidder
19 in a sale of any Series of the Bonds.

20 **“Qualified Counterparty”** means a party (other than the City or a person related to the
21 City) who is the other party to a Payment Agreement and who is qualified to act as the other
22 party to a Payment Agreement under any applicable laws of the State.

1 **“Qualified Insurance”** means any municipal bond insurance policy, surety bond, or
2 similar credit enhancement device, issued by any insurance company licensed to conduct an
3 insurance business in any state of the United States, by a service corporation acting on behalf of
4 one or more such insurance companies, or by any other financial institution, the provider of
5 which, as of the time of issuance of such credit enhancement device, is rated in one of the two
6 highest rating categories (without regard to gradations within such categories) by at least two
7 nationally recognized rating agencies.

8 **“Qualified Letter of Credit”** means any letter of credit, standby bond purchase
9 agreement, or other liquidity facility issued by a financial institution for the account of the City
10 in connection with the issuance of any Parity Bond or Junior Lien Bond, which institution
11 maintains an office, agency or branch in the United States and, as of the time of issuance of such
12 instrument, is rated in one of the two highest rating categories (without regard to gradations
13 within such categories) by at least two nationally recognized rating agencies.

14 **“RBI”** means *The Bond Buyer Revenue Bond Index* or comparable index, or, if no
15 comparable index can be obtained, 80% of the interest rate for actively traded 30-year United
16 States Treasury obligations.

17 **“Rate Stabilization Account”** means the account of that name previously established in
18 the Light Fund pursuant to Ordinance 121637.

19 **“Rating Agency”** means any nationally recognized rating agency then maintaining a
20 rating on a Series of the Bonds at the request of the City.

21 **“Record Date”** means, unless otherwise defined in the Bond Documents, in the case of
22 each interest or principal payment date, the Bond Registrar’s close of business on the 15th day of
23 the month preceding the interest or principal payment date. With regard to redemption of a Bond

1 prior to its maturity, the Record Date shall mean the Bond Registrar's close of business on the
2 day prior to the date on which the Bond Registrar sends the notice of redemption to the
3 Registered Owner(s) of the affected Bonds.

4 **"Refundable Bonds"** means the Refundable Parity Bonds and the Refundable Junior
5 Lien Bonds.

6 **"Refundable Junior Lien Bonds"** means any outstanding Junior Lien Bonds that are
7 eligible to be refunded pursuant to the Omnibus Refunding Ordinance.

8 **"Refundable Parity Bonds"** means any Outstanding Parity Bonds that are eligible to be
9 refunded pursuant to the Omnibus Refunding Ordinance.

10 **"Refunding Junior Lien Bonds"** means Future Junior Lien Bonds that satisfy the
11 applicable Junior Lien Additional Bonds Test and are issued pursuant to the Omnibus Refunding
12 Ordinance (or another Future Junior Lien Bond Ordinance) for the purpose of refunding any
13 Refundable Junior Lien Bonds.

14 **"Refunding Parity Bonds"** means Future Parity Bonds that satisfy the applicable Parity
15 Conditions and are issued pursuant to the Omnibus Refunding Ordinance (or another Future
16 Parity Bond Ordinance) for the purpose of refunding any Refundable Parity Bonds.

17 **"Registered Owner"** means, with respect to a Bond, the person in whose name that
18 Bond is registered on the Bond Register. For so long as a Series of the Bonds is in Book-Entry
19 Form under a Letter of Representations, the Registered Owner of such Series shall mean the
20 Securities Depository.

21 **"Registration Ordinance"** means City Ordinance 111724 establishing a system of
22 registration for the City's bonds and other obligations pursuant to Seattle Municipal Code
23 Chapter 5.10, as that chapter now exists or may hereafter be amended.

1 **“Reserve Fund”** means the special fund of the City known as the Municipal Light and
2 Power Bond Reserve Fund established as a separate account within the Light Fund pursuant to
3 Ordinance 71917, as amended, to secure the payment of Parity Bonds.

4 **“Reserve Fund Requirement”** means, for any Series of Bonds designated as Parity
5 Bonds, the Reserve Fund Requirement established in the Bond Sale Terms for that Series and
6 any other Series issued as part of a single “issue” of Parity Bonds, consistent with Section 15.
7 For any Series of Future Parity Bonds, the Reserve Fund Requirement means the requirement
8 specified for that Series in the Bond Sale Terms associated with that issue. The aggregate
9 Reserve Fund Requirement for all Parity Bonds shall be the sum of the Reserve Fund
10 Requirements for each Series of Parity Bonds. For purposes of this definition, “issue” means all
11 Series of Parity Bonds issued and sold pursuant to a common set of Bond Sale Terms. For the
12 purposes of calculating the Reserve Fund Requirement only, the City shall deduct from Annual
13 Debt Service the Tax Credit Subsidy Payments the City is scheduled to claim from the federal
14 government in respect of the interest on a Series of Parity Bonds that are Tax Credit Subsidy
15 Bonds (or with respect to which the federal government is otherwise scheduled to provide direct
16 payments).

17 **“Rule 15c2-12”** means Rule 15c2-12 promulgated by the SEC under the Securities
18 Exchange Act of 1934, as amended.

19 **“SEC”** means the United States Securities and Exchange Commission.

20 **“SIFMA Municipal Swap Index”** means the Securities Industry and Financial Markets
21 Association (SIFMA) Municipal Swap Index, calculated and published by Bloomberg and
22 overseen by SIFMA’s Municipal Swap Index Committee, or a substantially similar recognized

1 market successor index representing a seven-day market index comprised of certain high-grade
2 tax-exempt variable rate demand obligations.

3 **“Second Parity Covenant Date”** means the earlier of (a) the date on which the City has
4 obtained consents of the requisite percentage of Registered Owners of the Parity Bonds then
5 outstanding, in accordance with the provisions of the applicable Outstanding Parity Bond
6 Documents; or (b) the date on which all of the following Outstanding Parity Bonds have been
7 redeemed or defeased: Municipal Light and Power Improvement and Refunding Revenue Bonds,
8 2008; Municipal Light and Power Revenue Bonds, 2010A (Taxable Build America Bonds –
9 Direct Payment); Municipal Light and Power Improvement and Refunding Revenue Bonds,
10 2010B; Municipal Light and Power Revenue Bonds, 2010C (Taxable Recovery Zone Economic
11 Development Bonds – Direct Payment); Municipal Light and Power Improvement and
12 Refunding Revenue Bonds, 2011A; Municipal Light and Power Improvement Revenue Bonds,
13 2011B (Taxable New Clean Renewable Energy Bonds – Direct Payment); Municipal Light and
14 Power Improvement and Refunding Revenue Bonds, 2012A; Municipal Light and Power
15 Improvement Revenue Bonds, 2012C (Taxable New Clean Renewable Energy Bonds – Direct
16 Payment); Municipal Light and Power Improvement and Refunding Revenue Bonds, 2013;
17 Municipal Light and Power Improvement and Refunding Revenue Bonds, 2014; Municipal Light
18 and Power Revenue Bonds, 2015A; Municipal Light and Power Revenue Bonds, 2016A
19 (Taxable New Clean Renewable Energy Bonds – Direct Payment); Municipal Light and Power
20 Refunding Revenue Bonds, 2016B; Municipal Light and Power Improvement and Refunding
21 Revenue Bonds, 2016C; and Municipal Light and Power Improvement and Refunding Revenue
22 Bonds, 2017C.

1 **“Securities Depository”** means DTC, any successor thereto, any substitute securities
2 depository selected by the City, or the nominee of any of the foregoing. Any successor or
3 substitute Securities Depository must be qualified under applicable laws and regulations to
4 provide the services proposed to be provided by it.

5 **“Serial Bond”** means any Parity Bond or Junior Lien Bond maturing in a specified year,
6 for which no Sinking Fund Requirements are mandated.

7 **“Series”** means a series of the Bonds issued pursuant to this ordinance.

8 **“Sinking Fund Account”** means (a) with respect to Parity Bonds, any account created in
9 the Parity Bond Fund to amortize the principal or make mandatory redemptions of Parity Bonds
10 that are Term Bonds; and (b) with respect to Junior Lien Bonds, any account created in the
11 Junior Lien Debt Service Fund to amortize the principal or make mandatory redemptions of
12 Junior Lien Bonds that are Term Bonds.

13 **“Sinking Fund Requirement”** means, for any calendar year, the principal portion (and
14 required redemption premium, if any) of any Term Bond that is required to be purchased,
15 redeemed, paid at maturity, or paid into any Sinking Fund Account for such calendar year, as
16 established in the applicable Bond Documents.

17 **“State”** means the State of Washington.

18 **“State Auditor”** means the office of the Auditor of the State or such other department or
19 office of the State authorized and directed by State law to make audits.

20 **“Tax Credit Subsidy Bond”** means any Taxable Bond that is designated by the City as a
21 tax credit bond pursuant to the Code and as a “qualified bond” under Section 6431 or similar
22 provision of the Code, and with respect to which the City is eligible to claim a Tax Credit
23 Subsidy Payment.

1 **“Tax Credit Subsidy Payment”** means a payment by the federal government with
2 respect to a Tax Credit Subsidy Bond.

3 **“Tax-Exempt Bond”** means any Parity Bond or Junior Lien Bond, the interest on which
4 is intended, as of the Issue Date, to be excludable from gross income for federal income tax
5 purposes.

6 **“Taxable Bond”** means any Parity Bond or Junior Lien Bond, the interest on which is
7 not intended, as of the Issue Date, to be excludable from gross income for federal income tax
8 purposes.

9 **“Term Bond”** means any Parity Bond or Junior Lien Bond that is issued subject to
10 mandatory redemption in periodic Sinking Fund Requirements prior to its maturity date.

11 **“Valuation Date”** means, with respect to any Capital Appreciation Bond, the date or
12 dates, determined as set forth in the applicable Bond Documents, on which specific Accreted
13 Values are assigned to that Capital Appreciation Bond.

14 **“Variable Interest Rate”** means any interest rate that fluctuates during the stated term of
15 a bond (or during a stated period during which the bond is designated as a Variable Interest Rate
16 Bond), whether due to a remarketing, a market index reset, or other mechanism set forth in the
17 applicable Bond Documents. The Bond Documents for any Series of the Bonds bearing interest
18 at a Variable Interest Rate shall set forth: (a) the available method(s) of computing interest (the
19 “interest rate modes”); (b) the particular period or periods of time (or manner of determining
20 such period or periods of time) for which each value of such Variable Interest Rate (or each
21 interest rate mode) shall remain in effect; (c) provisions for conversion from one interest rate
22 mode to another and for setting or resetting the interest rates; and (d) the time or times upon

1 which any change in such Variable Interest Rate (or any conversion of interest rate modes) shall
2 become effective.

3 **“Variable Interest Rate Bond”** means, for any period of time, any Parity Bond or Junior
4 Lien Bond that bears interest at a Variable Interest Rate during that period. A bond shall not be
5 treated as a Variable Interest Rate Bond if the net economic effect of (a) interest rates on a
6 particular series of Parity Bonds (or Junior Lien Bonds, as applicable), as set forth in the
7 applicable Bond Documents, and (b) either (i) interest rates on another series of Parity Bonds (or
8 Junior Lien Bonds, as applicable) issued at substantially the same time, or (ii) a Payment
9 Agreement related to that particular series, in either case, is to produce obligations that bear
10 interest at a fixed interest rate. Any Parity Bond or Junior Lien Bond with respect to which a
11 Payment Agreement is in force shall be treated as a Variable Interest Rate Bond if the net
12 economic effect of the Payment Agreement is to produce an obligation that bears interest at a
13 Variable Interest Rate.

14 Section 2. **Adoption of Plan of Additions.** The City specifies, adopts and orders the
15 Plan of Additions to be carried out as generally provided for in the documents comprising the
16 Plan of Additions. The estimated cost of the Plan of Additions, as nearly as may be determined,
17 is declared to be \$2,299,092,000, of which approximately \$255 million is expected to be
18 financed from proceeds of the Bonds and investment earnings thereon.

19 Section 3. **Authorization of Bonds; Due Regard Finding.**

20 (a) **The Bonds.** The City is authorized to issue municipal light and power revenue
21 bonds payable from the sources described in Section 13 and secured as either Parity Bonds or
22 Junior Lien Bonds, as determined by the Director of Finance in accordance with Section 5. The
23 Bonds may be issued in one or more Series in a maximum aggregate principal amount not to

1 exceed the amount stated in Section 5, for the purposes of: (a) paying a part of the cost of
2 carrying out the Plan of Additions; (b) providing for the Reserve Fund Requirement (if any);
3 (c) capitalizing interest on (if necessary) and paying costs of issuance; and (d) for other Light
4 System purposes approved by ordinance. The Bonds may be issued in one or more Series and
5 may be combined with other municipal light and power revenue bonds authorized separately.
6 The Bonds shall be designated municipal light and power revenue bonds, shall be numbered
7 separately and shall have any name, year, and Series or other label as deemed necessary or
8 appropriate by the Director of Finance. Any Series of the Bonds designated as Junior Lien Bonds
9 shall bear a designation clearly indicating that such Bonds are Junior Lien Bonds.

10 (b) **City Council Finding.** The City Council hereby finds that, in creating the Parity
11 Bond Fund, the Reserve Fund, and the Junior Lien Debt Service Fund (collectively, the “Bond
12 Funds”), and in fixing the amounts to be paid into those funds in accordance with this ordinance
13 and the parameters for the Bond Sale Terms set forth in Section 5, the City Council has exercised
14 due regard for the cost of operation and maintenance of the Light System, and is not setting aside
15 into such Bond Funds a greater amount than in the judgment of the City Council, based on the
16 rates established from time to time consistent with Section 17(a)(ii), will be sufficient, in the
17 judgment of the City Council, to meet all expenses of operation and maintenance of the Light
18 System and to provide the amounts previously pledged for the payment of all outstanding
19 obligations payable out of Gross Revenues and pledged for the payment of the Bonds. Therefore,
20 the City Council hereby finds that the issuance and sale of the Bonds is in the best interest of the
21 City and is in the public interest.

22 Section 4. **Manner of Sale of the Bonds.** The Director of Finance may provide for
23 the sale of each Series by competitive sale, negotiated sale, limited offering, or private

1 placement, and may select and enter into agreements with remarketing agents or providers of
2 liquidity with respect to Variable Interest Rate Bonds. The Purchaser of each Series shall be
3 chosen through a selection process acceptable to the Director of Finance. The Director of
4 Finance is authorized to specify a date and time of sale and a date and time for the delivery of
5 each Series; in the case of a competitive sale, to provide an official notice of sale including bid
6 parameters and other bid requirements, and to provide for the use of an electronic bidding
7 mechanism; to provide for and determine matters relating to the forward or delayed delivery of
8 the Bonds, if deemed desirable; and to specify such other matters and take such other action as in
9 his or her determination may be necessary, appropriate, or desirable in order to carry out the sale
10 of each Series. Each Series must be sold on Bond Sale Terms consistent with the parameters set
11 forth in Section 5.

12 Section 5. **Appointment of Designated Representative; Bond Sale Terms.**

13 (a) **Designated Representative.** The Director of Finance is appointed to serve as the
14 City's designated representative in connection with the issuance and sale of the Bonds in
15 accordance with RCW 39.46.040(2) and this ordinance.

16 (b) **Parameters for Bond Sale Terms.** The Director of Finance is authorized to
17 approve, on behalf of the City, Bond Sale Terms for the sale of the Bonds in one or more Series,
18 and in connection with each such sale, to execute a Bond Purchase Contract (or, in the case of a
19 competitive sale, a Pricing Certificate) confirming the Bond Sale Terms and such related
20 agreements as may be necessary or desirable, consistent with the following parameters:

21 (i) **Maximum Principal Amount.** The maximum aggregate principal amount
22 of all Series of the Bonds authorized by this ordinance may not exceed \$255 million.

1 (ii) **Date or Dates.** Each Bond shall be dated its Issue Date, as determined by
2 the Director of Finance. The initial Issue Date (without restricting any reissuance date with
3 respect to a Series of Variable Interest Rate Bonds) may not be later than December 31, 2021.

4 (iii) **Denominations.** The Bonds shall be issued in Authorized Denominations.

5 (iv) **Interest Rate(s).** Each Bond shall bear interest from its Issue Date or from
6 the most recent date to which interest has been paid or duly provided, whichever is later, unless
7 otherwise provided in the applicable Bond Documents. Each Series of the Bonds shall bear
8 interest at one or more fixed interest rates or Variable Interest Rates. The net interest cost for any
9 fixed rate Series may not exceed a rate of 10% per annum. The Bond Documents for any Series
10 may provide for multiple interest rates and interest rate modes, and may provide conditions and
11 mechanisms for the Director of Finance to effect a conversion from one mode to another.

12 Nothing in this ordinance shall be interpreted to prevent the Bond Documents for any Series
13 from including a provision for adjustments to interest rates during the term of the Series upon the
14 occurrence of certain events specified in the applicable Bond Documents.

15 (v) **Payment Dates.** Interest shall be payable on dates acceptable to the
16 Director of Finance. Principal shall be payable on dates acceptable to the Director of Finance,
17 which shall include payment at the maturity of each Bond; in accordance with any Sinking Fund
18 Requirements applicable to Term Bonds; and otherwise in accordance with any redemption or
19 tender provisions.

20 (vi) **Final Maturity.** Each Bond shall mature no later than 40 years after its
21 Issue Date.

1 (vii) **Redemption Prior to Maturity.** The Bond Sale Terms may include
2 redemption and tender provisions, as determined by the Director of Finance in the Director's
3 discretion, consistent with Section 8 and subject to the following:

4 (A) **Optional Redemption.** The Director of Finance may designate
5 any Bond as subject to optional redemption prior to its maturity. Any Bond that is subject to
6 optional redemption prior to maturity must be callable on at least one or more date(s) occurring
7 not more than 10½ years after the Issue Date, consistent with Section 8(a).

8 (B) **Mandatory Redemption.** The Director of Finance may designate
9 any Bond as a Term Bond, subject to mandatory redemption prior to its maturity on the dates and
10 in principal payment amounts set forth in Sinking Fund Requirements, consistent with Section
11 8(b).

12 (C) **Extraordinary Redemptions.** The Director of Finance may
13 designate any Bond as subject to extraordinary optional redemption or extraordinary mandatory
14 redemption upon the occurrence of an extraordinary event, as such event or events may be set
15 forth in the applicable Bond Documents, consistent with Section 8(c).

16 (D) **Tender Options.** The Director of Finance may designate any
17 Variable Interest Rate Bond as subject to tender options, as set forth in the applicable Bond
18 Documents.

19 (viii) **Price.** The Director of Finance may approve in the Bond Sale Terms an
20 aggregate purchase price for each Series of the Bonds that is, in his or her judgment, the price
21 that produces the most advantageous borrowing cost for the City for that Series, consistent with
22 the parameters set forth herein and in any applicable bid documents.

1 (ix) **Other Terms and Conditions.**

2 (A) **Expected Life of Capital Facilities.** As of the Issue Date of each
3 Series, the Director of Finance must find to his or her satisfaction that the average expected life
4 of the capital facilities to be financed with the proceeds (or allocable share of proceeds) of that
5 Series exceeds the weighted average maturity of such Series (or share thereof allocated to
6 financing those capital facilities).

7 (B) **Satisfaction of Parity Conditions or Junior Lien Additional**
8 **Bonds Test.** For each Series of the Bonds, the Director of Finance must designate each Series of
9 the Bonds as a series of either Parity Bonds or Junior Lien Bonds. For each Series to be
10 designated as Parity Bonds, the Director of Finance must find to his or her satisfaction that, as of
11 the Issue Date, the Parity Conditions have been met or satisfied so that such Series is permitted
12 to be issued as Parity Bonds. For each Series to be designated as Junior Lien Bonds, the Director
13 of Finance must find to his or her satisfaction that, as of the Issue Date, the Junior Lien
14 Additional Bonds Test has been met or satisfied so that such Series is permitted to be issued as
15 Junior Lien Bonds.

16 (C) **Additional Terms, Conditions, and Agreements.** The Bond Sale
17 Terms for any Series may provide for Qualified Insurance, a Qualified Letter of Credit or other
18 liquidity facility, Intermediate Lien Reimbursement Obligation, Junior Lien Reimbursement
19 Obligation, or for any other Payment Agreement as the Director of Finance may find necessary
20 or desirable, and may include such additional terms, conditions, and covenants as may be
21 necessary or desirable, including but not limited to: restrictions on investment of Bond proceeds
22 and pledged funds (including any escrow established for the defeasance of any of the Bonds),
23 provisions for the conversion of interest rate modes, provisions for the reimbursement of a credit

1 enhancement provider or Qualified Counterparty, and requirements to give notice to or obtain the
2 consent of a credit enhancement provider or a Qualified Counterparty. The Director of Finance is
3 authorized to execute, on behalf of the City, such additional certificates and agreements as may
4 be necessary or desirable to reflect such terms, conditions, and covenants.

5 (D) **Parity Bond Reserve Fund Requirement.** The Bond Sale Terms
6 for any Series of Parity Bonds must establish the Reserve Fund Requirement for such Series and
7 must set forth the method for satisfying any such requirement, consistent with Section 15 and the
8 Parity Conditions. The Reserve Fund Requirement for any such Series may not be set at a level
9 that would cause the aggregate Reserve Fund Requirement to exceed the least of (1) 125% of
10 Average Annual Debt Service on all Parity Bonds outstanding, (2) Maximum Annual Debt
11 Service on all Parity Bonds outstanding, or (3) 10% of the proceeds of the outstanding Parity
12 Bonds.

13 (E) **Tax Status of the Bonds.** The Director of Finance may designate
14 any Series of the Bonds as Tax-Exempt Bonds, Taxable Bonds, or Tax Credit Subsidy Bonds,
15 consistent with Section 21.

16 Section 6. **Bond Registrar; Registration and Transfer of Bonds.**

17 (a) **Registration and Bond Registrar.** The Bonds shall be issued only in registered
18 form as to both principal and interest and shall be recorded on the Bond Register. The Fiscal
19 Agent is appointed to act as Bond Registrar for each Series of the Bonds, unless otherwise
20 determined by the Director of Finance.

21 (b) **Transfer and Exchange of Bonds.** The Bond Registrar shall keep, or cause to be
22 kept, sufficient books for the registration and transfer of the Bonds, which shall be open to
23 inspection by the City at all times. The Bond Register shall contain the name and mailing address

1 of the Registered Owner of each Bond and the principal amount and number of each of the
2 Bonds held by each Registered Owner.

3 The Bond Registrar is authorized, on behalf of the City, to authenticate and deliver Bonds
4 transferred or exchanged in accordance with the provisions of the Bonds and this ordinance, to
5 serve as the City's paying agent for the Bonds, and to carry out all of the Bond Registrar's
6 powers and duties under this ordinance and the Registration Ordinance.

7 The Bond Registrar shall be responsible for its representations contained in the Bond
8 Registrar's certificate of authentication on the Bonds. The Bond Registrar may become an
9 Owner of Bonds with the same rights it would have if it were not the Bond Registrar and, to the
10 extent permitted by law, may act as depository for and permit any of its officers or directors to
11 act as members of, or in any other capacity with respect to, any committee formed to protect the
12 rights of Owners.

13 Bonds surrendered to the Bond Registrar may be exchanged for Bonds in any Authorized
14 Denomination of an equal aggregate principal amount and of the same Series, seniority, interest
15 rate, and maturity. Bonds may be transferred only if endorsed in the manner provided thereon
16 and surrendered to the Bond Registrar. Any exchange or transfer shall be without cost to an
17 Owner or transferee. The Bond Registrar shall not be obligated to exchange or transfer any Bond
18 during the period between the Record Date and the corresponding interest payment or principal
19 redemption date.

20 (c) **Securities Depository; Book-Entry Form.** Unless otherwise determined by the
21 Director of Finance, the Bonds initially shall be issued in Book-Entry Form and registered in the
22 name of the Securities Depository. The Bonds so registered shall be held fully immobilized in
23 Book-Entry Form by the Securities Depository in accordance with the provisions of the Letter of

1 Representations. Neither the City nor the Bond Registrar shall have any responsibility or
2 obligation to participants of the Securities Depository or the persons for whom they act as
3 nominees with respect to the Bonds regarding the accuracy of any records maintained by the
4 Securities Depository or its participants of any amount in respect of principal of or interest on the
5 Bonds, or any notice which is permitted or required to be given to Registered Owners hereunder
6 (except such notice as is required to be given by the Bond Registrar to the Securities
7 Depository). Registered ownership of a Bond initially held in Book-Entry Form, or any portion
8 thereof, may not be transferred except: (i) to any successor Securities Depository; (ii) to any
9 substitute Securities Depository appointed by the City or such substitute Securities Depository's
10 successor; or (iii) to any person if the Bond is no longer held in Book-Entry Form.

11 Upon the resignation of the Securities Depository from its functions as depository, or
12 upon a determination by the Director of Finance to discontinue utilizing the then-current
13 Securities Depository, the Director of Finance may appoint a substitute Securities Depository. If
14 the Securities Depository resigns from its functions as depository and no substitute Securities
15 Depository can be obtained, or if the Director of Finance determines not to utilize a Securities
16 Depository, then the Bonds shall no longer be held in Book-Entry Form and ownership may be
17 transferred only as provided herein.

18 Nothing herein shall prevent the Bond Sale Terms from providing that a Series of the
19 Bonds shall be issued in certificated form without utilizing a Securities Depository, and that the
20 Bonds of such Series shall be registered as of their Issue Date in the names of the Owners
21 thereof, in which case ownership may be transferred only as provided herein.

22 (d) **Lost or Stolen Bonds.** In case any Bond shall be lost, stolen or destroyed, the
23 Bond Registrar may authenticate and deliver a new bond or bonds of like amount, date, tenor,

1 and effect to the Registered Owner(s) thereof upon the Registered Owner(s)' paying the
2 expenses and charges of the City in connection therewith and upon filing with the Bond
3 Registrar evidence satisfactory to the Bond Registrar that such bond or bonds were actually lost,
4 stolen or destroyed and of Registered Ownership thereof, and upon furnishing the City with
5 indemnity satisfactory to both.

6 Section 7. Payment of Bonds.

7 (a) **Payment.** Each Bond shall be payable in lawful money of the United States of
8 America on the dates and in the amounts as provided in the Bond Documents for that Series.
9 Principal of and interest on each Bond designated as a Parity Bond shall be payable solely out of
10 the Parity Bond Fund. Principal of and interest on each Bond designated as a Junior Lien Bond
11 shall be payable solely out of the Junior Lien Debt Service Fund. The Bonds shall not be general
12 obligations of the City. No Bonds of any Series shall be subject to acceleration under any
13 circumstances.

14 (b) **Bonds Held In Book-Entry Form.** Principal of and interest on each Bond held in
15 Book-Entry Form shall be payable in the manner set forth in the Letter of Representations.

16 (c) **Bonds Not Held In Book-Entry Form.** Interest on each Bond not held in Book-
17 Entry Form shall be payable by electronic transfer on the interest payment date, or by check or
18 draft of the Bond Registrar mailed on the interest payment date to the Registered Owner at the
19 address appearing on the Bond Register on the Record Date. The City, however, shall not be
20 required to make electronic transfers except pursuant to a request by a Registered Owner in
21 writing received at least ten days prior to the Record Date and at the sole expense of the
22 Registered Owner. Principal of each Bond not held in Book-Entry Form shall be payable upon
23 presentation and surrender of the Bond by the Registered Owner to the Bond Registrar.

1 Section 8. **Redemption and Purchase of Bonds.**

2 (a) **Optional Redemption.** All or some of the Bonds of any Series may be subject to
3 redemption prior to their stated maturity dates at the option of the City at the times and on the
4 terms set forth in the applicable Bond Documents.

5 (b) **Mandatory Redemption.** All or some of the Bonds of any Series may be
6 designated as Term Bonds, subject to mandatory redemption in Sinking Fund Requirements, as
7 set forth in the applicable Bond Documents. If not redeemed or purchased at the City's option
8 prior to maturity, Term Bonds (if any) must be redeemed, at a price equal to one hundred percent
9 of the principal amount to be redeemed, plus accrued interest, on the dates and in the years and
10 Sinking Fund Requirements as set forth in the applicable Bond Documents. If the City optionally
11 redeems or purchases a Term Bond prior to maturity, the principal amount of that Term Bond
12 that is so redeemed or purchased (irrespective of its redemption or purchase price) shall be
13 credited against the remaining Sinking Fund Requirements for that Term Bond in the manner as
14 directed by the Director of Finance. In the absence of direction by the Director of Finance, credit
15 shall be allocated to the remaining Sinking Fund Requirements for that Term Bond on a *pro rata*
16 basis.

17 (c) **Extraordinary Redemption Provisions.** All or some of the Bonds of any Series
18 may be subject to extraordinary optional or extraordinary mandatory redemption prior to
19 maturity upon the occurrence of an extraordinary event at the prices, in the principal amounts,
20 and on the dates, all as set forth in the applicable Bond Documents.

21 (d) **Selection of Bonds for Redemption; Partial Redemption.** If fewer than all of
22 the outstanding Bonds of a Series are to be redeemed at the option of the City, the Director of
23 Finance shall select the maturity or maturities to be redeemed. If less than all of the principal

1 amount of a maturity of the selected Series is to be redeemed and such Series is held in Book-
2 Entry Form, the portion of such maturity to be redeemed shall be selected for redemption by the
3 Securities Depository in accordance with the Letter of Representations. If the Series is not then
4 held in Book-Entry Form, the portion of such maturity to be redeemed shall be selected by the
5 Bond Registrar using such method of random selection as the Bond Registrar shall determine.
6 All or a portion of the principal amount of any Bond that is to be redeemed may be redeemed in
7 any applicable Authorized Denomination. If less than all of the outstanding principal amount of
8 any Bond is redeemed, upon surrender of that Bond to the Bond Registrar there shall be issued to
9 the Registered Owner, without charge, a new Bond (or Bonds, at the option of the Registered
10 Owner) of the same Series, seniority, maturity, and interest rate in any Authorized Denomination
11 in the aggregate principal amount to remain outstanding.

12 (e) **Purchase.** The City reserves the right and option to purchase any or all of the
13 Bonds at any time at any price acceptable to the City plus accrued interest to the date of
14 purchase.

15 Section 9. **Notice of Redemption; Rescission of Notice.** Unless otherwise set forth
16 in the applicable Bond Documents, the City must cause notice of any intended redemption of
17 Bonds to be given not less than 20 nor more than 60 days prior to the date fixed for redemption
18 by first-class mail, postage prepaid, to the Registered Owner of any Bond to be redeemed at the
19 address appearing on the Bond Register on the Record Date, and the requirements of this
20 sentence shall be deemed to have been fulfilled when notice has been mailed as so provided,
21 whether or not it is actually received by the Owner of any Bond. Interest on Bonds called for
22 redemption shall cease to accrue on the date fixed for redemption unless the Bond or Bonds
23 called are not redeemed when presented pursuant to the call.

1 In the case of an optional or extraordinary optional redemption, the notice may state that
2 the City retains the right to rescind the redemption notice and the related optional redemption of
3 Bonds by giving a notice of rescission to the affected Registered Owners at any time on or prior
4 to the scheduled optional redemption date. Any notice of optional redemption that is rescinded
5 by the Director of Finance shall be of no effect, and the Bonds for which the notice of optional
6 redemption has been rescinded shall remain outstanding.

7 Section 10. **Failure to Pay Bonds.** If any Bond is not paid when properly presented at
8 its maturity or redemption date, the City shall be obligated to pay, solely from the sources
9 pledged to that Bond in this ordinance, interest on that Bond at the same rate provided on that
10 Bond from and after its maturity or redemption date until that Bond, principal (including
11 redemption premium, if any) and interest, is paid in full or until sufficient money for its payment
12 in full is on deposit in the Parity Bond Fund (if such Bond is a Parity Bond) or the Junior Lien
13 Debt Service Fund (if such Bond is a Junior Lien Bond) and that Bond has been called for
14 payment by giving notice of that call to the Registered Owner of that Bond. The exercise of
15 remedies of Owners of the Bonds are limited as set forth in Section 24.

16 Section 11. **Form and Execution of Bonds.** The Bonds shall be typed, printed or
17 reproduced in a form consistent with the provisions of this ordinance and State law; shall be
18 signed by the Mayor and Director of Finance, either or both of whose signatures may be manual
19 or in facsimile; and the seal of the City or a facsimile reproduction thereof shall be impressed or
20 printed thereon.

21 Only Bonds bearing a certificate of authentication in substantially the following form
22 (with the designation, year, and Series adjusted consistent with this ordinance), manually signed
23 by the Bond Registrar, shall be valid or obligatory for any purpose or entitled to the benefits of

1 this ordinance: “This Bond is one of the fully registered The City of Seattle, Washington,
2 Municipal Light and Power [Improvement] Revenue Bonds, [Year], [Series], described in [this
3 ordinance].” Junior Lien Bonds shall also bear the words “Junior Lien” in their name in the
4 foregoing certificate of authentication. The authorized signing of a certificate of authentication
5 shall be conclusive evidence that the Bond so authenticated has been duly executed,
6 authenticated, and delivered and is entitled to the benefits of this ordinance.

7 If any officer whose manual or facsimile signature appears on a Bond ceases to be an
8 officer of the City authorized to sign bonds before the Bond bearing the officer’s manual or
9 facsimile signature is authenticated or delivered by the Bond Registrar or issued by the City, that
10 Bond nevertheless may be authenticated, delivered and issued and, when authenticated, issued
11 and delivered, shall be as binding on the City as though that person had continued to be an
12 officer of the City authorized to sign bonds. Any Bond also may be signed on behalf of the City
13 by any person who, on the actual date of signing of the Bond, is an officer of the City authorized
14 to sign bonds, although he or she did not hold the required office on the date of issuance of that
15 Series of the Bonds.

16 Section 12. **Construction Account; Deposit of Proceeds.** The principal proceeds of
17 the sale of each Series of the Bonds (other than amounts necessary to pay accrued interest (if
18 any), to pay costs of issuance, and to provide for the Reserve Fund Requirement with respect to a
19 Series of Parity Bonds) shall be deposited into the Construction Account (or such other fund or
20 account as may be directed by the Director of Finance) to be used for the purposes set forth in
21 Section 3. Until needed for such purposes, the City may invest principal proceeds and interest
22 thereon temporarily in any Permitted Investments, and the investment earnings may, as
23 determined by the Director of Finance, be either (a) retained in the Construction Account to be

1 spent for the purposes of that account, or (b) deposited into the Parity Bond Fund or Junior Lien
2 Debt Service Fund, as applicable.

3 Section 13. **Security for the Bonds; Designation as Parity Bonds or Junior Lien**

4 **Bonds.** The Bonds shall not constitute general obligations of the City, the State or any political
5 subdivision of the State or a charge upon any general fund or upon any money or other property
6 of the City, the State or any political subdivision of the State not specifically pledged by this
7 ordinance.

8 (a) **Parity Bonds.** Each Series of the Bonds that is designated as Parity Bonds shall
9 be a special limited obligation of the City payable from and secured solely by Gross Revenue
10 available after payment of Operating and Maintenance Expense (“Net Revenue”) and by money
11 in the Parity Bond Fund and the Reserve Fund. Net Revenue is pledged to make the payments
12 into the Parity Bond Fund and the Reserve Fund required by Sections 14 and 15, which pledge
13 shall constitute a lien and charge upon such Net Revenue prior and superior to all other charges
14 whatsoever. Each Series of the Bonds designated as Parity Bonds shall be issued on parity with
15 the Outstanding Parity Bonds and all Future Parity Bonds, without regard to date of issuance or
16 authorization and without preference or priority of right or lien.

17 (b) **Junior Lien Bonds.** Each Series of the Bonds that is designated as Junior Lien
18 Bonds shall be a special limited obligation of the City payable from and secured solely by Net
19 Revenue and by money in the Junior Lien Debt Service Fund. The Net Revenue is pledged to
20 make the payments into the Junior Lien Debt Service Fund required by Sections 14 and 16,
21 which pledge shall constitute a lien and charge upon such Net Revenue (i) subordinate only to
22 the payments to be made (A) into the Parity Bond Fund in respect of the principal of and interest
23 on the Outstanding Parity Bonds and Parity Payment Agreements, (B) in respect of

1 reimbursement obligations arising under Alternate Reserve Securities, and (C) in respect of
2 obligations arising under Intermediate Lien Reimbursement Obligations, and (ii) prior and
3 superior to all other charges whatsoever. Each Series of the Bonds designated as Junior Lien
4 Bonds shall be issued on parity with the lien and charge of any then outstanding Junior Lien
5 Bonds and all Future Junior Lien Bonds, without regard to date of issuance or authorization and
6 without preference or priority of right or lien. Nothing in this ordinance prevents the City from
7 issuing revenue bonds or other obligations which are a charge or lien upon Net Revenues
8 subordinate to the payments required to be made into the Junior Lien Debt Service Fund and the
9 Reserve Fund, and any subfund, account, or subaccount within the foregoing funds.

10 Section 14. **Priority Expenditure of Gross Revenue; Flow of Funds.** Gross

11 Revenues shall be deposited as received in the Light Fund and used for the following purposes
12 only, in the following order of priority:

13 (a) To pay the Operating and Maintenance Expense of the Light System;

14 (b) To make all payments into the Parity Bond Fund required to be made in order to
15 pay the interest on and principal of all Parity Bonds, including all Parity Bond Sinking Fund
16 Requirements and all net payments under Parity Payment Agreements, when due;

17 (c) To make all payments required to be made (if any) into the Reserve Fund
18 necessary to satisfy the Reserve Fund Requirement, and to make all payments (if any) required to
19 be made under Section 15(c)(i)(B) into a special account within the Light Fund for the
20 replacement of an Alternate Reserve Security as to which the City has received a notice of
21 cancellation;

22 (d) To make all payments required to be made (if any) in respect of Intermediate Lien
23 Reimbursement Obligations;

1 (e) To make all payments into the Junior Lien Debt Service Fund required to be made
2 in order to pay the interest on and principal of all Junior Lien Bonds, including all net payments
3 under Junior Lien Payment Agreements and all Junior Lien Reimbursement Obligations, when
4 due;

5 (f) To make all required payments into any revenue bond redemption fund created to
6 pay and secure the payment of the principal of and interest on any revenue bonds or short-term
7 obligations of the City having a charge and lien upon Net Revenue subordinate to the lien
8 thereon for the payment of the principal of and interest on the Parity Bonds and the Junior Lien
9 Bonds; and

10 (g) Without priority, for any of the following purposes: to retire by redemption or
11 purchase any outstanding revenue bonds or revenue obligations of the Light System; to make
12 necessary additions, betterments, repairs, extensions, and replacements of the Light System; to
13 pay City taxes or other payments in lieu of taxes payable from Gross Revenues; to make deposits
14 to the Rate Stabilization Account; or for any other lawful Light System purpose.

15 Section 15. **Parity Bond Fund; Reserve Fund.** The special funds of the City known
16 as the Parity Bond Fund and the Reserve Fund have been previously created and shall be
17 maintained as special funds for the sole purpose of paying the principal of (including redemption
18 premium, if any) and interest on the Parity Bonds as the same shall become due. The Director of
19 Finance may create subfunds, accounts, or subaccounts in the Parity Bond Fund and the Reserve
20 Fund to pay or secure the payment of Parity Bonds as long as the maintenance of such subfunds,
21 accounts, or subaccounts does not conflict with the rights of the owners of the Parity Bonds.
22 Principal of (including redemption premium, if any) and interest on the Parity Bonds shall be
23 payable solely out of the Parity Bond Fund.

1 (a) **Required Payments Into the Parity Bond Fund and Reserve Fund.** So long as
2 any Parity Bonds (including any Parity Payment Agreements) are outstanding, the City shall set
3 aside and pay out of Net Revenue certain fixed amounts, without regard to any fixed proportion,
4 namely:

5 (i) Into the Parity Bond Fund, on or prior to the respective dates on which
6 such payments shall become due and payable, an amount sufficient, together with other money
7 on deposit therein, to pay the interest on (including net payments due on Parity Payment
8 Agreements) and principal of (including any Sinking Fund Requirements) the Parity Bonds as
9 the same shall become due; and

10 (ii) Into the Reserve Fund, an amount necessary to provide for the Reserve
11 Fund Requirement within the time and manner required by this ordinance and the Bond Sale
12 Terms.

13 To meet the required payments to be made into the Parity Bond Fund and the Reserve
14 Fund, the Director of Finance may transfer any money from any funds or accounts of the City
15 legally available therefor, except bond redemption funds, refunding escrow funds, or defeasance
16 funds. The Director of Finance may provide for the purchase, redemption or defeasance of any
17 Parity Bonds by the use of money on deposit in any subfund, account, or subaccount in the Parity
18 Bond Fund or Reserve Fund, so long as the money remaining in those subfunds, accounts, or
19 subaccounts is sufficient to satisfy the required deposits with respect to the remaining Parity
20 Bonds.

21 (b) **Parity Bond Fund.** The Parity Bond Fund has been previously created for the
22 sole purpose of paying the principal of and interest on the Parity Bonds as the same shall become
23 due. Each Series of the Bonds designated as Parity Bonds shall be payable (including principal,

1 Sinking Fund Requirements, redemption premium (if any), and interest) out of the Parity Bond
2 Fund. Money in the Parity Bond Fund shall, to the fullest extent practicable and reasonable, be
3 invested and reinvested at the direction of the Director of Finance solely in, and obligations
4 deposited in such accounts shall consist of, Permitted Investments. Earnings on money and
5 investments in the Parity Bond Fund shall be deposited in and used for the purposes of that fund.

6 (c) **Reserve Fund.** The Reserve Fund has been previously created for the purpose of
7 securing the payment of the principal of and interest on all Parity Bonds (including all net
8 payments due under any Parity Payment Agreements, if any). Money held in the Reserve Fund
9 shall, to the fullest extent practicable and reasonable, be invested and reinvested at the direction
10 of the Director of Finance solely in, and obligations deposited in such accounts shall consist of,
11 Permitted Investments. Earnings on money and investments in the Reserve Fund shall be
12 deposited in that fund and credited against amounts required to be deposited therein until the
13 Reserve Fund is fully funded, and thereafter such earnings shall be deposited in the Parity Bond
14 Fund.

15 (i) **Reserve Fund Requirement.** The Bond Sale Terms for each Series of the
16 Bonds shall establish the amount (if any) to be added to the aggregate Reserve Fund
17 Requirement for such Series, and the method for providing for such incremental addition to the
18 Reserve Fund deposit, subject to the following:

19 (A) In connection with the issuance of Future Parity Bonds, the City
20 shall provide the amounts required for deposit into the Reserve Fund (1) at one time on the Issue
21 Date, or (2) in periodic deposits of Net Revenue (or any other legally available source of funds),
22 so that by five years from the date of such Future Parity Bonds there will have been paid into the
23 Reserve Fund an amount which, together with the money already on deposit therein, will be at

1 least equal to the Reserve Fund Requirement for the Parity Bonds scheduled to be outstanding at
2 the end of that five-year period.

3 (B) The City may obtain one or more Alternate Reserve Securities for
4 specific amounts required to be paid into the Reserve Fund. The amount available to be drawn
5 upon under each such Alternate Reserve Security shall be credited against the amounts needed to
6 satisfy the Reserve Fund Requirement. In the event of receipt of any notice of cancellation of an
7 Alternate Reserve Security, the City shall (and, in preparation for the expiration of any such
8 Alternate Reserve Security in accordance with its terms, the City may) either: (1) obtain a
9 substitute Alternate Reserve Security in the amount necessary to satisfy the Reserve Fund
10 Requirement on the date any such cancellation (or expiration) becomes effective, or (2) create a
11 special account in the Light Fund and deposit therein amounts necessary to replace the Alternate
12 Reserve Security upon its expiration or cancellation. In the case of receipt of a notice of
13 cancellation, such periodic deposits are to be made on or before the 25th day of each of the
14 60 calendar months succeeding receipt of such notice, in an amount equal to 1/60th of the amount
15 necessary (together with other money and investments then on deposit in the Reserve Fund) to
16 satisfy the expected Reserve Fund Requirement on the date such cancellation shall become
17 effective, taking into account scheduled redemptions of Parity Bonds and disregarding any
18 incremental additional amounts that may become necessary due to the issuance of Future Parity
19 Bonds subsequent to the date of such notice of cancellation. Such amounts shall be transferred
20 from Net Revenue available in the Light Fund after making provision for payment of Operating
21 and Maintenance Expense and for the required payments into the Parity Bond Fund, in
22 accordance with Section 14. Amounts on deposit in such special account are preliminarily
23 earmarked for the replacement of such Alternate Reserve Security and shall not be available to

1 pay debt service on Parity Bonds or for any other purpose of the City, and shall be transferred to
2 the Reserve Fund on the effective date of any cancellation or expiration of the Alternate Reserve
3 Security to make up the deficiency caused thereby. In the event that the Reserve Fund is
4 completely depleted and all Alternate Reserve Securities have been fully drawn, the amounts in
5 that special account may be withdrawn and treated as Gross Revenues available to be used in
6 accordance with the flow of funds set forth in Section 14. If and when a substitute Alternate
7 Reserve Security having a sufficient value or policy limit is obtained, amounts held in that
8 special account may be transferred back to the Light Fund and treated as Gross Revenues
9 available to be used in accordance with the flow of funds set forth in Section 14.

10 (C) If the amount on deposit in the Reserve Fund is less than the
11 Reserve Fund Requirement (taking into account the five-year period referred to in paragraph (A)
12 of this subsection), the City shall transfer to the Reserve Fund money in an amount sufficient to
13 restore the Reserve Fund to the Reserve Fund Requirement within 12 months after the date of
14 such deficiency. The City shall transfer such amounts first from Net Revenue available in
15 accordance with the priority of payment in Section 14, and only thereafter from money in any
16 construction fund or account established with respect to any issue of Parity Bonds, first taking
17 money from the unrestricted portion thereof, then taking money from the restricted portion
18 thereof. If the amount in the Reserve Fund is greater than the Reserve Fund Requirement, then
19 and only then may the City withdraw such excess from the Reserve Fund and deposit such
20 excess in the Light Fund.

21 (ii) **Use of Reserve Fund to Refund Parity Bonds.** If any Parity Bonds are to
22 be refunded, the money set aside in the Reserve Fund to secure the payment of such Parity Bonds
23 may be used to retire such Parity Bonds, or may be transferred to any reserve fund or account

1 which may be created to secure the payment of any bonds issued to refund such Parity Bonds, as
2 long as the money left remaining in the Reserve Fund is at least equal, together with all Alternate
3 Reserve Securities, to the Reserve Fund Requirement.

4 (iii) **Use of Reserve Fund to Pay Debt Service.** If the money in the Parity
5 Bond Fund is insufficient to meet maturing installments of either interest on or principal of and
6 interest on the Parity Bonds (including net amounts payable under any Parity Payment
7 Agreements), such deficiency shall be made up from the Reserve Fund by the withdrawal of
8 money or proceeds of Alternate Reserve Securities, as the case may be. Any deficiency created
9 in the Reserve Fund by reason of any such withdrawal or claim against an Alternate Reserve
10 Security shall then be made up out of Net Revenue or out of any other legally available funds of
11 the City.

12 (iv) **Withdrawals From Reserve Fund.** Money in the Reserve Fund may be
13 withdrawn by the City for any lawful purpose as long as the aggregate of any money and
14 Alternate Reserve Securities remaining on deposit in the Reserve Fund is at least equal to the
15 Reserve Fund Requirement for the Parity Bonds then outstanding. The City reserves the right to
16 substitute one or more Alternate Reserve Securities for money previously deposited in the
17 Reserve Fund and to withdraw such excess to the extent described in the preceding sentence.
18 Any withdrawals from subaccounts within the Reserve Fund shall be made on a *pro rata* basis,
19 except when the terms of an Alternate Reserve Security require all cash and investments in the
20 Reserve Fund to be withdrawn before any draw or claim is made on the Alternate Reserve
21 Security, or unless the City receives an opinion of Bond Counsel to the effect that such *pro rata*
22 withdrawal is not required to maintain the federal tax benefits (if any) of any then outstanding
23 Parity Bonds issued as Tax-Exempt Bonds or Tax Credit Subsidy Bonds. If multiple Alternate

1 Reserve Securities are on deposit in the Reserve Fund, draws on such Alternate Reserve
2 Securities shall be made on a *pro rata* basis.

3 Section 16. **Junior Lien Debt Service Fund.**

4 (a) **Junior Lien Debt Service Fund; Use of Fund.** The Junior Lien Debt Service
5 Fund has previously been created for the sole purpose of paying the principal of (including
6 redemption premium, if any) and interest on the Junior Lien Bonds as the same shall become
7 due. The Junior Lien Debt Service Fund shall consist of a Principal and Interest Account and
8 such additional subfunds, accounts, or subaccounts as the Director of Finance may find it
9 necessary or convenient to create in order to pay or secure the payment of Junior Lien Bonds, as
10 long as the maintenance of such subfunds, accounts, or subaccounts does not conflict with the
11 rights of the owners of the Junior Lien Bonds or the Parity Bonds.

12 Each Series of the Bonds designated as Junior Lien Bonds shall be payable (including
13 principal, Sinking Fund Requirements, redemption premium (if any), and interest) out of the
14 Junior Lien Debt Service Fund. Money in the Junior Lien Debt Service Fund shall, to the fullest
15 extent practicable and reasonable, be invested and reinvested at the direction of the Director of
16 Finance solely in, and obligations deposited in such accounts shall consist of, Permitted
17 Investments. Earnings on money and investments in the Junior Lien Debt Service Fund shall be
18 deposited in and used for the purposes of that fund.

19 (b) **Required Payments Into the Junior Lien Debt Service Fund.** So long as any
20 Junior Lien Bonds (including any Junior Lien Payment Agreements) are outstanding, the City
21 shall set aside and pay out of Net Revenue certain fixed amounts, without regard to any fixed
22 proportion, namely, into the Principal and Interest Account of the Junior Lien Debt Service
23 Fund, on or prior to the respective dates on which such payments shall become due and payable,

1 an amount sufficient, together with other money on deposit therein, to pay the interest on and the
2 principal of the Junior Lien Bonds, including net payments due on Junior Lien Payment
3 Agreements and all payments under Junior Lien Reimbursement Obligations, as the same shall
4 become due. To meet the required payments to be made into the Junior Lien Debt Service Fund,
5 the Director of Finance may transfer any money from any funds or accounts of the City legally
6 available therefor, except the Parity Bond Fund, the Reserve Fund, other bond redemption funds,
7 refunding escrow funds, or defeasance funds. The Director of Finance may provide for the
8 purchase, redemption or defeasance of any Junior Lien Bonds by the use of money on deposit in
9 any subfund, account, or subaccount in the Junior Lien Debt Service Fund, so long as the money
10 remaining in those subfunds, accounts, or subaccounts is sufficient to satisfy the required
11 deposits with respect to the remaining Junior Lien Bonds.

12 Section 17. **Bond Covenants.**

13 (a) **Parity Bond Covenants.** The City covenants with the Owner of each Bond that is
14 designated as a Parity Bond, for so long as such Bond remains outstanding, as follows:

15 (i) **Sale or Disposition of the Light System.**

16 (A) The City may dispose of all or substantially all of the Light System
17 only if the City simultaneously causes all of the Parity Bonds to be, or be deemed to be, no
18 longer outstanding.

19 (B) Except as provided below, the City will not dispose of any part of
20 the Light System in excess of 5% of the value of the net utility plant of the Light System in
21 service unless prior to such disposition: (1) there has been filed with the Director of Finance a
22 certificate of a Professional Utility Consultant stating that such disposition will not impair the
23 ability of the City to comply with the rate covenant set forth in Section 17(a)(ii), in which the

1 Professional Utility Consultant may make those assumptions permitted in delivering a Parity
2 Certificate under Section 18(a); or (2) provision is made for the payment, redemption or other
3 retirement of a principal amount of Parity Bonds equal to the greater of the following amounts:
4 (I) an amount which will be in the same proportion to the net principal amount of Parity Bonds
5 then outstanding (defined as the total principal amount of Parity Bonds then outstanding less the
6 amount of cash and investments in the Parity Bond Fund) that Gross Revenues for the twelve
7 preceding months attributable to the part of the Light System sold or disposed of bears to the
8 total Gross Revenues for such period; or (II) an amount which will be in the same proportion to
9 the net principal amount of Parity Bonds then outstanding that the book value of the part of the
10 Light System sold or disposed of bears to the book value of the entire Light System immediately
11 prior to such sale or disposition.

12 (C) Notwithstanding the foregoing, the City may dispose of any
13 portion of the Light System that has become unserviceable, inadequate, obsolete, worn out or
14 unfit to be used, or no longer necessary for, material to, or useful in the operation of the Light
15 System.

16 (D) If the ownership of all or part of the Light System is transferred
17 from the City through the operation of law, the City shall reconstruct or replace the transferred
18 portion using any proceeds of the transfer unless the City Council determines that such
19 reconstruction or replacement is not in the best interests of the City and the Owners of the Parity
20 Bonds, in which case any proceeds shall be used to purchase, defease, or redeem Parity Bonds
21 prior to maturity.

22 (ii) **Rates and Charges.** The City will establish from time to time and
23 maintain such rates for electric energy as will maintain the Light System in sound financial

1 condition and provide sufficient revenues to pay all Operating and Maintenance Expense, to pay
2 into the Parity Bond Fund the amounts that are required by this ordinance to be applied to the
3 payment of the principal of and interest on the Parity Bonds until the Parity Bonds shall have
4 been paid in full, and to pay all bonds, warrants, and indebtedness for which any revenues of the
5 Light System shall have been pledged.

6 (iii) **Operation and Maintenance of the Light System.** The City will operate
7 the properties of the Light System in an efficient manner and at a reasonable cost; will maintain,
8 preserve and keep, or cause to be maintained, preserved and kept, the properties of the Light
9 System and every part and parcel thereof in good repair, working order and condition; and from
10 time to time will make or cause to be made all necessary and proper repairs, renewals and
11 replacements thereto so that at all times the business carried on in connection therewith will be
12 properly and advantageously conducted.

13 (iv) **Books and Financial Statements.** The City will keep and maintain proper
14 books of account for the Light System in accordance with generally accepted accounting
15 principles applicable to governmental utilities; will generally adhere to the uniform system of
16 accounts prescribed by the State Auditor's Office and the Federal Energy Regulatory
17 Commission (if any); and will prepare, on or before 120 days after the end of each calendar year,
18 *and, upon the Second Parity Covenant Date, on or before 180 days after the end of each*
19 *calendar year*, annual financial statements showing reasonable detail, including a balance sheet,
20 an income statement, and a statement of cash flows or other such statement. Copies of such
21 financial statements shall be placed on file in the office of the Director of Finance and shall be
22 open to inspection at any reasonable time by any owner of any Parity Bonds. A copy of such

1 financial statements shall be sent to any owner of Parity Bonds upon request in writing setting
2 forth the name and address to which such financial statements may be sent.

3 (b) **Junior Lien Bond Covenants.** The City covenants with the Owner of each Bond
4 that is designated as a Junior Lien Bond, for so long as such Bond remains outstanding, as
5 follows:

6 (i) **Sale or Disposition of the Light System.** The City may dispose of all or
7 substantially all of the Light System only if the City simultaneously causes all of the Junior Lien
8 Bonds to be, or be deemed to be, no longer outstanding. The City will not dispose of any part of
9 the Light System in excess of 5% of the value of the net utility plant of the Light System in
10 service except upon compliance with the covenant set forth in Section 17(a)(i)(B), above.

11 Notwithstanding the foregoing, the City may dispose of any portion of the Light System that has
12 become unserviceable, inadequate, obsolete, worn out or unfit to be used, or no longer necessary,
13 material to, or useful in the operation of the Light System.

14 (ii) **Rates and Charges.** The City will establish from time to time and
15 maintain such rates for electric energy as will maintain the Light System in sound financial
16 condition and provide sufficient revenues to pay all Operating and Maintenance Expense; to pay
17 into the Parity Bond Fund the amounts that are required by this ordinance to be applied to the
18 payment of the principal of and interest on the Parity Bonds until the Parity Bonds shall have
19 been paid in full; to pay into the Junior Lien Debt Service Fund the amounts that are required by
20 this ordinance to be paid into such fund, in accordance with the priority of payment set forth in
21 Section 14, until the Junior Lien Bonds (including Junior Lien Payment Agreements and Junior
22 Lien Reimbursement Obligations) shall have been paid in full; and to pay all other bonds,
23 warrants, and indebtedness for which any revenues of the Light System shall have been pledged.

1 (iii) **Operation and Maintenance of the Light System.** The City will operate
2 the properties of the Light System in an efficient manner and at a reasonable cost; will maintain,
3 preserve and keep, or cause to be maintained, preserved and kept, the properties of the Light
4 System and every part and parcel thereof in good repair, working order and condition; and from
5 time to time will make or cause to be made all necessary and proper repairs, renewals, and
6 replacements thereto so that at all times the business carried on in connection therewith will be
7 properly and advantageously conducted.

8 (iv) **Books and Financial Statements.** The City will keep and maintain proper
9 books of account for the Light System in accordance with generally accepted accounting
10 principles applicable to governmental utilities; will generally adhere to the uniform system of
11 accounts prescribed by the State Auditor's Office and the Federal Energy Regulatory
12 Commission (if any); and will prepare, on or before 180 days after the end of each calendar year,
13 annual financial statements showing reasonable detail, including a balance sheet, an income
14 statement, and a statement of cash flows or other such statement. Copies of such financial
15 statements shall be placed on file in the office of the Director of Finance and shall be open to
16 inspection at any reasonable time by any owner of any Junior Lien Bonds. A copy of such
17 financial statements shall be sent to any owner of Junior Lien Bonds upon request in writing
18 setting forth the name and address to which such financial statements may be sent.

19 Section 18. **Additional Bonds.**

20 (a) **Future Parity Bonds.** The City reserves the right to issue Future Parity Bonds
21 (which term includes Parity Payment Agreements) for any lawful purpose of the City's Light
22 System if the Parity Conditions are met and complied with as of the Issue Date of such Future
23 Parity Bonds, or as of the effective date of the Parity Payment Agreement, as appropriate.

1 If the Parity Conditions are met and complied with, then payments into the Parity Bond
2 Fund with respect to such Future Parity Bonds shall rank equally with the payments out of the
3 Net Revenue required to be made into the Parity Bond Fund by this ordinance. Nothing set forth
4 herein shall prevent the City from (i) issuing revenue bonds or other obligations that are a charge
5 upon the Net Revenue junior and inferior to the payments required to be made therefrom into the
6 Parity Bond Fund for the payment of the Parity Bonds, provided that such subordinate bonds
7 may not be subject to acceleration under any circumstances; or (ii) issuing Refunding Parity
8 Bonds to refund maturing Parity Bonds of the City for the payment of which money is not
9 otherwise available.

10 (i) **Parity Conditions.** The Parity Conditions are as follows:

11 (A) No deficiency may then exist in the Parity Bond Fund or in any of
12 the accounts therein; and

13 (B) Provision must be made to satisfy the Reserve Fund Requirement
14 for all Parity Bonds then outstanding plus any additional amount required in connection with the
15 issuance and sale of the proposed Future Parity Bonds (if any) in accordance with Section 15(c);
16 and

17 (C) There must be on file with the City a Parity Certificate as described
18 in subsection (a)(ii), below. If the proposed Future Parity Bonds (or any portion thereof) are to be
19 issued for the purpose of refunding outstanding Parity Bonds and the Annual Debt Service on the
20 refunding portion of the proposed Future Parity Bonds is not more than \$5,000 greater than the
21 Annual Debt Service on the Parity Bonds to be refunded thereby, then no Parity Certificate shall
22 be required as to that portion issued for refunding purposes. If the requirements of the preceding

1 sentence are not satisfied, Refunding Parity Bonds may alternatively be issued upon delivery of a
2 Parity Certificate.

3 (ii) **Parity Certificate.** A Parity Certificate required by subsection (a)(i) may
4 be provided by either the Director of Finance or by a Professional Utility Consultant, as follows:

5 (A) A Parity Certificate may be prepared by the Director of Finance,
6 demonstrating that the amount of Adjusted Net Revenue in any 12 consecutive months out of the
7 most recent 24 months preceding the delivery of the proposed series of Future Parity Bonds (the
8 “Base Period”) was not less than 125% of Maximum Annual Debt Service in any future calendar
9 year on all Parity Bonds then outstanding and the proposed series of Future Parity Bonds. For the
10 purposes of a Parity Certificate delivered under this subsection (A), the Director of Finance shall
11 reflect in his or her certificate any adjustment in the rates, fees, and charges for the services of
12 the Light System that will become effective at any time prior to or within six months after the
13 delivery of the proposed Future Parity Bonds, by including in the amount of Adjusted Net
14 Revenue the amount that he or she estimates would have been collected in the Base Period if
15 such new rates, fees, and charges had been in effect for the entire Base Period.

16 (B) A Parity Certificate may be prepared by a Professional Utility
17 Consultant, demonstrating that the amount of the Adjusted Net Revenue (which may be further
18 adjusted as provided in paragraphs (1) through (5) below) in any 12 consecutive months out of
19 the most recent 24 months preceding the delivery of the proposed Series of Future Parity Bonds
20 (the “Base Period”) is not less than 125% of the amount of Maximum Annual Debt Service on
21 all Parity Bonds and the proposed Future Parity Bonds in any future calendar year on all Parity
22 Bonds then outstanding and the proposed series of Parity Bonds. For the purposes of a certificate
23 delivered under this subsection (a)(ii), Adjusted Net Revenue may be further adjusted by the

1 Professional Utility Consultant using any or all of the following methods reflecting the
2 conditions and requirements as may be appropriate to the circumstances:

3 (1) If the purpose for which the proposed Future Parity Bonds
4 are being issued is to acquire operating electric utility properties having an earnings record, the
5 Professional Utility Consultant shall estimate the effect on the Adjusted Net Revenue for the
6 Base Period of the acquisition of such electric utility properties and the integration thereof into
7 the Light System, and shall further adjust the Adjusted Net Revenue for the Base Period to give
8 effect to such estimate. Any such estimate shall be based upon the operating experience and
9 records of the City and upon any available financial statements and records relating to the
10 earnings of such electric utility properties to be acquired.

11 (2) If any changes to rates, fees, or charges imposed by the
12 City on sales of power, energy, or other services furnished by the Light System, which were not
13 in effect during the entire Base Period, have been adopted by the City Council and are in effect
14 on the date of sale of the proposed Future Parity Bonds (or effective date of the proposed Parity
15 Payment Agreement) or are to go into effect not later than 12 months after such date, the
16 Professional Utility Consultant may, if such changes resulted in increases in such rates, fees, or
17 charges, and shall, if such changes resulted in reductions in such rates, fees, or charges, further
18 adjust the Adjusted Net Revenue for the Base Period to reflect any change in such Adjusted Net
19 Revenue that would have occurred if the changed rates, fees, or charges had been in effect during
20 the entire Base Period.

21 (3) If the purpose for which the proposed Future Parity Bonds
22 are being issued is to acquire or construct generation or transmission facilities required to furnish
23 or make available to the Light System additional power and energy, or transmission facilities

1 required to enable the City to sell additional power and energy, the Professional Utility
2 Consultant may further adjust Adjusted Net Revenue for the Base Period by (I) deducting the
3 amount of the estimated increase in Operating and Maintenance Expense resulting from the
4 acquisition or construction of such facilities in their first year of full operation, (II) adding any
5 additional revenues to be derived from the sale or transmission of such additional power and
6 energy pursuant to executed power sales contracts, and (III) adding an amount equal to the
7 estimated cost of the power and energy which would have been replaced or displaced by such
8 facilities had such additional power and energy in excess of the power and energy to be sold
9 pursuant to paragraph (2), above, been used in the Light System during the Base Period.

10 (4) If there were any customers added to the Light System
11 during the Base Period or thereafter (and prior to the date of the Professional Utility Consultant's
12 certificate), Adjusted Net Revenue may be further adjusted on the basis that such added
13 customers were customers of the Light System during the entire Base Period.

14 (5) If extensions of or additions to the Light System (not
15 described in paragraph (3) above) are in the process of construction on the date of the
16 Professional Utility Consultant's certificate, or if the proceeds of the proposed Future Parity
17 Bonds are to be used to acquire or construct extensions of or additions to the Light System (not
18 described in paragraph (3) above), the Adjusted Net Revenue for the Base Period may be further
19 adjusted by adding any additional revenues not included in the preceding paragraphs that will be
20 derived from such additions and extensions, and deducting the estimated increase in Operating
21 and Maintenance Expense resulting from such additions and extensions.

22 In rendering any Parity Certificate under this subsection (a)(ii)(B), the Professional
23 Utility Consultant may rely upon the following documents, which shall be attached to the Parity

1 Certificate: financial statements of the Light System, certified by the Director of Finance,
2 showing income and expenses for the period upon which the same are based and a balance sheet
3 as of the end of such period; financial statements certified by the Office of the State Auditor of
4 the State (or any successor thereto); or financial statements certified by a Certified Public
5 Accountant for as much of such period as any examination by them has been made and
6 completed. If two or more of such statements are inconsistent with each other, the Professional
7 Utility Consultant shall rely on the statements certified by the Director of Finance.

8 (b) **Future Junior Lien Bonds.** The City reserves the right to issue Future Junior
9 Lien Bonds (which term includes Junior Lien Payment Agreements and Junior Lien
10 Reimbursement Obligations) for any lawful purpose of the City's Light System if the Junior Lien
11 Additional Bonds Test is met and complied with as of the Issue Date of such Future Junior Lien
12 Bonds, or as of the effective date of the Junior Lien Payment Agreement or Junior Lien
13 Reimbursement Obligation, as appropriate.

14 If the Junior Lien Additional Bonds Test is met and complied with, then payments into
15 the Junior Lien Debt Service Fund with respect to such Future Junior Lien Bonds shall rank
16 equally with the payments out of the Net Revenue required to be made into the Junior Lien Debt
17 Service Fund by this ordinance. Nothing set forth herein shall prevent the City from (i) issuing
18 revenue bonds or other obligations that are a charge upon the Net Revenue junior and inferior to
19 the payments required to be made therefrom into the Junior Lien Debt Service Fund for the
20 payment of the Junior Lien Bonds, provided that such subordinate bonds may not be subject to
21 acceleration under any circumstances; or (ii) issuing Refunding Junior Lien Bonds for the
22 purpose of refunding Outstanding Junior Lien Bonds to fund or refund maturing Junior Lien
23 Bonds of the City for the payment of which money is not otherwise available.

1 (i) **Junior Lien Additional Bonds Test.** The Junior Lien Additional Bonds

2 Test is as follows:

3 (A) No deficiency may then exist in the Junior Lien Debt Service Fund
4 or in any of the accounts therein; and

5 (B) No default may have occurred that is then continuing with respect
6 to any then outstanding Parity Bonds or Junior Lien Bonds; and

7 (C) There must be on file with the City a Junior Lien Coverage
8 Certificate as described in subsection (b)(ii), below. If the proposed Future Junior Lien Bonds (or
9 any portion thereof) are to be issued for the purpose of refunding outstanding Junior Lien Bonds
10 and the Annual Debt Service on the refunding portion of the proposed Future Junior Lien Bonds
11 is not more than \$5,000 greater than the Annual Debt Service on the Junior Lien Bonds to be
12 refunded thereby, then no Junior Lien Coverage Certificate shall be required as to that portion
13 issued for refunding purposes. If the requirements of the preceding sentence are not satisfied,
14 Refunding Junior Lien Bonds may alternatively be issued upon delivery of a Junior Lien
15 Coverage Certificate.

16 (ii) **Junior Lien Coverage Certificate.** A Junior Lien Coverage Certificate

17 required by subsection (b)(i) may be provided by either the Director of Finance or by a
18 Professional Utility Consultant, as follows:

19 (A) A Junior Lien Coverage Certificate may be prepared by the
20 Director of Finance, demonstrating that the amount of Adjusted Net Revenue in any 12
21 consecutive months out of the most recent 24 months preceding the delivery of the proposed
22 Series of Future Junior Lien Bonds (the "Base Period") was not less than 115% of Maximum
23 Annual Debt Service in any future calendar year on all Parity Bonds, Intermediate Lien

1 Reimbursement Obligations (if any), and Junior Lien Bonds then outstanding plus the proposed
2 Series of Future Junior Lien Bonds. For the purposes of a Junior Lien Coverage Certificate
3 delivered under this subsection (A), the Director of Finance shall reflect in his or her certificate
4 any adjustment in the rates, fees, and charges for the services of the Light System that will
5 become effective at any time prior to or within six months after the delivery of the proposed
6 Future Junior Lien Bonds, by including in the amount of Adjusted Net Revenue the amount that
7 he or she estimates would have been collected in the Base Period if such new rates, fees, and
8 charges had been in effect for the entire Base Period.

9 (B) A Junior Lien Coverage Certificate may be prepared by a
10 Professional Utility Consultant, demonstrating that the amount of the Adjusted Net Revenue
11 (which may be further adjusted as provided in subsection (a)(ii)(B)(1) through (5), above) in any
12 12 consecutive months out of the most recent 24 months preceding the delivery of the proposed
13 Series of Future Junior Lien Bonds (the "Base Period") not less than 115% of Maximum Annual
14 Debt Service in any future calendar year on all Parity Bonds and Junior Lien Bonds then
15 outstanding plus the proposed Series of Future Junior Lien Bonds.

16 Section 19. **Rate Stabilization Account.** The City may at any time deposit in the Rate
17 Stabilization Account Net Revenue and any other money received by the Light System and
18 available to be used therefor. Thereafter, the City may withdraw any or all of the money from the
19 Rate Stabilization Account for inclusion in Adjusted Net Revenue for any applicable year of the
20 City. Such deposits or withdrawals may be made up to and including the date 90 days after the
21 end of the applicable year for which the deposit or withdrawal will be included as Adjusted Net
22 Revenue.

1 Section 20. **Refunding or Defeasance of Bonds.**

2 (a) **Bonds Designated as Refundable Bonds.** Each Series of the Bonds is hereby
3 designated as a Series of “Refundable Bonds” for purposes of the Omnibus Refunding
4 Ordinance.

5 (b) **Refunding; Defeasance.** The City may issue refunding bonds pursuant to the
6 laws of the State or use money available from any other lawful source (i) to pay when due the
7 principal of (including redemption premium, if any) and interest on any Bond, or any portion
8 thereof, included in a refunding or defeasance plan (the “Defeased Bonds”); (ii) to redeem and
9 retire, release, refund, or defease the Defeased Bonds; and (iii) to pay the costs of such refunding
10 or defeasance. If money and/or Government Obligations maturing at a time or times and in an
11 amount sufficient (together with known earned income from the investment thereof) to redeem
12 and retire, release, refund, or defease the Defeased Bonds in accordance with their terms, is set
13 aside in a special trust fund or escrow account irrevocably pledged to such redemption,
14 retirement or defeasance (the “Trust Account”), then all right and interest of the Owners of the
15 Defeased Bonds in the covenants of this ordinance and in Net Revenue and the funds and
16 accounts pledged to the payment of such Defeased Bonds, other than the right to receive the
17 funds so set aside and pledged, thereafter shall cease and become void. Such Owners thereafter
18 shall have the right to receive payment of the principal of and interest or redemption price on the
19 Defeased Bonds from the Trust Account. After establishing and fully funding such a Trust
20 Account, the Defeased Bonds shall be deemed no longer outstanding and the Director of Finance
21 may then apply any money in any other fund or account established for the payment or
22 redemption of the Defeased Bonds to any lawful purpose.

1 (c) **Notice of Defeasance or Refunding.** Unless otherwise specified in the applicable
2 Bond Documents, notice of refunding or defeasance shall be given, and selection of Bonds for
3 any partial refunding or defeasance shall be conducted, in the manner set forth in this ordinance
4 for the redemption of Bonds.

5 (d) **Annual Debt Service Calculation Adjustments for Defeased Bonds.** If the
6 refunding or defeasance plan provides (i) that the Defeased Bonds (or the Refunding Bonds
7 issued to redeem those Defeased Bonds) are to be secured by money and/or Government
8 Obligations pending the redemption of the Defeased Bonds, and (ii) that certain money and/or
9 Government Obligations are pledged irrevocably for the redemption of the Defeased Bonds, then
10 only the debt service on such Bonds as are not Defeased Bonds (and any Refunding Bonds, the
11 payment of which is not so secured by the refunding plan) shall be included in the calculation of
12 Annual Debt Service.

13 Section 21. **Federal Tax Matters.** The Bond Documents may include such additional
14 terms and covenants relating to federal tax matters as the Director of Finance deems necessary or
15 appropriate, including the following:

16 (a) **Tax-Exempt Bonds.** For each Series of the Bonds issued as Tax-Exempt Bonds,
17 the City covenants that it will take all actions, consistent with the terms of such Series as set
18 forth in this ordinance and the applicable Bond Documents, that are reasonably within its power
19 and necessary to prevent interest on that Series from being included in gross income for federal
20 income tax purposes. The City further covenants that it will neither take any action nor make or
21 permit any use of gross proceeds of that Series (or other funds of the City treated as gross
22 proceeds of that Series) at any time during the term of such Series that will cause interest on such
23 Series to be included in gross income for federal income tax purposes. The City also covenants

1 that, to the extent the arbitrage rebate requirement of Section 148 of the Code is applicable to any
2 Series issued as Tax-Exempt Bonds, it will take all actions necessary to comply (or to be treated
3 as having complied) with that requirement in connection with that Series (including the
4 calculation and payment of any penalties that the City may elect to pay as an alternative to
5 calculating rebatable arbitrage and the payment of any other penalties if required under Section
6 148 of the Code) to prevent interest on such Series from being included in gross income for
7 federal income tax purposes.

8 (b) **Taxable Bonds; Tax Credit Subsidy Bonds.** For each Series of the Bonds issued
9 as Taxable Bonds or as Tax Credit Subsidy Bonds, the Director of Finance is authorized to make
10 provision in the Bonds and other Bond Documents, to execute additional written agreements, and
11 to make additional covenants on behalf of the City, all as he or she may deem necessary or
12 appropriate in order to obtain, maintain, and administer such tax status. In the case of Tax Credit
13 Subsidy Bonds, such additional covenants and agreement may include (without limiting the
14 generality of the foregoing) those necessary in order for the City (i) to receive from the United
15 States Treasury the applicable Tax Credit Subsidy Payments in respect of such Tax Credit
16 Subsidy Bonds, and (ii) to ensure that such Series otherwise becomes and remains eligible for tax
17 benefits under the Code.

18 Section 22. **Official Statement; Continuing Disclosure.**

19 (a) **Preliminary Official Statement.** The Director of Finance and other appropriate
20 City officials are directed to cause the preparation of and review the form of a preliminary
21 official statement in connection with each sale of one or more Series to the public. For the sole
22 purpose of the Purchaser's compliance with paragraph (b)(1) of Rule 15c2-12, the Director of
23 Finance is authorized to deem that preliminary official statement final as of its date, except for

1 the omission of information permitted to be omitted by Rule 15c2-12. The City approves the
2 distribution to potential purchasers of the Bonds of a preliminary official statement that has been
3 deemed final in accordance with this subsection.

4 (b) **Final Official Statement.** The City approves the preparation of a final official
5 statement for each sale of one or more Series to be sold to the public in the form of the
6 preliminary official statement, with such additions, modifications and amendments as the
7 Director of Finance deems necessary or desirable, and further authorizes the Director of Finance
8 to execute and deliver such final official statement to the Purchaser. The City authorizes and
9 approves the distribution by the Purchaser of that final official statement to purchasers and
10 potential purchasers of the Bonds.

11 (c) **Undertaking to Provide Continuing Disclosure.** To meet the requirements of
12 paragraph (b)(5) of Rule 15c2-12, as applicable to a participating underwriter for a Series of the
13 Bonds, the Director of Finance is authorized to execute a written Continuing Disclosure
14 Agreement with respect to that Series, in substantially the form attached as Exhibit B.

15 Section 23. **Supplemental or Amendatory Bond Documents.** This ordinance and the
16 other applicable Bond Documents for any Series of the Bonds may not be supplemented or
17 amended in any respect subsequent to the Issue Date of such Series, except in accordance with
18 and subject to the provisions of this section.

19 (a) **Amendments Without Bond Owners' Consent.** From time to time and at any
20 time, without the consent of or notice to the owners of any Parity Bonds or Junior Lien Bonds,
21 the City may supplement or amend the Bond Documents applicable to any Series of the Bonds
22 for any of the purposes set forth in this subsection (a). Any such supplement or amendment may
23 be passed, adopted, or otherwise approved in writing by the City, without requiring the consent

1 of the registered owners of any Parity Bonds or Junior Lien Bonds, but may become effective
2 only upon receipt by the City of an opinion of Bond Counsel to the effect that such supplement
3 or amendment is permitted by the terms of this ordinance. The City shall deliver a copy of any
4 such supplement or amendment to each Rating Agency prior to its passage, adoption, or approval
5 (as applicable) by the City. The types of supplements and amendments permitted under this
6 subsection (a) are as follows:

7 (i) To add to any Parity Bond Documents (or to any Junior Lien Bond
8 Documents, as applicable) additional covenants and agreements that do not adversely affect the
9 interests of the owners of any Parity Bonds (or, as to Junior Lien Bond Documents, the interests
10 of the owners of any Junior Lien Bonds) then outstanding, or to surrender any right or power
11 reserved to or conferred upon the City in any Bond Documents.

12 (ii) To cure any ambiguities or to cure, correct, or supplement any defective
13 provision in any Bond Documents, in regard to matters or questions arising under such Bond
14 Documents, as the City may deem necessary or desirable and not inconsistent with this
15 ordinance, and which do not materially adversely affect the interests of the owners of any Parity
16 Bonds or Junior Lien Bonds then outstanding.

17 (iii) To make such changes as may be necessary to permit the Bonds to be held
18 in registered certificate form or in Book-Entry Form, as the case may be, and to make similar
19 amendments or modifications of a technical nature.

20 (b) **Amendments Permitted Upon Bond Owners' Consent.**

21 (i) **Parity Bond Documents.** With the consent of the registered owners
22 representing not less than 60% in aggregate principal amount of the Parity Bonds then
23 outstanding, the City may pass, adopt, or otherwise provide its written approval of any

1 supplement or amendment to add to, change, or eliminate any provision of the Bond Documents
2 applicable to a Series of the Bonds designated as Parity Bonds in any manner other than a
3 supplement or amendment effecting a change described in subsection (c)(i).

4 (ii) **Junior Lien Bond Documents.** With the consent of the registered owners
5 representing not less than 60% in aggregate principal amount of the Junior Lien Bonds then
6 outstanding, the City may pass, adopt, or otherwise approve in writing any supplement or
7 amendment to add to, change, or eliminate any provision of the Bond Documents applicable to a
8 Series of the Bonds designated as Junior Lien Bonds in any manner other than a supplement or
9 amendment effecting a change described in subsection (c)(ii).

10 (c) **Amendments Prohibited Except Upon Unanimous Consent.**

11 (i) **Amendments to Parity Bond Documents.** Nothing contained in this
12 section shall permit or be construed as permitting an amendment or supplement that would:

13 (A) Except upon consent from the registered owners of or on behalf of
14 all Parity Bonds so affected, extend the fixed maturity of any Parity Bond, reduce the rate of
15 interest on any Parity Bond (other than a change in interest rate permitted under the applicable
16 Parity Bond Documents then in effect), extend the times of payment of interest from their
17 respective due dates, reduce the principal amount of any Parity Bond, or reduce any redemption
18 premium; or

19 (B) Except upon consent from the registered owners of or on behalf of
20 all of the Parity Bonds then outstanding, reduce the percentage of ownership required under
21 subsection (b)(i), above, to approve any supplement or amendment.

22 (ii) **Amendments to Junior Lien Bond Documents.** Nothing contained in
23 this section shall permit or be construed as permitting an amendment or supplement that would:

1 (A) Except upon consent from the registered owners of or on behalf of
2 all Junior Lien Bonds so affected, extend the fixed maturity of any Junior Lien Bond, reduce the
3 rate of interest on any Junior Lien Bond (other than a change in interest rate permitted under the
4 applicable Junior Lien Bond Documents then in effect), extend the times of payment of interest
5 from their respective due dates, reduce the principal amount of any Junior Lien Bond, or reduce
6 any redemption premium; or

7 (B) Except upon consent from the registered owners of or on behalf of
8 all of the Junior Lien Bonds then outstanding, reduce the percentage of ownership required under
9 subsection (b)(ii), above, to approve any supplement or amendment.

10 (d) **Notice and Consents.** If at any time the City passes, adopts, or otherwise
11 approves in writing a supplement or amendment for any of the purposes requiring consent under
12 subsection (b) or (c) of this section, it shall provide a notice, briefly summarizing the nature of
13 the proposed supplement or amendment and stating that a copy of such supplement or
14 amendment is on file at the office of the City Clerk, to each registered owner and to each Rating
15 Agency. It shall not be necessary to obtain consent to or approval of the particular form of any
16 proposed supplement or amendment, but it shall be sufficient if the consent shall approve the
17 substance thereof. For purposes of determining whether consents representing the requisite
18 percentage of principal amount of Parity Bonds or Junior Lien Bonds have been obtained, the
19 Accreted Value of Capital Appreciation Bonds shall be deemed to be the principal amount.

20 (e) **Effect of Amendment or Supplement.** Upon the effective date of any
21 amendment or supplement to any Bond Documents, such Bond Documents shall be deemed to
22 be amended and modified in accordance with such amendment or supplement. Thereafter, the
23 respective rights, duties, and obligations of the City under the applicable Bond Documents shall

1 be determined, exercised, and enforced subject in all respects to such supplement or
2 amendments, and all the terms and conditions of any such supplement or amendment shall be
3 deemed to be a part of the terms and conditions of those Bond Documents for any and all
4 purposes. The effective dates of such amendments and supplements shall be as follows:

5 (i) An amendment and supplement permitted under subsection (a) shall
6 become effective immediately upon (A) the passage, adoption, or other approval of such
7 amendment or supplement (or upon the effective date of such document as stated therein, if any),
8 and (B) the delivery of the required opinion of Bond Counsel stating that such amendment or
9 supplement is permitted under this ordinance.

10 (ii) A supplement or amendment permitted under subsection (b) or (c) shall
11 become effective on the date on which the City has received the written consents of the requisite
12 percentage of registered owners. If the requisite percentage of registered owners of Parity Bonds
13 or Junior Lien Bonds, as applicable, have given their consent to any such amendment or
14 supplement, no owner of any Bond shall have any right (i) to object to the passage, adoption, or
15 approval of such supplement or amendment, (ii) to object to any of the terms and provisions
16 contained therein or the operation thereof, (iii) in any manner to question the propriety of the
17 passage, adoption, or approval thereof, (iv) to enjoin or restrain the City, or any authorized
18 official thereof, from passing, adopting, or otherwise approving the same, or (v) to enjoin or
19 restrain the City, any authorized official thereof, or the Bond Registrar from taking any action
20 pursuant to the provisions thereof.

21 (f) **Notation on Bonds.** Any Bonds executed and delivered after the effective date of
22 any amendment or supplement that is passed, adopted, or otherwise approved in writing pursuant
23 to this section may include a notation as to any matter provided for in such amendment or

1 supplement. The City may, in its discretion, prepare and deliver replacement bonds, modified to
2 reflect any such amendment or supplement, to the registered owner(s) thereof upon surrender of
3 the original bonds for cancellation.

4 (g) **Special Amendments.** If and to the extent that it is determined that the written
5 consent of Registered Owners of the Bonds is required under subsection (b) or (c) of this section,
6 the Registered Owners from time to time of the Bonds, by taking and holding the same, are
7 hereby deemed to have consented to any supplement or amendment to any Bond Documents
8 effecting any one or more of the following changes:

9 (i) Permitting the reimbursement obligations of the City under any Qualified
10 Insurance or Qualified Letter of Credit obtained for the benefit of the holders of the Parity Bonds
11 (other than Qualified Insurance or a Qualified Letter of Credit obtained to satisfy all or a part of
12 the Reserve Fund Requirement) to be secured by a charge and lien on Net Revenue of the Light
13 System equal in rank with the charge and lien upon such Net Revenue required to be paid into
14 the Parity Bond Fund to pay and secure the payment of the principal of and interest on Parity
15 Bonds.

16 (ii) Permitting the reimbursement obligations of the City under any Alternate
17 Reserve Security to be made by transfers from money in the Light Fund on parity with the
18 transfers to be made upon receipt of any notice of cancellation of an Alternate Reserve Security.

19 Section 24. **Defaults and Remedies.**

20 (a) **Parity Bond Events of Default.** Each of the following shall constitute an Event
21 of Default with respect to the Bonds designated as Parity Bonds, except as set forth in subsection
22 (c) of this section:

1 (i) If a default is made in the payment of the principal of (including Sinking
2 Fund Requirements and any redemption premium thereon, if any) or interest on any Parity Bond
3 when the same shall become due and payable; or

4 (ii) If the City defaults in the observance and performance of any other of the
5 Parity Bond covenants, conditions, or agreements on the part of the City set forth in this
6 ordinance or the applicable Parity Bond Documents (except as otherwise provided herein or in
7 such Parity Bond Documents) and such default or defaults shall have continued for a period of
8 six months (the "cure period") after the City shall have received from the registered owners of
9 not less than 25% in principal amount of the Parity Bonds then outstanding (or from a Bond
10 Owners' Trustee duly appointed as set forth in subsection (d), below) a written notice specifying
11 and demanding the cure of such default. However, if such default is one which cannot be
12 completely remedied within the cure period, it shall not be an Event of Default with respect to
13 the Parity Bonds, so long as the City has taken active steps within the cure period to remedy the
14 default and is diligently pursuing such remedy.

15 (b) **Junior Lien Bond Events of Default.** Each of the following shall constitute an
16 Event of Default with respect to the Bonds designated as Junior Lien Bonds, except as set forth
17 in subsection (c) of this section:

18 (i) If a default is made in the payment of the principal of (including Sinking
19 Fund Requirements and any redemption premium thereon, if any) or interest on any Junior Lien
20 Bond when the same shall become due and payable; or

21 (ii) If the City defaults in the observance and performance of any other of the
22 Junior Lien Bond covenants, conditions, or agreements on the part of the City set forth in this
23 ordinance or the applicable Junior Lien Bond Documents (except as otherwise provided herein or

1 in such Junior Lien Bond Documents) and such default or defaults shall have continued for a
2 period of six months (the “cure period”) after the City shall have received from the registered
3 owners of not less than 25% in principal amount of the Junior Lien Bonds then outstanding (or
4 from a Bond Owners’ Trustee duly appointed as set forth in subsection (d), below) a written
5 notice specifying and demanding the cure of such default. However, if such default is one which
6 cannot be completely remedied within the cure period, it shall not be an Event of Default with
7 respect to the Bonds as long as the City has taken active steps within the cure period to remedy
8 the default and is diligently pursuing such remedy.

9 (c) **Exceptions.** Notwithstanding anything in this section to the contrary, the failure
10 of the City or any obligated person to comply with a Continuing Disclosure Agreement shall not
11 constitute an Event of Default, and the sole remedy of any holder of any Parity Bond or Junior
12 Lien Bond, as applicable, shall be to seek an order of specific performance from an appropriate
13 court to compel the City to comply with the Continuing Disclosure Agreement. For purposes of
14 determining whether an Event of Default has occurred and is continuing with respect to the rate
15 covenant set forth in Section 17(a)(ii) or (b)(ii), if such covenant is met for any fiscal year, it
16 shall be deemed to have been met for all prior fiscal years.

17 (d) **Remedies; No Acceleration.** In the case of a Parity Bond Event of Default, an
18 owner of a Parity Bond shall have the remedies set forth in Section 10 and in the applicable
19 Parity Bond Documents. *Upon the Second Parity Covenant Date, the rights and remedies of*
20 *the owners from time to time of Parity Bonds shall be limited by subsection (e), below.* In the
21 case of a Junior Lien Bond Event of Default, the owner of a Junior Lien Bond shall have the
22 remedies set forth in Section 10 and in the applicable Junior Lien Bond Documents, as limited by
23 subsection (e), below. Nothing contained in this ordinance shall, in any event or under any

1 circumstance, be deemed to authorize the acceleration of the maturity of principal on the Bonds,
2 and the remedy of acceleration is expressly denied to the registered owners of the Bonds under
3 any circumstances including, without limitation, upon the occurrence and continuance of an
4 Event of Default.

5 (e) **Bond Owners' Trustee.** *The provisions of this subsection shall become*
6 *effective with respect to Parity Bonds only upon the Second Parity Covenant Date.* The
7 provisions of this subsection shall become effective immediately with respect to Bonds issued as
8 Junior Lien Bonds. A Bond Owners' Trustee appointed in the manner provided in this section,
9 and each successor thereto, is declared to be a trustee for all of the owners of the Parity Bonds (in
10 the case of a Parity Bond Event of Default) or the owners of the Junior Lien Bonds (in the case
11 of a Junior Lien Bond Event of Default), as applicable, and is empowered to exercise all the
12 rights and powers herein conferred on the Bond Owners' Trustee.

13 (i) **Appointment of Bond Owners' Trustee; Removal.** Upon the occurrence
14 and continuance of an Event of Default described in subsection (a) of this section, the registered
15 owners of 25% in principal amount of the then outstanding Parity Bonds (or upon the occurrence
16 and continuance of an Event of Default described in subsection (b) of this section, the registered
17 owners of 25% in principal amount of the then outstanding Junior Lien Bonds, if such default is
18 one described in subsection (b) of this section) may appoint a Bond Owners' Trustee by an
19 instrument or concurrent instruments in writing signed by such registered owners (or by their
20 duly authorized attorneys-in-fact) and delivered to such Bond Owners' Trustee, with notification
21 of such appointment given to the City. That appointment shall become effective immediately
22 upon acceptance thereof by the Bond Owners' Trustee. The entity acting as Bond Owners'
23 Trustee may be removed at any time, and a successor Bond Owners' Trustee may be appointed,

1 by the registered owners of more than 50% in principal amount of the Parity Bonds (in the case
2 of a Parity Bond Event of Default) or 50% in principal amount of the Junior Lien Bonds (in the
3 case of a Junior Lien Bond Event of Default), as applicable, by an instrument or concurrent
4 instruments in writing signed and acknowledged by such registered owners or by their duly
5 authorized attorneys-in-fact.

6 (ii) **Cure of Event of Default.** If the Bond Owners' Trustee furnishes to the
7 City a certificate stating that, in its sole judgment, an Event of Default that has occurred has been
8 cured, such Event of Default shall be conclusively deemed to be cured, and the City, the Bond
9 Owners' Trustee, and the registered owners of the Parity Bonds or Junior Lien Bonds, as
10 applicable, shall be restored to the same rights and position which they would have held if no
11 Event of Default had occurred.

12 (iii) **Suits at Law or in Equity.** Upon the occurrence of an Event of Default
13 and during the continuance thereof, the Bond Owners' Trustee in its discretion may (and, upon
14 the written request of the registered owners of not less than 25% in principal amount of the
15 Parity Bonds (or Junior Lien Bonds, as applicable) then outstanding, shall) take such steps and
16 institute such suits, actions, or other proceedings, all as it may deem appropriate for the
17 protection and enforcement of the rights of the registered owners of the Parity Bonds (or Junior
18 Lien Bonds, as applicable), to collect any amounts due and owing to or from the City, or to
19 obtain other appropriate relief, and may enforce the specific performance of any covenant,
20 agreement or condition contained in this ordinance or set forth in any of the applicable Bond
21 Documents.

22 Any action, suit or other proceedings instituted by the Bond Owners' Trustee hereunder
23 shall be brought in its name as the Bond Owners' Trustee and all such rights of action upon or

1 under any of the Parity Bonds or the provisions of this ordinance may be enforced by the Bond
2 Owners' Trustee without the possession of any of those Parity Bonds and without the production
3 of the same at any trial or proceedings relative thereto except where otherwise required by law.

4 (iv) **Effect of Appointment of Bond Owners' Trustee.** Any suit, action, or
5 proceeding instituted by the Bond Owners' Trustee shall be brought for the ratable benefit of all
6 of the owners of the Parity Bonds (or Junior Lien Bonds, as applicable), subject to the provisions
7 of this ordinance. The respective owners, by taking and holding the same, shall be conclusively
8 deemed irrevocably to appoint the Bond Owners' Trustee the true and lawful trustee of the
9 respective owners, with authority to institute any such action, suit or proceeding; to receive as
10 trustee and deposit in trust any sums becoming distributable on account of those Parity Bonds; to
11 execute any paper or documents for the receipt of money; and to do all acts with respect thereto
12 that the owner himself or herself might have done in person. Nothing herein shall be deemed to
13 authorize or empower the Bond Owners' Trustee to consent to accept or adopt, on behalf of any
14 owner of the Parity Bonds, any plan of reorganization or adjustment affecting the Parity Bonds
15 or any right of any registered owner thereof, or to authorize or empower the Bond Owners'
16 Trustee to vote the claims of the registered owners thereof in any receivership, insolvency,
17 liquidation, bankruptcy, reorganization or other proceeding to which the City is a party.

18 (v) **Bond Owners' Direction of Proceedings.** By an instrument or concurrent
19 instruments in writing executed and delivered to the Bond Owners' Trustee, the owners of more
20 than 50% in aggregate principal amount of the Parity Bonds (or Junior Lien Bonds, as
21 applicable) then outstanding shall be entitled to control and direct the enforcement of all rights
22 and remedies granted to the owners (or the Bond Owners' Trustee for the benefit of the owners)
23 under the applicable Parity Bond Documents. Notwithstanding the foregoing, the Bond Owners'

1 Trustee shall have the right to decline to follow any such direction which in the opinion of the
2 Bond Owners' Trustee, in reasonable reliance on advice of counsel, would be unjustly
3 prejudicial to owners not parties to such direction.

4 (vi) **Limitation on Remedies; Limitations on Individual Actions.** It is
5 understood and intended that no owner of a Parity Bond, in the case of a Parity Bond Event of
6 Default (or owner of a Junior Lien Bond, in the case of a Junior Lien Bond Event of Default)
7 shall have any right in any manner whatever by its action to affect, disturb, or prejudice the
8 security pledged in this ordinance or the rights of any other owners, or to enforce any right under
9 the applicable Bond Documents or applicable law except in the manner provided in this section,
10 and that all proceedings at law or in equity to enforce any such right shall be instituted, had, and
11 maintained in the manner herein provided and for the equal and ratable benefit and protection of
12 all owners of the Parity Bonds (or Junior Lien Bonds, as applicable), subject to the provisions of
13 this ordinance.

14 (vii) **Limitations on Individual Actions.** No owner of a Parity Bond (or Junior
15 Lien Bond, as applicable) shall have any right to institute any action, suit or proceeding at law or
16 in equity for the enforcement of same unless (A) such owner previously shall have given to the
17 Bond Owners' Trustee written notice of the occurrence of an Event of Default; (B) the owners of
18 more than 50% in aggregate principal amount of the then Outstanding Parity Bonds (in the case
19 of a Parity Bond Event of Default) or 50% in aggregate principal amount of the then Outstanding
20 Junior Lien Bonds, as applicable, shall have made a written request to the Bond Owners' Trustee
21 to exercise the powers granted above or to institute such suit, action, or proceeding in its own
22 name; (C) such owners shall have tendered to the Bond Owners' Trustee reasonable indemnity
23 against the costs, expenses and liabilities to be incurred in compliance with such request; and

1 (D) the Bond Owners' Trustee shall have refused or omitted to comply with such request for a
2 period of 60 days after such written request shall have been received by, and said tender of
3 indemnity shall have been made to, the Bond Owners' Trustee. The conditions set forth in (A)
4 through (D) in the preceding sentence are hereby declared to be conditions precedent to the
5 exercise by any owner of a Parity Bond (in the case of a Parity Bond Event of Default) or owner
6 of a Junior Lien Bond (in the case of a Junior Lien Bond Event of Default) of any remedy under
7 the applicable Bond Documents or under applicable law.

8 (viii) **Duties and Obligations of Bond Owners' Trustee.** The Bond Owners'
9 Trustee shall not be liable except for the performance of such duties as are specifically set forth
10 herein. During any period in which an Event of Default has occurred and is continuing as to the
11 Parity Bonds or the Junior Lien Bonds, as applicable, the Bond Owners' Trustee shall exercise
12 such of the rights and powers vested in it hereby, and shall use the same degree of care and skill
13 in its exercise, as a prudent person would exercise or use under the circumstances in the conduct
14 of his or her own affairs. The Bond Owners' Trustee shall have no liability for any act or
15 omission to act hereunder except for the Bond Owners' Trustee's own negligent action, its own
16 negligent failure to act or its own willful misconduct. The duties and obligations of the Bond
17 Owners' Trustee shall be determined solely by the express provisions of this ordinance, and no
18 implied powers, duties or obligations of the Bond Owners' Trustee shall be read into this
19 ordinance. The Bond Owners' Trustee shall not be required to expend or risk its own funds or
20 otherwise incur individual liability in the performance of any of its duties or in the exercise of
21 any of its rights or powers as the Bond Owners' Trustee, except as may result from its own
22 negligent action, its own negligent failure to act or its own willful misconduct. The fees and
23 expenses of the Bond Owners' Trustee shall be borne by the owners of the Parity Bonds or

1 Junior Lien Bonds, as applicable, and not by the City. A Bond Owners' Trustee may require such
2 security and indemnity as may be reasonable against the costs, expenses and liabilities that may
3 be incurred in the performance of its duties. The Bond Owners' Trustee shall not be bound to
4 recognize any person as a registered owner of any Parity Bond (or Junior Lien Bond, as
5 applicable) until his or her title thereto, if disputed, has been established to its reasonable
6 satisfaction. The Bond Owners' Trustee may consult with counsel and the opinion of such
7 counsel shall be full and complete authorization and protection in respect of any action taken or
8 suffered by it hereunder in good faith and in accordance with the opinion of such counsel. The
9 Bond Owners' Trustee shall not be answerable for any neglect or default of any person, firm or
10 corporation employed and selected by it with reasonable care.

11 Section 25. **General Authorization.** In addition to the specific authorizations in this
12 ordinance, the Mayor and the Director of Finance and each of the other appropriate officers of
13 the City are each authorized and directed to do everything as in his or her judgment may be
14 necessary, appropriate, or desirable in order to carry out the terms and provisions of, and
15 complete the transactions contemplated by, this ordinance. In particular and without limiting the
16 foregoing:

17 (a) The Director of Finance, in his or her discretion and without further action by the
18 City Council, (i) may issue requests for proposals to provide underwriting services or financing
19 facilities (including, without limitation, Qualified Insurance, a Qualified Letter of Credit, or other
20 credit support or liquidity facility) and may execute engagement letters and other agreements
21 with underwriters and other financial institutions (including providers of liquidity or credit
22 support) based on responses to such requests; (ii) may select and make decisions regarding the
23 Bond Registrar, fiscal or paying agents, and any Securities Depository for each Series of the

1 Bonds; (iii) may take any and all actions necessary or convenient to provide for the conversion of
2 interest rate modes for any Series in accordance with the applicable Bond Documents; and (iv)
3 may take such actions on behalf of the City as are necessary or appropriate for the City to
4 designate, qualify, or maintain the tax-exempt treatment with respect to any Series issued as Tax-
5 Exempt Bonds, to receive from the United States Treasury the applicable Tax Credit Subsidy
6 Payments in respect of any Series issued as Tax Credit Subsidy Bonds, and to otherwise receive
7 any other federal tax benefits relating to any Series of the Bonds that are available to the City;
8 and

9 (b) Each of the Mayor and the Director of Finance are each separately authorized to
10 execute and deliver (i) any and all contracts or other documents as are consistent with this
11 ordinance and for which the City's approval is necessary or to which the City is a party
12 (including but not limited to agreements with escrow agents, refunding trustees, liquidity or
13 credit support providers, providers of Qualified Insurance or Alternate Reserve Securities,
14 remarketing agents, underwriters, lenders or other financial institutions, fiscal or paying agents,
15 Qualified Counterparties, custodians, and the Bond Registrar); and (ii) such other contracts or
16 documents incidental to the issuance and sale of any Series of the Bonds; the establishment of
17 the interest rate or rates on a Bond; or the conversion, tender, purchase, remarketing, or
18 redemption of a Bond, as may in the Mayor's or Director's judgment be necessary or
19 appropriate.

20 Section 26. **Severability.** The provisions of this ordinance are declared to be separate
21 and severable. If a court of competent jurisdiction, all appeals having been exhausted or all
22 appeal periods having run, finds any provision of this ordinance to be invalid or unenforceable as
23 to any person or circumstance, such offending provision shall, if feasible, be deemed to be

1 modified to be within the limits of enforceability or validity. However, if the offending provision
2 cannot be so modified, it shall be null and void with respect to the particular person or
3 circumstance, and all other provisions of this ordinance in all other respects, and the offending
4 provision with respect to all other persons and all other circumstances, shall remain valid and
5 enforceable.

6 Section 27. **Ratification of Prior Acts.** Any action taken consistent with the authority
7 of this ordinance after its passage but prior to its effective date, is ratified, approved and
8 confirmed.

9 Section 28. **Section Headings.** Section headings in this ordinance are used for
10 convenience only and shall not constitute a substantive portion of this ordinance.

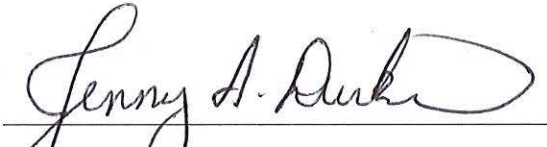
1 Section 29. **Effective Date.** This ordinance shall take effect and be in force 30 days
2 after its approval by the Mayor, but if not approved and returned by the Mayor within ten days
3 after presentation, it shall take effect as provided by Seattle Municipal Code Section 1.04.020.

4 Passed by the City Council the 19th day of November, 2018,
5 and signed by me in open session in authentication of its passage this 19th day of
6 November, 2018.

7 

8 President _____ of the City Council

9 Approved by me this 26th day of November, 2018.

10 
11 Jenny A. Durkan, Mayor

12 Filed by me this 26th day of NOVEMBER, 2018.

13 

14 Monica Martinez Simmons, City Clerk

15 (Seal)

16
17
18
19 Exhibits:
20 Exhibit A – Outstanding City Light Parity Bonds
21 Exhibit B – Form of Continuing Disclosure Agreement

1
2

EXHIBIT A

OUTSTANDING CITY LIGHT PARITY BONDS

Issue Name	Dated Date	Original Par Amount	Bond Legislation		
			New Money Ord.	Refunding Ord.	Bond Sale Res.
Municipal Light and Power Improvement and Refunding Revenue Bonds, 2008	12/30/2008	\$257,375,000	Ord. 122807	Ord. 121941 (as amended by Ord. 122838)	Res. 31105
Municipal Light and Power Revenue Bonds, 2010A (Taxable Build America Bonds – Direct Payment)	5/26/2010	\$181,625,000	Ord. 123169	--	Res. 31213
Municipal Light and Power Improvement and Refunding Revenue Bonds, 2010B	5/26/2010	\$596,870,000	Ord. 123169	Ord. 121941 (as amended by Ord. 122838)	Res. 31213
Municipal Light and Power Revenue Bonds, 2010C (Taxable Recovery Zone Economic Development Bonds – Direct Payment)	5/26/2010	\$13,275,000	Ord. 123169	--	Res. 31213
Municipal Light and Power Improvement and Refunding Revenue Bonds, 2011A	2/8/2011	\$296,315,000	Ord. 123483	Ord. 121941 (as amended by Ord. 122838)	Res. 31263
Municipal Light and Power Improvement Revenue Bonds, 2011B (Taxable New Clean Renewable Energy Bonds – Direct Payment)	2/8/2011	\$10,000,000	Ord. 123483	Ord. 121941 (as amended by Ord. 122838)	Res. 31263
Municipal Light and Power Improvement and Refunding Revenue Bonds, 2012A	7/17/2012	\$293,280,000	Ord. 123752	Ord. 121941 (as amended by Ord. 122838)	Res. 31390
Municipal Light and Power Improvement Revenue Bonds, 2012C (Taxable New Clean Renewable Energy Bonds – Direct Payment)	7/17/2012	\$43,000,000	Ord. 123752	--	Res. 31390

Ex A - Outstanding City Light Parity Bonds
VI

Issue Name	Dated Date	Original Par Amount	Bond Legislation		
			New Money Ord.	Refunding Ord.	Bond Sale Res.
Municipal Light and Power Improvement and Refunding Revenue Bonds, 2013	7/9/2013	\$190,755,000	Ord. 124045	Ord. 121941 (as amended by Ord. 122838)	Res. 31456
Municipal Light and Power Improvement and Refunding Revenue Bonds, 2014	11/05/2014	\$265,210,000	Ord. 124336	Ord. 124335 (amending and restating Ord. 121941)	Res. 31552
Municipal Light and Power Revenue Bonds, 2015A	7/9/2015	\$171,850,000	Ord. 124633	--	Res. 31592
Municipal Light and Power Revenue Bonds, 2016A (Taxable New Clean Renewable Energy Bonds – Direct Payment)	01/28/2016	\$31,870,000	Ord. 124916	--	Res. 31646
Municipal Light and Power Refunding Revenue Bonds, 2016B	01/28/2016	\$116,875,000	Ord. 124916	Ord. 124335 (amending and restating Ord. 121941) as amended by Ord. 124916	Res. 31646
Municipal Light and Power Improvement and Refunding Revenue Bonds, 2016C	09/28/2016	\$160,815,000	Ord. 124916	Ord. 124335 (amending and restating Ord. 121941) as amended by Ord. 124916	Res. 31707
Municipal Light and Power Improvement and Refunding Revenue Bonds, 2017C	09/28/2017	\$385,530,000	Ord. 125298	Ord. 124335 (amending and restating Ord. 121941) as amended by Ord. 124916	Res. 31771
Municipal Light and Power Improvement Revenue Bonds, 2018, Series A	07/19/2018	\$263,755,000	Ord. 125459	--	--

Ex A - Outstanding City Light Parity Bonds
VI

Issue Name	Dated Date	Original Par Amount	Bond Legislation		
			New Money Ord.	Refunding Ord.	Bond Sale Res.
Municipal Light and Power Refunding Revenue Bonds, 2018B-1 (SIFMA Index), 2018B-2 (SIFMA Index), 2018C-1 (SIFMA Index) and 2018C-2 (SIFMA Index)	09/04/2018	\$198,760,000	--	Ord. 125460	--

1

EXHIBIT B

FORM OF CONTINUING DISCLOSURE AGREEMENT

The City of Seattle, Washington (the “City”) makes the following written undertaking (the “Undertaking”) for the benefit of the Owners of the City’s Municipal Light and Power Revenue Bonds, [Year] [Series] (the “Bonds”), for the sole purpose of assisting the underwriter for the Bonds, in meeting the requirements of paragraph (b)(5) of Rule 15c2-12 (the “Rule”), as applicable to a participating underwriter for the Bonds. Capitalized terms used but not defined below shall have the meanings given in Ordinance _____ (the “Bond Ordinance”).

(a) Undertaking to Provide Annual Financial Information and Notice of Listed Events.

The City undertakes to provide or cause to be provided, either directly or through a designated agent, to the Municipal Securities Rulemaking Board (the “MSRB”), in an electronic format as prescribed by the MSRB, accompanied by identifying information as prescribed by the MSRB:

(i) Annual financial information and operating data regarding the Municipal Light and Power System (the “Light System”) of the type included in the final official statement for the Bonds and described in subsection (b) of this section (“annual financial information”). The timely filing of unaudited financial statements shall satisfy the requirements and filing deadlines pertaining to the filing of annual financial statements under subsection (b), provided that audited financial statements are to be filed if and when they are otherwise prepared and available to the City.

(ii) Timely notice (not in excess of 10 business days after the occurrence of the event) of the occurrence of any of the following events with respect to the Bonds: (1) principal and interest payment delinquencies; (2) non-payment related defaults, if material; (3) unscheduled draws on debt service reserves reflecting financial difficulties; (4) unscheduled draws on credit enhancements reflecting financial difficulties; (5) substitution of credit or liquidity providers, or their failure to perform; (6) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notice of Proposed Issue (IRS Form 5701 – TEB) or

1 other material notices or determinations with respect to the tax status of the Bonds, or other material
2 events affecting the tax status of the Bonds; (7) modifications to rights of holders of the Bonds, if
3 material; (8) Bond calls (other than scheduled mandatory redemptions of Term Bonds), if material,
4 and tender offers; (9) defeasances; (10) release, substitution, or sale of property securing repayment
5 of the Bonds, if material; (11) rating changes; (12) bankruptcy, insolvency, receivership or similar
6 event of the City, as such "Bankruptcy Events" are defined in the Rule; (13) the consummation of a
7 merger, consolidation, or acquisition involving the City or the sale of all or substantially all of the
8 assets of the City other than in the ordinary course of business, the entry into a definitive agreement
9 to undertake such an action or the termination of a definitive agreement relating to any such actions,
10 other than pursuant to its terms, if material; (14) appointment of a successor or additional trustee or
11 the change of name of a trustee, if material; (15) incurrence of a financial obligation of the City, if
12 material, or agreement to covenants, events of default, remedies, priority rights, or other similar
13 terms of a financial obligation of the City, any of which affect holders of the Bonds, if material; and
14 (16) any default, event of acceleration, termination event, modification of terms, or other similar
15 event under the terms of a financial obligation of the City, any of which reflect financial difficulties.

16 For purposes of this Undertaking, the term "financial obligation" shall mean a debt
17 obligation; derivative instrument entered into in connection with, or pledged as security or a source
18 of payment for, an existing or planned debt obligation; or a guarantee of either a debt obligation or a
19 derivative instrument entered into in connection with, or pledged as security or a source of payment
20 for, an existing or planned debt obligation. The term "financial obligation" does not include
21 municipal securities as to which a final official statement has been provided to the MSRB consistent
22 with the Rule.

23 (iii) Timely notice of a failure by the City to provide required annual financial
24 information on or before the date specified in subsection (b) of this section.

1 (b) Type of Annual Financial Information Undertaken to be Provided. The annual
2 financial information and operating data that the City undertakes to provide in subsection (a) of this
3 section:

4 (i) Shall consist of (1) annual financial statements of the Light System prepared
5 in accordance with applicable generally accepted accounting principles applicable to governmental
6 units (except as otherwise noted therein), as such principles may be changed from time to time and as
7 permitted by applicable state law; (2) a statement of outstanding Parity Bonds, Junior Lien Bonds (if
8 any), and any other bonded indebtedness secured by Net Revenue of the Light System; (3) debt
9 service coverage ratios for the then-Outstanding Parity Bonds, Junior Lien Bonds (if any) and any
10 other bonded indebtedness secured by Net Revenue of the Light System; (4) sources of Light System
11 power and the MWh produced by those sources; and (5) the average number of customers, revenues,
12 and energy sales by customer class;

13 (ii) Shall be provided not later than the last day of the ninth month after the end
14 of each fiscal year of the City (currently, a fiscal year ending December 31), as such fiscal year may
15 be changed as required or permitted by state law, commencing with the City's fiscal year ending
16 December 31, 20__; and

17 (iii) May be provided in a single document or multiple documents, and may be
18 incorporated by specific reference to documents available to the public on the Internet website of the
19 MSRB or filed with the Securities and Exchange Commission.

20 (c) Amendment of Undertaking. This Undertaking is subject to amendment after the
21 primary offering of the Bonds without the consent of any Owner or holder of any Bond, or of any
22 broker, dealer, municipal securities dealer, participating underwriter, rating agency or the MSRB,
23 under the circumstances and in the manner permitted by the Rule, including:

1 (i) The amendment may only be made in connection with a change in
2 circumstances that arises from a change in legal requirements, change in law, or change in the
3 identity, nature, or status of the City, or type of business conducted by the City;

4 (ii) The Undertaking, as amended, would have complied with the requirements of
5 the Rule at the time of the primary offering, after taking into account any amendments or
6 interpretations of the Rule, as well as any change in circumstances; and

7 (iii) The amendment does not materially impair the interests of holders, as
8 determined either by parties unaffiliated with the City (e.g., bond counsel or other counsel familiar
9 with federal securities laws), or by an approving vote of bondholders pursuant to the terms of the
10 Bond Ordinance at the time of the amendment.

11 The City will give notice to the MSRB of the substance (or provide a copy) of any
12 amendment to this Undertaking and a brief statement of the reasons for the amendment. If the
13 amendment changes the type of annual financial information to be provided, the annual financial
14 information containing the amended financial information will include a narrative explanation of the
15 effect of that change on the type of information to be provided.

16 (d) Beneficiaries. This Undertaking shall inure to the benefit of the City and any Owner
17 of Bonds, and shall not inure to the benefit of or create any rights in any other person.

18 (e) Termination of Undertaking. The City's obligations under this Undertaking shall
19 terminate upon the legal defeasance, prior redemption, or payment in full of all of the Bonds. In
20 addition, the City's obligations under this Undertaking shall terminate if those provisions of the Rule
21 that require the City to comply with this Undertaking become legally inapplicable in respect of the
22 Bonds for any reason, as confirmed by an opinion of nationally recognized bond counsel or other
23 counsel familiar with federal securities laws delivered to the City, and the City provides timely notice
24 of such termination to the MSRB.

1 (f) Remedy for Failure to Comply with Undertaking. As soon as practicable after the
2 City learns of any material failure to comply with this Undertaking, the City will proceed with due
3 diligence to cause such noncompliance to be corrected. No failure by the City or other obligated
4 person to comply with this Undertaking shall constitute a default in respect of the Bonds. The sole
5 remedy of any Owner of a Bond shall be to take such actions as that Owner deems necessary,
6 including seeking an order of specific performance from an appropriate court, to compel the City or
7 other obligated person to comply with this Undertaking.

8 (g) Designation of Official Responsible to Administer Undertaking. The Director of
9 Finance of the City (or such other officer of the City who may in the future perform the duties of that
10 office) or his or her designee is the person designated, in accordance with the Bond Ordinance, to
11 carry out this Undertaking of the City in respect of the Bonds set forth in this section and in
12 accordance with the Rule, including, without limitation, the following actions:

13 (i) Preparing and filing the annual financial information undertaken to be
14 provided;

15 (ii) Determining whether any event specified in subsection (a)(ii) has occurred,
16 assessing its materiality, where necessary, with respect to the Bonds, and preparing and
17 disseminating any required notice of its occurrence;

18 (iii) Determining whether any person other than the City is an “obligated person”
19 within the meaning of the Rule with respect to the Bonds, and obtaining from such person an
20 undertaking to provide any annual financial information and notice of listed events for that person in
21 accordance with the Rule;

22 (iv) Selecting, engaging and compensating designated agents and consultants,
23 including but not limited to financial advisors and legal counsel, to assist and advise the City in
24 carrying out this Undertaking; and

25 (v) Effecting any necessary amendment of the Undertaking.

APPENDIX B
FORMS OF BOND COUNSEL OPINIONS

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STRADLING YOCCA CARLSON & RAUTH

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DENVER
NEVADA
LAS VEGAS
RENO
WASHINGTON
SEATTLE

[Date of Approving Opinion]

The City of Seattle, Washington

Re: The City of Seattle, Washington, \$210,540,000
Municipal Light and Power Improvement Revenue Bonds, 2019, Series A

We have served as bond counsel to The City of Seattle, Washington (the "City"), in connection with the issuance of the above referenced bonds (the "Bonds"), and in that capacity have examined such law and such certified proceedings and other documents as we have deemed necessary to render this opinion. As to matters of fact material to this opinion and of which attorneys within the firm involved with the issuance of the Bonds have no independent knowledge, we have relied upon representations contained in the certified proceedings and other certifications of public officials furnished to us.

The Bonds are issued pursuant to the laws of the State of Washington and Ordinance 125711 (the "Bond Ordinance") to provide the funds (i) to finance certain capital improvements to and conservation programs for the Light System; (ii) to provide for the Reserve Fund Requirement, and (iii) to pay the costs of issuing the Bonds, all as set forth in the Bond Ordinance.

Reference is made to the Bond Ordinance for the definitions of capitalized terms used and not otherwise defined herein.

The Bonds are special limited obligations of the City payable from and secured solely by the Net Revenue of the Light System, by money in the Seattle Municipal Light Revenue Parity Bond Fund (the "Parity Bond Fund") and by the Municipal Light and Power Bond Reserve Fund (the "Reserve Fund"). The Net Revenue has been pledged to make the required payments into the Parity Bond Fund and the Reserve Fund, which pledge constitutes a charge on the Net Revenue prior and superior to all other charges whatsoever, except reasonable charges for maintenance and operation of the Light System, and except that the Bonds shall have a lien and charge upon such Net Revenue on a parity with the lien and charge of the Outstanding Parity Bonds and any Future Parity Bonds.

Under the Internal Revenue Code of 1986, as amended (the "Code"), the City is required to comply with certain requirements after the date of issuance of the Bonds in order to maintain the exclusion of the interest on the Bonds from gross income for federal income tax purposes, including, without limitation, requirements concerning the qualified use of Bond proceeds and the facilities financed or refinanced with Bond proceeds, limitations on investing gross proceeds of the Bonds in higher yielding investments in certain circumstances and the arbitrage rebate requirement to the extent applicable to the Bonds. The City has covenanted in the Bond Ordinance to comply with those requirements, but if the City

fails to comply with those requirements, interest on the Bonds could become taxable retroactive to the date of issuance of the Bonds. We have not undertaken and do not undertake to monitor the City's compliance with such requirements.

As of the date of initial delivery of the Bonds to the purchaser thereof and full payment therefor, it is our opinion that under existing law:

1. The City is a duly organized and legally existing first class city under the laws of the State of Washington;

2. The City has duly authorized and approved the Bond Ordinance and the Bonds have been duly authorized and executed by the City and are issued in full compliance with the provisions of the Constitution and laws of the State of Washington, the Bond Ordinance and other ordinances and resolutions of the City relating thereto;

3. The Bonds constitute valid and binding obligations of the City payable solely out of the Gross Revenues of the Light System (after reasonable charges for maintenance and operation) and money in the Parity Bond Fund and the Reserve Fund, enforceable in accordance with their terms, except only to the extent that enforcement of payment may be limited by bankruptcy, insolvency or other laws affecting creditors' rights and principles of equity if equitable remedies are sought;

4. The Bonds are not general obligations of the City; and

5. Assuming compliance by the City after the date of issuance of the Bonds with applicable requirements of the Code, under existing statutes, regulations, rulings and judicial decisions, the interest on the Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of calculating the federal alternative minimum tax imposed on individuals.

This opinion is given as of the date hereof, and we assume no obligation to revise or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention, or any changes in law that may hereafter occur.

We express no opinion herein concerning the completeness or accuracy of any official statement, offering circular or other sales or disclosure material relating to the issuance of the Bonds or otherwise used in connection with the Bonds. We bring to your attention the fact that the foregoing opinions are expressions of our professional judgment on the matters expressly addressed and do not constitute guarantees of result.

Respectfully submitted

STRADLING YOCCA CARLSON & RAUTH

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[Date of Approving Opinion]

The City of Seattle, Washington

Re: The City of Seattle, Washington, \$140,275,000
Municipal Light and Power Refunding Revenue Bonds, 2019, Series B

We have served as bond counsel to The City of Seattle, Washington (the “City”), in connection with the issuance of the above referenced bonds (the “Bonds”), and in that capacity have examined such law and such certified proceedings and other documents as we have deemed necessary to render this opinion. As to matters of fact material to this opinion and of which attorneys within the firm involved with the issuance of the Bonds have no independent knowledge, we have relied upon representations contained in the certified proceedings and other certifications of public officials furnished to us.

The Bonds are issued pursuant to the laws of the State of Washington and Ordinance 125460 (the “Bond Ordinance”) to provide the funds (i) to refund the City’s outstanding Municipal Light and Power Improvement and Refunding Revenue Bonds, 2010B; (ii) to pay the administrative costs of carrying out the refunding; and (iii) to pay the costs of issuing the Bonds, all as set forth in the Bond Ordinance.

Reference is made to the Bond Ordinance for the definitions of capitalized terms used and not otherwise defined herein.

The Bonds are special limited obligations of the City payable from and secured solely by the Net Revenue of the Light System, by money in the Seattle Municipal Light Revenue Parity Bond Fund (the “Parity Bond Fund”) and by the Municipal Light and Power Bond Reserve Fund (the “Reserve Fund”). The Net Revenue has been pledged to make the required payments into the Parity Bond Fund and the Reserve Fund, which pledge constitutes a charge on the Net Revenue prior and superior to all other charges whatsoever, except reasonable charges for maintenance and operation of the Light System, and except that the Bonds shall have a lien and charge upon such Net Revenue on a parity with the lien and charge of the Outstanding Parity Bonds and any Future Parity Bonds.

Under the Internal Revenue Code of 1986, as amended (the “Code”), the City is required to comply with certain requirements after the date of issuance of the Bonds in order to maintain the exclusion of the interest on the Bonds from gross income for federal income tax purposes, including, without limitation, requirements concerning the qualified use of Bond proceeds and the facilities financed or refinanced with Bond proceeds, limitations on investing gross proceeds of the Bonds in higher yielding investments in certain circumstances and the arbitrage rebate requirement to the extent applicable to the Bonds. The City has covenanted in the Bond Ordinance to comply with those requirements, but if the City

fails to comply with those requirements, interest on the Bonds could become taxable retroactive to the date of issuance of the Bonds. We have not undertaken and do not undertake to monitor the City's compliance with such requirements.

As of the date of initial delivery of the Bonds to the purchaser thereof and full payment therefor, it is our opinion that under existing law:

1. The City is a duly organized and legally existing first class city under the laws of the State of Washington;
2. The City has duly authorized and approved the Bond Ordinance and the Bonds have been duly authorized and executed by the City and are issued in full compliance with the provisions of the Constitution and laws of the State of Washington, the Bond Ordinance and other ordinances and resolutions of the City relating thereto;
3. The Bonds constitute valid and binding obligations of the City payable solely out of the Gross Revenues of the Light System (after reasonable charges for maintenance and operation) and money in the Parity Bond Fund and the Reserve Fund, enforceable in accordance with their terms, except only to the extent that enforcement of payment may be limited by bankruptcy, insolvency or other laws affecting creditors' rights and principles of equity if equitable remedies are sought;
4. The Bonds are not general obligations of the City; and
5. Assuming compliance by the City after the date of issuance of the Bonds with applicable requirements of the Code, under existing statutes, regulations, rulings and judicial decisions, the interest on the Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of calculating the federal alternative minimum tax imposed on individuals.

This opinion is given as of the date hereof, and we assume no obligation to revise or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention, or any changes in law that may hereafter occur.

We express no opinion herein concerning the completeness or accuracy of any official statement, offering circular or other sales or disclosure material relating to the issuance of the Bonds or otherwise used in connection with the Bonds. We bring to your attention the fact that the foregoing opinions are expressions of our professional judgment on the matters expressly addressed and do not constitute guarantees of result.

Respectfully submitted

APPENDIX C
2018 AUDITED FINANCIAL STATEMENTS OF THE DEPARTMENT

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***The City of Seattle—
City Light Department***

Enterprise Fund of The City of Seattle

*Financial Statements as of and for the
Years Ended December 31, 2018 and 2017,
Required Supplementary Information,
Other Information, and
Independent Auditors' Report*

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

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INDEPENDENT AUDITORS' REPORT

To the Housing, Health, Energy and Workers' Rights Committee
The City of Seattle – City Light Department
Seattle, Washington

Report on the Financial Statements

We have audited the accompanying financial statements of The City of Seattle – City Light Department (the “Department”), an enterprise fund of The City of Seattle, Washington, as of and for the years ended December 31, 2018 and 2017, and the related notes to the financial statements, as listed in the table of contents.

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.

Auditors’ Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits 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 audits 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 auditors’ 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 controls relevant to the Department'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 Department’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 opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Department as of December 31, 2018 and 2017, and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Department and do not purport to, and do not present fairly the financial position of The City of Seattle, Washington, as of December 31, 2018 and 2017 and the respective changes in financial position and cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

As discussed in Note 1, the Department adopted the provisions of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, effective January 1, 2018. The cumulative effect of the change is shown in the current year. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary information as listed in the table of contents be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the 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 and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the 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.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The other information as listed in the table of contents, which is the responsibility of management, is presented for purposes of additional analysis and is not a required part of the financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the financial statements, and accordingly, we express no opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued a report on our consideration of the Department'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 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 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 Department's internal control over financial reporting and compliance.

Baker Tilly Virchow Krause, LLP

Madison, Wisconsin
May 16, 2019

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

The following discussion and analysis of the financial performance of The City of Seattle—City Light Department (the Department) provides a summary of the financial activities for the years ended December 31, 2018, and 2017. This discussion and analysis should be read in combination with the Department's financial statements, which immediately follow this section.

ORGANIZATION

The Department is the public electric utility of The City of Seattle (the City). As an enterprise fund of the City, the Department owns and operates generating, transmission, and distribution facilities and delivers electricity to approximately 461,500 customers in Seattle and certain surrounding communities. The Department also provides electrical energy to other City agencies at rates prescribed by City ordinances.

OVERVIEW OF THE FINANCIAL STATEMENTS

The Department's accounting records are maintained in accordance with generally accepted accounting principles for proprietary funds as prescribed by the Governmental Accounting Standards Board (GASB). The Department's accounting records also follow the Uniform System of Accounts for Public Licensees prescribed by the Federal Energy Regulatory Commission (FERC).

This discussion and analysis is intended to serve as an introduction to the Department's financial statements, which are comprised of the financial statements and the notes to the financial statements and include the following:

Balance Sheets, Statements of Revenues, Expenses, and Changes in Net Position, and Statements of Cash Flows—The financial statements provide an indication of the Department's financial health. The balance sheets include all the Department's assets, deferred outflows of resources, liabilities, deferred inflows of resources, and net position using the accrual basis of accounting, as well as an indication about which assets can be utilized for general purposes, and which assets are restricted due to bond covenants and other commitments. The statements of revenues, expenses, and changes in net position report all the revenues and expenses during the time periods indicated. The statements of cash flows report the cash provided and used by operating activities, as well as other cash sources, such as investment income and cash payments for bond principal and capital additions and betterments.

Notes to the Financial Statements—The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the financial statements.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

CONDENSED BALANCE SHEETS

(\$ in millions)	December 31		
	2018	2017	2016
Assets:			
Utility plant—net	\$ 3,820.8	\$ 3,509.5	\$ 3,214.7
Restricted assets	263.7	252.4	222.0
Current assets	374.0	343.6	286.5
Other assets	<u>432.0</u>	<u>416.8</u>	<u>396.2</u>
Total assets	<u>4,890.5</u>	<u>4,522.3</u>	<u>4,119.4</u>
Total deferred outflows of resources	<u>57.9</u>	<u>83.2</u>	<u>94.9</u>
Total assets and deferred outflows of resources	<u>\$ 4,948.4</u>	<u>\$ 4,605.5</u>	<u>\$ 4,214.3</u>
Liabilities:			
Long-term debt	\$ 2,564.9	\$ 2,417.4	\$ 2,165.3
Noncurrent liabilities	365.8	409.6	433.6
Current liabilities	316.6	280.7	266.5
Other liabilities	<u>37.8</u>	<u>36.3</u>	<u>37.2</u>
Total liabilities	<u>3,285.1</u>	<u>3,144.0</u>	<u>2,902.6</u>
Total deferred inflows of resources	<u>163.9</u>	<u>123.6</u>	<u>94.2</u>
Net position:			
Net investment in capital assets	1,523.8	1,382.8	1,310.5
Restricted:			
Rate stabilization account	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>
Total restricted	<u>25.0</u>	<u>25.0</u>	<u>25.0</u>
Unrestricted—net	<u>(49.4)</u>	<u>(69.9)</u>	<u>(118.0)</u>
Total net position	<u>1,499.4</u>	<u>1,337.9</u>	<u>1,217.5</u>
Total liabilities, deferred inflows, and net position	<u>\$ 4,948.4</u>	<u>\$ 4,605.5</u>	<u>\$ 4,214.3</u>

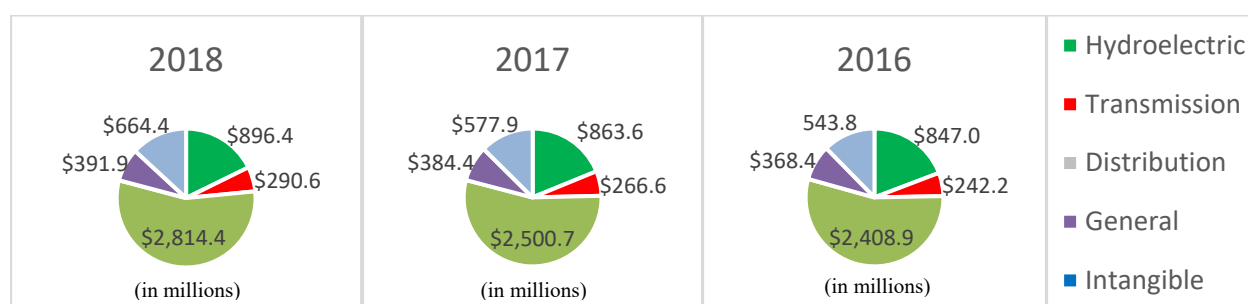
THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

ASSETS

Utility Plant—Net

2018 Compared to 2017 Utility plant assets net of accumulated depreciation and amortization increased \$311.3 million to \$3,820.8 million in 2018. Utility plant assets were comprised of hydroelectric production plant, \$896.4 million, which increased \$32.8 million, transmission plant, \$290.6 million, which increased \$24.0 million, distribution plant, \$2,814.4 million, which increased \$313.7 million, general plant, \$391.9 million, which increased \$7.5 million, and intangible assets, \$664.4 million which increased \$86.5 million. The net increase in utility plant assets were partially offset by a \$70.4 million net increase in Accumulated depreciation and amortization to \$1,893.8 million.



The \$313.7 million increase in distribution plant is primarily due to Denny substation, \$133.0 million, seawall replacement, \$39.7 million, equipment replacement, \$27.3 million. An increase of \$86.5 million in Intangibles is primarily due to PeopleSoft 9.2 reimplementation, \$24.7 million, Advanced Metering system and AM system integration, \$11.7 million, Customer Information system, \$5.8 million, Enterprise Document Management system and WAMS Document Repository, \$5.7 million, and Automated Utility Design, \$5.2 million. The \$32.8 million increase in Hydro assets is primarily due to Diablo U31 rebuild. The \$24.0 million increase in Transmission is primarily due to seawall replacement, equipment replacement, and Boundary bank 156 transformer replacement.

Other components of utility plant include Construction work-in-progress, \$486.2 million, which decreased \$103.1 million, nonoperating property, \$16.5 million, which increased \$1.8 million, assets held for future use, \$4 million, which decreased \$55.1 million primarily due to the transfer of Denny substation land to Plant, \$54.2 million, which primarily caused an increase of \$73.6 million in land and land rights to \$150.2 million. The decrease in construction work-in-progress is primarily due to construction work-in-progress capitalization of \$535.7 million offset by \$436.0 million in additions. The additions in Construction work-in-progress consist mainly of \$178.1 million in underground and overhead systems, primarily due to Alaskan Way Viaduct, \$53.3 million in Generation projects primarily due to Boundary units 51 & 54 rebuild, and Diablo unit 32 rebuild, \$52.3 million in stations primarily due to Denny substation, \$52.1 million in billable service connections, \$30.3 million in relicensing costs, \$23.9 million in transmission, \$15.0 million in general plant, and \$13.0 million in data processing system.

See Note 3 Utility Plant of the accompanying financial statements.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

2017 Compared to 2016 Utility plant assets net of accumulated depreciation and amortization increased \$294.8 million to \$3,509.5 million in 2017. Utility plant assets were comprised of hydroelectric production plant \$863.6 million which increased \$16.6 million, transmission plant, \$266.6 million, which increased \$24.4 million, distribution plant, \$2,500.7 million, which increased \$91.8 million, general plant, \$384.4 million, which increased \$16.0 million, and intangible assets, \$577.9 million which increased \$34.1 million. The net increase in utility plant assets were partially offset by a \$88.1 million increase in Accumulated depreciation and amortization to \$1,823.4 million.

The \$91.8 million increase in distribution plant is primarily due to \$43.0 million for underground system, \$16.3 million for transformers, \$14.5 million for overhead system, \$8.2 million for meters, \$6.6 million for poles, and \$2.1 million for streetlights. In hydroelectric production, an increase of \$16.6 million is primarily due to Ross Bank 42 replacement, Gorge Network automation, Boundary Unit 55 relay protection, and Diablo powerhouse AC panel replacement. The \$24.4 million increase in transmission is primarily due to equipment improvements.

Other components of utility plant include Construction work-in-progress \$589.3 million which increased \$196.8 million, Nonoperating property \$14.7 million which increased \$2.0 million, Assets held for future use \$59.1 million which decreased \$0.4 million, and Land and land rights \$76.6 million, which increased \$1.6 million. The \$196.8 million increase in Construction work-in-progress is primarily due to \$48.4 million for Denny substation, \$23.3 million for Downtown network system, \$22.4 million for Alaskan Way Viaduct, \$16.4 million for Diablo powerhouse Units 31 & 31 rebuild, \$15.1 million for Broad Street sub, \$14.5 million for Advanced metering, \$11.3 million for PeopleSoft reimplementation, and \$45.4 million increases in various other projects.

Restricted Assets

2018 Compared to 2017 Restricted assets consisting of restricted cash increased by \$11.3 million to \$263.7 million.

Construction funds decreased by \$36.2 million to \$0.6 million. In 2017, unspent proceeds were from the 2016A Clean Renewable Energy Bonds and 2017C revenue bonds. Bond proceeds are used to fund a portion of the ongoing capital improvement program.

Bond reserve account increased by \$24.5 million to \$128.1 million from 2018. Sources for the increase were from bond proceeds, interest earnings, and ongoing funding from operating cash to replace the existing surety bond expiring in 2029. The respective additions were \$12.2 million, \$2.3 million and \$10.0 million.

The Rate Stabilization Account (RSA) increased by a net \$3.5 million to \$96.9 million. A surcharge on electric rates of 1.5% remains in effect since August 2016 until the RSA is funded to \$100.0 million. Additions were from the rate surcharge in the amount of \$11.6 million and from \$1.8 million of interest earnings. These were offset by transfer of funds to operating cash of \$9.9 million due to actual net wholesale revenues were less than budgeted. See Note 4 Rate Stabilization Account of the accompanying financial statements.

Other restricted assets increased by \$19.5 million to \$38.1 million. The Debt service account increased by \$9.8 million for debt service due in the beginning of 2019. The balance increase of \$9.7 million was primarily for sundry prepayments and higher deposits from communications customers.

2017 Compared to 2016 Restricted assets consisting of restricted cash increased by \$30.4 million to \$252.4 million.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

Construction funds increased by \$8.4 million to \$36.8 million and represent the balance of unspent proceeds from the 2016A Clean Renewable Energy Bonds issued in January 2016 and 2017C revenue bonds issued in September 2017. Proceeds are being used for on-going funding of a significant portion of the capital improvement program.

Bond reserve account increased by \$16.6 million to \$103.6 million from bond proceeds and interest earnings. Ongoing funding from operating cash of \$10.0 million continued accumulation of the reserve account ahead of the existing surety bond 2029 expiration.

The Rate Stabilization Account (RSA) increased by a net \$2.3 million to \$93.4 million. A surcharge on electric rates of 1.5% remained in effect implemented in August 2016 until the RSA is funded to \$100.0 million. Additions from the rate surcharge of \$11.2 million and interest earnings of \$1.4 million were offset by transfer of funds to operating cash of \$10.3 million because actual net wholesale revenues were less than budgeted.

Other restricted assets increased by \$3.1 million to \$18.6 million primarily for sundry prepayments and escrow deposits.

Current Assets

2018 Compared to 2017 Current assets increased by \$30.4 million to \$374.0 million at year end.

Operating cash increased by \$6.0 million to \$135.1 million at the end of 2018. Increased inflows to cash were from a 5.6% system average rate increase effective in January, RSA surcharge, capital contributions, interest earnings, and reimbursement from the Construction account for capital expenditures. These were offset by lower net wholesale energy sales and payments for higher debt service, transfers to RSA, capital construction projects, and ongoing operations.

Accounts receivable, net, increased by \$37.5 million to \$128.6 million. The increase was for retail electric sales in the amount of \$20.4 million and for large service connections in progress of \$16.9 million. Higher receivables totaling \$13.1 million were for state tax credits, a rebate from the Advance Metering Infrastructure (AMI) contract in progress, interdepartmental receivables, and other. These were offset by a net increase of \$12.1 million in the allowance for retail electric receivables and sundry receivables. The increase of \$8.1 million in allowance for Electric Service was in part attributable to the Department's response to customer's concerns on charges from the new billing system and AMI installations. The increase of \$4.0 million in allowance for sundry billings was due to higher time and material billings and pole attachment billings that have a slower collection practice because of a slow review process by customers. In addition, interest charges are now being charged to sundry accounts in arrears with the implementation of a new financial system in 2018 that accounted for most of the balance increase in the allowance. Other receivables decreased net \$0.8 million in the normal course of operations.

Unbilled revenues decreased by \$14.8 million to \$74.6 million. The decrease was due to colder weather for the last two months of 2017 compared to 2018 that resulted in higher consumption for the prior year and faster processing of billings as a result of efficiencies gained with the implementation of AMI.

Other current assets increased by \$1.8 million to \$35.7 million for higher materials and supplies inventory.

2017 Compared to 2016 Current assets increased by \$57.1 million to \$343.6 million at year end.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

Operating cash increased by \$56.2 million to \$129.1 million at the end of 2017. Increased inflows to cash derived from a 5.6% system average rate increase effective in January, RSA surcharge, capital contributions, and reimbursement from the Construction account for capital expenditures. These were offset by payments for higher debt service, transfers to RSA, lower net wholesale energy sales, capital construction projects, and ongoing operations.

Accounts receivable, net, decreased by \$6.7 million to \$91.1 million. A total of \$11.9 million net increase in receivables were for retail electric due to rate increases and large service connections in progress. These were offset by a net increase of \$10.7 million in the allowance for bad debt primarily for retail electric receivables in arrears. Additional net decreases of \$7.9 million were for lower inter-departmental billings, grants, receivables from wind renewal energy, and other.

Unbilled revenues increased by \$12.8 million to \$89.4 million because of the rate increases and higher consumption due to colder weather during the 4th quarter 2017. In addition, a correction to unbilled revenues from 2016 recorded in January 2017 also affected the increase.

Other current assets decreased by \$5.2 million to \$323.7 million. Materials and supplies inventory was lower by \$2.3 million due primarily to issues out to two major projects. The balance decrease was the result of fully allocating inventory loading costs by year end, and including costs held over from 2016.

Other Assets

2018 Compared to 2017 Other assets increased by \$15.2 million to \$432.0 million. The regulatory asset for environmental cleanup costs increased by \$20.6 million, due primarily to the estimated costs to clean up several Superfund sites along the Duwamish River that the Department has been designated a responsible party. Environmental cleanup costs are being recovered through rates over a 25-year period. Initial amortization commenced in 2017. See Note 15 Environmental Liabilities of the accompanying financial statements.

Remaining balance of Other assets decreased by \$5.4 million to \$318.3 million. Conservation costs, net, decreased by \$0.7 million and other assets decreased by \$4.7 million. After re-evaluation, \$3.6 million of an environmental receivable was no longer considered to be realizable. \$1.0 million of the decrease was for ongoing payment of loans from local jurisdictions for underground infrastructure improvements. Remaining balance decrease was primarily due to costs to be allocated associated with use of Department vehicles and labor benefits were expensed by the end of the year compared to having a carryforward balance at the end of 2017.

See Note 7 Other Assets of the accompanying financial statements.

2017 Compared to 2016 Other assets increased by \$20.6 million to \$416.8 million. The regulatory asset for environmental cleanup costs increased by \$10.0 million, due primarily to the estimated cost to clean up the East Waterway Superfund Site.

Remaining balance of Other assets increased by \$10.6 million to \$323.7 million. Conservation costs, net, increased by \$9.8 million. The balance increase of \$0.8 million was primarily for ongoing Long term environmental receivables to be paid by other responsible parties for cleanup costs incurred by the Department.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

Deferred Outflows of Resources

2018 Compared to 2017 Deferred outflows of resources decreased significantly by \$25.3 million to \$57.9 million.

In 2015, the Department implemented GASB Statement No. 68, *Accounting and Financial Reporting for Pensions - an amendment of GASB Statement No. 27* concerning accounting for pension plans. For 2018, net decrease of \$22.1 million was primarily related to favorable differences between projected and actual investment earnings from the prior year, which decreased from \$46.9 million in 2017 to \$24.8 million in 2018. See Note 13 Seattle City Employees' Retirement System of the accompanying financial statements.

In 2018, the Department implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits other than Pensions* (OPEB). \$2.1 million was recorded as initial deferred outflows of resources. See Note 14 Other Postemployment Benefits of the accompanying financial statements.

Charges on advance refunding decreased a net \$5.3 million to \$31.0 million. Net activity is the result of additions due to new refunding bond issues and decreases for amortization and advance defeasance of bonds.

2017 Compared to 2016 Deferred outflows of resources decreased by \$11.7 million to \$83.2 million.

For 2017, the net decrease of \$17.7 million was primarily related to the pension plan for differences between projected and actual investment earnings, which decreased from \$38.9 million in 2016 to \$22.9 million in 2017.

Charges on advance refunding increased a net \$6.0 million to \$36.3 million.

LIABILITIES

Long-Term Debt

2018 Compared to 2017 Long-term debt increased a net \$147.5 million to \$2,564.9 million during 2018. The Department issued total new debt in the amount of \$263.8 million revenue bonds and \$198.8 million refunding revenue bonds to fund a portion of the ongoing capital improvement program. The 2018 bond issues were a combination of fixed and variable rate bonds. \$198.2 million in revenue bonds were refunded with a revised variable rate index that anticipates lower interest rate debt over the life of the new variable rate bonds.

Debt to capitalization ratio was 62.4% at the end of 2018, a decrease from the 63.7% ratio of 2017.

Net revenues available to pay debt service were equal to 1.83 times principal and interest on all bonds for 2018.

See Note 9 Long-Term Debt of the accompanying financial statements.

2017 Compared to 2016 Long-term debt increased a net \$252.1 million to \$2,417.4 million during 2017. The Department issued total new debt in the amount of \$485.5 million consisting of revenue bonds to fund a portion of the ongoing capital improvement program and refunding revenue bonds. The 2017 bond issues were a combination of fixed and variable rate bonds. \$145.1 million in revenue bonds were refunded with lower interest rate debt.

Debt to capitalization ratio was 63.7% at the end of 2017, a slight increase from the 63.5% ratio of 2016 because of the additional bonds issued.

Net revenues available to pay debt service were equal to 1.85 times principal and interest on all bonds for 2017.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

Noncurrent Liabilities

2018 Compared to 2017 Total non-current liabilities decreased by \$43.8 million to \$365.8 million at the end of 2018.

Net Pension Liability decreased by a net \$56.3 million based on the most recent actuarial report and due largely to the strong investment returns during 2017 along with a 1% decrease in the Department's share of the pension liability. See Note 12 Seattle City Employees' Retirement System of the accompanying financial statements.

Environmental liabilities increased by a net \$16.4 million to \$102.2 million. Environmental liabilities are principally attributable to the estimated cost of remediating contaminated sediments in the lower Duwamish Waterway, a designated federal Superfund site. The Department is considered a potentially responsible party for contamination in the Duwamish River due to land ownership or use of property located along the river. More information on environmental liabilities is found in Note 15 Environmental Liabilities of the accompanying financial statements.

Liabilities for damage claims/lawsuits and worker's compensation decreased a combined \$3.5 million based on the most recent actuarial risk report. The balance net decrease of \$0.4 million was for nominal changes for compensated absences, post-employment benefits, estimated arbitrage liability for certain bonds, and other.

2017 Compared to 2016 Total non-current liabilities decreased by \$24.0 million to \$409.6 million at the end of 2017.

Net Pension Liability decreased by a net \$29.0 million. The lower liability reflects the effect of certain Department information technology employees transferring to Seattle Information Technology Department (SIT) that occurred in May 2016.

Environmental liabilities increased by a net \$3.7 million to \$85.8 million. Environmental liabilities are primarily attributable to the estimated cost of remediating contaminated sediments in the lower Duwamish Waterway, a designated federal Superfund site. The Department is considered a potentially responsible party for contamination in the Duwamish River due to land ownership or use of property located along the river.

The balance net increase of \$1.3 million was for nominal changes for post-employment benefits, estimated arbitrage liability for certain bonds, and other.

Current Liabilities

2018 Compared to 2017 Current liabilities increased by a net of \$35.9 million for a total of \$316.6 million at the end of 2018.

Current liability increases totaled \$41.5 million. The increase included \$21.4 million of usual amounts owed to other City Departments for which payment was delayed in part due to issues encountered in the implementation of the new financial system. Other increases were \$7.3 million for customer deposits received for pole attachment projects, \$2.4 million for purchased power, and \$3.5 million for inventory purchases, customer refunds, and other. Debt service for bonds was higher by \$6.0 million.

Current liability decreases totaled \$5.6 million. \$1.7 million was for lower net taxes, \$1.4 million for environmental claims; \$1.4 million for payroll accrual, \$0.7 million for other claims, and \$0.4 million other.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

2017 Compared to 2016 Current liabilities increased by a net of \$14.2 million for a total of \$280.7 million at the end of 2017.

Current liability increases totaling \$26.8 million were due to several factors. Increases in customer deposits received for pole attachment projects, retail electric customer overpayments, and escrow retainage were a combined \$10.5 million. Debt service for bonds was higher by \$7.6 million. Balance net increase of \$8.7 million was for payroll, current environmental liabilities, taxes, and other.

Current liability decreases of \$12.6 million were for net decrease in vouchers payable for normal operations in the amount of \$7.3 million, downward adjustment of \$2.8 million primarily for unvouchered inventory received, compensated absences liability of \$1.1 million and for paid furlough days from 2016, power payables of \$1.0 million, and other of \$0.4 million.

Other Liabilities

2018 Compared to 2017 Other liabilities increased by \$1.5 million to \$37.8 million in 2018. The increase was mostly due to prepayments received for service connection work not yet performed.

2017 Compared to 2016 Other liabilities decreased by \$0.9 million to \$36.3 million in 2017. Decrease in unearned revenue was the result of increased completions of large service connections offset by increased billings for large service connection projects in progress, both driven by the continued strong local economy.

Deferred Inflows of Resources

2018 Compared to 2017 Deferred inflows of resources increased by \$40.3 million for a total of \$163.9 million at the end of 2018.

Deferred inflows related to pension liability increased by \$31.3 million to \$55.1 million and primarily attributable to strong investment returns during 2017. In 2018, the Department implemented the OPEB standard and initially recorded deferred inflows of \$2.9 million.

The rate stabilization unearned revenue account increased a net \$3.5 million from 2017. The 1.5% surcharge on electric rates in effect since August 2016 contributed \$11.6 million, with an offset of \$9.9 million transferred to operating revenues for actual net wholesale revenues being lower than budget. \$1.8 million in interest income also added to the unearned revenue account leaving an ending balance of \$71.9 million in the rate stabilization unearned revenue account. See Note 4 Rate Stabilization Account of the accompanying financial statements.

Other deferred inflows of resources increased by \$2.6 million to \$34.0 million. The increase was mostly due to payments of \$4.9 million received from Bonneville in accordance with the Department's Energy Conservation Agreement less recognition of 2017 BPA Slice true up credit and life-to-date gain from an exchange energy contract terminated in May 2018.

2017 Compared to 2016 Deferred inflows of resources increased by \$29.4 million for a total of \$123.6 million at the end of 2017.

In 2017, Deferred inflows related to pension liability increased by \$23.0 million to \$23.8 million and primarily for actuarially determined differences for the Department between employer contributions and proportionate share of contributions affected by the transfer of information technology employees to SIT.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

The significant activity occurring since 2010 has been principally the result of implementing, funding, and related activity of the RSA. Funding of the RSA from operating cash has the corresponding effect of deferring operating revenues in the rate stabilization unearned revenue account and vice versa. The rate stabilization unearned revenue account increased a net \$2.3 million from 2016.

During 2017, the 1.5% surcharge on electric rates in effect since August 2016 contributed \$11.2 million, with an offset of \$10.3 million transferred to operating revenues for actual net wholesale revenues being lower than budget. \$1.4 million in interest income was also earned, adding to the unearned revenue account, and leaving an ending balance of \$68.4 million in the rate stabilization unearned revenue account. See Note 4 Rate Stabilization Account of the accompanying financial statements.

Other deferred inflows of resources increased by \$4.1 million to \$31.4 million. Again in 2017, the increase was mostly due to payments received from Bonneville in accordance with the Department's Energy Conservation Agreement plus increase for BPA Slice true up credit deferred at the end of 2017.

RESULTS OF OPERATIONS

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

(\$ in millions)	Year Ended December 31		
	2018	2017	2016
Operating revenues	\$ 991.6	\$ 989.7	\$ 903.2
Nonoperating revenues	<u>17.6</u>	<u>13.3</u>	<u>14.6</u>
Total revenues	<u>1,009.2</u>	<u>1,003.0</u>	<u>917.8</u>
Operating expenses	823.2	852.5	795.8
Nonoperating expenses	<u>83.4</u>	<u>75.4</u>	<u>75.1</u>
Total expenses	<u>906.6</u>	<u>927.9</u>	<u>870.9</u>
Income before capital contributions and grants	<u>102.6</u>	<u>75.1</u>	<u>46.9</u>
Capital contributions	59.6	45.1	37.9
Capital grants	<u>-</u>	<u>0.2</u>	<u>0.5</u>
Total capital contributions and grants	<u>59.6</u>	<u>45.3</u>	<u>38.4</u>
Change in net position	<u>\$ 162.2</u>	<u>\$ 120.4</u>	<u>\$ 85.3</u>

SUMMARY

2018 Compared to 2017 Change in net position for 2018 was \$162.2 million, an increase of \$41.8 million or 34.7% from 2017 change in net position of \$120.4 million. Higher retail electric sales attributable to rate increases, including for the 1.5% RSA surcharge, capital contributions, and interest earnings netted with lower unbilled revenue and net Short-term wholesale power revenues contributed to the higher revenues. Lower expenses for long-term purchased power, administrative & general expenses, and taxes also added to the higher change in net position. These were offset by higher bad debt, interest, and other expenses.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

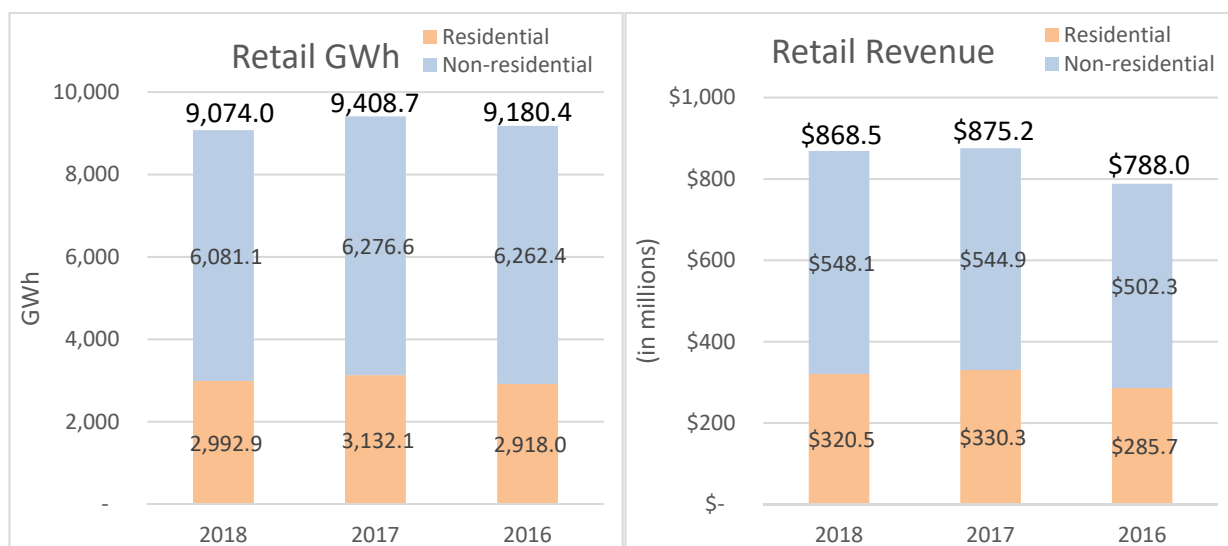
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

2017 Compared to 2016 Change in net position for 2017 was \$120.4 million, an increase of \$35.1 million or 41.1% from 2016 change in net position of \$85.3 million. Higher retail electric sales attributable to rate increases, including for the 1.5% rate surcharge, and capital contributions were offset by lower net Short-term wholesale power revenues and higher long-term purchased power, bad debt, administrative & general, taxes, and depreciation.

REVENUES

2018 Compared to 2017 Total operating revenues were \$991.6 million, an increase of \$1.9 million or 0.2% from 2017. Retail power revenues at \$868.6 million decreased \$6.6 million, Short-term wholesale power revenues of \$61.0 million increased \$0.1 million, Other power-related revenues at \$45.9 million increased \$10.1 million, Transfers from/(to) RSA at (\$3.5) million decreased \$1.2 million, and Other operating revenues at \$19.6 million decreased \$0.5 million.

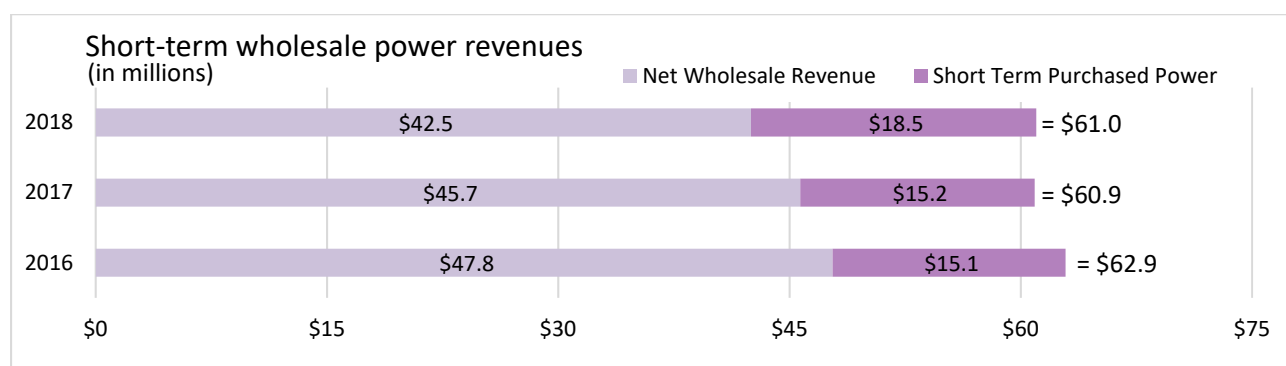
Retail power revenues were higher due to the 5.6% system rate increase effective January 1, 2018, and the 1.5% rate surcharge, in effect since August 1, 2016. Consumption was lower by 1.1% for residential customers and by 0.7% for non-residential customers due in part to the warmer weather during the last two months of the year. Energy conservation and newly constructed energy efficient buildings also contributed to the lower consumption. These components also affected the lower unbilled revenue compared to 2017. Transactions within Transfers from/(to) rate stabilization account are affected in part by actual net wholesale power revenues compared to budget. In 2018, actual net wholesale power revenues were lower than budget by \$9.9 million and this amount was transferred from the rate stabilization unearned revenue account. This was offset by the RSA rate surcharge revenues of \$11.6 million and interest earnings of \$1.8 million for a net (\$3.5) million transferred to the rate stabilization unearned revenue account. In 2017, comparable net transfers to the rate stabilization unearned revenue account were (\$2.3) for an overall decrease of \$1.2 million between years.



THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

Net Short-term wholesale power revenues were \$42.5 million, a decrease of \$3.2 million or 7.0% from net Short-term wholesale power revenues of \$45.7 million in 2018. Net Short-term wholesale power revenues represent revenue received from the sale of power generated in excess of system sales and other obligations. Net short-term wholesale power revenues fluctuate with changes in water conditions, retail sales and economic factors such as the price of natural gas. Lower generator availability during 2nd quarter also influenced the lower net Short-term wholesale power revenues. A British Columbia pipeline explosion in October caused a temporary increase in energy prices which positively affected net Short-term wholesale power revenues. Other net power-related revenues increased by \$0.9 million. Valuation of energy exchange contracts increased by \$10.1 million due to higher market prices and other ancillary contracts. These were offset by the higher valuation of energy exchange expenses as discussed below.



2017 Compared to 2016 Total operating revenues were \$989.7 million, an increase of \$86.5 million or 9.6% from 2016. Retail power revenues at \$875.2 million increased \$87.2 million, Short-term wholesale power revenues at \$60.9 million decreased \$2.0 million, Other power-related revenues at \$35.8 million increased \$3.2 million, Transfers from/(to) RSA at (\$2.3) million decreased \$2.2 million, and Other operating revenues at \$20.1 million increased \$0.3 million.

Retail power revenues were higher due to the 5.6% across-the-board rate increase effective January 1, 2017, and the RSA rate surcharge, in effect since August 1, 2016. Higher consumption due to the colder weather during the first two months of the year was another element contributing to the higher revenues. Transactions within Transfers from/(to) rate stabilization account are affected in part by actual net wholesale power revenues compared to budget. In 2017, actual net wholesale power revenues were lower than budget by \$10.3 million and this amount was transferred from the rate stabilization unearned revenue account. This was offset by the RSA rate surcharge revenues of \$11.2 million and interest earnings of \$1.4 million for a net (\$2.3) million transferred to the rate stabilization unearned revenue account. In 2016, net transfers to rate stabilization unearned revenue account were (\$0.1), the result of comparable transactions with different amounts and hence, an overall decrease of \$2.2 million between years.

Net Short-term wholesale power revenues were \$45.7 million, a decrease of \$2.1 million or 4.4% from net Short-term wholesale power revenues of \$47.8 million in 2016. The decrease from 2016 was primarily due to lower net energy sales volume affected somewhat by higher average wholesale power prices. Other net power-related revenues, including valuation of energy exchange revenues increased by a net \$2.3 million due in part to additional ancillary contracts in 2017.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

EXPENSES

2018 Compared to 2017 Operating expenses totaled \$823.2 million, a decrease of \$29.3 million or 3.4% from \$852.5 million in 2017.

Power-related operating expenses at \$360.7 million were higher by \$2.8 million or 0.8%. These expenses were comprised of Long-term purchased power - Bonneville and other of \$217.8 million, which decreased \$7.0 million, Short-term wholesale power purchases of \$18.5 million, which increased \$3.3 million, Other power expenses of \$70.2 million, which increased \$4.8 million, and Transmission of \$54.2 million, which increased \$1.7 million.

Bonneville costs decreased largely because of shifting to purchase only Block power effective October 2017, and thereby reducing Slice power purchases. A final higher Bonneville Slice true-up credit also added to the lower Bonneville costs. These were offset by higher Short-term wholesale power purchases necessary for managing load and Power related wholesale purchases primarily for higher fair valued power exchange contracts which increased by \$9.2 million. Other power expenses decreased mainly because of the one-time expense in 2017 for abandoned plan to replace the AC/DC electrical supply system at the Skagit Ross Dam did not recur. Other power related variances were minimal for normal operations.

Non-power operating expenses decreased by \$24.3 million to \$246.7 million or 9.0% from \$271.0 million in 2017. These expenses included Distribution expenses of \$61.7 million, which increased \$1.5 million, Customer service of \$55.7 million, which increased \$6.3 million, Conservation of \$32.9 million, which increased \$0.4 million, and Administrative and general (A&G), net, of \$96.2 million which decreased \$32.5 million.

Customer service expenses experienced higher bad debt expense for retail electric sales and sundry billings. Customary collection activities and late fees were modified during most of year in response to billing concerns from retail electric customers. Usual collection and related activities resumed in November. Sundry billings bad debt expense was higher because of related increase in allowance for older aged receivables concerning time and material billings and pole attachment billings that have a slower review process by customers. Interest charges in arrears now assessed with the new financial system also contributed to the higher bad debt expense. Balance of increase for Customer service was for normal operations.

Net changes for Distribution and Conservation expenses were nominal and part of normal operations.

Administrative and general (A&G), net, was considerably lower by \$32.5 million for a total of \$96.2 million. This was due to A&G cost reductions of \$16.8 million combined with a \$15.7 million larger transfer of costs from A&G to capital projects that had the net effect of reducing A&G, net.

The Cost reductions included a \$13.1 million lower annual adjustment to the net pension expense required by GASB Statement No. 68 than was recorded in 2017 because of strong investment returns. Estimated expenses for claims/lawsuits and workers compensation decreased a combined \$7.2 million based on the most recent actuarial report for respective estimated losses. General year-end estimated accruals were also lower by \$4.3 million. There were cost increases of \$7.8 million for higher general fund cost allocations, COLA salary adjustments, general plant maintenance, and other.

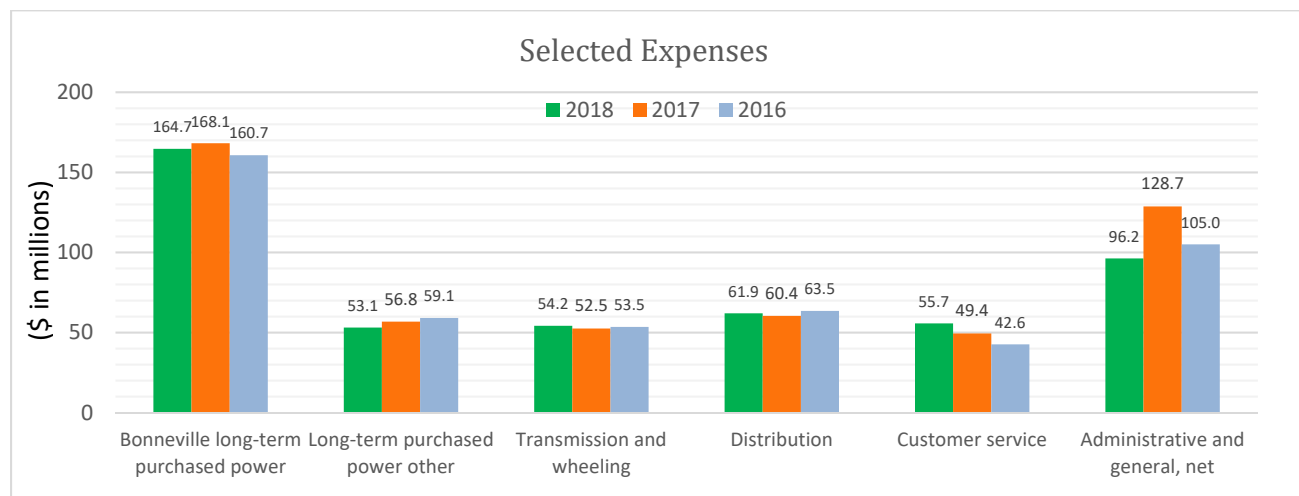
The higher A&G cost transfer of \$15.7 million was due to different allocation process with implementation of the new financial system combined with an increase in the amount of capital work during 2018.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

Taxes at \$91.8 million decreased by \$3.0 million. Higher taxes due to increased billed retail electric revenue were offset by favorable tax credits at the end of the year. Tax credits were higher for solar energy participants and for interdepartmental streetlights revenue allowed for the period January 2013 – June 2017 from a recent state tax audit.

Depreciation and amortization at \$124.0 million decreased by \$4.8 million due mainly to retirements and certain high depreciation assets transitioning to fully depreciated by the end 2018.



2017 Compared to 2016 Operating expenses totaled \$852.5 million, an increase of \$56.7 million or 7.1% from \$795.8 million in 2016.

Power-related operating expenses at \$357.9 million were higher by \$9.4 million or 2.7%. These expenses were comprised of Long-term purchased power - Bonneville and other of \$224.8 million, which increased \$5.0 million, Short-term wholesale power purchases of \$15.2 million, which increased \$0.1 million, Other power expenses of \$65.4 million, which increased \$5.3 million, and Transmission of \$52.5 million, which decreased \$1.0 million.

Bonneville costs increased largely because of changing to Block power purchases only, effective October 2017, and thereby reducing Slice power purchases. A lower Bonneville Slice true-up credit also added to the higher Bonneville costs. These were offset by lower other Long-term purchased power costs primarily for less renewable wind energy due to weather dependency. Other power expenses increased because of higher operating costs, including for an abandoned plan to replace the AC/DC electrical supply system at the Skagit Ross Dam. Other power related variances were minimal for normal operations.

Non-power operating expenses increased by \$29.7 million to \$271.0 million or 29.7% from \$241.3 million in 2016. These expenses included Distribution expenses of \$60.4 million, which decreased \$3.1 million, Customer service of \$49.4 million, which increased \$6.8 million, Conservation of \$32.5 million, which increased \$2.3 million, and Administrative and general (A&G), net, of \$128.7 million which increased \$23.7 million.

Distribution expenses were lower in several categories including for underground system network maintenance, contracting and support services, fewer wireless antenna upgrades, lower street lighting maintenance due to use of LEDs, and other. Customer service expenses continued to be driven primarily by higher bad debt expense for retail electric sales because of higher balances in aged receivables, as these accounts are processed through collection.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

Administrative and general, net, were significantly higher for SIT expenses as these billings were consolidated within A&G. In prior years, technology expenses were recorded throughout capital and operations projects (total SIT costs for 2017 and 2016 were comparable). Other increases were for COLA salary adjustments, general year-end estimated accruals, and compensated absences. These were offset by lower general plant maintenance, lower pension and benefits from the transfer of staff to SIT, industrial insurance, and other.

Taxes at \$94.8 million increased by \$9.6 million because of the higher revenues. Depreciation and amortization at \$128.8 million increased by \$8.0 million generally due to additional plant assets placed in service, including for the retail power billing system implemented in 4th quarter 2016.

NONOPERATING REVENUES AND (EXPENSES), CAPITAL CONTRIBUTIONS AND GRANTS

2018 Compared to 2017 Nonoperating revenues increased by \$4.3 million to \$17.6 million in 2018. The largest increase was for higher interest earnings totaling \$3.9 million on account of a higher rate of return for the city cash pool, higher interest earnings on bond proceeds, and a lower unrealized loss fair value adjustment for pooled investments. Remaining balance increase was in line with normal operations.

Nonoperating expenses at \$83.4 million were higher by \$8.0 million. Higher interest because of higher bonds outstanding in 2018 along with increased refunding loss amortization were offset by a slight increase in interest charged to construction projects and higher bond premium amortization.

Capital contributions and grants increased by \$14.3 million to \$59.6 million in 2018. The increase was due to increased activity for pole attachment projects, increased large service connections and related higher amperage fees charged, all due in part to the strong local economy. There were no capital grants in 2018.

2017 Compared to 2016 Nonoperating revenues decreased by \$1.3 million to \$13.3 million in 2017. There was no Washington State Department of Ecology grant reimbursement received in 2017 compared to the prior year. This was offset by higher unrealized gains on pooled investments due to favorable investment market performance, higher interest earnings from bond proceeds for two bond issues, and higher surplus property sales.

Nonoperating expenses at \$75.4 million were slightly higher by \$0.3 million. Higher interest on greater average balance of bonds outstanding in 2017 along with higher refunding loss amortization were offset by increased interest charged to construction projects and bond premium amortization.

Capital contributions and grants increased by \$6.9 million to \$45.3 million in 2017. The increase was due for the most part to an increase in new amperage fees charged to large service connections and service work charged to telecommunications companies.

RISK MANAGEMENT

The Department began implementing an Enterprise-wide Risk Management (ERM) process in 2008 to establish a full spectrum approach to risk management that links important decision-making functions through a standardized process of identifying, assessing, monitoring, and mitigating risks across all Business Units and Divisions of the Department.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

Risk Oversight Council (ROC) oversees wholesale power marketing activities. It is comprised of the Chief Financial Officer (Chair/Voting), Power Supply Officer (Voting), Director of Risk Oversight (Voting), Director of Power Management (non-Voting), Director of Power Contracts, Regional Affairs & Strategic Planning (non-Voting), and Director of Finance (non-Voting). ROC guides the continuous improvement of energy risk management activities and capabilities, approves hedging strategies, hedging plans, and approves changes to relevant operating procedures.

The Risk Oversight Division, in addition to the ERM, manages the market and credit risk related to all wholesale marketing activities, and carries out the middle office functions of the Department. This includes confirmations, risk controls, deal review & valuations, independent reporting of market positions, counterparty credit risk, risk modeling, model validations, settlements, and ensuring adherence to Wholesale Energy Risk Management (WERM) policy and procedures.

Hydro Risk

Due to the Department's primary reliance on hydroelectric generation, weather can significantly affect its operations. Hydroelectric generation depends on the amount of snow-pack in the mountains upstream of the Department's hydroelectric facilities, springtime snow-melt, run-off and rainfall. Hydroelectric operations are also influenced by flood control and environmental matters, including protection of fish. In low-water years, the Department's generation is reduced, and the use of wholesale purchased power may increase in order to meet load. Normally, the Department experiences electricity usage peaks in winter; however, extreme weather conditions affecting either heating or cooling needs could cause the Department's seasonal fluctuations to be more pronounced and increase costs. In addition, economic trends (increase or decrease in business activity, housing sales and development of properties) can affect demand and change or increase costs.

Energy Market Risk

For the Department, energy market risk is the risk of adverse fluctuations in the price of wholesale electricity, which is compounded by volumetric changes affecting the availability of, or demand for electricity. Factors that contribute to energy market risk include: regional planned and unplanned generation plant outages, transmission constraints or disruptions, the number of active creditworthy market participants willing to transact, and environmental regulations that influence the availability of generation resources.

The Department's exposure to hydro volumetric and energy market risk is managed by the ROC and the approved strategies are executed by the Power Management Division. The Department engages in market transactions to meet its load obligations and to realize earnings from surplus energy resources.

With significant portion of the Department's revenue expected from wholesale energy market sales, great emphasis is placed on the management of risks associated with this activity. Policies, procedures, and processes designed to manage, control and monitor these risks are in place. A formal front, middle, and back office structure is in place to ensure proper segregation of duties.

The Department measures the risk in its energy portfolio using a model that utilizes historical simulation methodology and incorporates not only price risk, but also the volumetric risk associated with its hydro-dominated power portfolio. Scenario analysis is used for stress testing.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 and 2017

Credit Risk

Credit risk is the risk of loss that would be incurred as a result of nonperformance by a counterparty of their contractual obligations. If a counterparty failed to perform on its contractual obligation to deliver electricity, then the Department may find it necessary to procure electricity at current market prices, which may be higher than the contract price. If a counterparty failed to pay its obligation in a timely manner, this would have an impact on the Department's revenue and cash flow. As with market risk, the Department has policies governing the management of credit risk.

Wholesale counterparties are assigned credit limits based on publicly available and proprietary financial information. Along with ratings provided by national ratings agencies, an internal credit scoring model is used to classify counterparties into one of several categories with permissible ranges of credit limits. Specific counterparty credit limits are set within this prescribed range based on qualitative and quantitative factors. Credit limits are also used to manage counterparty concentration risk. The Department actively strives to reduce concentration of credit risk related to geographic location of counterparties as it only transacts in the western energy markets. This geographic concentration of counterparties may impact the Department's overall credit exposure, because counterparties may be affected by similar conditions.

Credit limits, exposures and credit quality are actively monitored daily. Despite such efforts, there is potential for default, however the Department has not faced a counterparty default in nearly 15 years. The Department transacts with counterparties on an uncollateralized and collateralized basis. Posted collateral may be in the form of cash, letters of credit, or parental guarantees.

REQUESTS FOR INFORMATION

For more information about Seattle City Light, contact Marketing and Communications at 206-684-3090 or at P.O. Box 34023, Seattle, WA 98124-4023.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

BALANCE SHEETS - ASSETS AND DEFERRED OUTFLOWS OF RESOURCES AS OF DECEMBER 31, 2018 AND 2017

(\$ in millions)	2018	2017
ASSETS		
UTILITY PLANT—At original cost:		
Plant-in-service—excluding land	\$ 5,057.7	\$ 4,593.2
Less accumulated depreciation and amortization	<u>(1,893.8)</u>	<u>(1,823.4)</u>
Total plant-in-service—net	3,163.9	2,769.8
Construction work-in-progress	486.2	589.3
Nonoperating property—net of accumulated depreciation	16.5	14.7
Assets held for future use	4.0	59.1
Land and land rights	<u>150.2</u>	<u>76.6</u>
Total utility plant—net	<u>3,820.8</u>	<u>3,509.5</u>
RESTRICTED ASSETS:		
Rate stabilization account	96.9	93.4
Municipal light and power bond reserve account	128.1	103.6
Construction account	0.6	36.8
Special deposits and other restricted assets	<u>38.1</u>	<u>18.6</u>
Total restricted assets	<u>263.7</u>	<u>252.4</u>
CURRENT ASSETS:		
Cash and equity in pooled investments	135.1	129.1
Accounts receivable (includes \$ - and \$1.6 at fair value), net of allowance of \$33.6 and \$21.4	122.6	88.8
Interfund receivables	6.0	2.3
Unbilled revenues	74.6	89.4
Materials and supplies at average cost	35.4	33.6
Prepayments and other current assets	<u>0.3</u>	<u>0.4</u>
Total current assets	<u>374.0</u>	<u>343.6</u>
OTHER ASSETS:		
Conservation costs—net	261.5	262.2
Environmental costs—net	113.7	93.1
Other charges and assets—net	<u>56.8</u>	<u>61.5</u>
Total other assets	<u>432.0</u>	<u>416.8</u>
TOTAL ASSETS	<u>4,890.5</u>	<u>4,522.3</u>
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows related to Pension and OPEB	26.9	46.9
Charges on advance refunding	<u>31.0</u>	<u>36.3</u>
TOTAL DEFERRED OUTFLOWS OF RESOURCES	<u>57.9</u>	<u>83.2</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	<u>\$ 4,948.4</u>	<u>\$ 4,605.5</u>

See notes to financial statements.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

BALANCE SHEETS - LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION AS OF DECEMBER 31, 2018 AND 2017

(\$ in millions)	2018	2017
LIABILITIES		
LONG-TERM DEBT:		
Revenue bonds	\$ 2,491.6	\$ 2,345.5
Plus bond premium—net	192.7	190.7
Less revenue bonds—current portion	<u>(119.4)</u>	<u>(118.8)</u>
Total long-term debt	<u>2,564.9</u>	<u>2,417.4</u>
NONCURRENT LIABILITIES:		
Net pension liability	232.5	288.8
Accumulated provision for injuries and damages	108.9	96.1
Compensated absences	15.0	15.7
Other noncurrent liabilities	<u>9.4</u>	<u>9.0</u>
Total noncurrent liabilities	<u>365.8</u>	<u>409.6</u>
CURRENT LIABILITIES:		
Accounts payable and other current liabilities	112.4	102.1
Interfund payables	33.4	12.0
Accrued payroll and related taxes	13.8	15.3
Compensated absences	1.2	1.5
Accrued interest	36.4	31.0
Long-term debt—current portion	<u>119.4</u>	<u>118.8</u>
Total current liabilities	<u>316.6</u>	<u>280.7</u>
OTHER LIABILITIES	<u>37.8</u>	<u>36.3</u>
TOTAL LIABILITIES	<u>3,285.1</u>	<u>3,144.0</u>
DEFERRED INFLOWS OF RESOURCES		
Rate stabilization unearned revenue	71.9	68.4
Deferred inflows related to pension and OPEB	58.0	23.8
Other deferred inflows of resources (includes \$ - and \$0.8 at fair value)	<u>34.0</u>	<u>31.4</u>
TOTAL DEFERRED INFLOWS OF RESOURCES	<u>163.9</u>	<u>123.6</u>
NET POSITION		
Net investment in capital assets	1,523.8	1,382.8
Restricted:		
Rate stabilization account	<u>25.0</u>	<u>25.0</u>
Special deposits and other purposes	<u>-</u>	<u>-</u>
Total restricted	<u>25.0</u>	<u>25.0</u>
Unrestricted—net	<u>(49.4)</u>	<u>(69.9)</u>
Total net position	<u>1,499.4</u>	<u>1,337.9</u>
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION	<u>\$ 4,948.4</u>	<u>\$ 4,605.5</u>

See notes to financial statements.

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THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

(\$ in millions)	2018	2017
OPERATING REVENUES:		
Retail power revenues	\$ 868.6	\$ 875.2
Short-term wholesale power revenues	61.0	60.9
Other power-related revenues	45.9	35.8
Transfers from/(to) rate stabilization account	(3.5)	(2.3)
Other operating revenues	<u>19.6</u>	<u>20.1</u>
Total operating revenues	<u>991.6</u>	<u>989.7</u>
OPERATING EXPENSES:		
Long-term purchased power—Bonneville and other	217.8	224.8
Short-term wholesale power purchases	18.5	15.2
Other power expenses	70.2	65.4
Transmission	54.2	52.5
Distribution	61.9	60.4
Customer service	55.7	49.4
Conservation	33.0	32.5
Administrative and general	96.2	128.7
Taxes	91.8	94.8
Depreciation and amortization	<u>123.9</u>	<u>128.8</u>
Total operating expenses	<u>823.2</u>	<u>852.5</u>
OPERATING INCOME	<u>168.4</u>	<u>137.2</u>
NONOPERATING REVENUES AND (EXPENSES):		
Other revenues and (expenses)—net	17.6	13.3
Interest expense		
Interest expense—net	(96.2)	(86.6)
Amortization of bond costs—net	<u>12.8</u>	<u>11.2</u>
Total interest expense	<u>(83.4)</u>	<u>(75.4)</u>
Total nonoperating expenses	<u>(65.8)</u>	<u>(62.1)</u>
INCOME BEFORE CAPITAL CONTRIBUTIONS AND GRANTS	<u>102.6</u>	<u>75.1</u>
CAPITAL CONTRIBUTIONS AND GRANTS:		
Capital contributions	59.6	45.1
Capital grants	<u>-</u>	<u>0.2</u>
Total capital contributions and grants	<u>59.6</u>	<u>45.3</u>
CHANGE IN NET POSITION	162.2	120.4
NET POSITION:		
Beginning of year	<u>1,337.9</u>	<u>1,217.5</u>
Adjustment for the implementation of GASB Statement No. 75, <i>Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions</i>	<u>(0.7)</u>	-
Beginning of year, as adjusted	<u>1,337.2</u>	<u>1,217.5</u>
End of year	<u>\$ 1,499.4</u>	<u>\$ 1,337.9</u>

See notes to financial statements.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

STATEMENTS OF CASH FLOWS FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

<i>(\$ in millions)</i>	2018	2017
OPERATING ACTIVITIES:		
Cash received from customers and counterparties	\$ 965.0	\$ 957.2
Cash paid to suppliers and counterparties	(333.3)	(327.2)
Cash paid to employees	(158.7)	(165.2)
Taxes paid	(92.6)	(92.9)
Net cash provided by operating activities	<u>380.4</u>	<u>371.9</u>
NONCAPITAL FINANCING ACTIVITIES:		
Interfund operating cash received	1.2	2.0
Interfund operating cash paid	(39.1)	(30.2)
Principal paid on long-term debt	(10.7)	(8.6)
Interest paid on long-term debt	(9.2)	(8.2)
Noncapital grants received (paid)	0.6	(0.3)
Bonneville receipts for conservation	6.6	5.2
Payment to vendors on behalf of customers for conservation	(24.2)	(31.8)
Net cash used in noncapital financing activities	<u>(74.8)</u>	<u>(71.9)</u>
CAPITAL AND RELATED FINANCING ACTIVITIES:		
Proceeds from long-term debt	462.5	485.5
Proceeds from long-term debt premiums	20.1	54.8
Payment to trustee for defeased bonds	(198.2)	(163.6)
Bond issue costs paid	(2.2)	(1.5)
Principal paid on long-term debt	(107.5)	(104.4)
Interest paid on long-term debt	(91.6)	(88.1)
Acquisition and construction of capital assets	(401.6)	(418.1)
Interfund payments for acquisition and construction of capital assets	(12.9)	(28.9)
Capital contributions	28.9	37.4
Interfund receipts for capital contributions	0.7	1.5
Capital grants received/(paid)	(0.1)	3.2
Interest received for suburban infrastructure improvements	2.6	2.3
Proceeds on sale of property	-	0.8
(Increase) Decrease in other assets	2.1	0.9
Net cash used in capital and related financing activities	<u>(297.2)</u>	<u>(218.2)</u>
INVESTING ACTIVITIES:		
Interest received on cash and equity in pooled investments	<u>8.9</u>	<u>4.8</u>
Net cash provided by investing activities	<u>8.9</u>	<u>4.8</u>
NET INCREASE (DECREASE) IN CASH AND EQUITY IN POOLED INVESTMENTS	17.3	86.6
CASH AND EQUITY IN POOLED INVESTMENTS:		
Beginning of year	<u>381.5</u>	<u>294.9</u>
End of year	<u>\$ 398.8</u>	<u>\$ 381.5</u>

See notes to financial statements.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

STATEMENTS OF CASH FLOWS - RECONCILIATION FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

<i>(\$ in millions)</i>	2018	2017
RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:		
Operating income	\$ 168.4	\$ 137.2
Adjustments to reconcile operating income to net cash provided by operating activities:		
Non-cash items included in operating income:		
Depreciation	129.5	136.1
Amortization of other liabilities	(1.7)	(1.5)
Amortization of other assets	29.9	28.9
Bad debt expense	19.9	14.6
Power revenues	(30.7)	(31.5)
Power expenses	33.2	30.6
Provision for injuries and damages	4.1	(0.4)
Other non-cash items	9.1	19.9
Change in:		
Accounts receivable	(0.5)	20.5
Unbilled revenues	14.7	(12.8)
Materials and supplies	(5.6)	8.1
Prepayments, interest receivable, and other receivables	(4.5)	4.8
Other assets	2.5	(1.9)
Provision for injuries and damages and claims payable	(13.7)	(5.5)
Accounts payable and other payables	22.3	22.5
Rate stabilization unearned revenue	3.5	2.3
Total adjustments	<u>212.0</u>	<u>234.7</u>
Net cash provided by operating activities	<u>\$ 380.4</u>	<u>\$ 371.9</u>
SUPPLEMENTAL DISCLOSURES OF NONCASH ACTIVITIES:		
In-kind capital contributions	\$ 3.4	\$ 0.5
Amortization of debt related costs—net	12.8	11.2
Allowance for funds used during construction	12.1	12.0
Power exchange revenues	17.5	15.0
Power exchange expenses	(18.3)	(15.0)
Power revenue netted against power expenses	5.9	5.4
Power expense netted against power revenues	(8.6)	(9.8)

See notes to financial statements.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

1. OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The City Light Department (the Department) is the public electric utility of The City of Seattle (the City). The Department is an enterprise fund of the City. The Department owns and operates certain generating, transmission, and distribution facilities and supplies electricity to approximately 461,500 residential, commercial, and public customers in the city of Seattle. The Department also supplies electrical energy to other City agencies at rates prescribed by City ordinances, and to certain neighboring communities under franchise agreements. The establishment of the Department's rates is within the exclusive jurisdiction of the Seattle City Council. A requirement of Washington State law provides that rates must be fair, nondiscriminatory, and fixed to produce revenue adequate to pay for operation and maintenance expenses and to meet all debt service requirements payable from such revenue. The Department pays occupation taxes to the City based on total revenues.

The Department's revenues for services provided to other City departments were \$20.0 million and \$17.9 million in 2018 and 2017, respectively, and \$1.8 million and \$2.9 million for non-energy services, respectively.

The Department receives certain services from other City departments and paid \$113.4 million in 2018 and \$108.0 million in 2017, for such services. Amounts paid include central cost allocations from the City for services received including treasury services, risk financing, purchasing, data processing systems, vehicle maintenance, personnel, payroll, legal, administrative, information technology and building rentals, including for the Department's administrative offices.

The Department's receivables from other City departments totaled \$6.0 million and \$2.3 million at December 31, 2018, and 2017, respectively. The Department's payables to other City departments totaled \$33.4 million and \$12.0 million at December 31, 2018, and 2017, respectively. The balances receivable and payable are the result of transactions incurred in the normal course of operations.

Basis of Presentation and Accounting Standards—The financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America as applied to governmental units. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The Department has applied and is current through 2018 with all applicable GASB pronouncements.

The GASB has issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, replacing the requirements of Statements No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, as amended, and No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*. This Statement establishes new accounting and financial reporting requirements for governments whose employees are provided with OPEB, including the recognition and measurement of liabilities, deferred outflows of resources, deferred inflows of resources and expense. The Department implemented Statement No. 75 effective January 1, 2018. See Note 14 Other Postemployment Benefits and Note 21 Implementation of New Accounting Standards.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

The GASB has issued Statement No. 83, *Certain Asset Retirement Obligations*, which establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for legally enforceable asset retirement obligations and requires that recognition occur when the liability is both incurred and reasonably estimable. This standard will be adopted by the Department in 2019. The Department is currently evaluating the impact the adoption of this statement will have on its financial statements.

The GASB has issued Statement No. 84, *Fiduciary Activities*, which improves guidance regarding the identification of fiduciary activities, including pension plans and other postemployment benefits, for accounting and financial reporting purposes and how those activities should be reported. Statement No. 84 will be effective for the Department in 2019 and the Department is currently evaluating the impact the adoption of this statement will have on its financial statements.

The GASB has issued Statement No. 87, *Leases*, which improves accounting and financial reporting for leases by governments. This Statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. Statement No. 87 will be effective for the Department in 2020 and the Department is currently evaluating the impact the adoption of this statement will have on its financial statements.

The GASB has issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, which improves the information that is disclosed in notes to government financial statements related to debt, including direct borrowings and direct placements. This Statement also clarifies which liabilities governments should include when disclosing information related to debt. Statement No. 88 will be effective for the Department in 2019 and the Department is currently evaluating the impact the adoption of this statement will have on its financial statements.

The GASB has issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which enhances the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and simplifies accounting for interest cost incurred before the end of a construction period. Statement No. 89 will be effective for the Department in 2020. The Department is currently evaluating the impact the adoption of this statement will have on its financial statements.

The GASB has issued Statement No. 90, *Majority Equity Interests*, which improves the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and improves the relevance of financial statement information. Statement No. 90 will be effective in 2019 and the Department is currently evaluating the impact the adoption of this statement will have on its financial statements.

Fair Value Measurements—Descriptions of the Department's accounting policies on fair value measurements for items reported on the balance sheets at December 31, 2018 and 2017, are as noted in Note 2 Fair Values, Note 5 Cash and Equity in Pooled Investments and Investments, Note 6 Accounts Receivable and Note 19 Long-Term Purchased Power, Exchanges, and Transmission.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

Fair Value of Financial Instruments—The Department’s financial instruments reported on the balance sheets at December 31, 2018 and 2017, as Restricted assets and Cash and equity in pooled investments are measured at fair value. These instruments consist primarily of the Department’s share of the City-wide pool of investments (see Note 5 Cash and Equity in Pooled Investments and Investments). Gains and losses on these financial instruments are reflected in Investment income in the statements of revenues, expenses, and changes in net position. The fair value of long-term debt at December 31, 2018 and 2017 is discussed in Note 9 Long-Term Debt.

Net Position—The Department classifies its net position into three components as follows:

- ***Net investment in capital assets***—This component consists of capital assets, net of accumulated depreciation and amortization, reduced by the net outstanding debt balances related to capital assets net of unamortized debt expenses.
- ***Restricted***—This component consists of net position with constraints placed on use. Constraints include those imposed by creditors (such as through debt covenants and excluding amounts considered in net capital, above), grants, or laws and regulations of other governments, or by enabling legislation, The City of Seattle Charter, or by ordinances legislated by the Seattle City Council.
- ***Unrestricted***—This component consists of assets and liabilities that do not meet the definition of Net investment in capital assets or Restricted.

Restricted and Unrestricted Net Position—The Department’s policy is to use restricted net position for specified purposes and to use unrestricted net position for operating expenses. The Department does not currently incur expenses for which both restricted and unrestricted net position is available.

Assets Held for Future Use—These assets include property acquired but never used by the Department in electrical service and therefore, held for future service under a definitive plan. Also included is property previously used in service but retired and held pending its reuse in the future under a definitive plan. As of December 31, 2018, and 2017, assets held for future use included the following electrical plant assets: land for future substations, communication system and risk mitigation structures totaling \$4.0 million and \$59.1 million, respectively.

Materials and Supplies—Materials and supplies are generally used for construction, operation and maintenance work, not for resale. They are valued utilizing the average cost method and charged to construction or expense when used.

Revenue Recognition—Service rates are authorized by City ordinances. Billings are made to customers on a monthly or bimonthly basis. Revenues for energy delivered to customers between the last billing date and the end of the year are estimated and reflected in the accompanying financial statements as unbilled revenue within Retail power revenues.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

The Department's customer base accounted for electric energy sales at December 31, 2018 and 2017, as follows:

	2018	2017
Residential	36.9 %	37.7 %
Nonresidential	<u>63.1 %</u>	<u>62.3 %</u>
Total	100.0 %	100.0 %

Revenues earned in the process of delivering energy to customers, wholesale energy transactions, and related activities are considered operating revenues in the determination of change in net position. Investment income, nonexchange transactions, and other revenues are considered Nonoperating revenues.

Expense Recognition—Expenses incurred in the process of delivering energy to customers, wholesale energy transactions, and related activities are considered operating expenses in the determination of net income. Debt interest expense, debt related amortization, and certain other expenses are considered Nonoperating expenses.

Administrative and General Overhead Costs Applied—Certain administrative and general overhead costs are allocated to construction work-in-progress, major data processing systems development, programmatic conservation, relicensing mitigation projects, and billable operations and maintenance activities based on rates established by cost studies. Pension and benefit costs are allocated to capital and operations and maintenance activities based on a percentage of labor dollars. The administrative and general overhead costs applied totaled \$65.8 million and \$50.1 million in 2018 and 2017, respectively. Benefit costs applied were \$25.9 million and \$57.1 million in 2018 and 2017, respectively. Administrative and general expenses, net of total applied overhead, were \$96.2 million and \$128.7 million in 2018 and 2017, respectively.

Interest Charged to Construction—Interest is charged for funds used during construction of plant assets and to non-billable construction work-in-progress. Interest charged represents the estimated costs of financing construction projects and is computed using the Department's weighted-average interest rate for all bonds outstanding, the majority of which are tax exempt, and is revised when new bonds are issued and at the end of the year. Interest charged to construction totaled \$12.1 million and \$12.0 million in 2018 and 2017, respectively, and is reflected as a reduction of Interest expense in the statements of revenues, expenses, and changes in net position.

Nonexchange Transactions—Capital contributions and grants in the amount of \$59.6 million and \$45.3 million for 2018 and 2017, respectively, and noncapital grants in the amount of \$48 thousand and \$211 thousand for 2018 and 2017, respectively, are reported in the statements of revenues, expenses, and changes in net position as nonoperating revenues from nonexchange transactions. Capital contributions and grants revenues are recognized based on the accrual basis of accounting. In-kind capital contributions are recognized at estimated acquisition value in the period when all eligibility requirements have been met as described in GASB Statement No. 33, *Accounting and Financial Reporting for Nonexchange Transactions*. Federal and state grant revenues are recognized as earned and are subject to contract and other compliance audits.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

Compensated Absences—Regular employees of the Department earn vacation time in accordance with length of service. A maximum of 480 hours may be accumulated for the most tenured employees and, upon termination, employees are entitled to compensation for unused vacation. Upon retirement, employees receive compensation equivalent to 25% of their accumulated sick leave. Effective 2006, only employees represented by unions who voted in favor of a Healthcare Reimbursement Arrangement (HRA) receive 35% of their sick leave balance tax-free through an HRA account for healthcare expenses post retirement. Because of the special tax arrangement, the sick leave balance may only go into the HRA account; it may not be taken as a cashout. The HRA program is administered by an independent third-party administrator, Meritain Health. HRA investments are managed by HRA Voluntary Employee Beneficiary Association (VEBA) Trust. The Department accrues all costs associated with compensated absences, including payroll taxes.

Use of Estimates—The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect amounts reported in the financial statements. The Department used significant estimates in determining reported allowance for doubtful accounts, unbilled revenues, power exchanges, accumulated provision for injuries and damages and workers' compensation, environmental liabilities, accrued sick leave, net pension liability, other postemployment benefits, and other contingencies. Actual results may differ from those estimates.

Significant Risk and Uncertainty—The Department is subject to certain business risks that could have a material impact on future operations and financial performance. These risks include financial market liquidity and economic uncertainty; prices on the wholesale markets for short-term power transactions; interest rates and other inputs and techniques for fair valuation; water conditions, weather, climate change, and natural disaster-related disruptions; terrorism; collective bargaining labor disputes; fish and other Endangered Species Act (ESA) issues; Environmental Protection Agency (EPA) regulations; compliance with clean and renewable energy legislation; local and federal government regulations or orders concerning the operations, maintenance, and/or licensing of hydroelectric facilities; other governmental regulations; restructuring of the electrical utility industry; and the costs of constructing transmission facilities that may be incurred as part of a northwest regional transmission system, and related effects of this system on transmission rights, transmission sales, surplus energy, and governance.

2. FAIR VALUE MEASUREMENT

The Department records certain assets, liabilities and deferred inflows of resources in accordance with GASB Statement No. 72, *Fair Value Measurement and Application*, which defines fair value, establishes a framework for measuring fair value, and requires disclosures about fair value measurement.

Fair value is defined in Statement No. 72 as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). Fair value is a market-based measurement for a particular asset or liability based on assumptions that market participants would use in pricing the asset or liability. Such assumptions include observable and unobservable inputs of market data, as well as assumptions about risk and the risk inherent in the inputs to the valuation technique.

Valuation techniques to determine fair value should be consistent with one or more of three approaches: the market approach, cost approach, and income approach. The Department uses the market approach for the valuation of pooled investments, a combination of the market and income approaches for the valuation of the undelivered forward portion of energy exchanges and other nonmonetary transactions.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

As a basis for considering market participant assumptions in fair value measurements, Statement No. 72 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the Department can access at the measurement date.
- Level 2 inputs are inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 inputs are unobservable inputs for the asset or liability. Valuation adjustments such as for nonperformance risk or inactive markets could cause an instrument to be classified as Level 3 that would otherwise be classified as Level 1 or Level 2.

The valuation methods of the fair value measurements are disclosed as noted below.

Cash resources of the Department are combined with cash resources of the City to form a pool of cash and investments that is managed by the City's Department of Finance and Administrative Services (FAS). The City records pooled investments at fair value based on quoted market prices.

The Department obtained the lowest level of observable input of the fair value measurement of energy exchanges and other non-monetary transactions in its entirety from subscription services or other independent parties. The observable inputs for the settled portion of the energy exchange contracts are Dow Jones price indices. The observable inputs for the undelivered forward portion of energy exchanges and other non-monetary transactions are Kiindex forward curves and present value factors based on the interest rate for Treasury constant maturities, bond-equivalent yields.

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Department's assessment of the significance of a particular input to the fair value measurement requires judgement and may affect the valuation of fair value assets and liabilities and their place within the fair value hierarchy levels.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

The Department had no assets or liabilities that met the criteria for Level 3 at December 31, 2018 and 2017. The following fair value hierarchy table presents information about the Department's assets, liabilities, and deferred inflows of resources reported at fair value on a recurring basis or disclosed at fair value as of December 31, 2018 and 2017:

(\$ in millions)

2018	Level 1	Level 2	Total
Assets			
Fair value investments			
Bank note	\$ 1.3	\$ -	\$ 1.3
Commercial paper	-	18.5	18.5
Municipal bonds	-	58.4	58.4
Repurchase agreements	17.7	-	17.7
U.S. government agency mortgage-backed securities	-	47.8	47.8
U.S. government agency securities	159.3	-	159.3
U.S. treasury & U.S. government-backed securities	72.6	-	72.6
Local government investment pool	-	23.2	23.2
Total fair value investments	<u>250.9</u>	<u>147.9</u>	<u>398.8</u>
Total Assets at fair value	<u>\$ 250.9</u>	<u>\$ 147.9</u>	<u>\$ 398.8</u>

(\$ in millions)

2017 (Revised)	Level 1	Level 2	Total
Assets			
Fair value investments			
Bank note	\$ -	\$ 7.8	\$ 7.8
Commercial paper	-	41.1	41.1
Municipal bonds	-	59.7	59.7
Repurchase agreements	22.6	-	22.6
U.S. government agency mortgage-backed securities	-	39.8	39.8
U.S. government agency securities	-	113.2	113.2
U.S. treasury & U.S. government-backed securities	75.6	2.0	77.6
Local government investment pool	-	19.7	19.7
Total fair value investments	<u>98.2</u>	<u>283.3</u>	<u>381.5</u>
Exchange energy receivable	<u>-</u>	<u>1.6</u>	<u>1.6</u>
Total Assets at fair value	<u>\$ 98.2</u>	<u>\$ 284.9</u>	<u>\$ 383.1</u>
Deferred Inflows of Resources			
Exchange energy regulatory deferred gains	<u>\$ -</u>	<u>\$ 0.8</u>	<u>\$ 0.8</u>

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

3. UTILITY PLANT

Utility Plant—Utility plant is recorded at original cost, which includes both direct costs of construction or acquisition and indirect costs, including an allowance for funds used during construction. The capitalization threshold for tangible assets was \$5,000, and for intangible assets, \$500,000 in 2018 and 2017. Plant constructed with capital contributions or contributions in-aid-of construction received from customers is included in Utility plant. Capital contributions and capital grants totaled \$59.6 million in 2018 and \$45.3 million in 2017. The Department uses a straight-line composite method of depreciation and amortization and, therefore, groups assets into composite groups for purposes of depreciation. Estimated economic lives range from 4 to 50 years. Effective with the implementation of a new fixed asset system January 1, 2017, the Department changed from a half-year convention method of depreciation to an actual month method, on the assumption that additions and replacements are placed in service at mid-year. Depreciation and amortization expense as a percentage of depreciable utility plant-in-service was approximately 2.4% in 2018 and 2.8% in 2017. When operating plant assets are retired, their original cost together with retirement costs and removal costs, less salvage, is charged to accumulated depreciation or amortization, if applicable. The cost of maintenance and repairs is charged to expense as incurred, while the cost of replacements and betterments are capitalized. The Department periodically reviews long-lived assets for impairment to determine whether any events or circumstances indicate the carrying value of the assets may not be recoverable over their economic lives.

Intangible assets are those that lack physical substance, are nonfinancial in nature, and have useful lives extending beyond a single reporting period. The Department's intangible assets are reported as capital assets under Utility Plant. The Department's intangible assets consist of easements, purchased and internally developed software, transmission rights, capitalized relicensing costs for Skagit and Boundary hydroelectric projects, Tolt hydroelectric project mitigation costs, and costs capitalized under the High Ross Agreement.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

Utility plant-in-service at original cost, including land at December 31, 2018, and 2017, was:

	Hydroelectric Production	Transmission	Distribution	General	Intangibles	Total
2018						
<i>(\$ in millions)</i>						
Utility Plant-in-service - At original cost:						
Plant-in-service, excluding Land:						
1/1/2018 Balance	\$ 863.6	\$ 266.6	\$ 2,500.7	\$ 384.4	\$ 577.9	\$ 4,593.2
Acquisitions	38.5	27.5	339.4	14.6	86.5	506.5
Dispositions	(5.7)	(3.5)	(29.6)	(7.1)	-	(45.9)
Transfers and adjustments	-	-	3.9	-	-	3.9
	<u>896.4</u>	<u>290.6</u>	<u>2,814.4</u>	<u>391.9</u>	<u>664.4</u>	<u>5,057.7</u>
Accumulated depreciation and amortization:						
1/1/2018 Balance	\$ 370.4	\$ 87.2	\$ 927.5	\$ 235.6	\$ 202.7	\$ 1,823.4
Increase in accumulated depreciation and amortization	15.2	6.0	72.8	12.2	23.2	129.4
Retirements	(8.8)	(5.8)	(43.0)	(7.1)	-	(64.7)
Transfers and adjustments	1.0	1.1	3.6	-	-	5.7
	<u>377.8</u>	<u>88.5</u>	<u>960.9</u>	<u>240.7</u>	<u>225.9</u>	<u>1,893.8</u>
Sub Total Plant-in-service - Net, excluding Land:	<u>\$ 518.6</u>	<u>\$ 202.1</u>	<u>\$ 1,853.5</u>	<u>\$ 151.2</u>	<u>\$ 438.5</u>	<u>\$ 3,163.9</u>
Land and land rights:						
1/1/2018 Balance	\$ 53.6	\$ 3.0	\$ 13.4	\$ 6.6	\$ -	\$ 76.6
Acquisitions	0.9	-	72.7	-	-	73.6
Dispositions	-	-	-	-	-	-
Transfers and adjustments	-	-	-	-	-	-
	<u>54.5</u>	<u>3.0</u>	<u>86.1</u>	<u>6.6</u>	<u>-</u>	<u>150.2</u>
Total Plant-in-service - Net, including Land:	<u>\$ 573.1</u>	<u>\$ 205.1</u>	<u>\$ 1,939.6</u>	<u>\$ 157.8</u>	<u>\$ 438.5</u>	<u>\$ 3,314.1</u>

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

	Hydroelectric Production	Transmission	Distribution	General	Intangible	Total
2017						
<i>(\$ in millions)</i>						
Utility Plant-in-service - At original cost:						
Plant-in-service, excluding Land:						
1/1/2017 Balance	\$ 847.0	\$ 242.2	\$ 2,408.9	\$ 368.4	\$ 543.8	\$ 4,410.3
Acquisitions	22.9	27.1	110.8	28.1	34.1	223.0
Dispositions	(6.3)	(2.7)	(24.2)	(12.1)	-	(45.3)
Transfers and adjustments	-	-	5.2	-	-	5.2
12/31/2017 Balance	<u>863.6</u>	<u>266.6</u>	<u>2,500.7</u>	<u>384.4</u>	<u>577.9</u>	<u>4,593.2</u>
Accumulated depreciation and amortization:						
1/1/2017 Balance	361.0	85.2	881.5	230.6	177.0	1,735.3
Increase in accumulated depreciation and amortization	16.7	5.8	73.8	18.2	24.6	139.1
Retirements	(7.3)	(3.8)	(27.8)	(12.1)	-	(51.0)
Transfers and adjustments	-	-	-	(1.1)	1.1	-
12/31/2017 Balance	<u>370.4</u>	<u>87.2</u>	<u>927.5</u>	<u>235.6</u>	<u>202.7</u>	<u>1,823.4</u>
Sub Total Plant-in-service - Net: excluding Land:	<u>\$ 493.2</u>	<u>\$ 179.4</u>	<u>\$ 1,573.2</u>	<u>\$ 148.8</u>	<u>\$ 375.2</u>	<u>\$ 2,769.8</u>
Land and land rights:						
1/1/2017 Balance	\$ 52.0	\$ 3.0	\$ 13.4	\$ 6.6	\$ -	\$ 75.0
Acquisitions	0.7	-	-	-	-	0.7
Dispositions	-	-	-	-	-	-
Transfers and adjustments	0.9	-	-	-	-	0.9
12/31/2017 Balance	<u>53.6</u>	<u>3.0</u>	<u>13.4</u>	<u>6.6</u>	<u>-</u>	<u>76.6</u>
Total Plant-in-service - Net: including Land:	<u>\$ 546.8</u>	<u>\$ 182.4</u>	<u>\$ 1,586.6</u>	<u>\$ 155.4</u>	<u>\$ 375.2</u>	<u>\$ 2,846.4</u>

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

NOTES TO FINANCIAL STATEMENTS

AS OF AND FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017

4. RATE STABILIZATION ACCOUNT

The Rate Stabilization Account (RSA) is a restricted cash reserve established to reduce the need for rapid and substantial rate increases solely to comply with the Department's bond covenants.

In March 2010, the Seattle City Council adopted Resolution No. 31187 and Ordinance No. 123260, establishing revised financial policies and parameters for the operation of the RSA created by Ordinance No. 121637 in 2004. Ordinance No. 123260 identified the sources of significant funding of the RSA and specified parameters for its operation. The RSA is drawn down to supplement revenues when surplus power sales revenues are below the budgeted amount, and conversely, deposits are to be made to the RSA when the surplus power sales revenues are greater than budgeted. Deposits or withdrawals may be made up to and including the date 90 days after the end of the applicable year.

Ordinance No. 123260 established a target size for the RSA of no less than \$100.0 million and no greater than \$125.0 million, and authorized the imposition of automatic temporary surcharges on electric rates when the RSA balance is within the below specified levels:

RSA Balance	Action
Less than or equal to \$90.0 million but greater than \$80.0 million:	Automatic 1.5% surcharge
Less than or equal to \$80.0 million but greater than \$70.0 million:	Automatic 3.0% surcharge
Less than or equal to \$70.0 million but greater than \$50.0 million:	Automatic 4.5% surcharge
Less than or equal to \$50.0 million:	City Council must initiate rate review within 45 days and determine actions to replenish RSA to \$100.0 million within 12 months

In February 2014, the Seattle City Council adopted Ordinance No. 124426 (retroactive to December 2013), directing specific cash transfers to the RSA with the intention of reducing the likelihood of future rate surcharges.

Ordinance No. 123260 originally required a rate review whenever the RSA balance exceeded \$125.0 million, along with the implementation of measures to reduce the RSA balance to \$125.0 million within a period of 12 months or less. Subsequently, the Seattle City Council adopted Ordinance No. 124108 in February 2013 (retroactive to January 1, 2013) which extended the timing of this required rate review and associated action to an effective date of January 1, 2014.

In 2018, actual net wholesale revenue was \$9.9 million less than budgeted. Hence, net transfers of \$9.9 million were made from the RSA to the operating cash account during the year. The 1.5% surcharge enacted August 1, 2016 remained in effect throughout 2018. Transfers from the RSA were fully offset by \$11.6 million surcharge revenue resulting from the 1.5% surcharge. Interest of \$1.8 million was earned on the RSA in 2018. The RSA ending balance was \$96.9 million at December 31, 2018.

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In 2017, actual net wholesale revenue was \$10.3 million less than budgeted. Hence, net transfers of \$10.3 million were made from the RSA to the operating cash account during the year. The 1.5% surcharge enacted August 1, 2016 remained in effect throughout 2017. Transfers from the RSA were fully offset by \$11.2 million surcharge revenue resulting from the 1.5% surcharge. Interest of \$1.4 million was earned on the RSA in 2017. The RSA ending balance was \$93.4 million at December 31, 2017.

The RSA at December 31, 2018, and 2017, consisted of cash from the following sources:

(\$ in millions)	2018	2017
Rate Stabilization Account		
Beginning balance	\$ 93.4	\$ 91.1
Surcharge revenue	11.6	11.2
RSA interest income	1.8	1.4
Operating revenue	<u>(9.9)</u>	<u>(10.3)</u>
Ending balance	<u>\$ 96.9</u>	<u>\$ 93.4</u>

RSA transactions are recorded in accordance with GASB Statement No. 62 *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*.

The regulatory deferred inflow of resources rate stabilization unearned revenue account at December 31, 2018, and 2017, consisted of the following:

(\$ in millions)	2018	2017
Unearned revenue - Rate Stabilization Account		
Beginning balance	\$ 68.4	\$ 66.1
Surcharge revenue	11.6	11.2
RSA interest income	1.8	1.4
Operating revenue	<u>(9.9)</u>	<u>(10.3)</u>
Ending balance	<u>\$ 71.9</u>	<u>\$ 68.4</u>

The initial \$25.0 million transfer from the Contingency Reserve Account to the RSA in May 2010 is not included in the Rate stabilization unearned revenue balance and is not available to be transferred to current revenue in the event that net wholesale revenues are less than the budgeted amount. The Contingency Reserve Account was established in 2005 with proceeds that had been deposited in the Bond Reserve Fund, which was replaced with a surety bond.

Net transfers from/(to) the RSA in the statements of revenues, expenses and net position for the periods ended December 31, 2018, and 2017 were as follows:

(\$ in millions)	2018	2017
Transfers from/(to) Rate Stabilization Account	<u>\$ (3.5)</u>	<u>\$ (2.3)</u>

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5. CASH AND EQUITY IN POOLED INVESTMENTS AND INVESTMENTS

Cash and Equity in Pooled Investments—Cash resources of the Department are combined with cash resources of the City to form a pool of cash that is managed by the City’s Department of Finance and Administrative Services (FAS). Under the City’s investment policy, all temporary cash surpluses in the pool are invested. The Department’s share of the pool is included on the balance sheets as Cash and Equity in Pooled Investments or as restricted assets. The pool operates like a demand deposit account in that all departments, including the Department, may deposit cash at any time and can also withdraw cash, out of the pool, up to the amount of the Department’s fund balance, without prior notice or penalty. Accordingly, the statements of cash flows reconcile to cash and equity in pooled investments. The City considers investments in financial instruments having a maturity of 90 days or less as a cash equivalent.

Custodial Credit Risk – Deposits—Custodial credit risk of deposits is the risk that in the event of bank failure for one of the City’s depository institutions, the City’s deposits or related collateral securities may not be returned in a timely manner.

As of December 31, 2018, and 2017, the City did not have custodial credit risk. The City’s deposits are covered by insurance provided by the Federal Deposit Insurance Corporation (FDIC) and the National Credit Union Association (NCUA) as well as protection provided by the Washington State Public Deposit Protection Commission (PDPC) as established in RCW 39.58. The PDPC makes and enforces regulations and administers a program to ensure public funds deposited in banks and thrifts are protected if a financial institution becomes insolvent. The PDPC approves which banks, credit unions, and thrifts can hold state and local government deposits and monitors collateral pledged to secure uninsured public deposits. This secures public treasurers’ deposits when they exceed the amount insured by the FDIC or NCUA by requiring banks, credit unions, and thrifts to pledge securities as collateral.

As of December 31, 2018, and 2017, the City held \$95,000 in its cash vault. Additional small amounts of cash were held in departmental revolving fund accounts with the City’s various custodial banks, all of which fell within the NCUA/FDIC’s \$250,000 standard maximum deposit insurance amount. Any of the City’s cash not held in its vault, or a local depository, was held in the City’s operating fund (investment pool), and at the close of every business day, any cash remaining in the operating fund is swept into an overnight repurchase agreement that matures the next day.

Investments—The Department’s cash resources may be invested by FAS separate from the cash and investments pool. Investments are managed in accordance with the City’s Statement of Investment Policy, with limits and restrictions applied at the City-wide level rather than to specific investments of the Department. As of December 31, 2018, and 2017, the Department did not have any dedicated investments. The City’s Statement of Investment Policy was modified on January 1, 2018, with an effective date of March 8, 2018 and includes, but is not limited to, the topics of Standards of Care, Objectives, Strategy, Eligible Investments and Investment Parameters.

The City follows a set of Standards of Care when it comes to its investments that include the following:

- **Social Policies:** A City social policy shall take precedence over furthering the City’s financial objectives when expressly authorized by City Council resolution, except where otherwise provided by law or trust principles.
- **Prudence:** The standard of prudence to be used by investment personnel shall be the “Prudent Investor Rule” and will be applied in the context of managing an overall portfolio.

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- Ethics and Conflict of Interest: Investment officers shall comply with the City’s Ethics Code (SMC 4.16.080) and annually submit a Financial Interest Statement to the City’s Ethics & Elections Commission that identifies any potential financial interest that could be related to the performance of the City’s investment portfolio.
- Delegation of Authority: The Director of Finance and Administrative Services has delegated management responsibility for the City’s investment program to the Director of Finance who has designated day to day management responsibility to investment officers under the supervision of the City’s Treasury Services Director. No persons may engage in an investment transaction except as provided under the terms of the City Statement of Investment Policy and the procedures established therein.

The three objectives in managing the City of Seattle’s investments define its risk profile and guide implementation of its investment strategy. In order of importance they are Safety of Principal, Maintenance of Liquidity, and Return on Investment.

Eligible investments for the City are those securities and deposits authorized by statute (RCW 39.59.040) and include, but are not limited to:

- A. Bonds of the state of Washington and any local government in the state of Washington;
- B. General obligation bonds of a state and general obligation bonds of a local government of a state, which bonds have at the time of investment one of the three highest credit ratings of a nationally recognized rating agency;
- C. Subject to compliance with RCW 39.56.030, registered warrants of a local government in the same county as the government making the investment;
- D. Certificates, notes, or bonds of the United States, or other obligations of the United States or its agencies, or of any corporation wholly owned by the government of the United States;
- E. United States dollar denominated bonds, notes, or other obligations that are issued or guaranteed by supranational institutions, provided that at the time of investment, the institution has the United States government as its largest shareholder;
- F. Federal home loan bank notes and bonds, federal land bank bonds and federal national mortgage association notes, debentures, and guaranteed certificates of participation, or the obligations of any other government sponsored corporation whose obligations are or may become eligible as collateral for advances to member banks as determined by the board of governors of the federal reserve system;
- G. Bankers’ acceptances purchased in the secondary market;
- H. Commercial paper purchased in the secondary market;
- I. Corporate notes purchased in the secondary market.

State statute also permits investment in the following types of securities:

- A. Certificates of deposit or demand deposits with financial institutions made in accordance with the provisions of Chapter 39.58 RCW;
- B. Washington State Local Government Investment Pool (LGIP), Chapter 43.250 RCW;

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- C. Repurchase agreements collateralized by the above eligible securities issued by the U.S. Government and its sponsored entities.

As of December 31, 2018, and 2017, the City's pooled investments were as follows:

(\$ in millions)	2018		2017	
	Fair Value of City Pooled Investments	Weighted-Average Maturity (Days)	Fair Value of City Pooled Investments	Weighted-Average Maturity (Days)
Bank Note	\$ 8.1	22	\$ 48.0	294
Commercial Paper	114.5	14	251.7	33
Local Government Investment Pool	143.7	1	120.7	1
Municipal Bonds	361.3	1954	366.1	1858
Repurchase Agreements	109.4	2	138.4	2
Agency Mortgage Backed Securities	295.8	1872	243.7	1732
US Government Agency Securities	986.1	1367	693.6	1209
US Treasury Bonds	449.7	840	475.7	490
Total	\$ 2,468.6		\$ 2,337.9	
Portfolio Weighted Average Maturity		867		803

As of December 31, 2018, and 2017, the Department's share of the City pool was as follows:

(\$ in millions)	2018	2017
Operating cash and equity in pooled investments	\$ 135.1	\$ 129.1
Restricted cash and equity in pooled investments	263.7	252.4
Total	\$ 398.8	\$ 381.5
Balance as a percentage of City pool cash and investments	16.2%	16.3%

Fair Value of Pooled Investments—The City reports investments at fair value and categorizes its fair value measurements within the fair value hierarchy established by GASB Statement No. 72, *Fair Value Measurement and Application*. See Note 2 Fair Value Measurement. Fair value of the City's pooled investments fluctuates with changes in interest rates and the underlying size of the pooled investment portfolio. To mitigate interest rate risk in the City's pooled investment portfolio, the City typically holds its investments to maturity and manages its maturities to ensure sufficient monthly cash flow to meet its liquidity requirements. During the first quarter of 2019, yields for U.S. Treasuries declined while the yield curve between short and long-term debt inverted more extensively. At the conclusion of the Federal Open Market Committee meeting in March 2019, the Federal Reserve left its range for the federal funds target unchanged at 2.25% - 2.50%. The Federal Reserve announced it does not expect to raise interest rates during 2019 given a dour outlook for the U.S. economy. Lower interest rates will reduce the unrealized loss on the City's investments and may potentially turn the position to an unrealized gain. New investments are anticipated to be lower yielding.

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The City holds a \$143.7 million deposit in the Washington State Local Government Investment Pool (LGIP) managed by the Office of the Washington State Treasurer. The City's investments in the LGIP are reported at amortized cost which approximates fair value. It is overseen by the Office of the State Treasurer, the State Finance Committee, the Local Government Investment Pool Advisory Committee, and the Washington State Auditor's Office.

To provide for the City's investment objectives, parameters have been established that guide the investment officers. Management of the Pool is subject to the restrictions outlined in the following sections.

Interest Rate Risk—Interest rate risk is the risk that changes in interest rates over time will adversely affect the fair value of an investment. To mitigate interest rate risk, the City intentionally immunizes its known and expected cash flow needs. To best accomplish meeting its investment objectives, the City has divided the Pool into two separate portfolios: Operating and Strategic.

The Operating Portfolio is invested to meet reasonably expected liquidity needs over a period of twelve to eighteen months. This portfolio has low duration and high liquidity. Consistent with this profile, and for the purpose of comparing earnings yield, its benchmark is the net earnings rate of the State of Washington's Local Government Investment Pool (LGIP).

The Strategic Portfolio consists of cash that is in excess of known and expected liquidity needs. Accordingly, this portfolio is invested in debt securities with longer maturities than the Operating Portfolio, which over a market cycle, is expected to provide a higher return and greater investment income. Consistent with this profile, and for the purpose of comparing duration, yield and total return, the benchmark for the Strategic portfolio is the Barclays U.S. Government 1-7 year index. The duration of the Strategic Portfolio is targeted between 75 percent and 125 percent of the benchmark.

To further mitigate interest rate risk a minimum of 60% of the Operating Portfolio and 30% of the Strategic Portfolio must be invested in asset types with high liquidity, specifically U.S. government obligations, U.S. government agency obligations, LGIP, demand accounts, repo, sweep, commercial paper and Banker's Acceptances.

Credit Risk—Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations.

To mitigate credit risk, municipal bonds must have one of the three highest credit ratings of a Nationally Recognized Statistical Rating Agency (NRSRO) at the time of purchase. The Office of the State Treasurer interprets the three highest credit ratings to include AAA, AA and A including gradations within each category. For example, the lowest credit rating allowable is A3 by Moody's and A- by S&P and Fitch.

Commercial paper and corporate note investments must adhere to the Washington State Investment Board Policy Number 2.05.500, and together are defined as the "credit portfolio" with the following constraints in place to mitigate credit risk:

Commercial paper investments may not have maturities exceeding 270 days and must hold the highest short-term credit rating by all the major credit rating agencies that rate the issuer at the time of purchase.

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Corporate notes must be rated at least weak single-A or better by all the major rating agencies that rate the note at the time of purchase. Corporate notes rated in the broad single-A category with a negative outlook may not be purchased. Portfolio holdings of corporate notes downgraded to below single A and portfolio holdings of securities rated single A with their outlooks changed to negative may continue to be held. No additional purchases are permitted.

Municipal bonds must have a credit rating of weak single-A or better by all the major rating agencies that rate the issuer at the time of purchase. No single issuer may exceed 5 percent of the Pool's market value.

Concentration Risk—Concentration Risk is the risk of loss attributed to the magnitude of investments in a single issuer. The City manages concentration risk by limiting its investments in any one issuer in accordance with the City's investment policy and state statutes. The policy limits vary for each investment category.

The maturity of a corporate note shall be 5.5 years or less at the time of purchase. The maximum duration of aggregate corporate note investments shall not exceed 3 years. No corporate note issuer may exceed 3 percent of the market value of the assets of the total portfolio. The percentage of corporate notes that may be purchased from any single issuer rated AA or better by all major rating agencies that rate the note is 3 percent of assets of the total portfolio. The percentage of corporate notes that may be purchased from any single issuer in the broad single-A category from all the major rating agencies that rate the security is 2 percent of the total portfolio.

The credit portfolio may not exceed 25 percent of the Pool's market value. Credit investments must be diversified by sector and industry. Commercial paper and corporate notes must be purchased in the secondary market and directly from an issuer. No single issuer shall exceed 3 percent of the total portfolio's market value.

The individual country limit of non-U.S. and non-Canadian exposure is 2 percent of the total portfolio. The exposure is determined by the country of domicile of the issuer.

State statute and the City's Statement of Investment Policy do not stipulate concentration limits for holdings of U.S. Government or U.S. Government Agency Obligations. There is a maximum of 5 percent of the Pool in any municipal issuer. The City's investments in which 5% or more is invested in any single issuer as of December 31, 2018 and 2017 are as follows:

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(\$ in millions)

Issuer	2018		2017	
	Fair Value	Percent of Total Investments	Fair Value	Percent of Total Investments
Federal Farm Credit Bank/Federal Home Loan Bank	\$ 656.9	27%	\$ 428.9	18%
Municipal Bonds	361.3	15%	366.1	16%
Federal National Mortgage Association	234.7	10%	291.7	12%
United States Treasury (HUD Debenture, US Treasury Bonds)	449.7	18%	475.7	20%
Federal Home Loan Mortgage Corp. and FHMS K Series	234.3	9%	146.5	6%
Local Government Investment Pool	143.7	6%	120.7	5%
SWEEP-REPO	109.4	4%	138.4	6%
	<u>\$ 2,190.0</u>	<u>89%</u>	<u>\$ 1,968.0</u>	<u>83%</u>

Custodial Credit Risk – Investments—Custodial credit risk for investments is the risk that, in the event of failure of the counterparty, the City will not have access to, or be able to recover, its investments or collateral securities that are in the possession of an outside party. The City mitigates custodial credit risk for its investments by having its investment securities held by the City’s contractual custodial agent. The City maintains a custody relationship with Wells Fargo under the State of Washington’s statewide custody provider program arranged by the State Treasurer’s Office. The City mitigates counterparty risk by settling trades through its custodian on a delivery-versus-payment method.

By investment policy, the City maintains a list of approved securities dealers for transacting business. The City also conducts its own due diligence as to the financial wherewithal of its counterparties.

Foreign Currency Risk—The City’s pooled investments do not include securities denominated in foreign currencies.

The City of Seattle’s Comprehensive Annual Financial Report may be obtained by writing to The City of Seattle, Department of Finance and Administrative Services, P.O. Box 94689, Seattle, WA 98124-4689; telephone: (206) 684-2489, or obtained on-line at <http://www.seattle.gov/financial-services/comprehensive-annual-financial-report>.

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6. ACCOUNTS RECEIVABLE

Accounts receivable at December 31, 2018 and 2017, consist of:

<i>(\$ in millions)</i>	Retail Electric	Wholesale Power	Other Operating	Operating Subtotal	Nonoperating Subtotal	Total
2018						
Accounts receivable	\$ 95.3	\$ 9.0	\$ 17.4	\$ 121.7	\$ 46.1	\$ 167.8
Less allowance for doubtful accounts	<u>(32.4)</u>	<u>-</u>	<u>(12.8)</u>	<u>(45.2)</u>	<u>-</u>	<u>(45.2)</u>
	<u>\$ 62.9</u>	<u>\$ 9.0</u>	<u>\$ 4.6</u>	<u>\$ 76.5</u>	<u>\$ 46.1</u>	<u>\$ 122.6</u>
2017						
Accounts receivable	\$ 62.5	\$ 9.7	\$ 15.2	\$ 87.4	\$ 22.9	\$ 110.3
Less allowance for doubtful accounts	<u>(12.7)</u>	<u>-</u>	<u>(8.8)</u>	<u>(21.5)</u>	<u>-</u>	<u>(21.5)</u>
	<u>\$ 49.8</u>	<u>\$ 9.7</u>	<u>\$ 6.4</u>	<u>\$ 65.9</u>	<u>\$ 22.9</u>	<u>\$ 88.8</u>

Wholesale power receivable includes \$ - million at December 31, 2018, and \$1.6 million at December 31, 2017, for exchange energy at fair value under long-term contracts (see Note 19 Long-Term Purchased Power, Exchanges, and Transmission).

7. OTHER ASSETS

Seattle City Council passed resolutions authorizing debt financing and reporting as regulatory assets certain costs in accordance with Statement No. 62 of the GASB, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB & AICPA Pronouncements*. Programmatic conservation costs incurred by the Department and not funded by third parties, Endangered Species Act costs, and environmental costs are reported as regulatory assets in accordance with GASB Statement No. 62. Conservation costs reported as regulatory assets are amortized over 20 years. Endangered Species Act costs reported as regulatory assets are amortized over the remaining license period (see Note 19 Commitments and Contingencies). Environmental costs reported as regulatory assets are amortized over 25 years, beginning in the year costs are paid.

Other assets, which are not covered under GASB Statement No. 62, consist of:

- Suburban infrastructure long-term receivables are underground electrical infrastructure costs for suburban jurisdictions, which are recovered through rates from customers within the respective jurisdictions for a period of approximately 25 years, as approved by the Seattle City Council.
- Long-term interfund receivable for expected recoveries related to environmental costs covered under GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (see Note 15 Environmental Liabilities).
- Puget Sound Energy interconnection and substation costs are being amortized to expense over 25 years.
- Studies, surveys, and investigations are reported as other assets until such time they result in active projects, or when it is determined no assets will result, at which time they are expensed.

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- Long-term customer loans receivable and the remaining components of other assets, are not amortized.

Regulatory assets and other assets, net, at December 31, 2018 and 2017, consisted of the following:

(\$ in millions)	2018	2017
Regulatory assets:		
Conservation costs—net	\$ 261.5	\$ 262.2
Endangered Species Act costs—net	1.6	1.8
Environmental costs	<u>113.7</u>	<u>93.1</u>
	<u>376.8</u>	<u>357.1</u>
Other charges and assets—net:		
Suburban infrastructure long-term receivables	50.8	51.7
Long-term interfund receivable for environmental costs	0.3	3.8
Long-term customer notes receivable	0.6	0.4
Puget Sound Energy interconnection and substation	0.2	0.3
Studies, surveys, and investigations	2.8	2.8
Other	<u>0.5</u>	<u>0.7</u>
	<u>55.2</u>	<u>59.7</u>
Total Other Assets	<u>\$ 432.0</u>	<u>\$ 416.8</u>

8. DEFERRED OUTFLOWS OF RESOURCES

In accordance with the requirements of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27* and Statement No. 71, *Pension Transition for Contributions Made Subsequent to the Measurement Date – an amendment of GASB Statement No. 68*, the Department recognizes pension contributions made between the pension plan measurement date and the Department’s fiscal year end as deferred outflows of resources. Also recognized as deferred outflows of resources are losses resulting from differences between projected and actual earnings on plan investments, which are amortized over a closed five-year period, and losses related to differences between expected and actual experience with regard to economic or demographic factors in the measurement of total pension liability, which are amortized to pension expense over a period equal to the expected remaining service life of employees receiving pension benefits. See Note 13 Seattle City Employees’ Retirement System.

On January 1, 2018, City Light implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (OPEB)*, which concerns the accounting for and disclosure of other postemployment benefits. According to this GASB the Department records the contributions subsequent to the net OPEB liability measurement date, but before the end of the reporting period, as deferred outflows of resources. Also, the deferred outflows of resources result from (1) differences between expected and actual experience, (2) changes in assumptions, and (3) differences between projected and actual investment earnings. Deferred outflows of resources from assumption changes and experience differences are amortized using a systematic and rational method over a closed period equal to the average remaining service lives of all plan participants. Deferred outflows from investment earnings differences are amortized over a closed five-year period. See Note 14 Other Postemployment Benefits.

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The excess of costs incurred over the carrying value of bonds refunded on early extinguishment of debt are reported as Deferred outflows of resources and amortized as a component of interest expense using the effective interest method over the terms of the issues to which they pertain. See Note 9 Long-term Debt.

Deferred outflows of resources at December 31, 2018 and 2017 consisted of the following:

<i>(\$ in millions)</i>	2018	2017
Deferred outflows of resources:		
Unrealized contributions and losses related to pension	\$ 24.8	\$ 46.9
Unrealized contributions and losses related to OPEB	2.1	-
Charges on advance refunding	<u>31.0</u>	<u>36.3</u>
Total	<u>\$ 57.9</u>	<u>\$ 83.2</u>

9. LONG-TERM DEBT

At December 31, 2018 and 2017, the Department's long-term debt consisted of the following prior lien or parity bonds:

LONG-TERM <i>(\$ in millions)</i>	Rate	Maturity Year	Original Issuance	2018	2017
Prior Lien Bonds:					
2018C2 ML&P Refunding Revenue Bonds	variable rates	2046	\$ 49.2	\$ 48.6	-
2018C1 ML&P Refunding Revenue Bonds	variable rates	2046	49.2	48.6	-
2018B2 ML&P Refunding Revenue Bonds	variable rates	2045	50.1	50.1	-
2018B1 ML&P Refunding Revenue Bonds	variable rates	2045	50.1	50.1	-
2018A ML&P Improvement Revenue Bonds	4.000%–5.000%	2048	263.8	263.8	-
2017C ML&P Improvement and Refunding Revenue Bonds	4.000%–5.000%	2047	385.5	380.4	385.5
2017A ML&P Revenue Bonds	variable rates	2046	50.0	-	49.1
2017B ML&P Revenue Bonds	variable rates	2046	50.0	-	49.1
2016A ML&P Revenue Bonds	4.050% fixed	2041	31.9	31.9	31.9
2016B ML&P Refunding Revenue Bonds	4.000%–5.000%	2029	116.9	115.3	115.3
2016C ML&P Improvement and Refunding Revenue Bonds	4.000%–5.000%	2046	160.8	156.5	158.7
2015A ML&P Revenue Bonds	4.000%–5.000%	2045	171.9	155.0	161.1
2015B1 ML&P Adjustable Rate Revenue Bonds	variable rates	2045	50.0	-	50.0
2015B2 ML&P Adjustable Rate Revenue Bonds	variable rates	2045	50.0	-	50.0
2014 ML&P Improvement and Refunding Revenue Bonds	4.000%–5.000%	2044	265.2	216.4	232.2
2013 ML&P Improvement and Refunding Revenue Bonds	2.000%–5.000%	2043	190.8	175.4	178.7
2012A ML&P Improvement and Refunding Revenue Bonds	2.000%–5.000%	2041	293.3	225.8	243.9
2012C ML&P Clean Renewable Energy Bonds	3.400%–3.750%	2033	43.0	43.0	43.0
2011A ML&P Improvement and Refunding Revenue Bonds	1.000%–5.500%	2036	296.3	69.3	80.7
2011B ML&P Clean Renewable Energy Bonds	5.750%–5.750%	2027	10.0	10.0	10.0
2010A ML&P Build America Bonds	4.447%–5.570%	2040	181.6	181.6	181.6
2010B ML&P Improvement and Refunding Revenue Bonds	2.000%–5.000%	2026	596.9	246.5	290.3
2010C ML&P Recovery Zone Economic Development Bonds	5.590%–5.590%	2040	13.3	13.3	13.3
2008 ML&P Revenue and Refunding Revenue Bonds	4.000%–6.000%	2029	<u>257.4</u>	<u>10.0</u>	<u>21.1</u>
Total prior lien bonds			<u>\$ 3,677.2</u>	<u>\$ 2,491.6</u>	<u>\$ 2,345.5</u>

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

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The Department had the following activity in long-term debt during 2018 and 2017:

<i>(\$ in millions)</i>	Balance at 1/1/18	Additions	Reductions	Balance at 12/31/18	Current Portion
2018					
Prior Lien Bonds - fixed rate	\$ 2,147.3	\$ 263.8	\$ (117.0)	\$ 2,294.1	\$ 116.5
Prior Lien Bonds - variable rate	<u>198.2</u>	<u>198.8</u>	<u>(199.5)</u>	<u>197.5</u>	<u>2.9</u>
	\$ 2,345.5	\$ 462.6	\$ (316.5)	\$ 2,491.6	\$ 119.4
<i>(\$ in millions)</i>	Balance at 1/1/17	Additions	Reductions	Balance at 12/31/17	Current Portion
2017					
Prior Lien Bonds - fixed rate	\$ 2,018.1	\$ 385.5	\$ (256.3)	\$ 2,147.3	\$ 117.0
Prior Lien Bonds - variable rate	<u>100.0</u>	<u>100.0</u>	<u>(1.8)</u>	<u>198.2</u>	<u>1.8</u>
	\$ 2,118.1	\$ 485.5	\$ (258.1)	\$ 2,345.5	\$ 118.8

Prior Lien Bonds—In June 2018, the Department issued \$263.7 million of tax exempt Municipal Light and Power (ML&P) Improvement Revenue Bonds (2018A Bonds) and in September 2018 issued \$100.3 million of tax exempt variable rate Municipal Light and Power (ML&P) Revenue Refunding Revenue Bonds (2018B Bonds) and \$98.5 million of tax exempt Municipal Light and Power (ML&P) Revenue Refunding Bonds (2018C Bonds). The 2018A Bonds had coupon interest rates ranging from 4.00% to 5.00% and mature serially from January 1, 2019 through January 1, 2048. The 2018B term Bonds had coupon interest rates ranging from 1.77% to 2.00% during 2018 with term bonds maturing May 1, 2045. The 2018C Bonds had coupon interest rates ranging from 1.63% to 2.20% during 2018 and mature serially from November 1, 2020 to November 1, 2023 with term bonds maturing annually from November 1, 2018 to November 1, 2046. The 2018B&C Bonds bear interest at the adjusted Securities Industry and Financial Markets Association (SIFMA) interest rate which is the SIFMA index plus the Index floating rate spread. The arbitrage yield was 3.15% for the 2018A Bonds and 3.38% for the 2018B and 2018C Bonds. Arbitrage yield, when used in computing the present worth of all payments of principal and interest on the Bonds in the manner prescribed by the Internal Revenue Code, produces an amount equal to the issue price of the Bonds. Proceeds from the 2018A Bonds were used to finance certain capital improvement and conservation programs and to make a deposit to the reserve fund. Proceeds from the 2018B&C Bonds were used to refund \$100.0 million of the 2015B Bonds and \$98.2 million of the 2017A&B Bonds.

The debt service on the 2018A Bonds requires a cash flow over the life of the bonds of \$458.9 million, including \$195.1 million in interest, the debt service on the 2018B Bonds requires a cash flow over the life of the bonds of \$172.4 million, including \$72.1 million in interest, and the debt service on the 2018C Bonds requires a cash flow over the life of the bonds of \$162.5 million, including \$64.0 million in interest. The 2018B and 2018C Bonds refunded the 2015B and 2017A&B Bonds on a current basis and there was no savings or accounting gain or loss on the refunding. Refunding on a current basis is a refunding transaction where the municipal securities being refunded will all mature or be redeemed within 90 days or less from the date of issuance of the refunding issue.

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In January 2017 the Department issued \$100.0 million of tax exempt Municipal Light and Power (ML&P) Multi-Modal Revenue Bonds (2017A&B Bonds) and in September 2017 issued \$385.5 million of tax exempt Municipal Light and Power (ML&P) Improvement and Refunding Revenue Bonds (2017C Bonds). The 2017A&B Bonds had coupon interest rates ranging from .97% to 1.38% during 2017 and mature serially from November 1, 2017 to November 1, 2046. The 2017A&B Multi-Modal Bonds bear interest rates at variable rates that fluctuate based on the London Interbank Offered Rate (LIBOR) plus a certain number of basis points. The 2017C Bonds had coupon interest rates ranging from 4.00% to 5.00% and mature serially from September 1, 2018 through September 1, 2043 with term bonds maturing annually from September 1, 2044 to September 1, 2047. The arbitrage yield was 4.033% for the 2017A&B Bonds and 2.63% for the 2017C Bonds. Arbitrage yield, when used in computing the present worth of all payments of principal and interest on the Bonds in the manner prescribed by the Internal Revenue Code, produces an amount equal to the issue price of the Bonds. Proceeds from the 2017A&B Bonds were used to finance certain capital improvement and conservation programs. Proceeds from the 2017C Bonds were used to refund \$145.1 million of the 2011A Bonds, to finance certain capital improvement and conservation programs, and to make a deposit to the reserve fund.

The debt service on the 2017A&B Bonds requires a cash flow over the life of the bonds of \$172.6 million, including \$72.6 million in interest, and the debt service on the 2017C Bonds requires a cash flow over the life of the bonds of \$656.7 million, including \$271.2 million in interest. The difference between the cash flows required to service the old and new debt and to complete the refunding for the 2017C Bonds totaled \$21.5 million and the aggregate economic gain on refunding totaled \$18.9 million at present value. The accounting loss on refunding for the 2017C Bonds was \$11.0 million.

The Department has certain bonds outstanding that provide a refundable tax credit, or federal subsidy, paid to state or local governmental issuers by the U.S. Treasury. The amount of the federal subsidy is equal to the lesser of the amount of interest payable based on the coupon interest rate or a percentage of the amount of interest payable based on the tax credit rate on the sale date with respect to those bonds. This federal subsidy ultimately results in a net decrease to debt service, although debt service payments are paid gross. The federal subsidies are recorded as nonoperating revenues on the statements of revenues, expenses, and changes in net position.

Federal Sequestration—The sequestration provisions of the Budget Control Act of 2011 went into effect on March 1, 2013. The only direct impact of sequestration on the Department for 2018 was a 6.6% reduction through the end of the federal fiscal year (FFY) ending September 30, 2018 at which time the automatic reductions were adjusted to 6.2% in the amount the Department expects to receive from the federal government in connection with its Municipal Light and Power Revenue Bonds, 2010A (Taxable Build America Bonds—Direct Payment); Municipal Light and Power Revenue Bonds, 2010C (Taxable Recovery Zone Economic Development Bonds—Direct Payment); Municipal Light and Power Improvement Revenue Bonds, 2011B (Taxable New Clean Renewable Energy Bonds—Direct Payment); Municipal Light and Power Improvement Revenue Bonds, 2012C (Taxable New Clean Renewable Energy Bonds—Direct Payment); and Municipal Light and Power Revenue Bonds, 2016A (Taxable New Clean Renewable Energy Bonds—Direct Payment). Because of this reduction, the Department received \$0.4 million less in interest subsidies than originally anticipated for 2018. The Department has sufficient revenues to pay the interest without these subsidies. The effect for the accrual of federal subsidies as of December 31, 2018 was inconsequential. The effect during 2019 is estimated to be lower federal subsidies by approximately \$0.4 million. The effect thereafter for federal subsidies is indeterminable. Sequestration was originally in effect through FFY 2021 and has subsequently been extended through FFY 2024.

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Debt service requirements for prior lien bonds, excluding federal subsidies for the 2016, 2012, 2011 and 2010 bonds are shown in the table below. Future debt service requirements on the variable 2018B and 2018C Bonds are estimated based on actual interest rates in effect as of December 31, 2018.

(\$ in millions)

Years Ending December 31	Fixed Rate Bonds		Variable Rate Bonds		Total
	Principal Redemptions	Interest Requirements	Principal Redemptions	Interest Requirements	
2019	\$ 116.5	\$ 103.8	\$ 2.9	\$ 4.1	\$ 227.3
2020	116.5	97.5	2.5	4.1	220.6
2021	116.0	92.1	2.1	4.0	214.2
2022	115.8	86.4	2.1	4.0	208.3
2023	118.1	80.5	2.2	3.9	204.7
2024 – 2028	499.7	318.6	23.0	18.5	859.8
2029 – 2033	333.6	224.6	35.8	15.3	609.3
2034 – 2038	372.2	148.0	43.6	11.2	575.0
2039 – 2043	337.7	69.4	53.3	6.2	466.6
2044 – 2048	168.0	15.2	30.0	0.9	214.1
Total	<u>\$ 2,294.1</u>	<u>\$ 1,236.1</u>	<u>\$ 197.5</u>	<u>\$ 72.2</u>	<u>\$ 3,799.9</u>

Reserve Fund—The Department has created and is required under Ordinance No. 125459 (Bond Ordinance) to maintain a Reserve Fund for the purpose of securing the payment of the principal of and interest on all Parity Bonds outstanding and all amounts due under Parity Payment Agreements. The Reserve Fund is a pooled reserve and is an account within the books of the Department.

Reserve Fund Requirement—Under the Bond Ordinance, the aggregate Reserve Fund Requirement for all Parity Bonds is equal to the sum of the Reserve Fund Requirements established for each issue of Parity Bonds outstanding. The Bond Ordinance permits the City to establish the Reserve Fund Requirement (if any) for each issue of the Bonds or of Future Parity Bonds in connection with approving the sale of each such issue. Solely for purposes of setting the Reserve Fund Requirement, all series issued together under a single bond sale resolution are treated as a single “issue”. Upon issuance of the 2018B and 2018C Bonds, the aggregate Reserve Fund Requirement for all Parity Bonds outstanding was \$152.5 million. The Reserve Fund Requirement is satisfied by deposits of \$79.9 million in cash held in the Reserve Fund and \$72.6 million from the surety bond (see below). The reserve fund balance of \$128.1 million at December 31, 2018 consisted of the \$79.9 million in cash as noted above, \$35.9 million in surety bond replacement funds, and a \$12.3 million deposit from the 2018A bond proceeds. The reserve fund balance at December 31, 2017 of \$103.6 million consisted of \$67.6 million in cash, \$30.7 million in surety bond replacement funds, and a \$5.3 million deposit from the 2017C bond proceeds.

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Surety Bond—Under the Bond Legislation, the City is permitted to provide for the Reserve Fund Requirement with an Alternate Reserve Security consistent with the Bond Legislation requirements. Under the Bond Legislation, a surety bond qualifies as Qualified Insurance for purposes of satisfying the Reserve Fund Requirement if the provider’s ratings are in one of the top two rating categories at the time the policy is issued. The Bond Legislation does not require that the Reserve Fund be funded with cash or an Alternate Reserve Security if the provider of qualified insurance is subsequently downgraded. The City currently has a surety bond (the “Surety Bond”) purchased from Assured Guaranty Municipal Corporation (AGM), with a policy limit that is equal to \$72.6 million. This amount is used to satisfy a large proportion of the aggregate Reserve Fund Requirement.

AGM is currently rated A2 and AA by Moody’s Investors Service and Standard & Poor’s Ratings Services, respectively.

Irrevocable Trust Accounts—\$198.2 million of the proceeds of the 2018B and 2018C refunding revenue Bonds were placed in a separate irrevocable trust account to refund the 2015B and 2017A&B Bonds on a current basis. There were balances outstanding in the irrevocable trust account during 2018 for prior lien bonds advance refunded or defeased with the 2017 bonds and balances outstanding for prior lien bonds advance refunded prior to 2018. The outstanding principal balance of all bonds defeased through 2018 and 2017 was \$299.9 million as of December 31, 2018 and December 31, 2017, respectively. During 2018, none of the defeased bonds were called and paid from the 2017 irrevocable trust account. The irrevocable trust account established in 2018 paid in full the refunded 2015B and 2017A&B Bonds. Neither the assets of the trust accounts nor the liabilities for the defeased bonds are reflected in the Department’s financial statements. Funds held in the 2017 irrevocable trust account at December 31, 2018 are sufficient to service and redeem the defeased bonds outstanding.

Bond Ratings—The 2018 and 2017 Bonds, along with other outstanding parity bonds, were rated “Aa2” and “AA”; and “Aa2” and “AA”, by Moody’s Investors Service, Inc. and Standard Poor’s Rating Services, respectively.

Revenue Pledged—Revenue bonds are special limited obligations payable from and secured solely by the gross revenues of the Department, less charges for maintenance and operations, and by money in the debt service account and Reserve Fund. Principal and interest paid during 2018 and 2017 was \$219.0 million and \$209.3 million, respectively. Total revenue available for debt service as defined for the same periods was \$388.4 million and \$376.8 million, respectively. Annual interest and principal payments are expected to require 58.4% of revenues available for debt service for 2019 and required 58.0% in 2018.

Federal Arbitrage Regulations—Revenue bonds are subject to federal arbitrage regulations and the Department has complied with these regulations. The balance of federal arbitrage rebate liability was \$0.4 million as of December 31, 2018 and 2017.

Other—There were no liens on property or revenue pertaining to parity bonds and all bond covenants were in compliance for the Department’s prior lien bonds as of December 31, 2018 and 2017, respectively.

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Fair Value—Debt is recorded and presented in the financial statements at carrying value net of premiums and discounts and shown below with fair values as provided by the Department’s financial advisor, Piper Jaffray & Company. The fair value for the Department’s bonds are estimated based on the quoted market prices for the same or similar issues or on the current rates offered to the Department for debt of the same remaining maturities. Carrying amounts and fair values at December 31, 2018 and 2017, were as follows:

(\$ in millions)	2018		2017	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Long-term debt:				
Prior lien bonds	\$ 2,684.3	\$ 2,645.2	\$ 2,536.2	\$ 2,551.3

Amortization—Discounts and premiums are amortized using the effective interest method over the term of the bonds.

The excess of costs incurred over the carrying value of bonds refunded on early extinguishment of debt is amortized as a component of interest expense using the effective interest method over the terms of the issues to which they pertain. Charges on advance refunding amortized to interest expense totaled \$5.3 million in 2018 and \$4.9 million in 2017. Charges on advance refunding in the amount of \$31.0 million and \$36.3 million are included as a component of Deferred Outflows of Resources on the 2018 and 2017 balance sheets, respectively.

10. NONCURRENT LIABILITIES—The Department had the following activities during 2018 and 2017:

(\$ in millions)	2018			2017				
	Balance at 1/1/18	Additions	Reductions	Balance at 12/31/18	Balance at 1/1/17	Additions	Reductions	Balance at 12/31/17
2018								
Net pension liability	\$ 288.8	\$ -	\$ (56.3)	\$ 232.5	\$ 317.8	\$ -	\$ (29.0)	\$ 288.8
Accumulated provision for injuries and damages	96.1	16.4	(3.6)	108.9	92.0	4.7	(0.6)	96.1
Compensated absences	15.7	1.1	(1.8)	15.0	15.8	-	(0.1)	15.7
Other	9.0	0.4	-	9.4	8.0	1.0	-	9.0
Total	<u>\$ 409.6</u>	<u>\$ 17.9</u>	<u>\$ (61.7)</u>	<u>\$ 365.8</u>	<u>\$ 433.6</u>	<u>\$ 5.7</u>	<u>\$ (29.7)</u>	<u>\$ 409.6</u>
2017								
Net pension liability	\$ 288.8	\$ -	\$ (56.3)	\$ 232.5	\$ 317.8	\$ -	\$ (29.0)	\$ 288.8
Accumulated provision for injuries and damages	108.9	16.4	(3.6)	121.7	92.0	4.7	(0.6)	96.1
Compensated absences	15.0	1.1	(1.8)	14.3	15.8	-	(0.1)	15.7
Other	9.4	0.4	-	9.8	8.0	1.0	-	9.0
Total	<u>\$ 365.8</u>	<u>\$ 17.9</u>	<u>\$ (61.7)</u>	<u>\$ 322.0</u>	<u>\$ 433.6</u>	<u>\$ 5.7</u>	<u>\$ (29.7)</u>	<u>\$ 409.6</u>

Additional information on the Net pension liability can be found in Note 13 Seattle City Employees’ Retirement System. Information about the provision for injuries and damages can be found in Note 11 Provision for Injuries and Damages and Note 15 Environmental Liabilities. Other includes primarily a liability for Other Postemployment Benefits; see Note 14 Other Postemployment Benefits.

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11. PROVISION FOR INJURIES AND DAMAGES

The Department establishes liabilities for claims based on estimates of the ultimate projected cost of claims. Environmental related expenses are discussed in Note 15 Environmental Liabilities. The length of time for which such costs must be estimated varies depending on the nature of the claim. Actual claims costs depend on such factors as inflation, changes in doctrines of legal liability, damage awards, and specific incremental claim adjustment expenses. Claims liabilities are recomputed periodically using actuarial and statistical techniques to produce current estimates, which reflect recent settlements, claim frequency, industry averages, City-wide cost allocations, and economic and social factors. For 2018 and 2017, liabilities for lawsuits, claims, and workers' compensation were discounted over a period of 26 to 31 years at the City's average annual rate of return on investments, which was 1.70% and 1.45%, respectively.

To address the risk for certain losses arising from personal and property damage claims by third parties and for job-related illnesses and injuries to employees, the Department as part of the City of Seattle, has been self-insured for most of its general liability risks, for workers' compensation, and for employees' health care benefits. Effective June 1, 2018, the City had general liability insurance coverage for losses over a \$6.5 million self-insured retention per occurrence with a \$135 million limit per occurrence in the aggregate. Prior to June 1, 2018, the City had general liability insurance coverage for losses over a \$6.5 million self-insured retention per occurrence with an \$85 million limit per occurrence in the aggregate. The Department had no settled claims exceeding coverage in the last three years.

The City also purchased an all risk comprehensive property insurance policy that provides \$500.0 million in limits subject to various deductible levels depending on the type of asset and value of the building. This includes \$100.0 million in earthquake and flood limits. Hydroelectric and certain other utility producing and processing projects are not covered by the property policy. The City also purchased insurance for excess workers' compensation, fiduciary and crime liability, inland marine transportation, volunteers, and an assortment of commercial general liability, medical, accidental death and dismemberment, and miscellaneous policies. Bonds are purchased for public officials, public notaries, pension exposures, and specific projects and activities as necessary.

The changes in the provision for injuries and damages at December 31, 2018 and 2017 are as follows:

<i>(\$ in millions)</i>	2018	2017
Beginning unpaid claims liability	\$ 14.3	\$ 14.0
Payments	(2.2)	(4.7)
Incurred claims	<u>(2.0)</u>	<u>5.0</u>
Ending unpaid claims liability	<u>\$ 10.1</u>	<u>\$ 14.3</u>

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The provision for injuries and damages included in current and noncurrent liabilities at December 31, 2018 and 2017 is as follows:

(\$ in millions)	2018	2017
Noncurrent liabilities	\$ 6.8	\$ 10.3
Accounts payable and other current liabilities	<u>3.3</u>	<u>4.0</u>
Total liability	<u>\$ 10.1</u>	<u>\$ 14.3</u>

12. ACCOUNTS PAYABLE

Accounts Payable and Other Current Liabilities—The composition of accounts payable and other current liabilities at December 31, 2018 and 2017, is as follows:

(\$ in millions)	2018	2017
Vouchers payable	\$ 35.6	\$ 34.8
Power accounts payable	25.6	23.1
Taxes payable	8.3	10.0
Claims payable	8.9	10.9
Guarantee deposit and contract retainer	28.1	20.8
Other accounts payable	<u>5.9</u>	<u>2.5</u>
Total	<u>\$ 112.4</u>	<u>\$ 102.1</u>

13. SEATTLE CITY EMPLOYEES' RETIREMENT SYSTEM

Plan Description—The Seattle City Employees' Retirement System (SCERS) is a cost-sharing multiple-employer defined benefit public employee retirement system, covering employees of the City and administered in accordance with Chapter 41.28 of the Revised Code of Washington and Chapter 4.36 of the Seattle Municipal Code. SCERS is a pension trust fund of the City. SCERS is administered by the Retirement System Board of Administration (the Board). The Board consists of seven members including the Chair of the Finance Committee of the Seattle City Council, the City of Seattle Finance Director, the City of Seattle Personnel Director, two active members and one retired member of the System who are elected by other system members, and one outside board member who is appointed by the other six board members. Elected and appointed board members serve for three-year terms.

All employees of the City are eligible for membership in SCERS with the exception of uniformed police and fire personnel who are covered under a retirement system administered by the State of Washington. Employees of the King County Departments of Transportation and Public Health who established membership in SCERS when these organizations were City departments were allowed to continue their SCERS membership.

Beginning with employees with hire dates of January 1, 2017 or later, all new members are enrolled in SCERS Plan II, which has contribution and benefit calculation rates different than the original SCERS I Plan.

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Following is membership data for employees covered by the benefit terms as of the reporting date, December 31, 2018, and the measurement date, December 31, 2017 and the reporting date December 31, 2017, and the measurement date December 31, 2016:

	2018	2017
Active members	9,390	9,283
Retired members and beneficiaries receiving benefits	6,792	6,534
Vested terminated employees entitled to benefits	1,332	1,312

Summary of Significant Accounting Policies—SCERS financial statements and schedules are presented using the economic resources measurement focus and the accrual basis of accounting. For purposes of measuring the net pension liability (NPL), deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of SCERS and additions to and deductions from SCERS fiduciary net position have been determined on the same basis as they are reported by SCERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value in accordance with GASB 72.

The NPL was measured as of December 31, 2017 and December 31, 2016, and the total pension liability used to calculate the NPL was based on an actuarial valuation as of January 1, 2017 and January 1, 2016, respectively.

Pension Benefits—Service retirement benefits are calculated on the basis of age, salary, and service credit.

SCERS I – Members are eligible for retirement benefits after 30 years of service, at age 52 after 20 years of service, at age 57 after 10 years of service, and at age 62 after 5 years of service. Annual retirement benefits are calculated as 2% multiplied by years of creditable service, multiplied by average salary, based on the highest 24 consecutive months, excluding overtime. Members who retire before meeting the age and/or years of service requirement receive a 0.1% reduction for each year that retirement precedes the date of eligibility. Retirement benefits vest after 5 years of credited service.

SCERS II – Members are eligible for retirement benefits at age 55 after 20 years of service, at age 57 after 10 years of service, and at age 60 after 5 years of service. Annual retirement benefits are calculated as 1.75% multiplied by years of creditable service, multiplied by average salary, based on the highest 60 consecutive months, excluding overtime. Members who retire before meeting the age and/or years of service requirement receive a 0.1% reduction for each year that retirement precedes the date of eligibility. Retirement benefits vest after 5 years of credited service.

Disability Benefits—An active member is eligible to receive disability benefits when: (a) member has achieved 10 years of credited service within the 15 years preceding disability retirement, or (b) the disability occurs in the course of City employment in which no service requirement exists. The amount of the disability benefit is the greater of (a) 1.5% times the final compensation times completed years of creditable service, or (b) 1.5% times final compensation total years of service that could have been earned to age 62, but not to exceed one-third of final compensation. Disability benefits vest after 10 years of credited service.

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Death Benefits—Death benefits may be paid to a member’s designated beneficiary. If a member’s death occurs before retirement, the benefit options available are (a) payment to the beneficiary of accumulated contributions, including interest, or (b) if the member had completed 10 years of service at the time of death, a surviving spouse or registered domestic partner may elect to receive, in place of (a) above, either: (1) A monthly allowance for life equal to the benefit the spouse would have received had the member just retired with a 100% contingent annuitant option in force, or (2) A cash payment of no more than one-half of the member’s accumulated contributions, along with a correspondingly reduced retirement allowance. If a member’s death occurs after retirement, the death benefit received by the beneficiary (if any) is based on the retirement plan the member selected at retirement. Death benefits vest after 10 years of credited service.

Contributions—Member and employer contributions rates are established by Seattle Municipal Code Chapter 4.436. The overall contribution rate is determined by the actuarial formula identified as the Entry Age Cost Method. Member contribution rates are also set via collective bargaining contracts. The overall formula determines the amount of contributions necessary to fund the current service cost, representing the estimated amount necessary to pay for benefits earned by the employees during the current service year and the amount of contributions necessary to pay for prior service costs. Total required contributions, including amounts necessary to pay administrative costs, are determined through annual actuarial valuations. Contribution rates and amounts were as follows as of the reporting dates, December 31, 2018 and December 31, 2017, and the measurement dates, December 31, 2017 and December 31, 2016:

(\$ in millions)

	Contributions					
	Rates				Amounts	
	SCERS I Employer	SCERS I Employee	SCERS II Employer	SCERS II Employee	City	Department
2018	15.23%	10.03%	14.42%	7.00%	\$117.7	\$24.7
2017	15.29%	10.03%	14.42%	7.00%	\$112.1	\$23.7

Net Pension Liability—The Department reported a liability of \$232.5 million and \$288.8 million for its proportionate share of net pension liability as of December 31, 2018 and December 31, 2017, respectively. The Department’s proportion of the NPL as of December 31, 2018 and December 31, 2017 was based on contributions to SCERS during the fiscal year ended December 31, 2017 and December 31, 2016, respectively. The Department’s proportionate share was 21.00% and 22.13% for the years ended December 31, 2017 and December 31, 2016, respectively. The net pension liability was measured as of December 31, 2017 and December 31, 2016, and the total pension liability used to calculate the net pension liability was based on an actuarial valuation as of January 1, 2017 and January 1, 2016, respectively.

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NOTES TO FINANCIAL STATEMENTS

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Changes in Net Pension Liability

(\$ In millions)

	Fiscal Year Ended December 31	
	2018	2017
<u>Total Pension Liability</u>		
Service cost	\$ 23.6	\$ 23.6
Interest on total pension liability	59.1	59.3
Effect of economic/demographic gains or losses	(6.1)	(1.7)
Benefit payments	(37.6)	(37.4)
Refund of contributions	(4.0)	(3.7)
Net change in total pension liability	<u>35.0</u>	<u>40.1</u>
Total pension liability, beginning of period	839.5	883.5
Effect of change in proportionate share	(42.9)	(84.1)
Adjusted total pension liability, beginning of period	<u>796.6</u>	<u>799.4</u>
Total pension liability, end of period	<u>831.6</u>	<u>839.5</u>
<u>Plan fiduciary net position</u>		
Benefit payments	(37.6)	(37.4)
Refunds of contributions	(4.0)	(3.7)
Administrative expenses	(2.5)	(2.0)
Member contributions	15.4	15.9
Employer contributions	23.5	24.0
Net investment income	81.7	42.0
Net change in Plan fiduciary net position	<u>76.5</u>	<u>38.8</u>
Plan fiduciary net position, beginning of period	550.7	565.7
Effect of change in proportionate share	(28.1)	(53.8)
Adjusted fiduciary net position, beginning of period	<u>522.6</u>	<u>511.9</u>
Plan fiduciary net position, end of period	<u>599.1</u>	<u>550.7</u>
Net pension liability, end of period	<u>\$ 232.5</u>	<u>\$ 288.8</u>

The Department incurred pension expense of \$21.8 million and \$37.1 million for the years ended December 31, 2018, and 2017, respectively.

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Actuarial assumptions—The total pension liability at December 31, 2018 and 2017, was based on actuarial valuations as of December 31, 2017 and 2016, respectively, using the following actuarial methods and assumptions:

Actuarial Cost Method	Individual Entry Age Normal
Amortization Method	
Level percent or level dollar	Level percent
Closed, open, or layered periods	Closed
Amortization Period and Start Date	30 years as of January 1, 2013 Valuation
Amortization Growth Rate	4.00%
Asset Valuation Method	
Smoothing period	5 years
Recognition method	Non-asymptotic
Corridor	None
Inflation	3.25%
Investment Rate of Return	7.50%
Post-retirement benefit increases	1.50%
Cost-of-living year-end bonus dividend	0.00%
Mortality	Various rates based on RP-2000 mortality tables and using generational projection of improvement using Projection Scale AA.

All other actuarial assumptions used in the December 31, 2017 valuation were based on the results of an actuarial experience study for the period January 1, 2010 through December 31, 2013, including updates to salary increase, mortality and retirement rates.

Discount Rate—The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and the participating governmental entity contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on those assumptions, the pension plan's 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 on pension plan investments was applied to all periods on projected benefit payment to determine the total pension liability.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and gross of administrative expenses) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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The following table reflects long-term expected (30 year) real rate of return by asset class. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation. The expected inflation rate is projected at 3.25% for the same period.

Asset Category	Target Allocation	Long-Term Expected Real Rate of Return
Equity		
Public Equity	48.0%	4.94%
Private Equity	9.0%	6.25%
Fixed Income		
Core Fixed Income	16.0%	0.42%
Credit Fixed Income	7.0%	3.30%
Real Assets		
Real Estate	12.0%	3.66%
Infrastructure	3.0%	3.00%
Diversifying Strategies	5.0%	3.09%

Sensitivity of the Net Pension Liability to Changes in the Discount Rate—The following presents the Department’s proportionate share of the net pension liability of SCERS, calculated using a discount rate of 7.50%, as well as what the Department’s proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1 percentage point lower (6.50%) or 1 percentage point higher (8.50%):

Discount Rate Sensitivity

(In millions)

<u>Discount Rate</u>	<u>Net Pension Liability at December 31,</u>	
	<u>2018</u>	<u>2017</u>
1% decrease - 6.50%	\$ 333.2	\$ 390.9
Current discount Rate - 7.50%	232.5	288.8
1% increase - 8.50%	147.8	203.0

Plan Fiduciary Net Position—Detailed information about the SCERS’s fiduciary net position is available in the separately issued, audited financial statements as of December 31, 2018, which are publicly available at <http://www.seattle.gov/retirement/about-us/board-of-administration>.

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Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pension—The following table presents information about the pension-related deferred outflows of resources and deferred inflows of resources for the Department at December 31, 2018, and December 31, 2017:

(\$ in millions)	December 31,	
	2018	2017
<u>Deferred outflows of resources</u>		
Differences between expected and actual experience	\$ 0.2	\$ 0.3
Net difference between projected and actual earnings	-	22.9
Contributions made subsequent to measurement date	24.7	23.7
Total deferred outflows of resources	\$ 24.9	\$ 46.9
<u>Deferred inflows of resources</u>		
Differences between expected and actual experience	\$ 6.0	\$ 1.4
Net difference between projected and actual earnings	20.5	-
Differences between employer contributions and proportionate share of contributions	28.6	22.4
Total deferred inflows of resources	\$ 55.1	\$ 23.8

Department contributions made in 2018 in the amount of \$24.7 million are reported as deferred outflows of resources and will be recognized as a reduction of the net pension liability in the year ended December 31, 2019. These contributions along with the net difference between projected and actual earnings reported as deferred outflows of resources will be recognized as pension expense in the future as shown in the following table. Department contributions made in 2017 in the amount of \$23.7 million were previously reported as deferred outflows of resources and are recognized as a reduction of the net pension liability in the year ended December 31, 2018. Note that additional future deferred outflows and inflows of resources may impact these amounts.

Year Ending December 31	Amortization
(\$ in millions)	
2019	\$ (9.3)
2020	(11.1)
2021	(18.0)
2022	(14.7)
2023	(1.8)
Total	\$ (54.9)

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14. OTHER POSTEMPLOYMENT BENEFITS

Plan Description – Health care plans for active and retired employees are administered by the City of Seattle as single-employer defined benefit public employee health care plans.

Employees retiring under the City may continue their health insurance coverage under the City’s health insurance plans for active employees. When a retired participant dies, the spouse remains fully covered until age 65 and covered by the Medicare supplement plan thereafter. Employees that retire with disability retirement under the City may continue their health coverage through the City with same coverage provisions as other retirees. Eligible retirees self-pay 100 percent of the premium based on blended rates which were established by including the experience of retirees with the experience of active employees for underwriting purposes. The postemployment benefit provisions are established and may be amended by ordinance of the Seattle City Council and as provided in Seattle Municipal Code 4.50.020. The City provides an implicit rate subsidy of the post-retirement health insurance costs and funds the subsidy on a pay-as-you-go basis. The City of Seattle covers 11,823 active employee plan participants and 398 retiree, disabled, and survivor plan participants as of the January 1, 2018 measurement date.

In 2018 the Department implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* which concerns the accounting for and disclosure of other postemployment benefits. See Note 21, Implementation of New Accounting Standards, for more information regarding the implementation and financial impact on the Department’s financial statements.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. Calculations are based on the types of benefits provided under the terms of the substantive plan at the time of each valuation and on the pattern of sharing of costs between the employer and plan members to that point. The projection of benefits for financial reporting purposes does not explicitly incorporate the potential effects of legal or contractual funding limitations on the pattern of cost sharing between the employer and plan members in the future. Actuarial calculations reflect a long-term perspective. Consistent with that perspective, actuarial methods and assumptions used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets. Based on the latest biennial actuarial valuation date the significant methods and assumptions are as follows:

Actuarial data and assumptions – the demographic assumptions of mortality, termination, retirement, and disability are set equal to the assumptions used for City pension actuarial valuations based on a Seattle City Employees’ Retirement System Experience Report for the period 2014-2017.

Valuation date	January 1, 2018
Actuarial cost method	Entry age normal
Amortization method	Level dollar
Discount rate	3.44%
Health care cost trend rates—medical:	7.00% in 2018, decreasing to 6.77% in 2019, and decreasing by varying amounts until 2030 thereafter.
Health care cost trend rates—Rx:	10.00% in 2018, decreasing to 9.50% in 2019, and decreasing by varying amounts until 2030 thereafter.

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Participation 25% of Active Employees who retire participate

Mortality

General Service (Actives)

Males: RP-2014 Employees Table for Males, adjusted by 60%.

Females: RP-2014 Employees Table for Females, adjusted by 95%

Rates are projected generationally using Scale MP-2014 ultimate rates

General Service (Retirees)

Males: RP-2014 Healthy Annuitant Males, adjusted by 95%

Females: RP-2014 Healthy Annuitant Females, adjusted by 95%

Rates are projected generationally using Scale MP-2014 ultimate rates

Marital status – 35% of members electing coverage: married or have a registered domestic partner. Male spouses two years older than their female spouses.

Health Care Claims Development – The sample per capita claim cost assumptions shown below by age, benefit, and plan represent the true underlying baseline experience estimated for the City of Seattle’s sponsored postretirement benefits and costs.

Age	Aetna Preventive Plan			Aetna Traditional Plan		
	Medical	Rx	Admin	Medical	Rx	Admin
50	\$9,368	\$2,621	\$465	\$9,599	\$2,731	\$465
52	\$10,191	\$2,852	\$465	\$10,443	\$2,970	\$465
55	\$11,563	\$3,236	\$465	\$11,849	\$3,370	\$465
57	\$12,603	\$3,527	\$465	\$12,914	\$3,673	\$465
60	\$14,341	\$4,013	\$465	\$14,694	\$4,180	\$465
62	\$15,452	\$4,324	\$465	\$15,832	\$4,504	\$465

Age	Group Health Deductible			Group Health Standard		
	Medical	Rx	Admin	Medical	Rx	Admin
50	\$4,534	\$1,215	\$734	\$4,285	\$1,097	\$734
52	\$4,932	\$1,321	\$734	\$4,661	\$1,193	\$734
55	\$5,596	\$1,499	\$734	\$5,288	\$1,353	\$734
57	\$6,099	\$1,634	\$734	\$5,764	\$1,475	\$734
60	\$6,939	\$1,859	\$734	\$6,559	\$1,679	\$734
62	\$7,476	\$2,004	\$734	\$7,067	\$1,810	\$734

The average medical/Rx per capita claims costs were developed from calendar year 2019 fully insured premium rates for Aetna plans or self-funded premium-equivalent rates for Group Health (acquired by Kaiser Permanente in 2017) plans. Premium or premium-equivalent rates were provided by the City of Seattle’s health pricing actuary. The average medical/Rx per capita claims costs were trended to the mid-point of the annual period following the valuation date. Average medical/ Rx per capita claims costs were then age-adjusted based on the demographics of the population, and the assumed health care aging factors shown in the morbidity factors table below.

For the Aetna plans only, the average medical/Rx per capita claims costs were blended with the 2017 medical/Rx per capital developed claims cost trended forward to the valuation date.

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Morbidity Factors – The claim costs for medical and prescription drugs were assumed to increase with age according to the table below.

Age	Medical	Rx	Composite
40-44	3.0%	4.8%	3.3%
45-49	3.7%	4.7%	3.8%
50-54	4.2%	4.7%	4.3%
55-59	4.4%	4.6%	4.4%
60-64	3.7%	4.6%	3.8%
65-69	2.7%	3.8%	3.1%
70-74	1.8%	2.5%	2.1%
75-79	2.2%	0.8%	1.4%
80-84	2.8%	0.2%	1.3%
85-89	1.4%	0.1%	0.6%
90+	0.0%	0.0%	0.0%

Other Considerations – Active employees with current spouse and/or dependent coverage elect same plan and coverage. After retirement, it is assumed that children will have aged off of coverage and will have \$0 liability.

Net OPEB Liability – The department reported an OPEB liability of \$8.9 million in 2018. The Department’s proportionate share of the OPEB liability was 14.61% for the year ended December 31, 2018. Based on the actuarial valuation date of January 1, 2018, details regarding the Department’s Total OPEB Liability, Plan Fiduciary Net Position, and Net OPEB Liability as of December 31, 2018 are shown below.

Changes in Net OPEB Liability

(\$ in millions)	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Changes recognized for the fiscal year:			
Service cost	\$ 0.5	N/A	\$ 0.5
Interest on the total OPEB liability	0.4	N/A	0.4
Differences between expected and actual experience	2.0	N/A	2.0
Changes of assumptions	(3.3)	N/A	(3.3)
Benefit payments	(0.3)	(0.3)	-
Contributions from the Employer	-	0.3	(0.3)
Net Changes	(0.7)	-	(0.7)
Balance recognized at 12/31/2017	9.6	-	9.6
Balance recognized at 12/31/2018	\$ 8.9	\$ -	\$ 8.9

The Department recorded an expense for OPEB of \$0.8 million in 2018. The Health Care Subfund of the General Fund is reported in The City of Seattle’s Comprehensive Annual Financial Report.

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Discount Rate and Healthcare Cost Trend Rates – The discount rate used to measure the total OPEB liability for is 3.44% for 2018. The following tables present the sensitivity of net OPEB liability calculation to a 1% increase and a 1% decrease in the discount rate used to measure the total OPEB liability:

Discount Rate Sensitivity	
<i>(In millions)</i>	
<u>Discount Rate</u>	Net OPEB Liability at December 31, 2018
1% decrease - 2.44%	\$ 9.8
Current discount Rate - 3.44%	8.9
1% increase - 4.44%	8.1

The following table presents the sensitivity of net Health Plan OPEB liability calculation to a 1% increase and a 1% decrease in the healthcare cost trend rates used to measure the total Health Plan OPEB liability:

Healthcare Cost Trend Rate Sensitivity	
<i>(In millions)</i>	
<u>Discount Rate</u>	Net OPEB Liability at December 31, 2018
1% decrease	\$ 7.9
Trend rate	8.9
1% increase	10.1

Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB – The following table presents information about the OPEB-related deferred outflows of resources and deferred inflows of resources for the Department at December 31, 2018.

<i>(\$ in millions)</i>	Deferred Outflows	Deferred Inflows
Difference between actual and expected experience	\$ 1.8	\$ -
Assumption changes	-	2.9
Contributions made in 2018 after measurement date	0.3	N/A
Total	<u>\$ 2.1</u>	<u>\$ 2.9</u>

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Department contributions made in 2018 in the amount of \$0.3 million are reported as deferred outflows of resources and will be recognized as a reduction of the net OPEB liability in the year ended December 31, 2019. These contributions will be recognized in the future as shown in the following table. Note that additional future deferred outflows and inflows of resources may impact these amounts.

Year Ending December 31 <i>(\$ in millions)</i>	Amortization
2019	\$ (0.1)
2020	(0.2)
2021	(0.1)
2022	(0.2)
2023	(0.1)
Total Thereafter	<u>(0.4)</u>
Total	<u>\$ (1.1)</u>

Following are the disclosures for December 31, 2017 under GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions*.

Based on the actuarial valuation date of January 1, 2017, the City’s annual cost for fiscal years ended December 31, 2017, the amount of expected contribution to the plan, and changes in net obligation are as follows:

<i>(\$ in millions)</i>	2017
Annual required contribution	\$ 8.1
Interest on net OPEB obligation	1.7
Adjustment to annual required contribution	<u>(2.8)</u>
Annual OPEB cost (expense)	7.0
Expected contribution (employer-paid benefits)	<u>(2.3)</u>
Increase in net OPEB obligation	4.7
Net OPEB obligation - beginning of the year	<u>54.1</u>
Net OPEB obligation - end of year	<u>\$ 58.8</u>

The department reported an OPEB liability of \$8.6 million in 2017. The Department’s proportionate share of the OPEB liability was 14.64% for the year ended December 31, 2017. The Department’s portion of the expected contribution was \$0.3 million. The Department recorded an OPEB expense of \$0.7M in 2017.

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The schedules of funding progress (\$ in millions) (unaudited) are as follows:

Actuarial Valuation Date January 1	Actuarial Value of Assets (A)	Actuarial Accrued Liabilities (AAL) Entry Age (B)	Unfunded AAL (UAAL) (B-A)	Funding Ratio (A/B)	Covered Payroll (C)	UAAL as a Percentage of Covered Payroll ((B-A)/C)
2014	-	\$ 41.8	\$ 41.8	-	\$ 1,004.0	4.2 %
2016	-	65.7	65.7	-	1,125.7	5.8

Actuarial data and assumptions

Valuation date	January 1, 2016
Actuarial cost method	Entry age normal
Amortization method	Level dollar
Initial amortization period	30 years, open
Discount rate	3.09%
Health care cost trend rates—medical -	6.25% in 2017, decreasing to 6% in 2018, and decreasing by varying amounts until 2025 thereafter.

40% of Active Employees who retire participate

Mortality – General Service Actives and Retirees based on RP-2000 Table and RP-2000 Combined Healthy, respectively, with ages set back six years for male and female actives; set back two years for male retirees and one year for female retirees. Rates are generational for both males and females using Projection Scale AA.

Marital status – 45% of members electing coverage: married or have a registered domestic partner. Male spouses two years older than their female spouses.

Health Care Claims Development The average medical/Rx per capita claims costs were developed from calendar year fully insured premium rates for Aetna plans or self-funded premium-equivalent rates for Group Health (acquired by Kaiser Permanente in 2017) plans. Premium or premium-equivalent rates were provided by the City of Seattle’s health pricing actuary. The average medical/Rx per capita claims costs were trended to the mid-point of the annual period following the valuation date. Average medical/ Rx per capita claims costs were then age-adjusted based on the demographics of the population, and the assumed health care aging factors shown in the morbidity factors table below.

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For the Aetna plans only, the average medical/Rx per capita claims costs were blended with the average medical/Rx per capita claims costs developed from actual active claims experience and enrollment for the two-year period January 1, 2015 through December 31, 2016. Claims and enrollment information was provided by Aetna. Claims experience was adjusted for differences in plan design between the historical periods and the projection period using plan design relative values from Aon Hewitt's actuarial models. No adjustment was made for large claims. The average medical/Rx per capita claims costs from each respective historical base period were trended to the mid-point of the annual period following the measurement date. In order to improve the credibility of a single projection estimate, a combination of estimates from the distinct historical periods was used, placing 50% credibility on the most recent period and 50% on the next most recent.

Morbidity Factors – The claim costs for medical and prescription drugs were assumed to increase with age according to the table below.

Age	Medical	RX	Composite
40-44	3.0%	4.8%	3.3%
45-49	3.7%	4.7%	3.8%
50-54	4.2%	4.7%	4.3%
55-59	4.4%	4.6%	4.4%
60-64	3.7%	4.6%	3.8%
65-69	2.7%	3.8%	3.1%
70-74	1.8%	2.5%	2.1%
75-79	2.2%	0.8%	1.4%
80-84	2.8%	0.2%	1.3%
85-89	1.4%	0.1%	0.6%
90+	0.0%	0.0%	0.0%

Other considerations – Active employees with current spouse and/or dependent coverage elect same plan and coverage. After retirement, it is assumed that children will have aged off of coverage and will have \$0 liability

15. ENVIRONMENTAL LIABILITIES

Environmental liabilities were \$107.7 million and \$92.7 million, at December 31, 2018, and 2017, respectively.

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The following is a brief description of the significant Superfund sites:

- *The Harbor Island Superfund Site*—In 1983, the U.S. Environmental Protection Agency (EPA) designated this site as a federal Superfund site. The Department and other entities are sharing costs equally for investigating contamination in the East Waterway alongside Harbor Island. The City share is split between the Department 45% and Seattle Public Utilities (SPU) 55%. The Department's involvement stems from its sale of transformers to a company on Harbor Island. The City of Seattle is one of four parties who are conducting remedial investigation and feasibility study that will delineate cleanup actions. A draft final feasibility study was submitted to EPA in October 2016. Nine alternative actions were presented with costs ranging from \$256.0 million to \$411.0 million with an estimated time to complete construction on active cleanup components ranging from 9 to 13 years. The EPA, however, has not identified the cleanup construction timing and cost estimate at this time. The project manager has identified that the total liability may be up to \$300.0 million, of which, \$100.0 million is the City share. The Department recorded its share of the estimated liability of \$45.0 million in October 2016 in accordance with GASB Statement No. 49. The Feasibility Study (FS) was completed in 2017. There was no change in the estimated liability. The final FS will be submitted to EPA in 2019 and the proposed plan is expected to be released sometime in 2019. Ongoing work is expected to cost the City \$0.7 million. While the timing of clean-up construction will not be known until the Agency identifies a preferred remedy, the final FS has identified a range of costs on which the clean-up estimate is based. The Department's ultimate liability is indeterminate.
- *The Lower Duwamish Waterway Superfund Site*—In 2001, the EPA designated this site as a federal Superfund site for contaminated sediments. The Department's involvement is attributable to its land ownership or use of property along the river. The City of Seattle is one of four parties who signed an Administrative Order on Consent (AOC) with the EPA and Washington State Department of Ecology (DOE) to conduct a remedial investigation and feasibility study to prepare a site remedy. The EPA approved the feasibility study in November 2012. In February 2013, the EPA issued the Proposed Plan for cleanup of the Lower Duwamish Waterway. In December 2014, the EPA issued its final Record of Decision (ROD) indicating its preferred alternative clean-up with a discounted estimated cost of \$342.0 million, from the total estimated cost of \$394.0 million. This estimate was recalculated to its 2018 current value using a starting point of the undiscounted estimated cost of \$394.0 million plus an average Marine Construction Inflation Factor of 1.038 annually. This recalculation resulted in an increase in estimated environmental liability of \$12.3 million for the Department for a revised estimated total project cost of \$504.2 million.

There have been four amendments to the AOC. The first amendment required Lower Duwamish Waterway Group (LDWG) to complete the Fisher Study which was completed in 2016; the second amendment required the completion of carbon study which was constructed in the first quarter of 2017 and will continue through 2020; and the third amendment required additional pre-design activities. The workplan for pre-design work was approved by EPA in August 2017 and is expected to continue through 2020. The extent and cost of additional investigation work required prior to implementation of remedy is still unknown. In July 2018, EPA issued a 4th amendment to the AOC requires LDWG to (1) Design the remedy for river mile 3.0 to river mile 5 of Lower Duwamish Waterway Site (the "LDW Upper Reach"), consistent with the Lower Duwamish Waterway ROD and CERCLA; (2) incorporate and supersede the work being carried out under the Third Amendment to this AOC in support of the development of seafood consumption institutional controls for the Site; and (3) provide for timely periodic monitoring of selected site conditions, as necessary. The Department's ultimate liability is indeterminate.

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In November 2012, the EPA issued general notification letters to parties informing them of their potential liability for the Lower Duwamish Waterway cleanup. The City and other three parties who signed the AOC with the EPA agreed to invite some of those parties to participate in an alternative dispute resolution process (the “allocation process”) to resolve their respective shares of past and future costs. There are 44 parties participating in allocation. The City hired an allocator and the allocation process began in April 2014. The Department agreed to administer the allocator’s contract, estimated to cost about \$4.0 million over a four-year period. Parties participating in the allocation process will share the cost of the allocator and the process.

The City is also responsible for investigation and cleanup at the Port of Seattle Terminal 117 Streets, Uplands and Sediments sites. The South Park street is not owned by the Department, but the City has jurisdiction over the streets and right-of-ways. Remediation activities for streets was completed in August 2016. The City’s share for the uplands and sediments site is paid 100% by the Department. The City’s share for the adjacent streets is split between the Department and SPU according to a Memorandum of Agreement (MOA) signed in August 2014. According to this MOA, SPU will pay 2.5% for some portions of the construction and up to 100% for other parts of the cleanup and restoration. The final construction closeout and project closeout was approved by EPA in July 2018. In September 2018, the Long-term Monitoring and Maintenance Plan (LTMMP) was approved by EPA. An annual report will be submitted each year with the first report submitted in March 2019.

- *South Park Marina*—The Washington Department of Ecology has notified the City that it is a Potentially Liable Party for contamination at South Park Marina, which is adjacent to Terminal 117. The Department is the lead for the City at this site. Negotiations for an Agreed order between Ecology and Potential Liable Parties (PLP) have resulted in an Agreed order to conduct a Remedial Investigation only. The final Order is with PLPs for signatures. The City is going to administer the contract with common consultants. The City, the Port of Seattle and South Park Marina have agreed to share costs equally. City share is split between the Department 97.5% and SPU 2.5%. The Department’s ultimate liability is indeterminate.
- *North Boeing Field/Georgetown Steam Plant*—The City, King County, and Boeing signed an Administrative Order issued by the Washington State Department of Ecology (Ecology) requiring them to investigate and possibly remove contamination in an area that encompasses North Boeing Field, the Department’s Georgetown Steam Plant, and the King County Airport. This site was also the subject of the lawsuit brought by the City against Boeing. Boeing agreed to pay 67% of the costs for Ecology’s implementation of the current order. The order requires completion and then implementation of a remedial investigation and feasibility. The final Remedial Investigation (RI) work plan was issued in November 2013. In January 2015, all parties executed the First Amendment to the North Boeing Field/Georgetown Steam Plant Agreed Order, making the PRPs responsible for conducting and completing remedial action at the site. The City is responsible for 1/3 of the costs, with the Department’s share at 90% and SPU’s share at 10%. The draft RI was submitted in June 2016. DOE directed additional investigation in offsite area following the submittal of RI. The additional investigation and negotiation on RI comments has delayed the submittal of the revised draft RI until 2019. The FS process will begin following approval of RI. Costs to date are approximately \$8.3 million with an additional \$0.7 million projected through completion of the FS. Boeing and the City will each pay 100% of costs for remedial action at their own facilities. The final liability is indeterminate.

The Department has included in its estimated liability those portions of the environmental remediation work that are currently deemed to be reasonably estimable.

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Cost estimates were developed using the expected cash flow technique in accordance with GASB Statement No. 49. Estimated outlays were based on current cost and no adjustments were made for discounting or inflation. Cost scenarios were developed that defined a particular solution for a given site. Scenarios considered relevant potential requirements and alternatives for remediation of a site. Costs were calculated on a weighted average that was based on the probabilities of each scenario being selected and reflected cost-sharing agreements in effect. In addition, certain estimates were derived from independent engineers and consultants. The estimates were made with the latest information available; as new information becomes available, estimates may vary significantly due to price increases or reductions, technology, or applicable laws or regulations.

The Department is aggressively pursuing other third parties that may have contributed to the contamination of superfund sites for appropriate cost sharing. The Department's estimate for realized recoveries was \$0.2 million and \$3.8 million at December 31, 2018, and 2017, respectively, primarily representing an interfund receivable from SPU for recovery of remediation costs incurred related to the lower Duwamish Waterway site. The Department's estimate for not yet realized recoveries from other parties for their share of remediation work performed that partially offset the Department's estimated environmental liabilities was zero at December 31, 2018, and 2017. As of December 31, 2018, and 2017, environmental costs of \$113.7 million and \$93.1 million were deferred primarily for cleanup estimates of the Department's responsibility for the Lower Duwamish Waterway and East Waterway Superfund Sites; and these costs are being amortized and will be recovered through future rates in accordance with GASB Statement No. 62.

The changes in the provision for environmental liabilities at December 31, 2018, and 2017 were as follows:

<i>(\$ in millions)</i>	2018	2017
Beginning environmental liability, net of recoveries	\$ 92.7	\$ 86.7
Payments	(2.0)	(5.0)
Incurred environmental liability	<u>17.0</u>	<u>11.0</u>
Ending environmental liability, net of recoveries	<u>\$ 107.7</u>	<u>\$ 92.7</u>

The provision for environmental liabilities included in current and noncurrent liabilities at December 31, 2018 and 2017, was as follows:

<i>(\$ in millions)</i>	2018	2017
Noncurrent liabilities	\$ 102.1	\$ 85.8
Accounts payable and other current liabilities	<u>5.6</u>	<u>6.9</u>
Ending liability	<u>\$ 107.7</u>	<u>\$ 92.7</u>

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16. OTHER LIABILITIES

Other liabilities include unearned capital fees which are amortized to revenues as earned, deposits that are returned to customers, and certain other unearned revenues which expire at contract completion.

Other liabilities at December 31, 2018 and 2017 consisted of the following:

(\$ in millions)	2018	2017
Other liabilities:		
Unearned capital fees	\$ 24.4	\$ 27.8
Customer deposits—sundry sales	12.7	7.9
Unearned revenues—other	<u>0.7</u>	<u>0.6</u>
Total	<u>\$ 37.8</u>	<u>\$ 36.3</u>

17. DEFERRED INFLOWS OF RESOURCES

Seattle City Council passed resolutions authorizing the reporting of certain credits as regulatory liabilities in accordance with Statement No. 62 of the GASB, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB & AICPA Pronouncements*.

The unearned revenue for the Rate Stabilization Account for 2018 and 2017 is the result of spreading retail electric revenues and related activity over multiple periods to reduce the need for rapid and substantial rate increases (see Note 4 Rate Stabilization Account). Payments received from Bonneville's Energy Conservation Agreement are amortized to revenues over 20 years.

In accordance with the requirements of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27*, decreases in Net Pension Liability resulting from changes in employer proportion and differences between contributions and proportionate share of pension expense are recognized as deferred inflows of resources. These deferred inflows are amortized over a closed five-year period. See Note 13 Seattle City Employees' Retirement System for more information.

On January 1, 2018, the Department implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions (OPEB)*, which concerns the accounting for and disclosure of other postemployment benefits. As a result of this implementation, amounts related to assumption changes are recognized as deferred inflows of resources, which are amortized over a closed five-year period. See Note 14 Other Postemployment Benefits for more information.

For 2017, Bonneville Slice contract true-up credits are reported as regulatory liabilities in the year invoiced and recognized as revenue in the following year. Effective October 1, 2017 there was an amendment to the agreement whereby the Department no longer participates as a Slice customer and will now exclusively purchase Block. Seattle City Council affirmed the Department's practice of recognizing the effects of reporting the fair value of exchange contracts in future periods for rate making purposes and maintaining regulatory accounts to spread the accounting impact of these accounting adjustments, in Resolution No. 30942 adopted January 16, 2007 (see Note 19 Long-Term Purchased Power, Exchanges, and Transmission).

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Deferred inflows of resources at December 31, 2018 and 2017 consisted of the following:

(\$ in millions)	2018	2017
Deferred inflows of resources:		
Unearned revenue—rate stabilization account	\$ 71.9	\$ 68.4
Changes in Net Pension Liability	55.1	23.8
Changes in OPEB Liability	2.9	-
Bonneville energy conservation agreement	34.0	29.3
Bonneville Slice true-up credit	-	1.4
Exchange energy: regulatory gain	<u>-</u>	<u>0.7</u>
Total	<u>\$ 163.9</u>	<u>\$ 123.6</u>

18. SHORT-TERM ENERGY CONTRACTS AND DERIVATIVE INSTRUMENTS

The Department engages in an ongoing process of resource optimization, which involves the economic selection from available energy resources to serve the Department's load obligations and using these resources to capture available economic value. The Department makes frequent projections of electric loads at various points in time based on, among other things, estimates of factors such as customer usage and weather, as well as historical data and contract terms. The Department also makes recurring projections of resource availability at these points in time based on variables such as estimates of stream flows, availability of generating units, historic and forward market information, contract terms, and experience. Based on these projections, the Department purchases and sells wholesale electric capacity and energy to match expected resources to expected electric load requirements, and to realize earnings from surplus energy resources. These transactions can be up to 24 months forward. Under these forward contracts, the Department commits to purchase or sell a specified amount of energy at a specified time, or during a specified time in the future. Except for limited intraday and interday trading to take advantage of owned hydro storage, the Department does not take market positions in anticipation of generating profit. Energy transactions in response to forecasted seasonal resource and demand variations require approval by the Department's Risk Oversight Council.

It is the Department's policy to apply the normal purchase and normal sales exception of Statement No. 53 of the GASB, *Accounting and Financial Reporting for Derivative Instruments*, as appropriate. Certain forward purchase and sale of electricity contracts meet the definition of a derivative instrument but are intended to result in the purchase or sale of electricity delivered and used in the normal course of operations. Accordingly, the Department considers these forward contracts as normal purchases and normal sales under GASB Statement No. 53. These transactions are not required to be recorded at fair value in the financial statements.

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The undiscounted aggregate contract amounts, fair value, and unrealized gain or (loss) of the Department's commodity derivative instruments qualifying as normal purchases and normal sales at December 31, 2018 and 2017 consisted of the following:

(\$ in millions)

	Aggregate Contract Amount	Aggregate Fair Value	Unrealized Gain (Loss)
2018			
Sales	\$ 22.3	\$ 24.7	\$ (2.4)
Purchases	-	-	-
Total	<u>\$ 22.3</u>	<u>\$ 24.7</u>	<u>\$ (2.4)</u>
	Aggregate Contract Amount	Aggregate Fair Value	Unrealized Gain (Loss)
2017			
Sales	\$ 20.0	\$ 19.1	\$ 0.9
Purchases	3.3	3.1	(0.2)
Total	<u>\$ 23.3</u>	<u>\$ 22.2</u>	<u>\$ 0.7</u>

All derivative instruments not considered as normal purchases and normal sales are to be recorded within the financial statements using derivative accounting according to GASB Statement No. 53. In 2010, the Seattle City Council adopted a resolution granting the Department authority to enter into certain physical put and call options that would not be considered normal purchases and normal sales under GASB Statement No. 53. The Department did not have any such activity for 2018 and 2017. In addition, the Seattle City Council has deferred recognition of the effects of reporting the fair value of derivative financial instruments for rate-making purposes, and the Department maintains regulatory accounts to defer the accounting impact of these accounting adjustments in accordance with GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements* (see Note 7 Other Assets and Note 17 Deferred Inflows of Resources).

Market Risk—Market risk is, in general, the risk of fluctuation in the market price of the commodity being traded and is influenced primarily by supply and demand. Market risk includes the fluctuation in the market price of associated derivative commodity instruments. Market risk may also be influenced by the number of active, creditworthy market participants, and to the extent that nonperformance by market participants of their contractual obligations and commitments affects the supply of, or demand for, the commodity. Because the Department is active in the wholesale energy market, it is subject to market risk.

Credit Risk—Credit risk relates to the potential losses that the Department would incur as a result of nonperformance by counterparties of their contractual obligations to deliver energy or make financial settlements. Changes in market prices may dramatically alter the size of credit risk with counterparties, even when conservative credit limits are established. The Department seeks to mitigate credit risk by: entering into bilateral contracts that specify credit terms and protections against default; applying credit limits and duration criteria to existing and prospective counterparties; and actively monitoring current credit exposures. The Department also seeks assurances of performance through collateral requirements in the form of letters of credit, parent company guarantees, or prepayment.

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The Department has concentrations of suppliers and customers in the electric industry including: electric utilities; electric generators and transmission providers; financial institutions; and energy marketing and trading companies. In addition, the Department has concentrations of credit risk related to geographic location as it operates in the western United States. These concentrations of counterparties and concentrations of geographic location may impact the Department's overall exposure to credit risk, either positively or negatively, because the counterparties may be similarly affected by changes in conditions.

Other Operational and Event Risk—There are other operational and event risks that can affect the supply of the commodity, and the Department's operations. Due to the Department's primary reliance on hydroelectric generation, the weather, including spring time snow melt, runoff, and rainfall, can significantly affect the Department's operations. Other risks include regional planned and unplanned generation outages, transmission constraints or disruptions, environmental regulations that influence the availability of generation resources, and overall economic trends.

19. LONG-TERM PURCHASED POWER, EXCHANGES, AND TRANSMISSION

Bonneville Power Administration—The Department purchases electric energy from the U.S. Department of Energy, Bonneville Power Administration (Bonneville) under the Block and Slice Power Sales Agreement, a 17-year contract, for the period October 1, 2011 through September 30, 2028. Effective October 1, 2017 there was an amendment to the agreement whereby the Department no longer participates as a Slice customer and will now exclusively purchase Block. Block quantities are expected to be recalculated periodically during the term of the contract. Rates will be developed and finalized every two years. Accordingly, certain estimates and assumptions were used in the calculations in the estimated future payments table below.

The terms of the Slice product specified that the Department would receive a percentage of the actual output of the Federal Columbia River Power System (the System). The percentage was adjusted annually with a Slice Adjustment Ratio no greater than 1.0 times the 3.65663 initial slice percentage, no later than 15 days prior to the first day of each federal fiscal year, beginning with fiscal year 2012. The 2017 Slice percentage was 3.62643%, the same as the previous fiscal year. The cost of Slice power was based on the Department's same percentage of the expected costs of the System and was subject to true-up adjustments based on actual costs with specified exceptions.

Bonneville's Residential Exchange Program (REP) was established as a mechanism to distribute financial benefits of the Federal Columbia River Power System to residential customers of the region's investor owned utilities (IOUs). In May 2007, the Ninth Circuit Court (the Court) rulings found the 2000 REP Settlement Agreements with IOUs inconsistent with the Northwest Power Act. To remedy this inconsistency, the Court ruled that refunds be issued to non-IOUs through 2019. The Department received \$5.7 million in both 2018 and 2017 in billing credits related to both the Block and Slice agreements as a result of the Court decision.

Lucky Peak—In 1984, the Department entered into a purchase power agreement with four irrigation districts to acquire 100% of the net surplus output of a hydroelectric facility that began commercial operation in 1988 at the existing Army Corps of Engineers Lucky Peak Dam on the Boise River near Boise, Idaho. The irrigation districts are owners and license holders of the project, and the FERC license expires in 2030. The agreement, which expires in 2038, obligates the Department to pay all ownership and operating costs, including debt service, over the term of the contract, whether or not the plant is operating or operable.

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The Department incurred \$7.8 million and \$9.3 million in 2018 and 2017, respectively, including operations costs and royalty payments to the irrigation districts. The Department provided and billed Lucky Peak \$0.3 million for operational and administrative services in both 2018 and 2017. These amounts are recorded as offsets to purchased power expense.

The Department's receivables from Lucky Peak were less than \$0.1 million at December 31, for both 2018, and 2017. The Department's payables to Lucky Peak were \$0.8 million at December 31, for both 2018, and 2017.

British Columbia—High Ross Agreement—In 1984, an agreement was reached between the Province of British Columbia and the City under which British Columbia will provide the Department with energy equivalent to that which would have resulted from an addition to the height of Ross Dam. Delivery of this energy began in 1986 and is to be received for 80 years. In addition to the direct costs of energy under the agreement, the Department incurred costs of approximately \$8.0 million in prior years related to the proposed addition and was obligated to help fund the Skagit Environmental Endowment Commission through four annual \$1.0 million payments. These other costs are included in utility plant-in-service as an intangible asset and are being amortized to purchase power expense over 35 years through 2035 (see Note 3 Utility Plant).

Expenses incurred, and energy received under these and other long-term purchased power agreements at December 31, 2018 and 2017 were as follows:

(\$ in millions)	Expense		Average Megawatts	
	2018	2017	2018	2017
Bonneville Block	\$ 164.7	\$ 103.8	506.4	347.7
Bonneville Slice	-	64.3	-	278.2
Long-term purchased power-Bonneville	164.7	168.1	506.4	625.9
Lucky Peak	7.8	9.3	39.7	52.9
British Columbia - High Ross Agreement	13.5	13.4	35.5	35.8
Grant County Public Utility District	1.5	1.9	2.9	2.8
Columbia Basin Hydropower	6.7	6.8	27.5	26.1
Bonneville South Fork Tolt billing credit	(3.3)	(3.3)	-	-
Renewable energy - State Line Wind	23.9	22.1	39.1	37.7
Renewable energy - Other	7.5	7.7	13.1	13.5
Exchanges and loss returns energy at fair value	2.9	3.7	50.4	50.1
Long-term purchased power booked out	(7.4)	(4.9)	(32.2)	(28.9)
Long-term purchase power-other	53.1	56.7	176.0	190.0
Total	\$ 217.8	\$ 224.8	682.4	815.9

Renewable Energy Purchase and/or Exchanges—The Energy Independence Act, Chapter 19.285 Revised Code of Washington, requires all qualifying utilities in Washington State to meet certain annual targets of eligible new renewable resources and/or equivalent renewable energy credits (RECs) as a percentage of total energy delivered to retail customers. The annual targets are: at least 9% by 2016, and at least 15% by 2020. The Department's 2018 and 2017 resource portfolio is adequate to meet the 9% target.

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Energy Exchange—Northern California Power Agency (NCPA) and the Department executed a long-term Capacity and Energy Exchange Agreement in March 1993. The Department delivers energy to NCPA from June through October 15. NCPA returns energy under conditions specified in the contract at a 1.2:1 ratio of exchange power, from November through April. The agreement included financial settlement and termination options. In a letter NCPA dated May 17, 2011, NCPA gave seven year's advance written notice to the Department to terminate the agreement. Effective May 31, 2018, the agreement was officially terminated.

Fair Value of Exchange Energy—Exchange energy receivable and the related regulatory gains at December 31, 2018 and 2017, were valued using Kiindex Forward Curves, and Dow Jones U.S. Daily Electricity Price Indices for settled deliveries. An income valuation technique that uses interest rate forecasts from HIS Global Insight is used to discount for present value based on the interest rate for U.S. Government Treasury constant maturities, bond-equivalent yields by the future month of the transactions (see Note 2 Fair Value Measurement and Note 17 Deferred Inflows of Resources).

Estimated Future Payments Under Purchased Power, Transmission and Related Contracts—The Department's estimated payments for purchased power and transmission, RECs, and other contracts for the period from 2019 through 2065, undiscounted, are as follows:

Years Ending December 31 (\$ in millions)	Estimated Payments
2019 ^(a)	\$ 290.4
2020 ^(b)	303.0
2021	289.9
2022	284.3
2023	284.9
2024-2028 ^{(c)(d)}	1,273.2
2029-2033	107.3
Thereafter (through 2065)	<u>102.1</u>
Total	<u>\$ 2,935.1</u>

^(a) 2019 includes estimated REP recoveries from Bonneville.

^(b) British Columbia - High Ross direct cost payments end in 2020.

^(c) Bonneville transmission contract expires July 31, 2025.

^(d) Bonneville Block contract expires Sept 30, 2028.

20. COMMITMENTS AND CONTINGENCIES

Operating Leases—While the Department owns several buildings including those at the Skagit and Boundary hydroelectric projects, service centers, and the System Control Center, the Department leases some administrative office space from the City. Such lease payments to the City are made through a central cost allocation process, similar to all other payments for tenancy of City property. These payments are not included in the operating leases table below. The Department also leases certain office equipment and smaller facilities for various purposes through long-term operating lease agreements. Expenses for all operating leases totaled \$0.5 million in 2018 and \$1.9 million in 2017.

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Minimum payments under the operating leases are:

Year Ending December 31 (\$ in millions)	Minimum Payments
2019	\$ 1.6
2020	1.4
2021	1.5
Thereafter	-
Total	<u>\$ 4.5</u>

2019 Capital Program—The budget for the Department’s 2019 program for capital improvement, conservation, and deferred operations and maintenance including required expenditures on assets owned by others is \$399.6 million. At December 31, 2018, the Department had approximately \$142.8 million in commitments relating thereto. Department overhead costs and other allocations associated with the capital program are not included in the budget amount.

2019 Operations and Maintenance Budget—The Department’s 2019 Operating and Maintenance budget is \$974.9 million for labor and related benefits, purchased power, outside services, supplies, taxes, injuries and damages, interest, debt-related costs, maintenance of Department assets, and other non-capital expenditures incurred in the normal course of operations.

Federal Energy Regulatory Commission Fees—Estimated Federal land use and administrative fees related to hydroelectric licenses total \$174.8 million through 2055; these estimates are subject to change. The estimated portion of fees attributed to the Skagit and Tolt licenses are excluded after 2025, when their existing FERC licenses expire. The estimated portion of Boundary fees is included through 2055, the year the current license issued by FERC expires. The Boundary FERC license and related issues are discussed below.

New Boundary License—The Department’s FERC license for the Boundary Project expired on September 30, 2011 and a new license was issued on March 20, 2013 with a 42-year life and a total cost of \$48.6 million. The terms and conditions of the new license have been evaluated and the Department is in the license implementation process, which imposes mitigation of endangered species including water quality standards and conservation management.

As part of the application process, the Department negotiated a settlement with external parties such as owners of other hydroelectric projects, Indian tribes, conservation groups and other government agencies. The settlement sought to preserve the Department’s operational flexibility at Boundary Dam while providing for natural resource protection, mitigation and enhancement measures.

The cost projections for such mitigation over the expected 42-year life of the license, included in the Department’s license application, were estimated to be \$408.8 million adjusted to 2018 dollars, of which \$74.5 million were expended through 2018. Projected mitigation cost estimates are subject to revision as more information becomes available.

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Skagit and South Fork Tolt Licensing Mitigation and Compliance—In 1995, the FERC issued a license for operation of the Skagit hydroelectric facilities through April 30, 2025. On July 20, 1989, the FERC license for operation of the South Fork Tolt hydroelectric facilities through July 19, 2029, became effective. As a condition for both licenses, the Department has taken and will continue to take required mitigating and compliance measures.

Total Skagit license mitigation costs from the effective date until expiration of the federal operating license were estimated at December 31, 2018, to be \$140.8 million, of which \$129.2 million had been expended. Total South Fork Tolt license mitigation costs were estimated at \$1.9 million, of which \$1.4 million were expended through 2018. In addition to the costs listed for South Fork Tolt mitigation, the license and associated settlement agreements required certain other actions related to wildlife studies and wetland mitigation for which no set dollar amount was listed. Requirements for these actions have been met, and no further expenditures need to be incurred for these items.

Capital improvement, other deferred costs, and operations and maintenance costs are included in the estimates related to the settlement agreements for both licenses. Amounts estimated are adjusted to 2018 dollars. Department labor and other overhead costs associated with the activities required by the settlement agreements for the licenses are not included in the estimates.

Hydroelectric projects must satisfy the requirements of the Endangered Species Act (ESA) and the Clean Water Act in order to obtain a FERC license. ESA and related issues are discussed below.

Endangered Species—Several fish species that inhabit waters where hydroelectric projects are owned by the Department, or where the Department purchases power, have been listed under the ESA as threatened or endangered. Although the species were listed after FERC licenses were issued for all of the Department's hydroelectric projects, the ESA listings still affect operations of the Department's Boundary, Skagit, Tolt, and Cedar Falls hydroelectric projects.

Federal Regulations in response to the listing of species affect flow in the entire Columbia River system. As a result of these regulations, the Department's power generation at its Boundary Project is reduced in the fall and winter when the region experiences its highest sustained energy demand. The Boundary Project's firm capability is also reduced.

The Department, with the support of City Council, elected to take a proactive approach to address issues identified within the ESA. The Department is carrying out an ESA Early Action program in cooperation with agencies, tribes, local governments, and watershed groups for bull trout, Chinook salmon, and steelhead in the South Fork Tolt and Skagit Watersheds. The ESA Early Action program is authorized by City Council but is separate from any current FERC license requirements. The program includes habitat acquisition, management and restoration. The ESA Early Action has been successful in protecting listed species. Total costs for the Department's share of the Early Action program from inception in 1999 through December 31, 2018, are estimated to be \$13.8 million, and \$1.1 million has been allocated for the program in the 2019 budget.

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Project Impact Payments—Effective August 2010, the Department renewed its contract with Pend Oreille County and committed to pay a total of \$19.0 million over 10 years ending in 2019 to Pend Oreille County for impacts on county governments from the operations of the Department’s hydroelectric projects. Effective February 2009, the Department renewed its contract with Whatcom County committing to pay a total of \$15.8 million over 15 years ending in 2023. The payments compensate the counties, and certain school districts and towns located in these counties, for loss of revenues and additional financial burdens associated with the projects. The Boundary Project, located on the Pend Oreille River, affects Pend Oreille County, and Skagit River hydroelectric projects affect Whatcom County. The impact payments totaled \$1.8 million to Pend Oreille County in 2018 and 2017, and \$1.1 million to Whatcom County in 2018 and 2017.

Gamble v. City—A Department employee contends that the Department has failed to properly accommodate her disability. An adverse result in litigation could result in awards of back pay, compensatory damages, and attorneys’ fees. Trial concluded on April 2017, with a verdict in favor of the Department. The plaintiff has appealed to the Washington Court of Appeals. The Department’s ultimate liability is indeterminate.

Central Puget Sound Regional Transit Authority Condemnation Cases—The Department is a defendant in a series of condemnation actions by the Central Puget Sound Regional Transit Authority (“Sound Transit”). Sound Transit is working in concert with the City of Bellevue on multiple transportation projects which negatively affect the Department’s East Side Lines transmission corridor, which is a 100 plus mile corridor between 150’-160’ wide that runs contiguously from Maple Valley to City Light’s Skagit Project in Skagit and Whatcom Counties. There are currently five condemnation actions for the specific area along 124th Street in Bellevue. The Department has contested Sound Transit’s ability to condemn publicly owned property, but in each of the five condemnation actions, the trial courts determined that Sound Transit had demonstrated public use and necessity over portions of the Department’s easement area. All of those decisions were appealed to the Washington Supreme Court. In August 2018, the Washington Supreme Court determined that although Sound Transit had authority to condemn the Department’s property, the prior public use rule applied, and consequently remanded all five actions back to the trial court to determine whether the Department’s existing public use was compatible with Sound Transit’s proposed uses. The Parties have been in discussions towards resolving these issues, but the ultimate value and resolution of these matters is indeterminate.

Tao v. City—A Department employee alleges that she is a victim of discrimination on the basis of race, gender, and age. Employee also alleges that she has been retaliated against for engaging in protected activities opposing discrimination. Employee asserts that the Department failed to promote her and created a hostile work environment through, *inter alia*, investigating allegations of misconduct. An adverse result could include awards of back pay, compensatory damages, and attorneys’ fees. The Department’s ultimate liability is indeterminate.

Deformation Mitigation in N. Thomas Street—The Department is moving five 13.8 kV and 26kV feeders in Thomas Street at 6th Avenue to protect them for deformation caused by the tunneling activities, including the work necessary to extract the tunnel boring machine cutter head after reaching the North Portal. The Department anticipates that the total costs for this work is estimated at \$3.1 million. City Light has requested that the Washington State Department of Transportation (WSDOT) reimburse it for those costs and has sent a proposed task order for that purpose, but to date, WSDOT has not agreed to reimburse the Department. The Department’s ultimate recovery amount is unknown.

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Denny Substation—The Department is building a new substation in the Denny Triangle neighborhood. The original contract price was \$89.0 million. The general contractor filed claims against the Department totaling approximately \$28.0 million based on changed conditions, unforeseen conditions, delays and schedule impacts alleged to be the Department's fault. The Department is contesting a majority of claimed amounts. The Department's ultimate liability is indeterminate.

Denny Network—The Department hired a general contractor to install an underground network in the South Lake Union neighborhood. The general contractor is in the process of preparing a claim for delay damages alleging that the Department is responsible for its cost overruns due to myriad factors. The claimed damages are expected to be approximately \$20.0 million for a \$48.0 million project. The Department's ultimate liability is indeterminate.

Other Contingencies—In addition to those noted above, in the normal course of business, the Department has various other legal claims and contingent matters outstanding. The Department believes that any ultimate liability arising from these actions will not have a material adverse impact on the Department's financial position, operations, or cash flows.

21. IMPLEMENTATION OF NEW ACCOUNTING STANDARDS

Implementation of GASB Statement No. 75 – The Department adopted the requirements of GASB Statement No. 75 *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* effective January 1, 2018. This statement provides guidance for the measurement and recognition of a net Other Postemployment Benefits (OPEB) liability and OPEB expense, including guidance for balances to be recognized as deferred outflows of resources and deferred inflows of resources. The impact of implementation for the Department was as follows:

Net OPEB liability – The net OPEB liability reported under GASB Statement No. 75 is the difference between the actuarial present value of projected OPEB benefit payments attributed to past periods of employee service and the OPEB plan's fiduciary net position. Previously, a liability was recognized only to the extent that contributions made to the plan were exceeded by the actuarially calculated contributions.

Deferred outflows of resources and deferred inflows of resources – GASB Statement No. 75 requires recognition of deferred outflows and inflows of resources associated with the difference between projected and actual earnings on plan investments, to be amortized to OPEB expense over a closed five-year period. Also to be recognized as deferred outflows and inflows of resources are differences between expected and actual experience with regard to economic or demographic factors in the measurement of the total OPEB liability and changes of assumptions about future economic or demographic changes or other inputs, to be amortized to OPEB expense over a closed period equal to the average of the expected remaining service lives of all employees that are provided with OPEB benefits through the OPEB plan. Employer contributions made between the net OPEB liability measurement date and the employer's fiscal year end are recognized as deferred outflows of resources, to be included in OPEB expense in the subsequent fiscal year.

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The effect of adopting GASB Statement No. 75 on the Department’s financial statements as of January 1, 2018 was as follows:

(\$ in millions)

	<u>As Originally Reported December 31, 2017</u>	<u>GASB No. 75 balance January 01, 2018</u>	<u>Effects of Change</u>
Balance Sheet			
Deferred Outflows of Resources			
Unrealized gains related to OPEB	\$ -	\$ 0.3	\$ 0.3
Noncurrent Liabilities			
Net OPEB Liability	8.6	9.6	1.0
Net Position	1,337.9	1,337.2	(0.7)

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REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

DEFINED BENEFIT PENSION PLAN

The Department's schedule of the employer's proportionate share of the net pension liability for the years ended December 31 (dollar amounts in millions):

	2018	2017	2016	2015
Employer's proportion of the net pension liability	21.00%	22.13%	24.46%	24.53%
Employer's proportionate share of total pension liability	\$ 831.6	\$ 839.5	\$ 883.5	\$ 841.5
Employer's proportionate share of plan fiduciary net position	\$ 599.1	\$ 550.7	\$ 565.7	\$ 569.7
Employer's proportionate share of the net pension liability	\$ 232.5	\$ 288.8	\$ 317.8	\$ 271.8
Employer's covered-employee payroll	\$ 153.6	\$ 156.5	\$ 157.0	\$ 152.3
Employer's proportionate share of net pension liability as a percentage of its covered-employee payroll	151.41%	184.49%	202.44%	178.48%
Plan fiduciary net position as a percentage of the total pension liability	72.04%	65.60%	64.03%	67.70%

Notes to Schedule

This schedule is intended to show information for 10 years. Since 2015 was the first year of this presentation, data on years preceding 2015 are not available. Additional years' data will be included as they become available.

For years 2015-2018, the annual investment rate or return underlying the calculation of total pension liability was assumed to be 7.50%. There were no changes to benefit terms or benefit assumptions in 2018. See Note 13 for details regarding actuarial methods and assumptions.

The Department's proportionate schedule of employer's contributions (dollar amounts in millions):

	2018	2017	2016	2015
Contractually required contribution	\$ 24.7	\$ 23.7	\$ 25.3	\$ 24.9
Contributions in relation to contractually required contribution	24.7	23.7	25.3	24.9
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered-employee payroll	\$ 163.7	\$ 153.6	\$ 164.0	\$ 165.0
Contributions as a percentage of covered-employee payroll	15.09%	15.43%	15.43%	15.09%

Notes to Schedule

This schedule is intended to show information for 10 years. Since 2015 was the first year of this presentation, data on years preceding 2015 are not available. Additional years' data will be included as they become available.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

DEFINED BENEFIT OPEB PLAN

The Department's schedule of the employer's proportionate share of the net OPEB liability for the year ended December 31 (dollar amounts in millions):

	2018
Employer's proportion of the net OPEB liability	14.61%
Employer's proportionate share of total OPEB liability	\$ 8.9
Employer's proportionate share of plan fiduciary net position	-
Employer's proportionate share of the net OPEB liability	\$ 8.9
Employer's covered-employee payroll	\$ 148.3
Employer's proportionate share of net OPEB liability as a percentage of its covered-employee payroll	6.02%
Plan fiduciary net position as a percentage of the total OPEB liability	-

Notes to Schedule

This schedule is intended to show information for 10 years. Since 2018 was the first year of this presentation, data on years preceding 2018 are not available. Additional years' data will be included as they become available.

There were no changes to benefit terms in 2018. See Note 14 for details regarding actuarial methods and assumptions under GASB 75.

Following are the disclosures for December 31, 2017 under GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other than Pensions*.

SCHEDULES OF FUNDING PROGRESS

The Department's schedule of funding progress for the other post-employment benefit healthcare plans in accordance with GASB Statement No. 45 is presented below for the most recent actuarial valuation and the two preceding valuations for which the Department has available data (dollar amounts in millions):

Actuarial Valuation Date January 1	Actuarial Value of Assets (A)	Actuarial Accrued Liabilities (AAL) Entry Age (B)	Unfunded AAL (UAAL) (B-A)	Funding Ratio (A/B)	Covered Payroll (C)	UAAL as a Percentage of Covered Payroll ((B-A)/C)
2014	-	\$ 41.8	\$ 41.8	-	\$ 1,004.0	4.2 %
2016	-	65.7	65.7	-	1,125.7	5.8

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

OTHER INFORMATION (UNAUDITED)

DEBT SERVICE COVERAGE

Following is a table that provides information for the Department's debt service coverage for years 2018, 2017, and 2016. The target level for debt service coverage was 1.8x on all bonds for 2018, 2017 and 2016 in accordance with current financial policies (which include a Rate Stabilization Account that will result in greater compliance of actual debt service coverage with the policy-specified level).

(\$ in millions)

Debt Service Coverage

	December 31		
	2018	2017	2016
OPERATING REVENUES:			
Retail power revenues	\$ 868.6	\$ 875.2	\$ 788.0
Short-term wholesale power revenues	61.0	60.9	62.9
Other power-related revenues (a)(b)(c)	45.9	35.8	32.6
Transfers from/(to) rate stabilization account (d)	(3.5)	(2.3)	(0.1)
Other operating revenues	19.6	20.1	19.8
Total operating revenues	<u>\$ 991.6</u>	<u>\$ 989.7</u>	<u>\$ 903.2</u>
OPERATING EXPENSES:			
Long-term purchased power—Bonneville and other (b)	\$ 217.8	\$ 224.8	\$ 219.8
Short-term wholesale power purchases	18.5	15.2	15.1
Other power expenses (b)	70.2	65.4	60.1
Transmission (e)	54.2	52.5	53.5
Distribution	61.9	60.4	63.5
Customer service	55.7	49.4	42.6
Conservation	32.9	32.5	30.2
Administrative and general	96.2	128.7	105.0
Taxes	91.8	94.8	85.2
Depreciation and amortization	124.0	128.8	120.8
Total operating expenses	<u>\$ 823.2</u>	<u>\$ 852.5</u>	<u>\$ 795.8</u>
NET OPERATING REVENUE (f)	<u>\$ 168.4</u>	<u>\$ 137.2</u>	<u>\$ 107.4</u>
Adjustments to Net Operating Revenue (g)			
City Taxes (h)	\$ 53.4	\$ 54.4	\$ 48.4
Depreciation and amortization	124.0	128.8	120.8
Depreciation & amortization included in operating & maintenance expenses (i)	33.0	32.4	29.9
Pension expense (j)	22.0	37.1	40.8
Pension contributions (j)	(24.7)	(23.7)	(25.3)
Valuation on exchange power, net (b)(c)	0.9	-	-
BPA Conservation Augmentation/Agreement revenue (k)	(1.9)	(1.6)	(1.2)
Investment income (l)	10.9	7.4	7.3
Non-cash expenses (m)	0.8	2.4	1.8
Other (n)	1.6	2.4	2.0
Total adjustments	<u>\$ 220.0</u>	<u>\$ 239.6</u>	<u>\$ 224.5</u>
Net Revenue Available for Debt Service	<u>\$ 388.4</u>	<u>\$ 376.8</u>	<u>\$ 331.9</u>
Total Debt Service (o)	<u>\$ 212.4</u>	<u>\$ 203.3</u>	<u>\$ 196.5</u>
Ratio of Available Net Revenue to Debt Service	<u>1.83x</u>	<u>1.85x</u>	<u>1.69x</u>

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

OTHER INFORMATION (UNAUDITED)

Notes

- (a) Includes conservation and renewable credits under the power sales contract with BPA, the recognition of payments from BPA for the purchase of conservation savings, revenue from deliveries of power to Pend Oreille PUD pursuant to the Boundary Project's FERC license, and other energy credits.
- (b) Effective January 1, 2016, the Department adopted GASB Statement No. 72, *Fair Value Measurement and Application*. Non-monetary transactions are measured at fair value and are valued at market. Disclosures required by GASB Statement No. 72 are available in Note 2 Fair Value Measurement.
- (c) Includes significant activity for the valuation of energy delivered under seasonal exchanges, basis sales, and other power exchange contracts. Energy exchanges have both revenue and expense components; therefore, a net revenue or expense adjustment is made for a given year.
- (d) Transfers from/(to) the RSA in accordance with Ordinance No. 123260, primarily to address fluctuations in surplus power sales.
- (e) Includes revenue from the short-term sale of excess transmission capacity.
- (f) Operating Income per audited financial statements.
- (g) Significant non-cash transactions are adjusted from Net Operating Revenue to calculate Revenue Available for Debt Service. Furthermore, some types of revenue in addition to Operating Revenue are included to calculate Revenue Available for Debt Service. These adjustments are listed in the remaining lines within the table.
- (h) City taxes are excluded because the lien on such taxes is junior to debt service in accordance with the Bond Legislation.
- (i) The majority of the depreciation and amortization (non-cash) expenses included in Operating and Maintenance Expense are for amortization of conservation expenses that are recognized over a 20-year period.
- (j) Pension expense is the amount recorded for compliance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, implemented in 2015, a non-cash item. Pension contributions are the Department cash contributions to the Seattle City Employee's Retirement System.
- (k) Payments received for conservation measures are initially recorded as unearned revenue. The adjustment represents the amount of revenue amortized and recognized over future periods for financial reporting, a non-cash transaction.
- (l) Investment income is not included in Total Revenue in this table; therefore, an adjustment is made to Net Operating Revenue, consisting primarily of interest earnings from City's cash pool and interest receipts from suburban underground charges. This amount excludes unrealized gains and losses, which are non-cash adjustments.
- (m) Effective 2018 includes adjustment for GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* in addition to primarily claim expenses and capital projects expenditures from prior year which were determined not to be capital expenditures.
- (n) Includes proceeds from sale of properties, principal receipts from suburban underground charges from local jurisdictions, and miscellaneous items.
- (o) Net of federal bond subsidies.

DEBT SERVICE COVERAGE: ALL BONDS

Year Ending December 31 (\$ in millions)	Revenue Available for Debt Service	Debt Service Requirements	Debt Service Coverage
2018	\$ 388.4	\$ 212.4	1.83
2017	376.8	203.3	1.85
2016	331.9	196.5	1.69
2015	306.6	189.6	1.62
2014	341.4	184.8	1.85

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

OTHER INFORMATION (UNAUDITED)

INTEREST REQUIREMENTS AND PRINCIPAL REDEMPTION ON LONG-TERM DEBT

Year Ending December 31 (\$ in millions)	Fixed Rate Bonds			Variable Rate Bonds			Total ^(a)
	Principal	Interest	Subtotal	Principal	Interest	Subtotal	
2019	\$ 116.5	\$ 103.8	\$ 220.3	\$ 2.9	\$ 4.1	\$ 7.0	\$ 227.3
2020	116.5	97.5	214.0	2.5	4.1	6.5	220.6
2021	116.0	92.1	208.1	2.1	4.0	6.1	214.2
2022	115.8	86.4	202.2	2.1	4.0	6.2	208.3
2023	118.1	80.5	198.6	2.2	3.9	6.2	204.7
2024	121.6	74.5	196.1	2.3	3.9	6.2	202.3
2025	111.4	68.4	179.8	2.4	3.8	6.2	186.0
2026	105.1	63.0	168.1	5.9	3.7	9.6	177.7
2027	80.0	58.2	138.2	6.1	3.6	9.7	147.9
2028	81.6	54.5	136.1	6.3	3.5	9.8	145.9
2029	75.5	50.9	126.4	6.6	3.3	9.9	136.3
2030	60.9	47.7	108.6	6.9	3.2	10.1	118.7
2031	63.2	45.0	108.2	7.2	3.1	10.2	118.5
2032	65.7	42.0	107.7	7.4	2.9	10.3	118.0
2033	68.3	39.0	107.3	7.7	2.8	10.5	117.8
2034	71.0	36.0	107.0	8.0	2.6	10.6	117.6
2035	73.8	33.0	106.8	8.4	2.4	10.8	117.6
2036	81.9	29.7	111.6	8.7	2.3	11.0	122.6
2037	71.4	26.2	97.6	9.1	2.0	11.1	108.7
2038	74.1	23.1	97.2	9.4	1.9	11.3	108.5
2039	76.9	19.9	96.8	9.8	1.7	11.5	108.3
2040	79.8	16.5	96.3	10.2	1.5	11.7	108.0
2041	68.9	13.4	82.3	10.7	1.2	11.9	94.2
2042	54.9	11.0	65.9	11.1	1.0	12.1	78.0
2043	57.2	8.6	65.8	11.5	0.8	12.3	78.1
2044	48.6	6.3	54.9	12.0	0.5	12.5	67.4
2045	41.3	4.4	45.7	12.5	0.3	12.8	58.5
2046	34.7	2.8	37.5	5.5	0.1	5.6	43.1
2047	28.4	1.4	29.8	-	-	-	29.8
2048	15.0	0.3	15.3	-	-	-	15.3
Total	\$ 2,294.1	\$ 1,236.1	\$ 3,530.2	\$ 197.5	\$ 72.2	\$ 269.7	\$ 3,799.9

^(a) Maximum debt service of \$227.3 is due in 2019. See Note 9 Long-term debt.

Note: All parity bonds of the Department are fixed rate bonds except the 2018B and 2018C bonds which are variable rate bonds.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

OTHER INFORMATION (UNAUDITED)

STATEMENT OF LONG-TERM DEBT

As of December 31, 2018

(\$ in millions)

Bond Series	When Due	Interest Rate (%)	Amount Issued	Amount Outstanding	Amount Due Within One Year	Accrued Interest
Series 2008	2019-2020	5.250	\$ 20.6	\$ 10.0	\$ 10.0	\$ 0.1
Series 2010A	2019-2021	4.447	4.6	4.6	-	0.1
Series 2010A	2022	4.597	7.2	7.2	-	0.1
Series 2010A	2023	4.747	7.5	7.5	-	0.1
Series 2010A	2024	4.947	7.7	7.7	-	0.2
Series 2010A	2025	5.047	8.0	8.0	-	0.2
Series 2010A	2026	5.147	8.2	8.2	-	0.2
Series 2010A	2027	5.247	8.5	8.5	-	0.2
Series 2010A	2028-2030	5.470	27.4	27.4	-	0.6
Series 2010A	2031-2040	5.570	102.6	102.5	-	2.4
Series 2010B	2019	4.000	1.5	1.5	1.5	0.0
Series 2010B	2019	5.000	42.7	42.7	42.7	0.9
Series 2010B	2020	4.000	2.6	2.6	-	0.0
Series 2010B	2020	5.000	43.9	43.9	-	0.9
Series 2010B	2021-2026	5.000	187.8	155.9	-	3.3
Series 2010C	2019-2040	5.590	13.3	13.3	-	0.3
Series 2011A	2031-2036	5.250	75.8	69.3	11.4	1.4
Series 2011B	2027	5.750	10.0	10.0	-	0.2
Series 2012A	2019-2027	5.000	198.0	139.1	13.2	0.5
Series 2012A	2028	3.250	12.4	12.4	-	0.1
Series 2012A	2034-2036	4.000	25.1	25.1	-	0.1
Series 2012A	2037-2041	4.000	49.1	49.1	-	0.2
Series 2012C	2028	3.400	4.3	4.3	-	-
Series 2012C	2029	3.500	7.7	7.7	-	-
Series 2012C	2030	3.500	7.7	7.7	-	-
Series 2012C	2031-2033	3.750	23.4	23.4	-	0.1
Series 2013	2019-2033	5.000	97.4	88.0	3.5	2.1
Series 2013	2034-2035	4.000	14.7	14.7	-	0.3
Series 2013	2036-2038	4.125	24.4	24.4	-	0.6
Series 2013	2039-2043	4.500	48.3	48.3	-	1.1
Series 2014	2019-2029	5.000	163.2	114.4	18.1	1.8
Series 2014	2030-2038	4.000	53.9	53.9	-	0.8
Series 2014	2039-2040	4.000	14.8	14.8	-	0.2
Series 2014	2041-2044	4.000	33.3	33.3	-	0.5
Series 2015A	2019-2026	5.000	62.9	45.9	6.0	0.3
Series 2015A	2027-2045	4.000	109.0	109.0	-	0.8
Series 2016A	2036-2041	4.050	31.9	31.9	-	0.6
Series 2016B	2020-2028	5.000	103.0	101.5	-	1.2
Series 2016B	2029	4.000	13.9	13.9	-	0.2
Series 2016C	2019-2026	5.000	56.9	52.6	2.4	0.5
Series 2016C	2027-2046	4.000	103.9	103.9	-	1.2
Series 2017C	2019-2032	5.000	174.2	169.1	4.1	2.5
Series 2017C	2033-2047	4.000	211.3	211.3	-	3.1
Series 2018A	2019-2029	5.000	60.2	60.2	3.9	1.3
Series 2018A	2030-2048	4.000	203.6	203.6	-	4.6
Series 2018B B.1	2026-2045	1.77 - 2.00 ^A	50.1	50.1	-	0.1
Series 2018B B.2	2026-2045	1.77 - 2.00 ^A	50.1	50.1	-	0.1
Series 2018C C.1	2019-2046	1.63 - 2.20 ^A	49.3	48.6	1.4	0.1
Series 2018C C.2	2019-2046	1.63 - 2.20 ^A	49.3	48.6	1.4	0.1
Total			\$ 2,687.2	\$ 2,491.6	\$ 119.4	\$ 36.4

^A Range of adjustable rates in effect during 2018.

Note: All parity bonds of the Department are fixed rate bonds except the 2018B B.1 & B.2, and 2018C C.1 & C.2 bonds, which are variable rate bonds.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

OTHER INFORMATION (UNAUDITED)

POWER COSTS AND STATISTICS

Year ending December 31 (\$ in millions)	2018	2017	2016	2015	2014
POWER COSTS					
Hydroelectric generation(a)(c)(f)	\$ 51.7	\$ 56.8	\$ 53.0	\$ 50.1	\$ 49.9
Long-term purchased power(b)	217.8	224.8	219.8	213.6	214.3
Wholesale power purchases(c)(e)	18.5	15.2	15.1	26.8	14.9
Fair valuation & other power purchases(b)(e)	20.6	11.4	10.5	11.8	17.7
Owned transmission(a)(f)	17.0	15.5	15.9	17.2	15.3
Wheeling expenses	43.2	42.9	42.9	42.0	42.1
Other power expenses	<u>13.1</u>	<u>13.9</u>	<u>12.8</u>	<u>12.9</u>	<u>13.2</u>
Total power costs(f)	<u>381.9</u>	<u>380.5</u>	<u>370.0</u>	<u>374.4</u>	<u>367.4</u>
Less short-term wholesale power sales(c)	(61.0)	(60.9)	(62.9)	(61.2)	(96.8)
Less other power-related revenues	(28.5)	(20.8)	(16.7)	(19.9)	(25.5)
Less fair valuation other power-related(b)	<u>(17.4)</u>	<u>(15.0)</u>	<u>(15.9)</u>	<u>(16.9)</u>	<u>(25.3)</u>
Net power costs(f)	<u>\$ 275.0</u>	<u>\$ 283.8</u>	<u>\$ 274.5</u>	<u>\$ 276.4</u>	<u>\$ 219.8</u>
POWER STATISTICS (MWh)					
Hydroelectric generation(c)	6,419,136	6,396,563	6,707,264	5,979,884	7,091,368
Long-term purchased power(b)	6,354,303	7,521,767	7,215,308	6,900,647	6,658,689
Wholesale power purchases(c)(e)	1,167,441	904,362	936,289	1,379,168	900,527
Wholesale power sales(c)(e)	(3,329,288)	(3,695,173)	(4,044,452)	(3,548,507)	(4,083,391)
Other(d)	<u>(938,363)</u>	<u>(1,154,419)</u>	<u>(1,117,826)</u>	<u>(1,023,970)</u>	<u>(655,569)</u>
Total power available	<u>9,673,229</u>	<u>9,973,100</u>	<u>9,696,583</u>	<u>9,687,222</u>	<u>9,911,624</u>
Less self consumed energy	(25,642)	(26,691)	(24,912)	(25,195)	(29,717)
Less system losses	<u>(573,525)</u>	<u>(537,750)</u>	<u>(491,233)</u>	<u>(504,533)</u>	<u>(541,323)</u>
Total power delivered to retail customers	<u>9,074,062</u>	<u>9,408,659</u>	<u>9,180,438</u>	<u>9,157,494</u>	<u>9,340,584</u>
Net power cost per MWh delivered(f)	<u>\$ 30.31</u>	<u>\$ 30.16</u>	<u>\$ 29.90</u>	<u>\$ 30.18</u>	<u>\$ 23.53</u>

(a) Including depreciation.

(b) Long-term purchased power, fair valuation & other power purchases, and fair valuation other power-related include energy exchanged under seasonal and other exchange contracts are valued at market. Disclosures required by GASB Statement No. 72, Fair Value Measurement and Application, are available in Note 2 Fair Value Measurements.

(c) The level of generation (and consequently the amount of power purchased and sold on the wholesale market) can fluctuate widely from year to year depending upon water conditions in the Northwest region.

(d) "Other" includes seasonal exchange power delivered and miscellaneous power transactions.

(e) Bookout purchases are excluded from wholesale power purchases and are reported on a net basis in wholesale power sales, however MWh are presented gross.

(f) 2017 revised for proper allocation of Hydroelectric generation and Owned transmission depreciation costs.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

OTHER INFORMATION (UNAUDITED)

HISTORICAL ENERGY RESOURCES (in MWh)

	2018	2017	2016	2015	2014
Department-Owned Generation					
Boundary Project	4,008,235	3,825,302	3,888,316	3,469,855	4,249,957
Skagit Hydroelectric Project:					-
Gorge	947,000	998,676	1,036,540	953,628	1,057,865
Diablo	626,127	692,828	870,216	775,025	857,757
Ross	690,006	741,493	791,415	684,687	796,513
Cedar Falls/Newhalem	89,250	83,461	68,429	47,571	65,687
South Fork Tolt	58,518	54,803	52,348	49,118	63,589
Subtotal	<u>6,419,136</u>	<u>6,396,563</u>	<u>6,707,264</u>	<u>5,979,884</u>	<u>7,091,368</u>
Energy Purchases					
Bonneville	4,435,838	5,482,904	5,138,417	4,971,459	5,155,271
Priest Rapids	25,732	24,532	25,249	23,698	21,961
Columbia Basin Hydropower	241,236	228,789	253,628	258,678	272,842
High Ross	310,700	313,973	308,478	310,102	307,873
Lucky Peak	347,669	463,403	340,474	278,001	308,334
Stateline Wind Project	342,873	330,161	373,389	299,551	357,325
Columbia Ridge	102,617	96,096	99,487	94,271	68,920
Seasonal and Other Exchange(a)	547,638	581,909	676,186	664,887	411,555
Wholesale Market Purchases(b)	<u>1,167,441</u>	<u>904,362</u>	<u>936,289</u>	<u>1,379,168</u>	<u>900,527</u>
Subtotal	<u>7,521,744</u>	<u>8,426,129</u>	<u>8,151,597</u>	<u>8,279,815</u>	<u>7,804,608</u>
Total Department Resources	<u>13,940,880</u>	<u>14,822,692</u>	<u>14,858,861</u>	<u>14,259,699</u>	<u>14,895,976</u>
Minus Offsetting Energy Sales					
Firm Energy Sales and Marketing Losses(c)	344,435	328,666	344,383	331,897	393,844
Seasonal and Other Exchange(a)	593,928	825,753	773,443	692,073	507,117
Wholesale Market Sales	<u>3,329,288</u>	<u>3,695,173</u>	<u>4,044,452</u>	<u>3,548,507</u>	<u>4,083,391</u>
Total Energy Resources	<u>9,673,229</u>	<u>9,973,100</u>	<u>9,696,583</u>	<u>9,687,222</u>	<u>9,911,624</u>

(a) Includes exchange contracts with the Northern California Power Authority (NCPA), Sacramento Municipal Utility District (SMUD), Grant County and the Lucky Peak Project.

(b) Purchases to compensate for low water conditions and to balance loads and resources.

(c) Energy provided to Public Utility District of Pend Oreille County under the Boundary Project's FERC license and include incremental losses due to expanded activity in the wholesale market.

THE CITY OF SEATTLE—CITY LIGHT DEPARTMENT

OTHER INFORMATION (UNAUDITED)

CUSTOMER STATISTICS

Years ended December 31,	2018	2017	2016	2015	2014
Average number of customers:					
Residential	410,664	403,888	397,074	381,419	374,619
Non-residential	50,859	50,608	50,258	41,391	40,437
Total	<u>461,523</u>	<u>454,496</u>	<u>447,332</u>	<u>422,810</u>	<u>415,056</u>
Megawatt-hours ^(a) :					
Residential	33% 2,992,914	33% 3,132,079	32% 2,917,984	32% 2,914,563	32% 2,987,711
Non-residential	67% 6,081,148	67% 6,276,580	68% 6,262,454	68% 6,242,931	68% 6,352,873
Total	100% <u>9,074,062</u>	100% <u>9,408,659</u>	100% <u>9,180,438</u>	100% <u>9,157,494</u>	100% <u>9,340,584</u>
Average annual revenue per customer ^(a) :					
Residential	\$ 778	\$ 812	\$ 717	\$ 691	\$ 695
Non-residential	\$ 10,748	\$ 10,757	\$ 9,983	\$ 11,390	\$ 11,448

*Seattle City Light changed customer counts to Service Agreement effective September 2016 with the implementation of the new retail electric billing system. Service Agreement determines how Seattle City Light and Seattle Public Utilities charge customers for services provided. An account can have several Service Agreements for the different types of services. No revisions were made to prior year customer counts.

Years ended December 31,	2018	2017	2016	2015	2014	
Average annual consumption per customer (kWh) ^{(a)(b)} :						
Residential	- Seattle	7,288	7,755	7,349	7,641	7,975
	- National	n/a	n/a	10,766	10,816	10,936
Non-residential	- Seattle	119,568	124,018	124,606	150,828	157,107
	- National	n/a	n/a	124,518	125,592	126,114
Average rate per kilowatt-hour (cents) ^{(a)(b)} :						
Residential	- Seattle	10.67	10.47	9.75	9.05	8.71
	- National	n/a	n/a	12.55	12.65	12.52
Non-residential	- Seattle	8.99	8.67	8.01	7.55	7.29
	- National	n/a	n/a	8.91	9.08	9.2

(a) Source of national data: Department of Energy (www.eia.doe.gov/electricity/annual/). 2018 National average annual consumption data and average rate data not available. Certain 2017-2014 national average annual consumption and national average rate data were updated with revised actuals.

(b) Seattle amounts include an allocation for the net change in unbilled revenue. Unbilled revenue excludes retail customer voluntary payments for conservation and solar energy as well as revenue from diverted electricity.

NOTE 1: A comprehensive rate change of 5.6% became effective January 1, 2018.

NOTE 2: A Rate Stabilization Account (RSA) surcharge of 1.5% is currently in effect to all residential and non-residential rates schedules.

NOTE 3: Notice of public hearings on future rate actions may be obtained on request to:

The Office of the City Clerk, 600-4th Ave, Floor Three, Seattle, WA 98104. Phone number 206-684-8344.

Additional information about city of Seattle Council meetings can be found on the Web at www.seattle.gov/council/calendar.

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APPENDIX D
DEMOGRAPHIC AND ECONOMIC INFORMATION

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DEMOGRAPHIC AND ECONOMIC INFORMATION

Seattle is the largest city in the Pacific Northwest and the eighteenth largest city in the United States in terms of population. It serves as the County seat and is the center of the County's economic activity. Of the State's population, nearly 30% reside in the County, and of the County's population, 34% live Seattle.

Population

Historical and current population figures for the State, the County, and Seattle are given below.

POPULATION			
<u>Year</u>	<u>Washington</u>	<u>King County</u>	<u>Seattle</u>
1980 ⁽¹⁾	4,130,163	1,269,749	493,846
1990 ⁽¹⁾	4,866,692	1,507,319	516,259
2000 ⁽¹⁾	5,894,121	1,737,034	563,374
2010 ⁽¹⁾	6,724,540	1,931,249	608,660
2014 ⁽²⁾	6,968,170	2,017,250	640,500
2015 ⁽²⁾	7,061,410	2,052,800	662,400
2016 ⁽²⁾	7,183,700	2,105,000	686,800
2017 ⁽²⁾	7,310,300	2,153,700	713,700
2018 ⁽²⁾	7,427,570	2,190,200	730,400
2019 ⁽²⁾	7,546,410	2,226,300	747,300

(1) Source: U.S. Department of Commerce, Bureau of Census

(2) Source: State of Washington, Office of Financial Management

Per Capita Income

The following table presents per capita personal income for the Seattle Metropolitan Division (the cities of Seattle, Bellevue, and Everett), the County, the State, and the U.S.

PER CAPITA INCOME					
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Seattle MD	\$ 60,219	\$ 65,033	\$ 68,094	\$ 69,786	\$ 75,078
King County	66,073	71,882	75,518	77,213	83,383
State of Washington	47,814	50,890	53,064	54,579	57,896
U.S.	44,493	46,494	48,451	49,246	51,640

Source: U.S. Bureau of Economic Analysis, U.S. Department of Commerce

Construction

The table below lists the value of housing construction for which building permits have been issued by entities within the City. The value of public construction is not included in this table.

CITY OF SEATTLE RESIDENTIAL BUILDING PERMIT VALUES

Year	New Single Family Units		New Multi-Family Units		Total Value(\$)
	Number	Value(\$)	Number	Value(\$)	
2014	898	227,307,102	6,547	881,734,102	1,109,041,204
2015	810	215,818,201	10,530	1,684,630,374	1,900,448,575
2016	797	216,693,139	9,202	1,242,951,877	1,459,645,016
2017	593	162,452,219	9,294	1,562,063,391	1,724,515,610
2018	523	141,737,845	7,395	892,514,843	1,034,252,688
2018 ⁽¹⁾	316	85,890,760	3,035	429,432,377	515,323,137
2019 ⁽¹⁾	296	80,550,740	6,015	843,760,264	924,311,004

(1) Through July.

Source: U.S. Bureau of the Census

Retail Activity

The following table presents taxable retail sales in King County and Seattle.

KING COUNTY AND THE CITY OF SEATTLE TAXABLE RETAIL SALES

Year	King County	City of Seattle
2014	\$ 49,638,174,066	\$ 19,995,171,842
2015	54,890,159,770	22,407,443,037
2016	59,530,882,870	24,287,539,378
2017	62,910,608,935	26,005,147,210
2018	69,018,354,390	28,292,069,881
2018 ⁽¹⁾	15,358,937,153	6,379,339,072
2019 ⁽¹⁾	15,961,201,367	6,548,481,812

(1) Through first quarter.

Source: Washington State Department of Revenue and Quarterly Business Review

Industry and Employment

The following table presents major Puget Sound-area employers and their State-wide employment data.

PUGET SOUND AREA MAJOR EMPLOYERS

<u>Employer</u>	<u>Full-Time Employees In State</u>
The Boeing Company	69,830
Joint Base Lewis-McChord	54,000
Amazon.com Inc.	52,000
Microsoft Corp.	51,360
University of Washington	46,820
Navy Region Northwest	46,010
Providence Health & Services	43,000
Safeway Inc. & Albertsons LLC	21,320
Walmart Inc.	19,410
Costco Wholesale Corp.	18,010
Multicare Health System	17,170
Fred Meyer Stores	16,070
King County Government	15,600 ⁽¹⁾
Starbucks Corp.	14,130
City of Seattle	13,410 ⁽²⁾
CHI Franciscan Health	12,370
Seattle Public Schools	11,430
Alaska Air Group Inc.	9,590
Nordstrom, Inc.	9,200
Virginia Mason Health System	8,760
T-Mobile US Inc.	7,900
Kaiser Permanente	7,670
Expedia Group Inc.	4,300

(1) Source: King County.

(2) Source: City of Seattle.

Source: *Puget Sound Book of Lists, as of June 29, 2019*

KING COUNTY
RESIDENT CIVILIAN LABOR FORCE AND EMPLOYMENT
AND NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT⁽¹⁾

	Annual Average				
	2014	2015	2016	2017	2018
Civilian Labor Force	1,158,195	1,178,040	1,204,360	1,230,207	1,258,687
Total Employment	1,103,941	1,127,580	1,156,939	1,184,707	1,215,220
Total Unemployment	54,254	50,460	47,421	45,500	43,467
Percent of Labor Force	4.7%	4.3%	3.9%	3.7%	3.5%
NAICS INDUSTRY	2014	2015	2016	2017	2018
Total Nonfarm	1,278,033	1,311,575	1,358,517	1,401,333	1,357,433
Total Private	1,108,425	1,137,442	1,180,175	1,219,450	1,179,242
Goods Producing	168,283	174,908	176,800	178,550	177,692
Mining and Logging	458	575	500	575	525
Construction	60,792	66,800	70,833	75,108	71,217
Manufacturing	107,025	107,542	105,475	102,892	105,967
Service Providing	1,109,750	1,136,667	1,181,717	1,222,783	1,179,742
Trade, Transportation, and Utilities	235,758	244,433	254,642	269,508	254,142
Information	85,583	89,058	95,967	102,983	96,200
Financial Activities	72,000	69,675	70,758	71,208	70,642
Professional and Business Services	207,933	215,733	222,667	228,183	222,750
Educational and Health Services	167,983	167,008	174,592	179,092	174,042
Leisure and Hospitality	124,883	130,108	136,425	141,392	135,683
Other Services	46,000	46,517	48,325	48,533	48,092
Government	169,608	174,133	178,342	181,883	178,192
Workers in Labor/Management Disputes	0	0	0	0	0

July 2019

Civilian Labor Force	1,291,696
Total Employment	1,251,536
Total Unemployment	40,160
Percent of Labor Force	3.1%

(1) Columns may not add to totals due to rounding.

Source: Washington State Employment Security Department

APPENDIX E
BOOK-ENTRY TRANSFER SYSTEM

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BOOK-ENTRY TRANSFER SYSTEM

The following information has been provided by DTC. The City makes no representation as to the accuracy or completeness thereof. Purchasers of the Bonds (the “Beneficial Owners”) should confirm the following with DTC or its participants (the “Participants”).

DTC will act as securities depository for the Bonds. The Bonds will be issued as fully registered bonds, registered in the name of Cede & Co. (DTC’s partnership nominee), or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond certificate will be issued for each maturity of the Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world’s largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.6 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC’s records. The ownership interest of each actual purchaser of each Bond (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices will be sent to DTC. If less than all of the Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Bonds unless authorized by a Direct Participant in accordance with DTC's MMI procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the City as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the City or the Bond Registrar on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Bond Registrar or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) are the responsibility of the City or the Bond Registrar, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Bonds at any time by giving reasonable notice to the City or the Bond Registrar. Under such circumstances, in the event that a successor depository is not obtained, Bond certificates are required to be printed and delivered.

The following information has been provided by the City.

The City may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered to DTC.

The information in this appendix concerning DTC and DTC's book-entry system has been obtained from sources the City believes to be reliable, but the City takes no responsibility for the accuracy thereof.

The Bond Registrar is not obligated to exchange or transfer any Bond during the 15 days preceding any principal or interest payment or redemption date.

Neither the City nor the Bond Registrar shall have any responsibility or obligation to Participants of DTC or the persons for whom they act as nominees with respect to the Bonds regarding accuracy of any records maintained by DTC or its Participants of any amount in respect of principal of or interest on the Bonds, or any notice which is permitted or required to be given to Registered Owners under the Bond Ordinance (except such notice as is required to be given by the Bond Registrar to DTC).