

SALE DATE: SEPTEMBER 14, 2016  
SALE TIME: 7:45 A.M., PACIFIC TIME

PRELIMINARY OFFICIAL STATEMENT DATED SEPTEMBER 1, 2016

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 and corporations. See "Legal and Tax Information—Tax Matters" herein with respect to tax consequences relating to the Bonds.*

\$151,000,000<sup>(1)</sup>

THE CITY OF SEATTLE, WASHINGTON  
MUNICIPAL LIGHT AND POWER IMPROVEMENT AND REFUNDING REVENUE BONDS, 2016C

DATED: DATE OF INITIAL DELIVERY

DUE: OCTOBER 1, AS SHOWN ON PAGE i

The City of Seattle, Washington (the "City"), will issue its Municipal Light and Power Improvement and Refunding Revenue Bonds, 2016C (the "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").

DTC will act as initial Securities Depository for the Bonds. Individual purchases of the Bonds will be made in book-entry form, in the denomination of \$5,000 or any integral multiple thereof within a maturity of the Bonds. Purchasers will not receive certificates representing their interest in the Bonds. Interest on the Bonds is payable semiannually on each April 1 and October 1, beginning April 1, 2017. 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 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 Transfer System" and in Appendix E.

The 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 refund (depending on market conditions) certain of the City's outstanding Municipal Light and Power bonds, and to pay the costs of issuing the Bonds and administering the Refunding Plan. See "Use of Proceeds."

The Bonds are subject to redemption prior to maturity as described herein. See "Description of the Bonds—Redemption of the Bonds."

The Bonds are special limited obligations of the City, payable from and secured solely by Gross Revenues of the Light System and by money in the Parity Bond Fund and the Reserve Fund. The pledge of Gross Revenues constitutes a charge upon such revenues prior and superior to all other charges whatsoever except reasonable charges for maintenance and operation of the Light System. The Bonds will be issued on a parity with certain Outstanding Parity Bonds (outstanding in the stated principal amount of \$1,990,825,000 as of September 2, 2016) and any Future Parity Bonds. Of the Outstanding Parity Bonds, \$32,020,000<sup>(1)</sup> is expected to be refunded with proceeds of the Bonds, depending on market conditions. Maintenance and operation charges include 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 for delivery by the Underwriter of the Bonds when, as, and if issued, subject to the approving legal opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation, Seattle, Washington, Bond Counsel. The form of Bond Counsel's opinion is attached hereto as Appendix B. It is expected that the 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 September 28, 2016.

*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: \_\_\_\_\_, 2016

(1) Preliminary, subject to change.

This is a Preliminary Official Statement, subject to correction and change. The City has authorized the distribution of the Preliminary Official Statement to prospective purchasers and others. Upon the sale of the Bonds, the City will complete and deliver an Official Statement substantially in this form.

*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 Legislation 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. 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 “Legal and Tax Information—Continuing Disclosure Undertaking.”*

*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 “Legal and Tax Information—Continuing Disclosure Undertaking.”*

*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. Neither the City nor the Underwriter takes 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.*

*This Preliminary Official Statement, as of its date, is in a form “deemed final” by the City for purposes of Securities and Exchange Commission Rule 15c2-12(b)(1), but is subject to revision, amendment, and completion in a final Official Statement which will be available within seven business days of the sale date.*

## MATURITY SCHEDULE

\$151,000,000<sup>(1)</sup>

THE CITY OF SEATTLE, WASHINGTON

MUNICIPAL LIGHT AND POWER IMPROVEMENT AND REFUNDING REVENUE BONDS, 2016C

<b>Due October 1</b>	<b>Amounts<sup>(1)</sup></b>	<b>Interest Rates</b>	<b>Yields</b>	<b>Prices</b>	<b>CUSIP Numbers</b>
2017	\$ 1,860,000				
2018	1,965,000				
2019	2,040,000				
2020	2,125,000				
2021	12,160,000				
2022	10,300,000				
2023	8,390,000				
2024	8,820,000				
2025	2,685,000				
2026	2,820,000				
2027	2,960,000 <sup>(2)</sup>				
2028	3,105,000 <sup>(2)</sup>				
2029	3,265,000 <sup>(2)</sup>				
2030	3,425,000 <sup>(2)</sup>				
2031	3,595,000 <sup>(2)</sup>				
2032	3,775,000 <sup>(2)</sup>				
2033	3,965,000 <sup>(2)</sup>				
2034	4,165,000 <sup>(2)</sup>				
2035	4,370,000 <sup>(2)</sup>				
2036	4,590,000 <sup>(2)</sup>				
2037	4,820,000 <sup>(2)</sup>				
2038	5,060,000 <sup>(2)</sup>				
2039	5,315,000 <sup>(2)</sup>				
2040	5,580,000 <sup>(2)</sup>				
2041	5,860,000 <sup>(2)</sup>				
2042	6,150,000 <sup>(2)</sup>				
2043	6,460,000 <sup>(2)</sup>				
2044	6,780,000 <sup>(2)</sup>				
2045	7,120,000 <sup>(2)</sup>				
2046	7,475,000 <sup>(2)</sup>				

(1) Preliminary, subject to change.

(2) These amounts will constitute principal maturities of the Bonds unless Term Bonds are specified by the successful bidder, in which case the amounts so specified will constitute mandatory sinking fund redemptions of the Term Bonds.

**THE CITY OF SEATTLE**  
**CITY OFFICIALS AND CONSULTANTS**

**MAYOR AND CITY COUNCIL**

Edward B. Murray Mayor

<b>Council Member</b>	<b>Term Expiration</b>
Sally Bagshaw	2019
Tim Burgess	2017
Lorena Gonzalez	2017
Bruce Harrell	2019
Lisa Herbold	2019
Rob Johnson	2019
Debora Juarez	2019
Mike O'Brien	2019
Kshama Sawant	2019

**CITY ADMINISTRATION**

Glen M. Lee Director of Finance  
Peter Holmes City Attorney

**SEATTLE CITY LIGHT DEPARTMENT**

Larry Weis	General Manager and Chief Executive Officer
Paula Laschober	Chief Financial Officer
James Baggs	Customer Service, Communications, and Regulatory Affairs Officer
Michael Jones	Power Management and Strategic Planning Officer
Lynn Best	Chief Environmental Officer
Bernie Ziemianek	Transmission and Distribution Officer
Michael Haynes	Energy Generation Operations and Engineering Officer
Sephir Hamilton	Interim Engineering and Technology Innovation Officer
DaVonna Johnson	Chief Administrative Services Officer

**BOND COUNSEL**

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

**FINANCIAL ADVISOR**

Piper Jaffray & Co.  
Seattle, Washington

**BOND REGISTRAR**

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

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## OFFICIAL NOTICE OF BOND SALE

\$151,000,000<sup>(1)</sup>

THE CITY OF SEATTLE, WASHINGTON

### MUNICIPAL LIGHT AND POWER IMPROVEMENT AND REFUNDING REVENUE BONDS, 2016C

Electronic bids for the purchase of The City of Seattle Municipal Light and Power Improvement and Refunding Revenue Bonds, 2016C (the “Bonds”) will be received by the Director of Finance of The City of Seattle, Washington (the “City”), via the BidCOMP/Parity electronic bid submission system (“Parity”), in the manner described below, on

**SEPTEMBER 14, 2016, AT 7:45 A.M., PACIFIC TIME,**

or such other day or time and under such other terms and conditions as may be established by the Director of Finance and provided to Parity and i-Deal Prospectus, a service of i-Deal LLC (“i-Deal”) as described under “Modification, Cancellation, Postponement.”

***Bids must be submitted electronically via Parity in accordance with this Official Notice of Bond Sale. For further information about Parity, potential bidders may contact Parity at (212) 849-5021. Hard copy or faxed bids will not be accepted.***

No bid will be received after the cut-off time for receiving bids specified above. All proper bids received with respect to the Bonds will be considered and acted on by the City Council at approximately 1:30 p.m., Pacific Time, on September 13, 2016. Each bidder (and not the City) is responsible for the timely electronic delivery of its bid. The official time will be determined by the City and not by any bidder or Parity. The bid will be officially awarded at such time as the City Council has adopted a resolution accepting the bid at its meeting.

Bidders are referred to the Preliminary Official Statement for additional information regarding the City, the Seattle City Light Department, the Bonds, the security for the Bonds, and other matters.

#### **Modification, Cancellation, Postponement**

The City may modify the terms of this Official Notice of Bond Sale prior to the cut-off time for receiving bids if the City elects to change the principal amounts or the redemption or other provisions or increase or decrease the total principal amount or the amounts of individual maturities of Bonds. Any such modification will be provided to Parity and i-Deal on or before September 13, 2016. In addition, the City may cancel or postpone the date and time for receiving bids for the Bonds at any time prior to the cut-off time for receiving bids. Notice of such cancellation or postponement will be provided to Parity and i-Deal as soon as practicable following such cancellation or postponement. As an accommodation to bidders, telephone, facsimile, or electronic notice of any such modification, cancellation, or postponement will be given to any bidder requesting such notice from the City’s Financial Advisor at the address and phone number provided under “Contact Information” below. Failure of any bidder to receive such notice will not affect the legality of the sale.

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(1) Preliminary, subject to change.

## CONTACT INFORMATION

Finance Division	Michael van Dyck, City of Seattle (206) 684-8347 <i>michael.vandyck@seattle.gov</i>
Financial Advisor	Rob Shelley, Piper Jaffray & Co. Office phone: (206) 628-2879 Day-of-sale phone: (206) 601-2249 <i>robert.e.shelley@pjc.com</i>
Bond Counsel	Alice Ostdiek, Stradling Yocca Carlson & Rauth, P.C. (206) 829-3002 <i>aostdiek@sycr.com</i>

## DESCRIPTION OF THE BONDS

### Bond Details

The Bonds will be dated their date of initial delivery. Interest on the Bonds will be payable semiannually on each April 1 and October 1, beginning April 1, 2017.

### Registration and Book-Entry Transfer System

The Bonds will be issued initially as fully registered bonds and registered by the fiscal agent of the State (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), in the name of Cede & Co. as nominee for DTC, which will act as the initial Securities Depository for the Bonds. The Bonds will be held fully immobilized in book-entry form by the Securities Depository. Individual purchases and sales of the Bonds will be made in book-entry form only in denominations of \$5,000 or any integral multiple thereof within a maturity of the Bonds (“Authorized Denominations”). Purchasers (“Beneficial Owners”) will not receive certificates representing their interest in the Bonds. So long as the Bonds are held in book-entry form, the Securities Depository will be deemed to be the Registered Owner of the Bonds, and all references herein to the Registered Owners will mean Cede & Co., as nominee of the Securities Depository, or its successor and will not mean the Beneficial Owners of the Bonds.

### Election of Maturities

The successful bidder for the Bonds must designate whether certain of the principal amounts of the Bonds will be retired as shown in the table below as serial bonds maturing in such year or as amortization installments of Term Bonds maturing in the years specified by the bidder. Term Bonds, if any, must consist of the total principal payments of two or more consecutive years and mature in the latest of those years.



Serial Maturity or Mandatory Sinking Fund Redemption (October 1)		Principal Amounts <sup>(1)</sup>	Serial Maturity or Mandatory Sinking Fund Redemption (October 1)		Principal Amounts <sup>(1)</sup>
2017		\$ 1,860,000	2032		\$ 3,775,000 <sup>(2)</sup>
2018		1,965,000	2033		3,965,000 <sup>(2)</sup>
2019		2,040,000	2034		4,165,000 <sup>(2)</sup>
2020		2,125,000	2035		4,370,000 <sup>(2)</sup>
2021		12,160,000	2036		4,590,000 <sup>(2)</sup>
2022		10,300,000	2037		4,820,000 <sup>(2)</sup>
2023		8,390,000	2038		5,060,000 <sup>(2)</sup>
2024		8,820,000	2039		5,315,000 <sup>(2)</sup>
2025		2,685,000	2040		5,580,000 <sup>(2)</sup>
2026		2,820,000	2041		5,860,000 <sup>(2)</sup>
2027		2,960,000 <sup>(2)</sup>	2042		6,150,000 <sup>(2)</sup>
2028		3,105,000 <sup>(2)</sup>	2043		6,460,000 <sup>(2)</sup>
2029		3,265,000 <sup>(2)</sup>	2044		6,780,000 <sup>(2)</sup>
2030		3,425,000 <sup>(2)</sup>	2045		7,120,000 <sup>(2)</sup>
2031		3,595,000 <sup>(2)</sup>	2046		7,475,000 <sup>(2)</sup>

(1) Preliminary, subject to change. See “Bidding Information and Award—Adjustment of Principal Amounts and Bid Price After Receipt of Bids” below for a description of the City’s right to adjust the principal amounts after the bids are received.

(2) These amounts will constitute principal maturities of the Bonds unless Term Bonds are specified by the successful bidder, in which case the amounts so specified will constitute mandatory sinking fund redemptions of Term Bonds.

## Redemption

*Optional Redemption.* The City reserves the right and option to redeem the Bonds prior to their stated maturity dates at any time on and after October 1, 2026, 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. See “Description of the Bonds—Redemption of the Bonds—Optional Redemption” in the Preliminary Official Statement.

*Mandatory Redemption.* As indicated on the schedule above, those Bonds that are designated by the successful bidder as Term Bonds (if any) will be subject to mandatory sinking fund redemption. See “Description of the Bonds—Redemption of the Bonds—Mandatory Redemption” in the Preliminary Official Statement.

*Selection of Bonds for Redemption.* If fewer than all of the Bonds are to be redeemed prior to maturity, the selection of such Bonds for redemption shall be made as described under “Description of the Bonds—Redemption of the Bonds—Selection of Bonds for Redemption” in the Preliminary Official Statement.

## Purpose

The 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 refund (depending on market conditions) certain of the City’s outstanding Municipal Light and Power bonds, and to pay the costs of issuing the Bonds and administering the Refunding Plan.

See “Use of Proceeds” in the Preliminary Official Statement.

## Security

The Bonds are special limited obligations of the City, payable from and secured solely by Gross Revenues of the Light System and by money in the Parity Bond Fund and the Municipal Light and Power Bond Reserve Fund. The pledge of Gross Revenues constitutes a charge upon such revenues prior and superior to all other charges whatsoever except reasonable charges for maintenance and operation of the Light System. Maintenance and operation charges include the unconditional obligation of the City to make payments under certain power purchase contracts.

*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.*

## **BIDDING INFORMATION AND AWARD**

Bidders are invited to submit bids for the purchase of the Bonds fixing the interest rate or rates that the Bonds will bear. Interest rates included as part of a bid for the Bonds shall be in multiples of 1/8 or 1/20 of 1%, or any combination thereof. No more than one rate of interest may be fixed for any one maturity of the Bonds. For those Bonds maturing from October 1, 2017, through and including October 1, 2024, no interest rate greater than 5.00% may be used, and for those Bonds maturing on and after October 1, 2027, no interest rate less than 4.00% may be used.

No bid will be considered for the Bonds that is less than an amount equal to 113% of the stated principal amount of the Bonds nor more than an amount equal to 125% of the stated principal amount of the Bonds.

For the purpose of this section, “price” means the lesser of the price at the redemption date, if any, or the price at the maturity date.

Bids for the Bonds must be unconditional. No bid for less than the entire offering of the Bonds will be accepted. Bids may not be withdrawn or revised after the cut-off time for receiving bids. The City strongly encourages the inclusion of women and minority business enterprise firms in bidding syndicates.

### **Bidding Process**

Bids for the Bonds must be submitted via Parity.

By submitting an electronic bid for the Bonds, each bidder thereby agrees to the following terms and conditions:

- (i) If any provision in this Official Notice of Bond Sale conflicts with information or terms provided or required by Parity, this Official Notice of Bond Sale (including any modifications provided by the City to Parity and i-Deal) shall control.
- (ii) Each bidder is solely responsible for making necessary arrangements to access Parity for purposes of submitting a timely bid in compliance with the requirements of this Official Notice of Bond Sale (including any modifications provided by the City to Parity and i-Deal).
- (iii) The City has no duty or obligation to provide or assure access to Parity, and the City shall not be responsible for the proper operation of Parity, or have any liability for any delays or interruptions or any damages caused by use or attempted use of Parity.
- (iv) Parity is acting as an independent contractor, and is not acting for or on behalf of the City.
- (v) The City is not responsible for ensuring or verifying bidder compliance with Parity’s procedures.
- (vi) If the bidder’s bid is accepted by the City, this Official Notice of Bond Sale (including any modifications provided by the City to Parity and i-Deal) and the information that is submitted electronically through Parity shall form a contract, and the bidder shall be bound by the terms of such contract.
- (vii) Information provided by Parity to bidders shall form no part of any bid or of any contract between the successful bidder and the City unless that information is included in this Official Notice of Bond Sale (including any modifications provided by the City to Parity and i-Deal).

### **Good Faith Deposit**

To be considered by the City Council, a bid must be backed by a good faith deposit in the amount of \$1,500,000. The good faith deposit must be paid by federal funds wire transfer within 90 minutes after notice from the City to the apparent successful bidder for the Bonds. Wiring instructions will be provided to the apparent successful bidder at the time of the notice from the City.

The good faith deposit for the Bonds shall be retained by the City as security for the performance of the apparent successful bidder and shall be applied to the purchase price of the Bonds upon the delivery of the Bonds to that bidder. Pending delivery of the Bonds, the good faith deposit may be invested for the sole benefit of the City. If the Bonds are ready for delivery and the successful bidder fails or neglects to complete the purchase within 30 days following the acceptance of its bid, the good faith deposit for the Bonds shall be retained by the City as reasonable liquidated damages and not as a penalty.

### **Award**

The Bonds will be sold to the bidder making a bid that conforms to the terms of the offering and is the best bid, based on the City's determination of the lowest true interest cost. The true interest cost will be the rate that, when used to discount to the date of the Bonds all future payments of principal and interest (using semiannual compounding and a 30/360 day basis), produces an amount equal to the bid amount for the Bonds, without regard to the interest accrued to the date of the Bonds. The true interest cost calculations for any bids received for the Bonds will be performed by the City's Financial Advisor, and the City will base its determination of the best bid for the Bonds solely on such calculations. If there are two or more equal bids for the Bonds and those bids are the best bids received, the Director of Finance will determine by random selection which bid will be presented to the City Council.

The apparent successful bidder for the Bonds will be notified by the City and must provide a good faith deposit as described above. The bid will be presented to the City Council at approximately 1:30 p.m., Pacific Time, on the date set for receiving bids and shall remain in effect until 5:00 p.m., Pacific Time, on that date. The bid shall be considered awarded upon the City Council's adoption of a resolution accepting the bid.

The City reserves the right to reject any or all bids submitted and to waive any formality or irregularity in any bid or the bidding process. If all bids for the Bonds are rejected, then the Bonds may be sold in the manner provided by law. Any bid presented after the cut-off time for receiving bids will not be accepted, and any bid not backed by the required good faith deposit will not be considered by the City Council.

### **Adjustment of Principal Amounts and Bid Price After Receipt of Bids**

The City reserves the right to decrease the preliminary aggregate principal amount of the Bonds shown on Parity by an amount not to exceed 10% of the principal amount of the Bonds after the cut-off time for receiving bids. The City reserves the right to increase or decrease the preliminary principal amount of any maturity of the Bonds shown on Parity by an amount not to exceed the greater of \$500,000 or 15% of the preliminary principal amount of that maturity after the cut-off time for receiving bids.

If the preliminary principal amount of the Bonds is adjusted by the City, the price bid by the successful bidder for the Bonds will be adjusted by the City on a proportionate basis to reflect an increase or decrease in the principal amount and maturity schedule. In the event that the City elects to increase or decrease the principal amount of the Bonds after receiving bids, the underwriter's discount, expressed in dollars per thousand, will be held constant. The City will not be responsible in the event and to the extent that any adjustment affects (i) the net compensation to be realized by the successful bidder, or (ii) the true interest cost of the winning bid or its ranking relative to other bids.

### **Issue Price Information**

Upon award of the Bonds, the successful bidder shall advise the City and Bond Counsel of the initial reoffering prices to the public of each maturity of the Bonds (the "Initial Reoffering Prices"), for the City's inclusion in the final Official Statement for the Bonds. Prior to delivery of the Bonds, the successful bidder for the Bonds shall furnish to the City and Bond Counsel a certificate in form and substance acceptable to Bond Counsel:

- (i) confirming the Initial Reoffering Prices,
- (ii) certifying that a *bona fide* offering of the Bonds has been made to the public (excluding bond houses, brokers, and other intermediaries),
- (iii) stating the first price at which a substantial amount (at least 10%) of each maturity of the Bonds was sold to the public (excluding bond houses, brokers, and other intermediaries), and

- (iv) if the first price at which a substantial amount of any maturity of the Bonds is sold does not conform to the Initial Reoffering Price of that maturity, providing an explanation of the facts and circumstances that resulted in that nonconformity.

A draft form of such certificate may be obtained prior to the sale date by contacting the City's Financial Advisor. See "Contact Information" in this Official Notice of Bond Sale.

### **Insurance**

No bid for the Bonds may be conditioned upon obtaining insurance or any other credit enhancement, or upon the City's acceptance of any of the terms of insurance or other credit enhancement. Any purchase of municipal bond insurance or commitment therefor shall be at the sole option and expense of the bidder for the Bonds, and any increased costs of issuance on the Bonds resulting by reason of such insurance, unless otherwise paid, must be paid by such bidder, and will not, in any event, be paid by the City. Any failure of the Bonds to be so insured or of any such policy of insurance to be issued shall not in any way relieve the successful bidder for the Bonds of its contractual obligations arising from the acceptance of its bid.

If the successful bidder for the Bonds purchases insurance for any of the Bonds, the City may require such successful bidder to furnish to the City and Bond Counsel a certificate in form and substance acceptable to Bond Counsel confirming that the present value (calculated using the same yield as the yield on the insured Bonds) of the insurance premium is less than the present value (calculated using the same yield as the yield on the insured Bonds) of the interest cost savings represented by the comparative differences between interest amounts that would have been payable on the various maturities of the insured Bonds at interest rates on the insured Bonds issued with and without the insurance on the insured Bonds.

### **Ratings**

The Bonds have been rated "Aa2" and "AA" by Moody's Investors Service and Standard & Poor's Ratings Services, respectively. The City will pay the fees for these ratings; any other ratings for the Bonds are the responsibility of the successful bidder.

### **DELIVERY**

The City will deliver the Bonds (consisting of one certificate for each maturity of the Bonds) to DTC in New York, New York, or to the Bond Registrar on behalf of DTC, for closing by Fast Automated Securities Transfer, prior to the date of closing. Closing shall occur within 30 days after the sale date. Settlement shall be in immediately available federal funds on the date of delivery.

If, prior to the delivery of the Bonds, the interest receivable by the owners of the Bonds becomes includable in gross income for federal income tax purposes, or becomes subject to federal income tax other than as described in the Preliminary Official Statement, the successful bidder for the Bonds, at its option, may be relieved of its obligation to purchase the Bonds and, in that case, the good faith deposit accompanying its bid will be returned without interest.

The City will furnish to the successful bidder for the Bonds one CD-ROM transcript of proceedings. Additional transcripts will be furnished at the successful bidder's expense.

### **Legal Opinion**

The approving legal opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation, Seattle, Washington, Bond Counsel, with respect to the Bonds will be provided to the successful bidder at the time of the delivery of the Bonds. The form of Bond Counsel's opinion is attached to the Preliminary Official Statement as Appendix B. A no-litigation certificate from the City will be included in the closing documents for the Bonds.

### **CUSIP Numbers**

It is anticipated that a CUSIP identification number will appear on each Bond, but neither the failure to insert such number nor any error with respect thereto shall constitute cause for a failure or refusal by the successful bidder for the Bonds to accept delivery of and pay for the Bonds in accordance with the terms of this Official Notice of Bond Sale.

***The successful bidder for the Bonds is responsible for obtaining CUSIP numbers for the Bonds. The charge of the CUSIP Service Bureau shall be paid by such successful bidder.***

#### **CONTINUING DISCLOSURE UNDERTAKING**

In order to assist bidders in complying with paragraph (b)(5) of U.S. Securities and Exchange Commission Rule 15c2-12 (“Rule 15c2-12”), the City will undertake to provide certain annual financial information and notices of the occurrence of certain events. A description of this undertaking and the City’s compliance with its prior undertakings is set forth in the Preliminary Official Statement under “Legal and Tax Information—Continuing Disclosure Undertaking” and also will be set forth in the final Official Statement.

#### **OFFICIAL STATEMENT**

##### **Preliminary Official Statement**

The Preliminary Official Statement is in a form that the City has deemed final for the purpose of paragraph (b)(1) of Rule 15c2-12, but is subject to revision, amendment, and completion in a final Official Statement, which the City will deliver, at the City’s expense, to the successful bidder through its designated representative not later than seven business days after the City’s acceptance of the successful bidder’s bid, in sufficient quantities to permit the successful bidder to comply with Rule 15c2-12.

By submitting the successful bid for the Bonds, the successful bidder’s designated representative agrees:

- (i) to provide to the City’s Debt Manager, in writing, within 24 hours after the acceptance of the bid, pricing and other related information, including Initial Reoffering Prices of the Bonds, necessary for completion of the final Official Statement (see “Bidding Information and Award—Issue Price Information”);
- (ii) to disseminate to all members of the underwriting syndicate, if any, copies of the final Official Statement, including any amendments or supplements prepared by the City;
- (iii) to take any and all actions necessary to comply with applicable rules of the Securities and Exchange Commission and Municipal Securities Rulemaking Board governing the offering, sale, and delivery of the Bonds to ultimate purchasers, including the delivery of a final Official Statement to each investor who purchases the Bonds; and
- (iv) to file the final Official Statement or cause it to be filed with the Municipal Securities Rulemaking Board within one business day following its receipt from the City.

The Preliminary Official Statement may be obtained from i-Deal at [www.i-dealprospectus.com](http://www.i-dealprospectus.com), telephone (212) 849-5024. In addition, the Preliminary Official Statement may be obtained upon request to the City’s Debt Manager or Financial Advisor. See “Contact Information” in this Official Notice of Bond Sale.

##### **Official Statement**

At closing, the City will furnish a certificate of an official or officials of the City stating that, to the best knowledge of such official(s), as of the date of the Official Statement and as of the date of delivery of the Bonds,

- (i) the information (including financial information) regarding the City and the Seattle City Light Department (including the Light System) contained in the Official Statement was and is true and correct in all material respects and did not and does not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; and
- (ii) the descriptions and statements, including financial data, of or pertaining to entities other than the City and their activities contained in the Official Statement have been obtained from sources that the City believes to be reliable and the City has no reason to believe that they are untrue in any material respect (however, the City will make no representation regarding Bond Counsel’s form of opinion, the information provided by Bond Counsel under “Legal and Tax Information—Limitations on Remedies and Municipal Bankruptcies” and “—Tax Exemption,” or the information provided by or obtained from DTC or any entity providing bond insurance, reserve insurance, or other credit facility, if any).

DATED at Seattle, Washington, this 1st day of September, 2016.

\_\_\_\_\_  
/s/Glen Lee

Glen Lee  
Director of Finance

## PRELIMINARY OFFICIAL STATEMENT

\$151,000,000<sup>(1)</sup>

### THE CITY OF SEATTLE, WASHINGTON MUNICIPAL LIGHT AND POWER IMPROVEMENT AND REFUNDING REVENUE BONDS, 2016C

#### 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 \$151,000,000<sup>(1)</sup> aggregate principal amount of its Municipal Light and Power Improvement and Refunding Revenue Bonds, 2016C (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 new money portion of the Bonds. Appendix B includes the form of legal opinion of Stradling Yocca Carlson & Rauth, a Professional Corporation, Seattle, Washington (“Bond Counsel”). Appendix C contains the audited 2015 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 Legislation (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”), the Seattle City Charter, Ordinance 124916, passed on November 23, 2015 (the “New Money Ordinance”), Ordinance 124335, passed on November 25, 2013 (as amended by Ordinance 124916) (the “Refunding Ordinance” and, together with the New Money Ordinance, the “Bond Ordinance”), and Resolution \_\_\_\_, adopted on September 13, 2016 (the “Bond Resolution”). The Bond Ordinance and the Bond Resolution together are referred to in this Official Statement as the “Bond Legislation.” The New Money Ordinance authorizes the issuance of a maximum par amount of \$280 million of Parity Bonds, and the new money portion of the Bonds represents the second issuance under this authorization. The City expects to issue the remainder of this authorization in a variable rate direct placement expected to close soon after the closing for the Bonds. See “Capital Requirements—Financing Plans.”

##### Principal Amounts, Dates, Interest Rates, and Maturities

The Bonds will be dated the date of their initial issuance and delivery (the “Issue Date”), and will mature on the dates and in the amounts set forth on page i of this Official Statement. Interest on the Bonds is payable

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(1) Preliminary, subject to change.

semiannually on each April 1 and October 1, beginning April 1, 2017, at the rates set forth on page i 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 Transfer System**

*Book-Entry Transfer System.* The Bonds will be issued initially as fully registered bonds and registered by the fiscal agent of the State (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), in the name of Cede & Co. as nominee for DTC, which will act as the initial Securities Depository for the Bonds. The Bonds will be held fully immobilized in book-entry form by the Securities Depository. Individual purchases and sales of the Bonds will be made in book-entry form only in denominations of \$5,000 or any integral multiple thereof within a maturity of the Bonds (“Authorized Denominations”). Purchasers (“Beneficial Owners”) will not receive certificates representing their interest in the Bonds. So long as the Bonds are held in book-entry form, the Securities Depository will be deemed to be the Registered Owner of the Bonds, and all references herein to the Registered Owners will mean Cede & Co., as nominee of DTC, or its successor and will not mean the Beneficial Owners of the Bonds. 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.

*Transfer and Exchange; Record Date.* Registered ownership of any Bond registered in the name of Cede & Co., as nominee for DTC, 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 only form. If (i) the Securities Depository resigns from its functions as depository, and no substitute Securities Depository can be obtained, or (ii) the City determines that the Bonds are to be in certificated form, the ownership of Bonds may be transferred to any person as provided in the Bond Ordinance, and the Bonds no longer will be held in book-entry form. The Bond Registrar is not obligated to exchange or transfer any Bond during the period between the Record Date and the corresponding interest or principal payment date or redemption date. Record Date means, in the case of each interest or principal payment date, the Bond Registrar’s close of business on the 15th day of the month preceding the interest or principal payment date. With regard to redemption of a Bond prior to its maturity, 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.

### **Payment of the Bonds**

Principal of and interest on each Bond registered in the name of Cede & Co., as nominee of DTC, are payable by wire transfer of the Bond Registrar to DTC, which is obligated to remit such principal and interest to its participants for subsequent disbursement to the Beneficial Owners of the Bonds, as further described in Appendix E—Book-Entry Transfer System.

Interest on each Bond not registered in the name of the Securities Depository 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 registered in the name of the Securities Depository is payable upon presentation and surrender of the Bond by the Registered Owner to the Bond Registrar.

### **Redemption of the Bonds**

*Optional Redemption.* The Bonds maturing on and before October 1, 2026, are not subject to redemption prior to maturity. The City reserves the right and option to redeem Bonds maturing on and after October 1, 2027, prior to their stated maturity dates at any time on and after October 1, 2026, 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—Term Bonds.* If not previously redeemed as described above or purchased or defeased under the provisions described below, the Term Bonds maturing on October \_\_\_\_, will be called for redemption at a



price equal to 100% of the stated principal amount to be redeemed plus accrued interest to the date fixed for redemption on October 1 in the years and amounts as follows:

<u>TERM BONDS</u>	
<u>Years</u>	<u>Amounts</u>
(1)	

(1) Maturity.

*Selection of Bonds for Redemption.* If fewer than all of the outstanding 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 fewer than all of the outstanding Bonds of a maturity are to be redeemed, then:

- (i) Bonds registered in the name of the Securities Depository are to be redeemed in accordance with the Letter of Representations, and
- (ii) the Bond Registrar is required to select all other Bonds to be redeemed randomly in such manner as the Bond Registrar determines.

All or a portion of the principal amount of any Bond that is to be redeemed may be redeemed in any Authorized Denomination.

If Bonds selected for optional redemption or purchase by the City are Term Bonds, the Term Bonds so redeemed or purchased (irrespective of their redemption or purchase prices) will be credited at the par amount thereof against the remaining mandatory redemption requirements as determined by the Director of Finance. If the Director of Finance does not make such a determination, credit will be allocated on a *pro rata* basis.

### **Notice and Effect of Redemption**

*Notice of Redemption.* The City is required to cause notice of any intended redemption of 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 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 Registered Owner of any Bond. Notice of redemption of Bonds registered in the name of Cede & Co., as nominee of the Securities Depository, will be given in accordance with the Letter of Representations. See “Registration and Book-Entry Transfer System” and Appendix E.

*Conditional 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 Bonds by giving a notice of rescission to the affected Registered Owners at any time 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 Bonds for which the notice of optional redemption has been rescinded will remain outstanding.

*Effect of Redemption.* Interest on Bonds called for redemption will cease to accrue on the date fixed for redemption unless the Bond or Bonds called are not redeemed when presented pursuant to the call.

### **Purchase**

The City reserves the right and option to purchase any or all of the Bonds 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 is not paid when properly presented at its maturity or redemption date, the City will be obligated to pay, solely from 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 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.

## 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 to pay when due the principal of and interest on any Bond, or any portion thereof, included in a refunding or defeasance plan, and to redeem and retire, release, refund, or defease those Bonds (the “Defeased Bonds”) and 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 investments thereof, to redeem and retire, release, refund, or defease the Defeased Bonds in accordance with their terms, are 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 Gross 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. Notice of refunding or defeasance is to be given, and selection of Bonds for any partial refunding or defeasance is to be conducted, in the manner provided for the redemption of Bonds. See “Description of the Bonds—Notice and Effect of Redemption.”

The term “Government Obligations” has the meaning given in RCW 39.53.010, currently: (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 Bonds are being issued to finance certain capital improvements to and conservation programs for the Light System, to refund (depending on market conditions) certain of the City’s outstanding Municipal Light and Power bonds described below under “Refunding Plan,” and to pay the costs of issuing the Bonds and administering the Refunding Plan.

### Sources and Uses of Funds

The proceeds of the Bonds will be applied as follows:

#### SOURCES OF FUNDS

Par Amount of Bonds	\$
Net Reoffering Premium (Discount)	
Total Sources of Funds	<u>\$</u>

#### USES OF FUNDS

Deposit to Project Fund	\$
Deposit to Refunding Escrow	
Costs of Issuance <sup>(1)</sup>	
Total Uses of Funds	<u>\$</u>

(1) Includes legal fees, financial advisory and rating agency fees, verification agent and refunding trustee fees, costs of printing and posting this Official Statement, underwriter’s discount, and other costs of issuing the Bonds and refunding the Refunded Bonds.

## Refunding Plan

Depending on market conditions, the City expects to refund all or a portion of the Municipal Light and Power Improvement and Refunding Revenue Bonds, 2010B, identified below (the “Refunding Candidates”). The refunding will be undertaken to achieve debt service savings. The Refunding Candidates that are refunded with the proceeds of the Bonds will be identified as the “Refunded Bonds.”

### REFUNDING CANDIDATES<sup>(1)</sup>

<b>Bond</b>	<b>Maturity Date</b>	<b>Par Amount</b>	<b>Coupon (%)</b>	<b>Call Price (%)</b>	<b>Call Date</b>	<b>CUSIP Numbers</b>
<i>Municipal Light and Power Improvement and Refunding Revenue Bonds, 2010B</i>						
Serials	2/1/2021	\$ 10,445,000 <sup>(2)</sup>	5.000	100	2/1/2020	812643 DX9
	2/1/2022	8,445,000 <sup>(2)</sup>	5.000	100	2/1/2020	812643 DY7
	2/1/2023	6,395,000 <sup>(2)</sup>	5.000	100	2/1/2020	812643 DZ4
	2/1/2024	<u>6,735,000 <sup>(2)</sup></u>	5.000	100	2/1/2020	812643 EA8
Total		<u>\$ 32,020,000</u>				

(1) Preliminary, subject to change.

(2) Partial maturity.

The City will enter into a Refunding Trust Agreement with U.S. Bank National Association, as Refunding Trustee, upon the delivery of the Bonds, to provide for the advance refunding of the Refunded Bonds. The Refunding Trust Agreement creates an irrevocable trust fund to be held by the Refunding Trustee and to be applied solely to the payment of the Refunded Bonds. A portion of the proceeds of the Bonds will be deposited with the 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 as they become due and 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 (i) 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 principal of and interest on the Refunded Bonds as described above, and (ii) the computations supporting the conclusion of Bond Counsel that the Bonds are not “arbitrage bonds” under Section 148 of the Internal Revenue Code of 1986, as amended (the “Code”), will be verified by Causey Demgen & Moore P.C., independent certified public accountants (the “Verification Agent”).

### SECURITY FOR THE BONDS

#### Outstanding Parity Bonds

The Bonds are being issued on a parity with the Outstanding Parity Bonds, which currently include 14 series of bonds issued since 2008. See “Department Financial Information—Debt Service Requirements.”

Approximately simultaneously with the issuance of the Bonds, the City expects to issue approximately \$100 million aggregate principal amount of variable rate (multimodal) Parity Bonds (the “2016D and 2016E Bonds”) in a direct placement transaction, the general terms of which are outlined below under “Capital Requirements—Financing Plans.”

**OUTSTANDING PARITY BONDS**

<b>Bond Description</b>	<b>Original Par Amount</b>	<b>Outstanding Principal as of September 2, 2016</b>
2008 Bonds	\$ 257,375,000	\$ 31,525,000
2010A Bonds	181,625,000	181,625,000
2010B Bonds <sup>(1)</sup>	596,870,000	372,930,000
2010C Bonds	13,275,000	13,275,000
2011A Bonds	296,315,000	239,785,000
2011B Bonds	10,000,000	10,000,000
2012A Bonds	293,280,000	261,140,000
2012C Bonds	43,000,000	43,000,000
2013 Bonds	190,755,000	181,845,000
2014 Bonds	265,210,000	239,470,000
2015A Bonds	171,850,000	167,485,000
2015B Bonds <sup>(2)</sup>	100,000,000	100,000,000
2016A Bonds	31,870,000	31,870,000
2016B Bonds	116,875,000	116,875,000
<b>Total</b>	<b>\$ 2,568,300,000</b>	<b>\$ 1,990,825,000</b>

(1) Certain maturities of this series are designated as the Refunding Candidates.

(2) Issued as multimodal variable rate bonds.

**Pledge of Revenue**

The Bonds are special limited obligations of the City, payable from and secured solely by Gross Revenues of the Light System and by money in the Seattle Municipal Light Revenue Parity Bond Fund (the “Parity Bond Fund”) and the Municipal Light and Power Bond Reserve Fund (the “Reserve Fund”). The pledge of Gross Revenues constitutes a charge upon such revenues prior and superior to all other charges whatsoever except reasonable charges for maintenance and operation of the Light System. 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 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 may include 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 Gross Revenues for payment thereof.

The Bond Ordinance defines “Gross Revenues” to include all income, revenues, and receipts derived through the Light System and 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, including the federal credit payments for Outstanding Parity Bonds that have been issued as tax credit subsidy bonds. Bond proceeds and certain insurance proceeds are excluded from the definition. The Bond Ordinance defines “Net Revenue” as the amount determined by deducting from Gross Revenues the expenses of operation, maintenance, and repair of the Light System and further deducting any deposits into the Rate Stabilization Account (“RSA”) and adding to Gross Revenues any withdrawals from the RSA and any amounts the City expects to receive from the federal government in respect of federal credit payments for Outstanding Parity Bonds that have been issued as tax credit subsidy bonds. The Bond Ordinance does not define “reasonable charges for maintenance and operation of the Light System” as used in the pledge language, nor does it define “expenses of operation, maintenance, and repair” as used in the definition of Net Revenue in the context of the test for issuing Future Parity Bonds. The Department treats these terms as interchangeable and utilizes generally accepted accounting principles applicable to similar municipal utility enterprises in order to record such expenses. See Appendix A—Bond Ordinance—Section 13(g). See also “Department Financial Information—Debt Service Requirements—Federal Sequestration” for a discussion of the impact of sequestration on federal

interest payments for certain Department bonds. See the discussion of the RSA under “Security for the Bonds—Rate Stabilization Account,” “Department Financial Information—Financial Policies,” and Appendix A—Bond Ordinance—Section 17.

The complete definitions of the capitalized terms summarized above can be found in Appendix A—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 Legislation. 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.*

### **Rate Covenant**

In the Bond Legislation, the City has covenanted, among other things, to establish and maintain rates sufficient to provide for payment of debt service on the Outstanding Parity Bonds, any Future Parity Bonds, and all other obligations for which revenues have been pledged, to pay all costs of maintenance and operation, and to maintain the Light System in good order and repair. The Bond Legislation does not include a requirement that the City set rates to achieve a specific level of debt service coverage on Parity Bonds. A coverage test is included as part of the test for issuing Future Parity Bonds. See “Department Financial Information—Financial Policies” and Appendix A—Bond Ordinance—Section 13(d).

### **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 all Parity Bonds outstanding and all amounts due under Parity Payment Agreements. The Reserve Fund is a pooled reserve. See Appendix A—Bond Ordinance—Section 13(b).

The Bond Legislation 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. Such transfers must be made, first, from money in the Light Fund (after making provision for payment of operating and maintenance expenses and for required payments into the Parity Bond Fund) 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, and then taking money from the restricted portion thereof).

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 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 the bond resolution approving the sale of that 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.”

The Bond Resolution for the Bonds establishes the Reserve Fund Requirement for the Bonds 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.” Until the expiration of the Surety Bond (defined below under “Method of Satisfying Reserve Fund Requirement”), in 2029 unless earlier terminated, this amount is calculated based on the debt service requirements for all Parity Bonds that are outstanding as of the Issue Date (i.e., excluding the Refunded Bonds and including the Bonds). Upon

the expiration or termination of the Surety Bond, this amount will be recalculated to exclude the debt service requirements of the outstanding multimodal variable rate 2015B Bonds and any other issue of Future Parity Bonds that are excluded pursuant to the legislation authorizing such Future Parity Bonds. The City expects to similarly exclude the future 2016D and 2016E Bonds (if issued) from the aggregate reserve requirement calculation upon the expiration or termination of the Surety Bond. See “Capital Requirements—Financing Plans.”

Upon the issuance of the Bonds, the aggregate Reserve Fund Requirement for all Parity Bonds outstanding will be approximately \$127,500,000<sup>(1)</sup>. Upon the expiration or termination of the Surety Bond, the Reserve Requirements for the 2015B Bonds (and the 2016D and 2016E Bonds, if issued) will be reduced to \$0, resulting in a reduction in the aggregate Reserve Fund Requirement.

*Method of Satisfying Reserve Fund Requirement.* The Bond Ordinance permits the City to select the method of funding the Reserve Fund Requirement for each issue of the Bonds and for Future Parity Bonds in the applicable bond sale resolution 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 out of Gross Revenues (or out of any other legally available funds, including proceeds of such Future Parity Bonds) at one time on the Issue Date, (ii) making periodic payments 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.

With respect to the Bonds, the Bond Resolution provides that the City will pay into the Reserve Fund out of Gross Revenues on the Issue Date such sums as will, together with money currently in the Reserve Fund, provide for the Reserve Fund Requirement for the Bonds. The Reserve Fund Requirement for the Bonds will be satisfied by the amounts already on deposit and no additional deposit to the Reserve Fund will be required as a result of the issuance of the Bonds. The City also holds approximately \$18,900,000 in the Reserve Fund 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.” A portion of this additional cash may be transferred into the Reserve Fund upon issuance of the 2016D and 2016E Bonds in order to satisfy any increase in the aggregate Reserve Fund Requirement resulting from the issuance of those bonds until the expiration or termination of the Surety Bond further described below. See “Information Regarding the 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. See Appendix A—Bond Ordinance—Section 1. 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 Financial Security Assurance, Inc. (“FSA”), with a policy limit that is currently equal to \$77,103,734, which will decrease with the issuance of the Bonds to approximately \$75,000,000<sup>(1)</sup>. See “Information Regarding Surety Bond” below. This amount is used to satisfy a large proportion of the aggregate Reserve Fund Requirement. As of September 1, 2016, the remainder of the Reserve Fund Requirement was satisfied by \$52,500,000<sup>(1)</sup> in cash held in the Reserve Fund.

*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 amount available to be drawn on the Surety Bond (the “Policy Limit”) is currently equal to \$77,103,734. However, should the Reserve Fund Requirement be reduced in the future, the Policy Limit

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(1) Preliminary, subject to change.

would be reduced irrevocably by a like amount, which is expected to occur with the issuance of the Bonds. See “Method of Satisfying Reserve 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 reimbursement agreement. 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](http://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 Bond Legislation authorizes the issuance of Future Parity Bonds if:

- (i) there is no deficiency in the Parity Bond Fund or in any of the accounts therein and provision has been made to meet the Reserve Fund Requirement for all Parity Bonds then outstanding plus the proposed Future Parity Bonds, and
- (ii) either:
  - (a) the Director of Finance certifies that Net Revenue in any 12 consecutive months out of the most recent 24 months preceding the issuance of the 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 Future Parity Bonds proposed to be issued (except that if any adjustment in the rates, fees, and charges for the services of the Light System will be effective at any time prior to or within six months after the delivery of the proposed Parity Bonds, the Director of Finance will reflect in his or her certificate the Net Revenue he or she calculates would have been collected in the Base Period if such new rates, fees, and charges had been in effect for the entire Base Period), or
  - (b) the City has on file a certificate of a Professional Utility Consultant stating that the Adjusted Net Revenue for the Base Period, calculated as described in the Bond Legislation, is not less than 125% of maximum Annual Debt Service in any future calendar year on all Parity Bonds then outstanding and the Future Parity Bonds proposed to be issued. The Bond Legislation permits the Professional Utility Consultant to adjust Net Revenue based on certain conditions, as described in Section 13(g) of the Bond Ordinance.

See the discussion of the RSA under “Security for the Bonds—Rate Stabilization Account,” “Department Financial Information—Financial Policies,” and Appendix A—Bond Ordinance—Section 17. See also the discussion of the effect of federal sequestration on the receipt of federal credit payments for the City’s outstanding Tax Credit Subsidy Bonds under “Department Financial Information—Debt Service Requirements—Federal Sequestration.”

The Bond Legislation authorizes the issuance of Refunding Parity Bonds without the requirement of meeting the above provisions if such issuance does not cause Annual Debt Service to increase by more than \$5,000 in any calendar year. See Appendix A—Bond Ordinance—Section 13(h).

### **Other Covenants**

In the Bond Legislation, 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—Bond Ordinance—Section 13.

### **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 prerequisites described above for the issuance of Future Parity Bonds also apply to the City's incurring obligations under any Parity Payment Agreements. See Appendix A—Bond Ordinance—Sections 1 and 13(g). The City currently has no Parity Payment Agreements in effect.

### **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 Gross Revenues and any other money received by the Light System and available to be used for this purpose. The City may withdraw any or all of the money from the RSA for inclusion in the 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 Net Revenue. Additional information about the RSA and the City's current policies regarding funding the RSA may be found under "Department Financial Information—Financial Policies" below. See also Appendix A—Bond Ordinance—Section 17.

### **Defaults and Remedies; No Acceleration of the Parity Bonds**

The Bond Legislation does not enumerate events of default or remedies upon an event of default. In the event of a default, Bond owners would be permitted to pursue remedies permitted by 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.

The Parity Bonds are not subject to acceleration upon the occurrence of a 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 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.

### **Subordinate Lien Obligations**

The City has reserved the right to issue bonds or other obligations with a charge or lien upon the Gross Revenues subordinate to the payments required to be made from Gross Revenues into the Parity Bond Fund and the accounts therein.

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 the Parity Bonds.

### **Contingent 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. Such contingent payment obligations may 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."



## SEATTLE CITY LIGHT DEPARTMENT

### Introduction

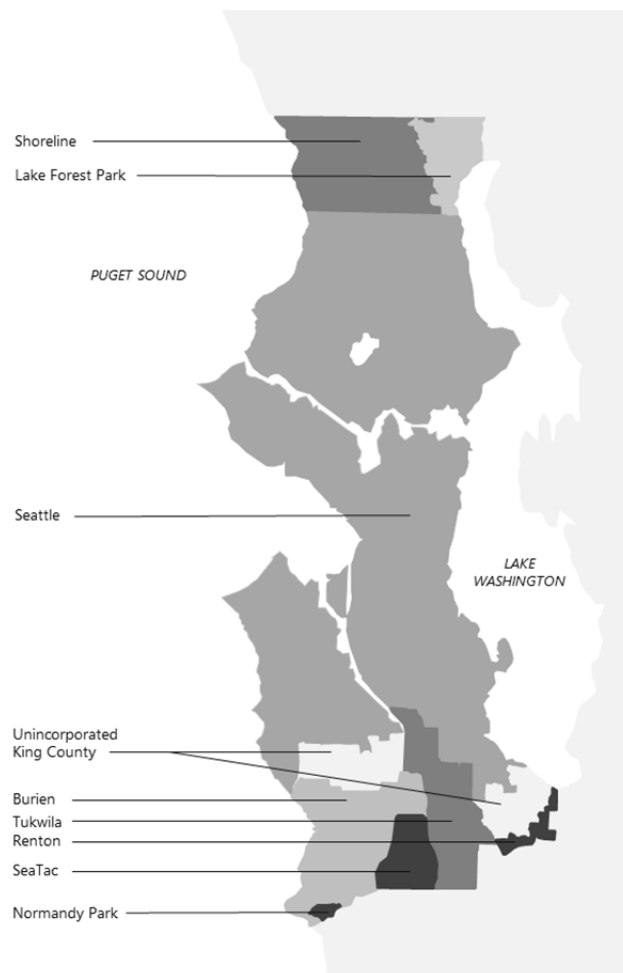
The Department is a municipally-owned electric utility. In 1905, the City began providing its customers with electricity generated by the Cedar Falls Hydroelectric Plant (the “Cedar Falls Project”), which was the first such municipally-owned facility in the nation. By 1910, operational responsibility 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 776,000.

Sales to customers located outside the City’s boundaries but within the service area represent approximately 16% 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.

The City Light Review Panel (the "Review Panel") was created in March 2010 and replaced the City Light Advisory Committee and the Rates Advisory Committee. City of Seattle Ordinance 123256, which established the Review Panel, specifies the professions and qualifications that the members of the 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 other two positions are to be filled by a representative of a non-profit or non-governmental organization whose mission is to advocate for energy efficiency and one at-large representative. Three of these positions are currently vacant.

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 "Strategic Plan" below), 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 early 2016, a new General Manager and Chief Executive Officer was appointed, following retirement of the prior General Manager. As a result, the Department has been reorganized into eight operating units: Financial Services; Customer Service, Communications and Regulatory Affairs; Power Management and Strategic Planning; Environmental; Transmission and Distribution; Energy Generation Operations and Engineering; Engineering and Technology Innovation; and Administrative Services.

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

*Larry Weis, General Manager and Chief Executive Officer*, was nominated to this position by Mayor Ed Murray and confirmed by the City Council in March 2016. He has more than 35 years of experience in the electric power and water utility industries, including 26 years as a General Manager and CEO. He has direct experience financing, constructing, and operating hydroelectric, gas, coal, and nuclear generation projects. In addition, he has provided strategic leadership in state and national government relations and regulatory affairs. He has direct experience in numerous FERC licensing issues and regulatory matters and has served on numerous industry boards and speaking panels.

From 2010 till 2016, Mr. Weis was General Manager of Austin Energy in Austin, Texas, a utility that is nationally regarded for its aggressive renewable energy and reliability goals and demonstrated efforts to promote new clean energy technologies, including a successful electric vehicle charging program. He was successful in rebuilding Austin Energy's financial strength and restructuring its rates to provide a sound revenue forecast and rebuild reserves. He resigned this position to join the Department.

Previously, Mr. Weis was the General Manager and CEO for Turlock Irrigation district in Central California from 2000 until 2010, and the General Manager for Pend Oreille County PUD from 1990 until 2000. He began his career in the utility industry with Snohomish PUD in 1981. Prior to his work in the utility industry, he worked for three years for the Boeing Company.

He is a graduate of the School of Engineering and Technology at Western Washington University, where he was a team member of the school's Vehicle Research Institute.

*Paula Laschober, Ph.D., Chief Financial Officer*, joined the Department in 1986, and served as the Department's Finance Director from 2008 until her appointment in January 2016 as Interim Chief Financial Officer. Prior to joining the Department, she spent eight years as a consultant to utilities with R.W. Beck and Associates, now part of Leidos Engineering. Dr. Laschober holds a master's degree in Business Administration and a Ph.D. in Latin American Literature from the University of Washington.

*James Baggs, Customer Service, Communications, and Regulatory Affairs Officer*, joined the Department in 2011 as Chief Compliance Officer. Since that time, he has also served as the Interim Power Supply and Environmental Affairs Officer and the Interim General Manager and Chief Executive 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.

*Michael Jones, P.E., Power Supply and Strategic Planning Officer*, was appointed to this position in 2013. Previously, he owned his own business, CEO Focus, which provided executive coaching, management consulting, and technical consulting services to non-profit and energy industry organizations. Prior to that, he spent 12 years with The Energy Authority in both Jacksonville, Florida, and Bellevue, Washington. He began his career as an Officer with the U.S. Navy. Mr. Jones holds a bachelor's degree in Mechanical Engineering from Ohio State University and a master's degree in Business Administration from the University of North Florida.

*Lynn Best, Ph.D., Chief Environmental Officer*, 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.

*Bernie Ziemianek, Ph.D., Transmission and Distribution 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.

*Michael Haynes, P.E., Energy Generation Operations and Engineering Officer*, was appointed to this position in May 2016. He joined the Department in 2000 and previously held the title of 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.

*Sephir Hamilton, Interim Engineering and Technology Innovation Officer*, joined the Department in 2013 as Chief of Staff. Prior to this position, he was Director of Operational Excellence at Central Hudson Gas & Electric Corp. in New York. He also worked as an engineer and investment officer at the utility. He began his career with Arthur D. Little, Inc. in Cambridge, Massachusetts, where he worked on energy-efficiency standards for the U.S. Department of Energy. Mr. Hamilton holds a master's degree in Business Administration from Cornell University, a Master of Science degree in Engineering from the Massachusetts Institute of Technology, and a Bachelor of Science degree in Engineering from Clarkson University.

*DaVonna Johnson, Chief Administrative Services 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.

## **Department Employment and Labor Relations**

As of May 2016, the Department had approximately 1,764 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—2015 Audited Financial Statements of the Department—Notes 11 and 12.

State law requires municipal agencies to bargain in good faith with the recognized bargaining agents. Approximately 91% 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. See "The City of Seattle—Labor Relations."

In April 2016, the new Seattle Information and Technology Department ("Seattle IT") became responsible for the delivery of information technology ("IT") services for the entire City government, including the Department. As a result of this reorganization, the Department's existing IT staff of approximately 104 full-time employees, or approximately 5% of the existing workforce, was transferred to Seattle IT. The Department continues to work with Seattle IT to execute a successful transition.

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. 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.

## **Strategic Plan**

The City Council unanimously approved the Department's 2017-2022 Strategic Plan Update on July 25, 2016. The fundamentals of this Strategic Plan remain unchanged from the prior Strategic Plan. The Strategic Plan Update calls for rate increases averaging 4.3% annually from 2017 to 2022, excluding any Bonneville Power Administration ("BPA") pass-throughs or RSA surcharges. Rates increases for 2017 and 2018 were higher than the average, at 5.6% per year. The rate plan is based on certain assumptions, including that demand for electricity will increase 0.3% per year during the period 2017-2022 and inflation and wholesale prices will remain low. See "Department Financial Information—Retail Rates—Rate Changes—2010-2016," "—Management Discussion of Historical Operating Results 2011-2015—Operating Revenues—2015 vs. 2014," and "Security for the Bonds—Rate Stabilization Account."

The Strategic Plan Update includes initiatives aimed at repairing aging infrastructure and acquiring new infrastructure to meet future customer needs; improving the customer's experience and rate predictability, including improving customer service interactions and customers' ability to manage their own electrical use in real time; continuing conservation and environmental stewardship leadership; meeting the increased cost of compliance with renewable energy Initiative 937 ("I-937") and mandatory North American Electric Reliability Corporation ("NERC") reliability standards; and increasing workforce performance and safety practices. These initiatives are consistent with the previous Strategic Plan Update approved in 2014 and are reflected in the Department's adopted Capital Improvement Program ("CIP") for 2016-2021. See "Capital Requirements."

The adopted Strategic Plan resolution directs the Department to study its declining retail load in efforts to stabilize financial performance. See "Management Discussion of Historical Operating Results 2011-2015," and "Expectations for 2016 Operating Results." The retail load study will help develop policy changes that would be included in the 2019-2024 Strategic Plan. Some of the areas of study would include a review of load forecasting models, impacts of appliance standards, and changes in customer end-use characteristics. Policy changes that will be evaluated may include changes to load forecasting methods, restructuring of retail rate design, expanding the RSA mechanism to include some or all of retail revenue, and utility rate decoupling.

## **Enterprise Risk Management and Emergency Response**

The Department has an Enterprise Risk Management program designed to assess and report on the organization's strategic readiness, by tracking risk factors relating to strategic and corporate goals. All divisions of the Department

provide input into the Enterprise Risk Management framework, including Emergency Response, Business Continuity, and Cyber Security.

The Department has an active Emergency Response 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, prevent, respond to, and recover from 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 240 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.

Due to the City’s known seismic risk, the Department maintains a seismic hazard assessment program for substations and facilities consistent with requirements identified in the International Building Code. As upgrades and/or improvements are made to these substations and facilities, appropriate seismic mitigation features are incorporated into the new or upgraded features. The seismic hazard assessment also includes a method for establishing priorities within the Department’s service territory. Similar attention is applied to the generation facilities as part of ongoing Federal Energy Regulatory Commission (“FERC”) licensing and reporting obligations.

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 IT department, 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. Steps taken by the Department include hardening Department networks and systems, isolating command and control systems from the Internet or hardening security protocols where isolation is not feasible, network surveillance, and controlling access to systems. The Department is in compliance with the cyber security standards mandated by NERC. See “Transmission and Distribution—Federal Regulations.” The Department regularly conducts voluntary cyber security assessments with the intent to identify areas for continual improvement. These findings are integrated into a work program that forms the basis of its cyber security program. A new version of Critical Infrastructure Protection Standards went into effect in July 2016. This is the next evolution of the NERC oversight of Critical Utility Infrastructure. For the Department, this latest version brought into scope additional facilities due to their level of interconnection with the Bulk Electric Transmission System. With additional facilities now subject to this set of standards comes additional documentation and controls that will be administered by various subject matter experts across the Department. The City is fully compliant as of the July 2016 deadline.

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.

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.

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 critical water conditions, the Department’s owned and contracted resources are sufficient to meet 100% of retail sales on an annual basis. Critical water conditions are defined as the lowest water conditions observed for 12 consecutive months during the period 1929 to 2008. The critical period for the Boundary Project and federal dams remarketed by BPA is 1936-1937; the critical 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 “Tolt Project”)), generated approximately 6.0 million megawatt hours (“MWh”) of electrical energy in 2015, which was about 42% of the Department’s total resources. Like most 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 2016. 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. The Department is also considering whether to join the California Independent System Operator’s Energy Imbalance Market (“EIM”), following the collapse in 2015 of efforts to form a similar Northwest regional market.

Table 1 lists the Department’s owned and contracted power resources as of December 15, 2015, and gives estimates of output under critical and average water conditions based on historical data. The owned and purchased resources comprising the Department’s supply portfolio in 2016 were nearly identical to the resources in 2015. 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 contracted 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 outlook for the 2016 water year and market prices.

**TABLE 1**  
**OWNED AND PURCHASED POWER RESOURCES FOR 2016**  
(as of December 15, 2015)

	Nameplate Capacity (MW)	Energy Available Under Critical Water Conditions (MWh) <sup>(1)</sup>	Energy Available Under Average Water Conditions (MWh) <sup>(2)</sup>	Year FERC License Expires	Year Contract Expires
<b>Department-Owned Resources</b>					
Boundary Project <sup>(3)</sup>	1,048	2,610,772	3,423,010	2055	N/A
Skagit Project					
Gorge	173	698,908	985,370	2025	N/A
Diablo	169	583,618	818,494	2025	N/A
Ross	460	556,352	828,565	2025	N/A
Small Hydro Projects <sup>(4)</sup>	48	121,000	135,264	Varies	N/A
<b>Department's Share of Purchased Resources</b>					
BPA Block	<sup>(5)</sup>	2,349,845	2,349,845	N/A	2028
BPA Slice	<sup>(5)</sup>	2,324,862	2,682,195	N/A	2028
Priest Rapids <sup>(6)</sup>	6	16,540	23,470	2052	2052
CBH <sup>(7)</sup>	64	233,598	240,039	2030/2032	2022/2027
High Ross <sup>(8)</sup>	72	310,225	310,271	N/A	2066
Lucky Peak <sup>(9)</sup>	113	236,817	293,359	2030	2038
Stateline <sup>(10)</sup>	175	N/A	371,162	N/A	2021
Small Renewables <sup>(11)</sup>	20	N/A	205,772	N/A	Various

- (1) Critical 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 critical water conditions, current operating constraints, generation technology, and availability. Actual water conditions would be expected to be better than critical 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 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." Figures reflect the percentage of the Federal System allocated to the Department in the current two-year BPA rate period. This percentage may vary from rate period to rate period, but such variances typically are not substantial.
- (6) Priest Rapids is comprised of the Priest Rapids and Wanapum dams on the Columbia River and is owned and operated by Public Utility District No. 2 of Grant County ("Grant PUD").
- (7) Columbia Basin Hydropower ("CBH") (formerly Grand Coulee Project Hydroelectric Authority), 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.
- (8) 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 and 150 MW depending on water conditions.
- (9) The project is part of an irrigation project and does not provide capacity in the Department's winter peak period.
- (10) The project is not a hydroelectric project; therefore, average output is based on historic performance under the contract.
- (11) Small renewables are Columbia Ridge, SPI-Burlington, and King County West Point. See "Purchased Power Arrangements." Average output is based on historic performance under the contract.

Source: *Seattle City Light Department, Power Production Division and Power Contracts and Resource Acquisition Division*

**TABLE 2**  
**HISTORICAL ENERGY RESOURCES**  
**(MWh)**

	2011	2012	2013	2014	2015
Department-Owned Generation					
Boundary Project	4,499,134	3,802,251	3,465,890	4,249,957	3,469,855
Skagit Hydroelectric Project					
Gorge	1,094,529	1,081,349	955,265	1,057,865	953,628
Diablo	920,969	937,646	828,200	857,757	775,025
Ross	870,310	939,943	726,560	796,513	684,687
Cedar Falls/Newhalem	111,959	122,615	77,397	65,687	47,571
South Fork Tolt	50,004	63,284	55,596	63,589	49,118
Subtotal	7,546,905	6,947,088	6,108,908	7,091,368	5,979,884
Energy Purchases					
Bonneville	6,214,839	5,633,906	5,079,991	5,155,271	4,971,459
Priest Rapids	32,285	36,381	33,205	21,961	23,698
CBH (formerly GCPHA)	237,785	255,569	254,568	272,842	258,678
High Ross	313,817	308,365	312,350	307,873	310,102
Lucky Peak <sup>(1)</sup>	388,786	401,400	215,587	308,334	278,001
Stateline Wind Project	413,697	365,192	363,099	357,325	299,551
Columbia Ridge <sup>(2)</sup>	50,120	49,779	51,577	68,920	94,271
Seasonal and Other Exchange <sup>(3)</sup>	276,656	100,782	69,940	411,555	664,887
Wholesale Market Purchases <sup>(4)</sup>	1,696,861	2,592,354	2,072,066	900,527	1,379,168
Subtotal	9,624,846	9,743,728	8,452,383	7,804,608	8,279,815
Total Department Resources	17,171,751	16,690,816	14,561,291	14,895,976	14,259,699
Minus Offsetting Energy Sales					
Firm Energy Sales and Marketing Losses <sup>(5)</sup>	439,013	491,724	421,375	393,844	331,897
Seasonal and Other Exchange <sup>(3)</sup>	476,488	491,980	236,864	507,117	692,073
Wholesale Market Sales <sup>(6)</sup>	6,053,258	5,625,088	3,854,352	4,083,391	3,548,507
Total Net Energy Resources <sup>(7)</sup>	10,202,992	10,082,024	10,048,700	9,911,624	9,687,222

(1) Purchases from Lucky Peak were lower in 2013 due to an outage.

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

(3) Includes exchange contracts such as those involving the Northern California Power Agency ("NCPA"), Sacramento Municipal Utility District ("SMUD"), Grant County, and Lucky Peak exchange.

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

(5) 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.

(6) 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 133% in 2011, 121% in 2012, 96% in 2013, 104% in 2014, and 89% in 2015.

(7) Effective for 2014, total energy net resources represent system load vs. net load, to align with industry practice. Accordingly, prior years presented have been revised.

Source: Seattle City Light Department, Accounting Division



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

	2011	2012	2013	2014	2015
BPA <sup>(1)</sup>	\$ 151,607	\$ 145,986	\$ 146,832	\$ 152,282	\$ 153,176
Priest Rapids	3,126	2,981	2,977	3,174	3,163
CBH (formerly GCPHA)	4,444	5,360	5,441	6,047	6,642
High Ross	13,423	13,430	13,430	13,439	13,445
Lucky Peak	6,809	7,255	5,186	6,289	6,278
State Line Wind Project	21,844	24,256	23,830	23,686	20,787
Columbia Ridge - Biogas	2,685	2,720	3,063	5,469	6,929
SMUD - Biomass	2,379	1,731	1,464	1,628	1,810
Seasonal and Other Exchange <sup>(2)</sup>	3,821	2,873	4,640	4,330	9,421
<b>Total</b>	<b>\$ 210,138</b>	<b>\$ 206,592</b>	<b>\$ 206,863</b>	<b>\$ 216,344</b>	<b>\$ 221,651</b>
Contracted Resources (MWh)	7,927,985	7,151,374	6,380,317	6,904,081	6,900,647
Average Unit Cost (Dollars/MWh) <sup>(3)</sup>	\$ 26.96	\$ 28.89	\$ 32.05	\$ 32.66	\$ 32.71

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

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

(3) Average cost of contracted 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 Tolt Project.

*Dam Safety.* The Department intends to operate, manage, 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, Monitoring Plans, and Safety Plans for all its dams. FERC requirements apply at the Boundary, Skagit, and Tolt Projects.

*The Boundary Project.* The Boundary Project is located on the Pend Oreille River in northeastern Washington near the British Columbia and Idaho borders, approximately 250 miles from Seattle. 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 nameplate capability of 1,048 MW and expected power output of 3.4 million MWh under average water conditions. The Department proposed to amend the FERC license and revise the annual charges due to recent efficiency upgrades to two of the generating units, which are expected to be complete in 2017 and to increase the nameplate to 1,144 MW. The Department delivers up to 48 MW of energy to Pend Oreille PUD. Net of this obligation, the nameplate capability of the Boundary Project is 1,096 MW and the expected power output is more than 3.6 million MWh, under average water conditions. The Boundary Project provides between 20% and 30% of the Department's total resource requirements and supplied approximately 24% of the Department's total resources in 2015.

The Department received a new license from FERC for the Boundary Project in 2013. The new license 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 agreed to surrender to FERC the license for the Sullivan Lake Project, and the Department and Pend Oreille PUD will decommission the Sullivan Lake Project. The Settlement and new license conditions made no material changes to previous operations at Boundary Dam, 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 Boundary Dam 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 \$4/MWh in 2009 dollars. 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. The tributary restoration measures that the Department proposes to undertake in Sullivan Creek, the most important tributary to Boundary Reservoir, together with other protection, mitigation, and enhancement measures described in the Settlement, will 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 new 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 a 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 2015, this encroachment amounted to 0.5% of the Boundary Project’s electrical energy output.

By December 2015, the Department had completed the FERC-required five-year and annual dam safety inspections at the Boundary Project and identified new Potential Failure Modes (“PFMs”) 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.

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 ten-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 2.6 million MWh. The Skagit Project supplied approximately 17% of the Department's total resources in 2015.

The three plants that comprise the Skagit Project are licensed as a unit by FERC under a license that expires in 2025. The Department expects to begin 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 in 2011 required by the FERC license revealed no dam safety issues and provided a few minor maintenance items to be addressed prior to the next inspection scheduled for 2016. In 2016, the Department began the FERC-required five-year independent consultant inspection of the Skagit Project, with a focus on new PFMs. 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.

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. All parties mutually waived the 2009 periodic review.

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 310,102 MWh in 2015. 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 government of Canada.

In August 2015, the Goodell Creek wildfire burned approximately 8,000 acres over several days and threatened the Skagit Project. Department employees in the town of Diablo were temporarily evacuated, and thick smoke in the air caused arcing which forced the shutdown of major 230 kV transmission lines connected to the Skagit Project. The Department spilled and purchased supplemental power and reserves. The fire never reached the project, but damage was sustained to a distribution tower, feeder and communication lines, and a portion of the wooden penstock. As of July 2016, costs for repairs, firefighting, evacuation, and emergency management are estimated at \$2.5 million. 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. 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 2015 at the Cedar Falls Project was 47,571 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 August 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 2011 and concluded that the project was in good condition and safe for operations. The next inspection is planned for 2018. 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 January 31, 2027. The plant’s power is delivered over Department-owned transmission lines. The nameplate capability of the plant is 2.3 MW. The Newhalem Project did not generate in 2015, due in part to the Goodell Creek fire. Plans to repair the facility and return it to operations are underway. Five-year inspections by FERC are not required of the Newhalem Project, due to its size and low criticality. In-house review of the project is performed annually, and the project is in good condition.

**TOLT PROJECT.** The 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 Tolt Project operates under a 40-year FERC license which expires in 2029. The nameplate capability of the installed unit is 16 MW. Power production at the Tolt Project in 2015 was 49,118 MWh. To reduce its cost of power from the 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 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 \$3.4 million in 2015. Without this agreement, the cost of power would still be very low, as debt service has been paid off and the only expenses are associated with operations and capital refurbishment. The most recent FERC-mandated dam safety inspections, completed in 2012, concluded that the Tolt Project was in good condition. The next inspection is scheduled for 2017. 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.

### **Purchased Power Arrangements**

In 2015, the Department purchased approximately 48% 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 Block and Slice 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 8,136 average annual megawatts are available annually for sale, at BPA’s lowest cost 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 over 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 over 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. Power is 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 are approximately equal on an annual basis. Currently, the Department receives 269 aMW of the Block power annually, reduced by the amount of conserved energy savings purchased by BPA from the Department. See “Conservation.” The Department’s Slice product provides it with a fixed 3.62643% of the actual output of the Federal System for federal fiscal year (“FFY”) 2016 and obligates the Department to pay the same percentage of the actual costs of the Federal System. Under critical water conditions, the Slice purchase amounts to 265 aMW over the year. Power available under the Slice product varies with water conditions, federal generating capabilities, and fish and wildlife restoration requirements. The Department may resell output from the Slice product under specified conditions and may use the Slice product to displace Department generation. 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.

Under the BPA Block and Slice contract, the Department expects to be able to purchase annually approximately 534 aMW under critical water conditions and 591 aMW under average water conditions. BPA purchases accounted for approximately 35% of the Department’s resources in 2015. The Department has an option under the Power Sales Agreement to switch products, and has requested a switch to 100% Block and that the change be made effective October 1, 2017, which is earlier than the contract specified date. BPA is considering the Department’s request, although the timing of its decision is not known. BPA will consider the product switch in the BP-18 rate case.

Under the BPA contract, the amount of power that BPA’s preference customers (including the Department) may purchase under BPA’s lowest cost 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 higher 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 determined 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 FFY 2011. The Department currently purchases all of the power it receives under the BPA contract at the Tier 1 Rate. Preference customers have the option to purchase additional power from BPA above their Tier 1 loads at a Tier 2 Rate. The Department made two separate decisions not to purchase additional energy from BPA during the contract periods 2012-2014 and 2015-2019, and will evaluate future purchases 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, 2015, BPA's average net cost for Tier 1 power was \$33.75 per MWh, excluding delivery charges. 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 during a two-year rate period if certain events occur. In July 2015, BPA adopted rates for FFY 2016-2017. The Tier 1 average net cost increase was 7.1%. In November 2016, BPA will begin the BP-18 Rate Process to set power and transmission rates for the period October 1, 2017, to September 30, 2019. BPA bills Slice customers their respective shares of the estimated cost of the Federal System, which is subject to a true-up at the end of the year. 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, all located 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), of which one (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, 2 and 3 (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 by 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 contracts, as well as stream flows and generation at the Boundary Project. See “Purchased Power Arrangements—Bonneville Power Administration” and “—Priest Rapids” and “Department-Owned Resources—Boundary Project.”

In 2013, the United States Entity (which includes 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 to protect Columbia River basin fish and wildlife since 1964. The Department has been an active participant in the U.S. Entity’s regional review process leading up to the final regional recommendation and supports that recommendation. The State Department is expected to begin negotiations with Canada before the end of 2016.

*Priest Rapids.* Under two agreements effective through 2052, the Department purchases a portion of the output of Priest Rapids. As of November 2009, the Department is obligated to purchase 6.14% of Priest Rapids’ output after 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 only about 2 aMW from these contracts. The Department also receives a portion of the revenues from an auction of 30% of Priest Rapids’ power, totaling \$5.0 million in 2011, \$4.5 million in 2012, \$5.2 million in 2013, \$5.5 million in 2014, and \$3.9 million in 2015. Under the contracts, the Department is responsible for its percentage share of the costs of Priest Rapids, including debt service on bonds issued to finance improvements to Priest Rapids.

*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 2015, the Department received 258,678 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 278,001 MWh in 2015. 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 March 2016, J.P. Morgan finalized the sale of its interest in Stateline to Exelon Corporation, subject to the Department’s consent, and the Department has consented to the sale. 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 299,551 MWh of wind-generated power under the Stateline purchase contract in 2015.

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 Mid-Columbia market hub 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 began an arrangement with SMUD. SMUD purchases the output from the Sierra Pacific Industries Burlington Biomass Facility, which burns wood waste and produces electrical energy. The Department provides scheduling and delivery services to SMUD for up to 15 MW of power at the California-Oregon border and receives financial compensation for these services. The Department purchases from SMUD all of the renewable energy and environmental attributes associated with the resource output in excess of 15 MW. The arrangement expires in July 2017; discussions about a modified agreement with SMUD are underway.

**COLUMBIA RIDGE LANDFILL GAS.** In December 2009, the Department began taking delivery from Columbia Ridge in Arlington, Oregon, 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. The City sends its solid waste to 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 94,271 MWh of power under the Columbia Ridge purchase contract in 2015.

**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 provides for the Department to deliver 60 MW of capacity and 90,580 MWh of power to NCPA in the summer. In return, NCPA delivers 46 MW of capacity and 108,696 MWh of power to the Department in the winter. Deliveries to NCPA started in 1995 and will end in 2018.

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 2014 and 2015, the Lucky Peak exchange counterparty was Shell Energy. For the calendar years 2016 and 2017, the counterparty is Morgan Stanley Capital Group, which will also take on and pay for the associated transmission services from Idaho Power.

#### **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 2015, hydro flows were below average on rivers where the Department's primary generation hydro facilities are located. The hydro flows at Boundary Project and Ross Dam were 80% and 87% of the historical average, respectively. Regionally, flows at The Dalles Dam were 83% of the historical average. As a result, the Department had less surplus power to sell to the wholesale market than in most recent years. The average revenue per MWh



realized from surplus sales in 2015 was \$21.65/MWh. Net wholesale revenue in 2015 was \$39.2 million, significantly lower than the budgeted amount of \$65 million. As of July 8, 2016, net wholesale revenue for 2016 is forecast to be \$44.6 million, \$15.4 million lower than the budget. This variance will be supplemented with the transfers from the RSA. See “Department Financial Information—Management Discussion of Historical Operating Results 2011-2015” and “—Expectations for 2016 Operating Results” and “Security for the Bonds—Rate Stabilization Account.”

Table 4 displays the Department's purchases and sales of power in the wholesale market over the 2011-2015 period.

**TABLE 4**  
**SUMMARY OF WHOLESALE MARKET SALES AND PURCHASES**

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Cost of Wholesale Purchases (\$000)	\$ 26,667	\$ 22,805	\$ 31,063	\$ 23,404	\$ 37,658
Wholesale Market Purchases (MWh in 000s)	1,697	2,592	2,072	901	1,379
Average Cost (\$/MWh)	\$ 15.71	\$ 8.80	\$ 14.99	\$ 25.98	\$ 27.31
Revenue from Sales (\$000) <sup>(1)</sup>	\$ 125,117	\$ 86,728	\$ 82,628	\$ 111,993	\$ 76,819
Wholesale Market Sales (MWh in 000s)	6,053	5,625	3,854	4,083	3,549
Average Revenue (\$/MWh)	\$ 20.67	\$ 15.42	\$ 21.44	\$ 27.43	\$ 21.65
Net Revenue (\$000) <sup>(1)</sup>	\$ 98,450	\$ 63,923	\$ 51,565	\$ 88,589	\$ 39,161
Sales Net of Purchases (MWh in 000s)	4,356	3,033	1,782	3,182	2,170

(1) Shown as gross, prior to netting of bookouts. Audited financial statements are shown net of bookouts. 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*

**Federal Energy Market Legislation.** The Energy Policy Act of 2005 (“EPAAct”) implemented additional regulations that prohibit electric energy market manipulation. The catalyst for these regulations was the market manipulation associated with the 2000-2001 western energy crisis. FERC Order 690 implemented final anti-market manipulation rules, which became effective January 19, 2006. The regulations and rules broadly apply to and affect municipal utilities such as the Department. The Department requires annual classroom training for employees with responsibilities associated with the purchase and sale of energy and transmission, system operations, finance/risk management, and 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.

### **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 the Power Management Division, and the Department’s risk management activities are carried out by the 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, which is approved by the Mayor and City Council, and leading the Department’s energy risk management efforts. The ROC is comprised of three voting and three non-voting members: the Department’s Chief Financial Officer (Voting), Power Supply and Strategic Planning Officer (Voting), Director of Risk Oversight (Voting), Director of Power Management, Director of Power Contracts, Resource Acquisitions, and Regional Affairs, and Financial Planning Manager. The ROC meets at least twice per

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

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 24 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 Policy.

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 policy contains limits on the dollar amount and volume for physical calls and puts. The Department has not entered into any hedging agreements under an International Swaps and Derivatives Master Agreement. The Department has entered into certain forward purchase and sale of electricity contracts that meet the Governmental Accounting Standards Board ("GASB") definition of a "derivative instrument," although they are intended to result in the purchase or sale of electricity delivered and used in the normal course of operations. See Appendix C—2015 Audited Financial Statements of the Department—Note 16.

*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.

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 Power Supply and Strategic Planning Officer, with oversight and approval from the 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 of the Department's generating facilities and owned hydro storage, the Department does not take speculative market positions in anticipation of generating revenue.

With a significant portion (historically about 9% to 20%) of the Department's revenue 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 in place to mitigate credit risk.

Wholesale counterparties are assigned credit limits based on evaluations of their financial condition that include 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)**

I-937 was approved by State voters in November 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 is specific about 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. Planned turbine replacements at the Boundary Project are incremental hydropower projects eligible under I-937, and will provide the Department with additional renewable resources when the projects are on-line and the efficiency increases are documented, currently planned for 2017.

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

### **Conservation**

The Department measures energy conservation results in terms of cost, amount, and duration of savings using regionally and nationally recognized methods. In 2015, the Department achieved 18.32 aMW (160,557 MWh) of energy savings from completed projects, which cost the Department \$39.0 million in incentives and expenditures associated with the delivery of the energy savings. Total savings in place in 2015 amounted to approximately 164.6 aMW (1,441,704 MWh), representing more than 10% of the Department’s total energy needs in 2015. 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 Operating Results 2011-2015.”

Under I-937, the Department is required to establish two-year conservation targets. For the 2014-2015 biennium, the I-937 total energy savings target was 23.68 aMW. The Department recently reported a total energy savings of 39.62 aMW for the 2014-2015 biennium, surpassing the target by 15.94 aMW. The Department recently completed an updated conservation potential assessment that establishes a new energy savings target for 2016-2017 of 25.62 aMW (or 12.81 aMW per year). The Department’s Strategic Plan has identified a slightly more aggressive annual energy savings target of 14 aMW per year for 2017-2022 and has identified budgets and resources necessary to meet this energy savings target.

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. BPA provided \$9.7 million for energy conservation activities over FFY 2014 and 2015, 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 is offering regional conservation programs to the Department. For FFY 2016 and FFY 2017 (BPA’s next rate period), the Department has an adjusted energy efficiency incentive budget of \$10.45 million. The majority of this will be received in calendar year 2016.

### **Integrated Resource Plan**

The Department’s IRP evaluates a range of resource portfolios that are designed to meet the Department’s 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 firm 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. Aligned with the Strategic Plan, the Integrated Resource Plan, and the need to meet its I-937 energy conservation target, the Department continues to make investments in energy conservation that help to delay the need for new, higher cost generating resources.

The Department's 2016 IRP affirms its conservation-centered resource strategy. The IRP considers conservation as its first-choice resource in meeting expected load growth, which is forecasted to average 0.4% on an annual basis over the course of the 20-year study. Continued regional economic and related population growth are key contributors to demand within the service area. Sufficient RECs have been acquired to meet forecasted State renewable portfolio standard requirements through 2023. Modest gains in generation efficiency of about 39 MW each are expected at the Boundary Project's Units 55 and 56 in 2016 and 2017, respectively. Given the gains in resources and the current load forecast, the Department expects to be net surplus in resources for more than a decade.

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;
- (iii) Make increased use of the flexibility available in existing power contracts for meeting seasonal variability in supply and demand; and
- (iv) Manage second-quarter hydro surpluses and, using the Department's seasonal exchange contracts, provide spring and summer energy in return for winter energy to enhance reserves for serving peak demand and reduce price risk in the second quarter, due to concurrent high hydro flows and high regional wind output.

The recommended resource strategy continues the Department's policy of obtaining low-cost 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 24 months or less that reshape seasonal resources to better match seasonal changes in customer demand.

The IRP action plan is complete; it was endorsed by City Council Committee in July 2016 and by the full City Council on August 1, 2016. The IRP filing with the State will be submitted by the September 1, 2016, deadline.

## **TRANSMISSION AND DISTRIBUTION**

### **Introduction**

The Department owns transmission facilities for the delivery of energy from the Skagit Project to the Department's service territory. 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 and Cedar Falls Projects with BPA'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. 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, 2015, BPA raised its transmission and other associated rates by a cumulative 3.1% for the rate period FFY 2016 and FFY 2017.

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 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**

In 2006, a group of investor-owned and public utilities, including the Department, joined together with BPA to form ColumbiaGrid. ColumbiaGrid currently provides inter-utility regional transmission planning services to 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.

### **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 2,556 miles of overhead and underground wiring. The Department operates 15 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 considerably 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 dam operations and monitors delivery of power to the service area. Staff uses a real-time distributed computer system that provides information about loads and resources to the power dispatchers so they can properly balance load and resources.

In 2010, the Department implemented an Outage Management System designed to improve operational efficiencies while 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, asset cost tracking, and data repository.

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

## **Federal Regulations**

The Department's Regulatory Compliance Office oversees the Department's efforts to comply with FERC reliability standards, foster a culture of compliance, and support the Department's mission to deliver reliable power to its customers. The Director of Regulatory Compliance leads regulatory compliance, reports to the Customer Service, Communications, and Regulatory Affairs Officer, and has direct access to the General Manager and Chief Executive Officer. Regulatory Compliance has seven employees and functions independently of the Department's operating divisions.

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 Compliance conducts assessments on both a regular and periodic basis. Assessments may be performed internally or through external consultants. Regulatory Compliance uses a risk-assessment to determine when a periodic assessment should occur, along with which 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 Compliance 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. An example of a periodic assessment is the evidentiary assessment of PRC-005-2 (a new and complex reliability standard) performed by Regulatory Compliance in December 2015.

The Western Electricity Coordinating Council ("WECC") audits the Department triennially; WECC completed its last audit of the Department on August 8, 2014. A 17-member WECC Audit Team reviewed Department compliance for 36 reliability standards (28 Operations and Planning Standards and eight Cyber Security Standards), which comprise 245 individual requirements and sub-requirements.

WECC found no possible violations in its review of the Operations and Planning Standards and identified violations of three requirements associated with the Cyber Security Standards. The violations were all low impact and posed

minimal risk to the Department and the region; the Department corrected the non-compliance and implemented process improvements to protect against future occurrences. Finally, WECC awarded a zero penalty to one violation, and the other two violations received a consolidated nominal penalty award.

In 2012, the WECC Reliability Coordinator issued a System Operating Limit Methodology that changed the way entities are required to operate the system. Entities now are required to operate within the facility ratings assuming that one element is out of service, in preparation for the possibility of an unplanned outage. This reduced the operating limit on the 230 kV transmission lines that connect the Skagit Project to equal the combined rating of three out of the four transmission lines when all lines are in service. During the summer, the transmission capacity may limit the generation output from the Skagit Project. To address this limitation, a project is underway to uprate the Skagit transmission lines to no longer limit the output of the Skagit Project when all lines are in service. The project is expected to be completed in 2017.

The Department has started preparations for its next WECC Compliance audit, which is scheduled for June 2017.

Evolving and changing reliability standards are a fixture for the FERC reliability compliance program. As such, Regulatory Compliance establishes review and coordination practices to ensure Department compliance prior to a standard's effective date. The Version 6 Cyber Security Standard suite was of particular import to the Department because these standards represent significant change, from both an operational and a regulatory standpoint. Regulatory Compliance, together with the responsible Department operating divisions, established structured and coordinated processes to ensure Department compliance by the standard's enforcement date. The Department is preparing for similar transitions in 2017 associated with the Transmission Operations and Interconnection Reliability Operations and Coordination standard families. See "Seattle City Light Department—Enterprise Risk Management and Emergency Response" and "Power Resources and Cost of Power—Wholesale Energy Risk Management."

## **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 1.2%. Retail load largely varied with weather between 2011 and 2015. There was a 2% decrease in retail load in 2014 due to an unusually warm winter and another 2% decrease in 2015 due to unseasonably warm weather throughout most of the year. The peak load for the period 2011-2015 was 1,867 MW in February 2014 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**

	2011	2012	2013	2014	2015
Average Number of Customer Accounts					
Residential	360,442	362,658	367,837	374,619	381,419
Non-Residential	39,909	39,950	40,218	40,437	41,391
Total Customer Accounts	400,351	402,608	408,055	415,056	422,810
Energy Sales (MWh) <sup>(1)</sup>					
Residential	3,217,101	3,098,745	3,158,629	2,987,711	2,914,563
Non-Residential	6,383,131	6,367,897	6,347,771	6,352,873	6,242,931
Total Energy Sales	9,600,232	9,466,642	9,506,400	9,340,584	9,157,494
Peak Demand (MW) <sup>(2)</sup>	1,749	1,805	1,841	1,867	1,689
Energy Requirements (MWh)					
Total Energy Sales	9,600,232	9,466,642	9,506,400	9,340,584	9,157,494
Energy Used in Operation	32,752	31,072	30,910	29,717	25,195
System Losses <sup>(3)</sup>	570,008	584,310	511,390	541,323	504,533
Total Energy Requirements <sup>(4)</sup>	10,202,992	10,082,024	10,048,700	9,911,624	9,687,222

(1) Amounts include an allocation for the net change in unbilled revenues. Effective in 2013, the allocation of the net change in unbilled revenue excludes retail customer voluntary payments for conservation and solar energy. Prior years presented were not revised.

(2) Effective for 2014, peak demand represents system load vs. firm load to align with industry practice. Accordingly, prior years presented have been revised.

(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 2015.

**TABLE 6**  
**TOP TEN CUSTOMERS**

<b>Customer</b>	<b>Customer Profile</b>	<b>Annual Dollars Billed</b>	<b>% Total Retail Revenue</b>
University of Washington	Higher Education	\$ 23,160,245	3.17%
City of Seattle <sup>(1)</sup>	Government	22,152,557	3.03%
Nucor Corporation	Steel Manufacturer	21,868,836	2.99%
Boeing Company	Airplane Manufacturer	16,142,389	2.21%
King County	Government	10,590,520	1.45%
International Gateway/Sabey	Data Center Operator/Developer	9,371,816	1.28%
U.S. Government	Government	7,195,474	0.98%
2001 Sixth LLC	Data Center	6,645,666	0.91%
Saint-Gobain	Building Materials Manufacturer	6,369,177	0.87%
Martin Selig	Developer	5,467,914	0.75%
Total		<u>\$ 128,964,593</u>	

(1) 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 budgeted amount of net wholesale revenues is known as the RSA baseline. 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 "Security for the Bonds—Rate Stabilization Account" and "Retail Rates—Rate Changes 2010-2016."

The RSA has been in use since January 1, 2011. As of June 30, 2016, the RSA balance was \$89.1 million, which falls below the surcharge trigger of \$90 million. Consequently, a 1.5% surcharge was automatically implemented on August 1, 2016. See "Department Financial Information—Expectations for 2016 Operating Results."

**TABLE 7  
AUTOMATIC SURCHARGES**

<b>RSA Balance</b>	<b>Action</b>
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 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 2013-2020. See “Seattle City Light Department—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 Legislation 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, 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.”

### **City Investment Pool**

The City’s Finance Department invests the Department’s funds. See “The City of Seattle—Investments” and Appendix C—2015 Audited Financial Statements of the Department—Note 4. 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. 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 in Washington 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 in amounts ranging from 4% to 6% of the revenue from rates charged to customers residing in those cities. 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 and adopted by the City Council include encouraging the efficient use of resources needed to provide electrical service, achieving rate predictability in an orderly way so as to avoid large changes for some customers or customer classes, providing for public involvement, achieving consistency with the Strategic Plan and financial policies, establishing rates sufficient to meet annual revenue requirements, basing rates on the marginal cost to customers, fairly apportioning costs of providing service among customer classes, and allocating the costs of conservation and providing low-income residential service to all customer classes.

*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. These rate changes take effect without passage of a new ordinance by the City Council. See “Power Resources and Cost of Power—Purchased Power Arrangements.”

*Rate Changes 2010-2016.* Table 8 summarizes the Department’s rate changes for the period 2010-2016. In adopting the Strategic Plan Update for 2017-2022, the City Council approved a projected average annual rate increase of 4.3% over the period, including projected annual rate increases of 5.6% in 2017 and 2018 (exclusive of BPA pass-throughs and RSA surcharges, if any), with projected increases between 2.5% and 5.0% annually for the remainder of the period covered by the Strategic Plan Update. Actual rates for 2017 and 2018 are expected to be approved by the City Council in early October 2016.

**TABLE 8**  
**RATE CHANGES, 2010-2016**

<b>Effective Date</b>	<b>Percent Change</b>	<b>Type</b>
January 1, 2010	13.8%	Base Rate Increase
May 1, 2010 <sup>(1)</sup>	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 <sup>(2)</sup>	1.5%	RSA Surcharge

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

(2) Temporary surcharge effective until the fiscal quarter ending RSA balance is above \$90 million or below \$80 million. See “Financial Policies—Rate Stabilization Account.”

*Rates for Customers Outside the City of Seattle.* The Department provides electric service to the residents and businesses in the cities of Shoreline, Burien, Lake Forest Park, SeaTac and Tukwila (the “Franchise Cities”) and unincorporated parts of the County, under individual franchise agreements with the Franchise Cities and the County. The agreements grant the Department a non-exclusive franchise to operate within the Franchise Cities’ and the County’s right-of-way, 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 Seattle 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 the 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) expires in March 2018. Tukwila’s franchise renewal discussions are expected to commence in 2017, in advance of the agreement expiry. 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 represented approximately 85.6% of the Department’s retail power sales outside the City but within the service area in 2015; the unincorporated areas of the County represented 14.0%.

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 suburban franchise customers to reimburse the capital costs of six completed undergrounding projects: four 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 the remaining 0.4% 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 rate 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. 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, 2015, 12,772 customers participated in Green Up through payments on their bill. Green Up revenue in 2015 totaled \$1.35 million. REC purchases on behalf of Green Up customers totaled 92,623 MWh in 2015.

*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 any major city in the United States.

**TABLE 9**  
**AVERAGE RATE IN CENTS PER KWH AND MONTHLY BILLS**  
**(AS OF JULY 1, 2016)**

	Average Revenue in Cents per kWh							Average Monthly Bills (\$)						
	City Standard	City Network	Suburban <sup>(2)</sup>	City of Burien	City of Shoreline	City of Tukwila	City of SeaTac	City Standard	City Network <sup>(1)</sup>	Suburban <sup>(2)</sup>	City of Burien	City of Shoreline	City of Tukwila	City of SeaTac
<b>Residential</b>														
500 kWh per month	8.2		8.5	8.5	8.9	8.3	8.9	41		43	43	45	42	45
1,000 kWh per month	10.4	<sup>(3)</sup>	10.7	10.7	11.1	10.8	11.1	104	<sup>(3)</sup>	107	107	111	108	111
2,000 kWh per month	11.5		11.8	11.8	12.1	12.1	12.1	230		236	236	243	242	243
<b>Small General Service</b>														
10,000 kWh per month (40kW)	8.5	<sup>(3)</sup>	8.7	8.7	8.9	8.8	8.9	848	<sup>(3)</sup>	871	871	887	882	887
<b>Medium General Service</b>														
20,000 kWh per month (60kW)	7.4	9.7	7.5	7.8	8.1	8.1	8.1	1,489	1,936	1,495	1,567	1,617	1,613	1,617
200,000 kWh per month (500kW)	7.3	9.5	7.4	7.7	8.0	8.0	8.0	14,660	18,910	14,720	15,440	15,940	15,900	15,940
<b>Large General Service</b>														
400,000 kWh per month (1,000kW)	7.2	9.1	7.8	7.8	8.0	7.8	8.0	28,888	36,317	31,246	31,326	31,805	31,399	31,805
1,800,000 kWh per month (5,000kW)	7.3	9.2	7.9	7.9	8.0	7.9	8.0	131,034	165,451	141,646	142,009	144,162	142,337	144,162
<b>High Demand General Service</b>														
6,000,000 kWh per month (20,000kW)	7.0	<sup>(4)</sup>	<sup>(4)</sup>	<sup>(4)</sup>	<sup>(4)</sup>	7.2	<sup>(4)</sup>	417,666	<sup>(4)</sup>	<sup>(4)</sup>	<sup>(4)</sup>	<sup>(4)</sup>	433,164	<sup>(4)</sup>
18,000,000 kWh per month (60,000kW)	7.0					7.2		1,252,998					1,299,491	

(1) City Network includes Medium and Large General Service customers in downtown Seattle that are serviced 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.

(2) All jurisdictions outside the City of Seattle, except the cities of Burien, Shoreline, and Tukwila.

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

(4) 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 JULY 1, 2016)**

<u>Monthly Use</u>		<u>Seattle</u>	<u>Puget Sound</u>	<u>Snohomish</u>	<u>Tacoma</u>
<u>kWh</u>	<u>kW</u>	<u>City Light (\$) <sup>(1)</sup></u>	<u>Energy (\$) <sup>(2)</sup></u>	<u>County PUD (\$) <sup>(3)</sup></u>	<u>Power (\$) <sup>(4)</sup></u>
Residential					
	100	126	216	197	215
	500	495	678	628	571
	1,000	1,249	1,351	1,257	1,016
	3,000	4,266	4,141	3,770	2,795
Small General Service					
	300	1	305	495	474
	3,000	10	3,053	3,784	3,490
	12,000	40	12,211	14,747	13,541
Medium General Service					
	150,000	500	135,420	187,890	161,480
	200,000	500	175,920	226,021	205,237
	360,000	900	316,656	405,714	368,154
Large General Service					
	300,000	1,000	266,228	374,375	321,370
	1,000,000	5,000	929,026	1,484,939	1,162,925
	2,500,000	7,500	2,197,765	2,989,333	2,618,729
High Demand General Service					
	6,000,000	20,000	5,011,991	7,460,795	6,397,205
	18,000,000	60,000	15,035,972	22,379,574	19,188,437
	24,000,000	60,000	19,548,763	26,955,339	24,439,253
Last Rate Change		01/01/16	05/01/16	10/01/15	04/01/15

(1) The Department's electric rates includes municipal taxes, and are subject to 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 4.5% 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. A joint project is underway between SPU and the Department to replace the current customer information and billing system. The new system will provide utility customers new self-service features while improving operational efficiencies. The system was originally expected to be operational in late 2015 but completion has been delayed until September 2016. Additionally, due to the increased scope and implementation timeline, the projected cost of this system has increased from the original budgeted amount of \$64 million to approximately \$109 million. The Department's allocated share of the cost of this project is included in the Department's capital improvement plan, and the increased cost will result in a reallocation between components of the adopted capital improvement plan. See "Capital Requirements—Adopted CIP and Conservation and Other Capital Improvements."

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 with an option to pay one half of the amount by the bill due date and the remainder in the following month. 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 arrangements. 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 2015 were \$2.6 million, or 0.37%, of retail electrical energy sales revenue, compared to write-offs of \$3.9 million, or 0.53%, in 2014. The Department's collection policy provides for disconnection of power for nonpayment of amounts due the Department.

### **Historical Operating Results 2011-2015**

Table 11 presents information on operating results for the period 2011-2015, 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, 2015, 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)

	2011	2012	2013	2014	2015
<b>OPERATING REVENUES:</b>					
Retail power revenues	\$ 655,984	\$ 664,263	\$ 697,696	\$ 720,777	\$ 736,582
Short-term wholesale power revenues	102,663	70,402	63,035	96,815	61,219
Other power-related revenues <sup>(1)(2)(3)</sup>	54,696	29,305	40,439	50,825	36,833
Transfers from/(to) RSA <sup>(4)</sup>	(62,225)	13,219	18,285	(4,369)	23,363
Other operating revenues	21,039	23,085	22,774	22,395	24,860
<b>Total Operating Revenues</b>	<b>\$ 772,157</b>	<b>\$ 800,274</b>	<b>\$ 842,229</b>	<b>\$ 886,443</b>	<b>\$ 882,857</b>
<b>OPERATING EXPENSES:</b>					
Long-term purchased power—Bonneville and other	\$ 206,852	\$ 204,133	\$ 203,126	\$ 214,262	\$ 213,621
Short-term wholesale power purchases	11,433	11,764	19,759	14,912	26,812
Other power expenses	48,523	50,378	66,325	65,843	59,597
Transmission <sup>(5)</sup>	47,878	46,979	48,213	52,833	54,289
Distribution	58,311	60,855	59,568	59,753	65,052
Customer service	43,120	31,296	39,177	37,621	38,302
Conservation	19,128	20,763	21,504	27,271	29,122
Administrative and general	57,727	66,114	71,751	75,774	92,108
Taxes	73,613	74,885	79,321	80,007	81,114
Depreciation and amortization	88,805	94,810	102,261	105,813	112,000
<b>Total Operating Expenses</b>	<b>\$ 655,390</b>	<b>\$ 661,977</b>	<b>\$ 711,005</b>	<b>\$ 734,089</b>	<b>\$ 772,017</b>
<b>Net Operating Revenue <sup>(6)</sup></b>	<b>\$ 116,767</b>	<b>\$ 138,297</b>	<b>\$ 131,224</b>	<b>\$ 152,354</b>	<b>\$ 110,840</b>
<b>Adjustments to Net Operating Revenue <sup>(7)</sup></b>					
City taxes <sup>(8)</sup>	\$ 40,031	\$ 40,950	\$ 42,834	\$ 44,608	\$ 45,534
Depreciation and amortization	88,806	94,811	102,261	105,813	112,000
Depreciation and amortization included in Operating and Maintenance Expenses <sup>(9)</sup>	20,943	21,518	22,250	24,679	27,132
Pension expense <sup>(10)</sup>	-	-	-	-	27,912
Pension contributions <sup>(10)</sup>	-	-	-	-	(24,883)
Valuation on exchange power, net <sup>(2)(3)</sup>	190	240	(251)	271	634
BPA Conservation Augmentation/Agreement revenue <sup>(11)</sup>	(14,302)	(187)	(464)	(722)	(946)
Investment income <sup>(12)</sup>	5,582	4,390	4,724	5,430	6,746
Non-cash expenses <sup>(13)</sup>	6,491	2,828	10,796	1,935	(320)
Other <sup>(14)</sup>	5,354	3,292	6,192	7,004	1,943
<b>Total Adjustments</b>	<b>\$ 153,095</b>	<b>\$ 167,842</b>	<b>\$ 188,342</b>	<b>\$ 189,018</b>	<b>\$ 195,752</b>
<b>Net Revenue Available for Debt Service</b>	<b>\$ 269,862</b>	<b>\$ 306,139</b>	<b>\$ 319,566</b>	<b>\$ 341,372</b>	<b>\$ 306,592</b>

**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 in 2012, the Department adopted GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*. Non-monetary transactions are measured at fair value in accordance with GASB No. 62.
- (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) Operating income per audited financial statements.
- (7) 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.
- (8) City taxes are excluded because the lien on such taxes is junior to debt service in accordance with the Bond Legislation.
- (9) 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.
- (10) Pension expense is the amount recorded for compliance with GASB 68, implemented in 2015, a non-cash item. Pension contributions are the Department's 2015 cash contributions to the Seattle City Employees' Retirement System ("SCERS").
- (11) 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.
- (12) 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.
- (13) Primarily claim expenses and capital project expenditures from prior years which were determined not to be capital expenditures.
- (14) 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. Prior years were not revised. In 2013, the line item labeled Other included operating grants totaling \$3.2 million.

*Source: Audited Financials (except as noted in footnote 7), Seattle City Light Department, Accounting Division*

*Historical Debt Service Coverage.* The Bond Legislation does not define a "coverage requirement" other than the rate covenant to maintain rates and charges sufficient to pay "all costs of operation and maintenance and to pay all bonds, warrants and indebtedness" of the Light System. See "Security for the Bonds—Rate Covenant" and Appendix A— Bond Ordinance—Section 13(d). The test for the issuance of Future Parity Bonds requires coverage equal to 125% of maximum Annual Debt Service on all Parity Bonds then outstanding and the proposed series of Parity Bonds, with certain permitted adjustments. See "Security for the Bonds—Future Parity Bonds" and Appendix A— Bond Ordinance—Section 13(g).

Furthermore, the Bond Legislation does not specifically define "reasonable charges for maintenance and operation of the Light System" as used in the pledge language, nor does it define "all costs of operation and maintenance" (as used in the rate covenant) or "expenses of operation, maintenance, and repair" (as used in the definition of Net Revenue in the context of the test for issuing Future Parity Bonds). However, the Department treats these terms as interchangeable and the operating expenses listed in Table 11 are recorded in accordance with applicable Generally Accepted Accounting Principles ("GAAP").

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 Legislation and described under "Security for the Bonds" and for no other purpose. Such calculations reflect the application of generally accepted accounting principles as applied to financial results and may reflect non-recurring or extraordinary accounting transactions permitted under the Bond Legislation.

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 Legislation. 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)**

	2011	2012	2013	2014	2015
Revenue Available for Debt Service <sup>(1)</sup>	\$ 269,862	\$ 306,139	\$ 319,566	\$ 341,372	\$ 306,592
Debt Service <sup>(1)</sup>					
Parity Bonds	\$ 146,688	\$ 169,124	\$ 172,800	\$ 184,756	\$ 189,573
Debt Service Ratios-Times Covered					
Parity Bonds <sup>(2)</sup>	1.84	1.81	1.85	1.85	1.62

(1) In accordance with a change in Department policy in 2012, federal subsidy payments received in respect of outstanding Build America Bonds, Recovery Zone Economic Development Bonds, and New Clean Renewable Energy Bonds are excluded from Revenue Available for Debt Service effective beginning in 2012. Federal subsidy payments excluded were \$4.6 million, \$5.2 million, \$5.1 million, and \$5.0 million, respectively, for years 2012, 2013, 2014, and 2015. Federal subsidy payments were also received in 2011, but are not netted from the debt service amount shown. For a description of the effect of the federal sequestration that began in March 2013 on these federal direct-pay tax credit bond programs, see “Department Financial Information—Debt Service Requirements—Federal Sequestration.”

(2) Revenue Available for Debt Service (see Table 11) divided by Parity Bond Debt Service.

Source: *Seattle City Light Department, Accounting Division*

### Management Discussion of Historical Operating Results 2011-2015

This section provides a discussion of operating results for the period 2011-2015, based on information in Tables 11 and 12, and an expanded discussion for the period 2014-2015, based on a summary of the Management’s Discussion and Analysis included in Appendix C—2015 Audited Financial Statements of the Department.

*Summary 2011-2015.* Retail revenues increased from \$656.0 million in 2011 to \$736.6 million in 2015, primarily due to the Department’s average system rate increases during this time period (see “Retail Rates”). This increase in retail revenues also reflects the increase in the number of customers, from 400,351 in 2011 to 422,810 in 2015.

Net wholesale revenues varied during this period, ranging from a high of \$91.2 million in 2011 to a low of \$43.3 million in 2013. 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 2015 resulted in a net transfer from the RSA to operating cash.

Debt service on Parity Bonds increased from \$146.7 million in 2011 to \$189.6 million in 2015. Debt service coverage ranged from a high of 1.85x in 2013 and 2014 to a low of 1.62x in 2015, reflecting the effect of revenue \$39.3 million lower than planned retail revenue. Approximately half of this variance was attributed to warmer than normal weather during the heating season. 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 has been able to achieve this level of coverage in the four years prior to 2015.

The Department’s retail load has been declining since 2011. While the number of customers has been growing, the use per customer has been declining. While some of this is attributed to warmer than normal weather, energy efficiency adoption including LED lighting, appliance standards, and improved building standards are all helping customers use less energy. The Department’s robust conservation program is also contributing to declining retail

load. See “Conservation.” The Department’s adopted load forecast projects a modest growth. As part of adopting the 2017-2022 Strategic Plan Update, the City Council has directed the Department to study its retail load and consider policy changes that mitigate and prepare for the financial impacts of flat or declining load. See “Strategic Plan.”

*Operating Revenues—2015 vs. 2014.* Retail revenues in 2015 were \$736.6 million, \$15.8 million or 2.1% higher than in 2014, primarily due to a 4.2% average system rate increase effective January 1, 2015, and a 1.0% BPA pass-through effective October 1, 2015, even with the lower energy consumption in 2015 compared to 2014 because of the warmer weather experienced throughout the year in 2015. The number of retail customers also increased to 422,810 in 2015, a 1.9% increase from 2014.

The decrease in net wholesale revenues in 2015 from 2014 was \$47.5 million, or 138.0%. Wholesale power sales were \$61.2 million in 2015, a decrease of \$35.6 million from 2014, whereas wholesale power purchases increased by \$11.9 million to \$26.8 million. The decrease in net wholesale revenues was due to earlier snowmelt in the mountains, lower than normal spring precipitation, and above average temperatures since May 2015. As a consequence, less power was generated and, along with the lower wholesale energy prices in 2015 compared to 2014, contributed to the unfavorable net wholesale revenues. The average peak Mid-Columbia Hub electricity price for 2015 was \$25.72 per MWh, compared to \$38.72 per MWh in 2014.

Other power-related revenues, which includes power exchanges decreased by \$14.0 million to \$36.8 million. Other power-related expenses, which includes generation and power exchanges, decreased by \$6.2 million to \$59.6 million in 2015, resulting in net other power-related expenses of \$22.8 million in 2015, a 34.0% increase from net other power-related expenses of \$15.0 million in 2014. The decrease in both power-related sales and power-related purchases in 2015 was due to the lower volume of surplus power available for sale and lower market prices compared to 2014.

In 2015, net transfers from the RSA were \$23.4 million; in 2014, net transfers to the RSA were \$4.4 million.

Revenues from other sources increased by \$2.3 million, totaling \$24.9 million in 2015.

*Operating Expenses—2015 vs. 2014.* In 2015, long-term purchased power (Bonneville and other) incrementally decreased by \$0.6 million to \$213.6 million, due in part to higher BPA power charges and an increased block load-shaping rate. These were offset primarily by lower generation at Stateline.

Other power expenses, including generation, power exchanges, and other at \$59.6 million, were \$6.2 million lower than in 2014. The decrease was due for the most part to lower fair valuation of the Lucky Peak power exchange resulting from the lower market prices. Transmission expenses, including wheeling, were \$54.3 million, an increase of \$1.5 million from 2014, due to an increase in Skagit tree clearing and other expenses related to the costs incurred for the Goodell Creek wildfire near one of the Department’s Skagit facilities. See “Department-Owned Resources—Skagit Project.” Distribution expenses increased by \$5.3 million to \$65.1 million in 2015 as a result of higher labor and benefits for system maintenance, tree trimming, outage maintenance, COLA accruals, and an increase in costs to repair billable damages to Department property.

Other operating and maintenance expenses at \$159.5 million increased by \$18.9 million from 2014, for customer service, conservation, and administrative and general. The significant increase was for administrative and general, in the amount of \$16.3 million. The implementation of GASB Statement No. 68, Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27 (“GASB 68”), increased pension expense by \$7.5 million. Other administrative and general increases were incurred for administrative, general, and engineering salaries and related benefits resulting from lower vacancy rates and for COLA and furlough accruals. These were partially offset by higher overhead applied to capital projects as a result of higher rates, focus on capital work, and an increase in allocated pension costs as a result of implementing GASB 68. Taxes in 2015 were \$81.1 million, an increase of \$1.1 million from 2014, primarily due to higher revenues. Depreciation and amortization increased by \$6.2 million to \$112.0 million.

*Net Operating Revenue—2015 vs. 2014.* Net operating revenue in 2015 was \$110.8 million, \$41.5 million lower than in 2014, due to higher retail energy sales as a result of the overall rate increase in January 2015, the BPA pass-

through in October 2015, and higher transfers-in from the RSA, offset by significant lower net wholesale revenues and higher operating expenses.

Although not included in Table 11, changes in nonoperating revenues and expenses provide additional information on the financial condition of the Department. Nonoperating revenues decreased by \$1.8 million, to \$16.7 million in 2015 from \$18.5 million in 2014. The major reasons were due to unrealized losses from the change in fair value of the Department's share of investments from the City's investment pool, lower sales of properties, and an increase in FEMA grants, specifically for the Goodell Creek wildfire.

Nonoperating expenses decreased by \$1.4 million to \$76.5 million in 2015. Higher interest expense for outstanding bonds were offset by higher interest charged to construction projects, which is an offset to interest expense, as the focus continued on capital work in 2015.

Capital contributions and grants were \$39.4 million in 2015, an increase of \$11.0 million from 2014, due primarily to capital contributions for energization of underground electrical infrastructure for a local suburban jurisdiction within the service territory and in part for service connections for larger construction projects.

*Effect of GASB 68 Implementation.* Effective January 1, 2015, the Department adopted GASB 68, which required the Department to record its proportionate share of net pension liability ("NPL") and pension expense in its financial statements, and expanded note disclosures and supplementary information. Previously, the Department did not record NPL and only pension contributions were recorded as pension expense.

To comply with the reporting requirements, the Department recognized a one-time adjustment to beginning net position as of January 1, 2015, for its proportionate share of NPL in the amount of \$233.8 million, net of 2014 contributions of \$22.1 million. For the year ended December 31, 2015, the Department recorded pension expense totaling \$29.5 million and deferred \$24.9 million in 2015 pension contributions for a net effect of \$7.5 million increase in pension expense. There was an additional \$1.6 million of 2015 pension expense deferred for allocation to capital projects. Therefore, the net pension expense recorded for 2015 was \$27.9 million. There was no restatement of 2014 financial statements as a result of implementing GASB 68. The debt service coverage ratio was not affected by the new accounting standard because pension expense continued to be based on contributions for the purposes of calculating the debt service coverage ratio. For further information, see the 2015 audited financial statements of the Department attached as Appendix C.

### **Expectations for 2016 Operating Results**

As of July 15, 2016, the full-year forecast indicates that the Department's debt service coverage ratio is expected to be 1.64x, which is below the City Council-adopted financial policy target of 1.80x. The primary reason for below-target coverage expectations is lower than expected retail sales, due in part from mild winter weather and customer adoption of energy efficiency measures, similar to 2015. In the adoption of the Strategic Plan 2017-2022 Update, the City Council has instructed the Department to study its retail load. See "Strategic Plan." Generation volumes for the calendar year are forecasted to be 94% of the average of the past five years. Net wholesale revenue is forecasted to be \$44.0 million, \$16.0 million lower than the budgeted amount of \$60 million. As of June 30, 2016, the RSA balance was \$89.1 million, which is lower than the \$90 million dollar surcharge trigger. As a result, a 1.5% RSA surcharge has been implemented, effective August 1, 2016. See "Security for the Bonds—Rate Stabilization Account." Net income for 2016 is expected to be approximately \$113.5 million.

## **Debt Service Requirements**

As of September 2, 2016, the principal amount of Outstanding Parity Bonds totaled \$1,989,290,000, of which approximately \$32,020,000<sup>(1)</sup> is expected to be refunded with a portion of the proceeds of the 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.

*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 2016 is expected to be a 6.8% reduction 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 will receive approximately \$398,000 less in interest subsidies than originally anticipated for 2016. 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 2024.

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(1) Preliminary, subject to change.

**TABLE 13  
DEBT SERVICE REQUIREMENTS**

Year	Outstanding Parity Bonds <sup>(1)</sup>			The Bonds <sup>(4)</sup>		Total Parity Bonds		
	Principal	Interest <sup>(2)(3)</sup>	Total	Principal	Interest	Principal	Interest <sup>(2)</sup>	Total
2016	\$ 107,450,000	\$ 94,886,155	\$ 202,336,155	\$ -	\$ -	\$ 107,450,000	\$ 94,886,155	\$ 202,336,155
2017	109,130,000	90,295,190	199,425,190	1,860,000	5,993,533	110,990,000	96,288,723	207,278,723
2018	109,590,000	85,612,850	195,202,850	1,965,000	5,888,200	111,555,000	91,501,050	203,056,050
2019	106,210,000	80,781,522	186,991,522	2,040,000	5,809,600	108,250,000	86,591,122	194,841,122
2020	105,305,000	75,888,059	181,193,059	2,125,000	5,728,000	107,430,000	81,616,059	189,046,059
2021	104,720,000	71,295,119	176,015,119	2,210,000	5,643,000	106,930,000	76,938,119	183,868,119
2022	104,055,000	66,066,173	170,121,173	2,320,000	5,532,500	106,375,000	71,598,673	177,973,673
2023	105,690,000	60,843,814	166,533,814	2,435,000	5,416,500	108,125,000	66,260,314	174,385,314
2024	108,645,000	55,475,825	164,120,825	2,555,000	5,294,750	111,200,000	60,770,575	171,970,575
2025	97,260,000	50,081,615	147,341,615	2,685,000	5,167,000	99,945,000	55,248,615	155,193,615
2026	93,590,000	45,414,205	139,004,205	2,820,000	5,032,750	96,410,000	50,446,955	146,856,955
2027	67,605,000	41,398,842	109,003,842	2,960,000	4,891,750	70,565,000	46,290,592	116,855,592
2028	68,865,000	38,126,826	106,991,826	3,105,000	4,743,750	71,970,000	42,870,576	114,840,576
2029	62,215,000	35,150,061	97,365,061	3,265,000	4,588,500	65,480,000	39,738,561	105,218,561
2030	46,955,000	32,498,689	79,453,689	3,425,000	4,425,250	50,380,000	36,923,939	87,303,939
2031	48,750,000	30,270,605	79,020,605	3,595,000	4,254,000	52,345,000	34,524,605	86,869,605
2032	50,640,000	27,962,042	78,602,042	3,775,000	4,074,250	54,415,000	32,036,292	86,451,292
2033	52,610,000	25,546,653	78,156,653	3,965,000	3,885,500	56,575,000	29,432,153	86,007,153
2034	54,805,000	23,025,907	77,830,907	4,165,000	3,687,250	58,970,000	26,713,157	85,683,157
2035	57,170,000	20,469,013	77,639,013	4,370,000	3,479,000	61,540,000	23,948,013	85,488,013
2036	64,795,000	17,657,960	82,452,960	4,590,000	3,260,500	69,385,000	20,918,460	90,303,460
2037	52,300,000	15,047,842	67,347,842	4,820,000	3,031,000	57,120,000	18,078,842	75,198,842
2038	54,220,000	12,722,275	66,942,275	5,060,000	2,790,000	59,280,000	15,512,275	74,792,275
2039	56,215,000	10,310,311	66,525,311	5,315,000	2,537,000	61,530,000	12,847,311	74,377,311
2040	58,305,000	7,784,096	66,089,096	5,580,000	2,271,250	63,885,000	10,055,346	73,940,346
2041	46,460,000	5,532,715	51,992,715	5,860,000	1,992,250	52,320,000	7,524,965	59,844,965
2042	31,660,000	3,936,762	35,596,762	6,150,000	1,699,250	37,810,000	5,636,012	43,446,012
2043	32,990,000	2,611,085	35,601,085	6,460,000	1,391,750	39,450,000	4,002,835	43,452,835
2044	23,380,000	1,227,252	24,607,252	6,780,000	1,068,750	30,160,000	2,296,002	32,456,002
2045	15,155,000	278,355	15,433,355	7,120,000	729,750	22,275,000	1,008,105	23,283,105
2046	-	-	-	7,475,000	373,750	7,475,000	373,750	7,848,750
<b>Total</b>	<b>\$ 2,096,740,000</b>	<b>\$ 1,128,197,820</b>	<b>\$ 3,224,937,820</b>	<b>\$120,850,000</b>	<b>\$114,680,333</b>	<b>\$ 2,217,590,000</b>	<b>\$1,242,878,153</b>	<b>\$ 3,460,468,153</b>

(1) Includes debt service on the Refunding Candidates.

(2) 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 "Department Financial Information—Debt Service Requirements—Federal Sequestration."

(3) Assumes interest rates on variable rate bonds ranging from 1.00% to 4.00%, per the Department's financial plan.

(4) New money portion only; preliminary, subject to change. Assumes interest rates ranging from 3% to 5%.

## CAPITAL REQUIREMENTS

Every year during its annual budget process, the City adopts a six-year CIP, which outlines anticipated investments over that timeframe. The Department's CIP is a part of the City's CIP. The current adopted CIP covers calendar years 2016-2021; the City's CIP covering 2017-2022 is expected to be adopted in November or December 2016. 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 2016-2021 CIP and other capital requirements that the Department intends to implement over the period 2016-2021. Any amounts listed for specific projects are for expenses expected to occur only during the period 2016-2021 and may not represent the total cost of the project.

### Generation

Generation plant includes facilities used to produce electricity. Typical assets are reservoirs, dams, waterways, waterwheels, turbines, generators, and accessory electrical equipment. Generation expenditures are projected to total \$432.3 million during the six-year planning period, averaging about \$72.1 million per year and representing about 21% of planned capital expenditures for that period. 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 (\$91.2 million). A large portion of the CIP expenditures for generation provides for environmental mitigation requirements primarily related to the terms and conditions of the FERC license for the Boundary Project (\$107.2 million) and upcoming relicensing of the Skagit Project (\$18.2 million).

### Transmission

Transmission plant includes poles, towers, and conductors used to carry electricity from generation facilities to substations. Transmission expenditures are projected to total \$99.0 million during the six-year planning period, averaging about \$16.5 million per year and representing about 5% of planned capital expenditures for that period. The transmission reliability project (\$15.3 million) is an ongoing project that replaces one percent of the Department's transmission structures and conductors each year. It provides engineering, construction, and related work, improving and maintaining the reliability of the overhead or underground transmission system. The Denny Substation Transmission Lines project (\$57.7 million) designs and constructs transmission lines to support the new Denny Substation.

### Distribution

Distribution plant includes 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. The Department plans to spend about \$1,019.1 million from 2016 through 2021 on distribution system improvements and additions, averaging \$169.9 million per year and representing about 50% of planned capital expenditures for that period. Significant expenditures are required for the following purposes:

- (i) constructing new and enlarged overhead and underground service connections within the Department's service territory;
- (ii) relocating infrastructure and providing capacity related to a number of large local transportation and regional transit projects, including the Alaskan Way Viaduct and the seawall replacement (\$82 million). The cost of this project is largely out of the Department's control (see "The City of Seattle—Considerations Related to Alaskan Way Viaduct and Seawall Replacement Program");
- (iii) replacement of older equipment in the Department's distribution system that is nearing the end of its usable life, is overloaded, or is of an outdated design, which requires replacement due to the lack of spare parts;
- (iv) network power distribution system design and construction to connect customers to the new Denny Substation; and
- (v) investing in Smart Grid technology.



## **General Plant**

General plant includes 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. Programmed expenditures of \$246.3 million provide for general plant improvements and/or replacement over the period 2016-2021, averaging about \$41.1 million per year and representing about 12% of planned capital expenditures for that period. The Department plans to fund major replacement and improvement of its information technology infrastructure (\$42.9 million) and replace and expand its light and heavy duty mobile equipment fleet (\$38.0 million). Other general plant major investments include a technical training center (\$9.9 million), a new service center (\$82.6 million), and an upgrade to the Energy Management System (\$9.5 million), offering remote terminal units that allow operators to see field data in real time.

## **Substations**

Substation expenditures are projected to total \$229.0 million during the six-year planning period, averaging about \$38.2 million per year and representing about 11% of planned capital expenditures for that period. The major project is the continued design and construction of the new Denny Substation (\$99.3 million). Other projects include the replacement of existing substation equipment, including transformers and breakers to maintain reliability and to increase capacity to provide for load growth.

## **Conservation**

Conservation resource 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 84 aMW of cumulative annual energy savings between 2016 and 2021. The Department is forecasting an annual achievement of 14.0 aMW over this six-year period, and the expenditure forecast reflects this level of effort.

## **High Ross Payment Amortization**

In setting rates for the 2000-2003 period, the City Council directed the Department to amortize the \$21.8 million capital portion of the annual payment to B.C. Hydro under the High Ross Agreement through 2035. 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 operations and maintenance expenditures for environmental mitigation. These deferred operations and maintenance expenditures are for mitigation measures similar to those included in the CIP; however, they differ from those in the CIP because 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 public 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, was prepared on a reasonable basis, 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, and 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**  
**2016-2021**  
**(\$000,000)**

	2016	2017	2018	2019	2020	2021	Total
Generation	\$ 72.6	\$ 71.0	\$ 68.4	\$ 59.9	\$ 76.7	\$ 83.8	\$ 432.3
Transmission	17.6	6.9	14.3	5.2	14.0	41.0	99.0
Substation	52.8	56.5	51.0	22.4	22.4	23.9	229.0
Distribution <sup>(1)</sup>	214.2	196.8	164.4	136.0	140.7	167.0	1,019.1
General Plant	45.0	32.5	20.6	34.9	60.6	52.8	246.3
<b>Total CIP</b>	<b>\$ 402.2</b>	<b>\$ 363.7</b>	<b>\$ 318.7</b>	<b>\$ 258.4</b>	<b>\$ 314.2</b>	<b>\$ 368.5</b>	<b>\$ 2,025.8</b>
Conservation <sup>(2)</sup>	28.7	35.7	36.4	37.1	37.9	38.6	214.5
High Ross Payment Amortization <sup>(2)</sup>	9.1	10.0	9.1	9.1	9.1	-	46.5
Relicensing, Mitigation, and Other Costs <sup>(2)</sup>	14.7	3.7	7.7	7.2	4.2	4.5	41.9
<b>Total Funds Required</b>	<b>\$ 454.7</b>	<b>\$ 413.1</b>	<b>\$ 371.9</b>	<b>\$ 311.8</b>	<b>\$ 365.4</b>	<b>\$ 411.6</b>	<b>\$ 2,328.6</b>
<b>Sources of Funds</b>							
Cash from Operating Account	\$ 128.0	\$ 102.8	\$ 97.4	\$ 59.4	\$ 70.1	\$ 137.7	\$ 595.2
Cash from Contributions	54.7	42.7	31.3	33.5	34.8	37.7	234.7
Cash from Bond Sale	272.0	267.6	243.3	218.9	260.6	236.3	1,498.6
<b>Total Funds Available</b>	<b>\$ 454.7</b>	<b>\$ 413.1</b>	<b>\$ 371.9</b>	<b>\$ 311.8</b>	<b>\$ 365.4</b>	<b>\$ 411.6</b>	<b>\$ 2,328.6</b>

(1) Includes Alaskan Way Viaduct and seawall replacement. See "The City of Seattle—Considerations Related to Alaskan Way Viaduct and Seawall Replacement 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

### Financing Plans

Capital requirements of \$2,328.6 million from 2016 through 2021 (including \$2,025.8 million of the CIP and \$302.9 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 forecasts that bond proceeds will fund approximately 64% of the capital requirements over the period 2016-2021.

Approximately concurrently with the issuance of the Bonds, the City expects to issue the 2016D and 2016E Bonds in an aggregate principal amount of approximately \$100 million in a private placement of variable rate (multimodal) debt. The 2016D and 2016E Bonds are expected to be sold by direct purchase in an initial Index Floating Rate

mode, with options to convert the bonds to Daily, Weekly, Long-Term, or Index Floating Rate modes in the future. The 2016D and 2016E Bonds are expected to be issued as Parity Bonds, subject to meeting the Future Parity Bond debt service coverage covenant. They are expected to be structured with planned serial or term bond amortization of principal in 2017 through 2046. They are expected to be initially sold subject to a Direct Purchase Agreement that includes a Term-Out Provision providing for extraordinary mandatory redemption of the outstanding principal if there is a failure to purchase all of the then-outstanding 2016D and 2016E Bonds on a mandatory tender date. If triggered, the Term-Out Provision would require mandatory sinking fund redemptions over a five-year period in amounts sufficient to redeem all of the remaining outstanding principal during that period. The City would retain the right to convert the 2016D and 2016E Bonds to another interest rate mode during the Term-Out period.

## 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, 2015, the Department had recorded environmental liability amounts net of recoveries of \$45.9 million under the GASB reporting requirements. This amount is evaluated semi-annually and is subject to adjustment based on future developments. It is likely that the Department will be liable for a portion of the costs of future remediation of other areas on the Lower Duwamish site, and on the East Waterway alongside Harbor Island and adjacent to the Lower Duwamish.

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 (the "EPA") listed the Lower Duwamish Waterway as a Superfund site. A remedial investigation ("RI") and feasibility study ("FS") and a study and cleanup of early action sites was completed in 2012 pursuant to an Administrative Settlement Agreement Order on Consent entered into among the City (through the Department and SPU), the County, the Port of Seattle, and the Boeing Company. EPA released its Record of Decision in November 2014 estimating the cost to be \$342 million, with a seven-year construction period beginning in 2019. More than 100 entities have been identified as potentially responsible parties ("PRPs"). Over the next two years, a third party will determine the liability of each of the PRPs in accordance with a voluntary allocation agreement.

*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 PRPs 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 and Feasibility Study (“SRI/FS”) has been underway since 2006, with the Port of Seattle taking the lead on the study. The City has agreed to an interim sharing of on-going costs of the SRI/FS with the Port and the County. The Department expects that EPA will act on the SRI/FS before the end of 2017. Clean-up construction timing and cost estimates will not be known until the SRI/FS identifies a preferred remedy.

*Georgetown Steam Plant.* In addition, 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; the FS is anticipated to be complete in 2018. The Department completed interim actions at the Georgetown Steam Plant property in 2012. The Department is also conducting voluntary remedial actions related to pesticides, PCB, and lead contamination at some of its discontinued electrical facilities.

### **Endangered Species Act**

*Columbia and Snake River Anadromous Fish.* There are three federal action agencies responsible for the operation of the Federal System: the Corps, the Bureau of Reclamation, and BPA. These agencies have been engaged in Endangered Species Act (“ESA”) Section 7 consultation for a number of years and, as a result of litigation, the National Oceanic and Atmospheric Administration (“NOAA Fisheries”) has been required to develop a series of Biological Opinions relating to the Columbia and Snake River fisheries. In 1995, NOAA Fisheries developed a broad species recovery plan, including recommendations for upstream and downstream passage requirements. These requirements include minimum flow targets for the entire Columbia River basin designed to maximize the survival of downstream migrating juvenile salmon and steelhead and upstream migrating adult salmon and steelhead. NOAA Fisheries and the USFWS developed supplemental recovery plans in 1998 and 2000 that identified reasonable and prudent alternatives to protect and recover not only listed salmon and steelhead but also Bull Trout and sturgeon, which have been listed under the ESA in the Columbia River Basin. Biological Opinions for the Columbia-Snake River Basin were released by NOAA Fisheries in 2008. Two of these Biological Opinions govern the federal operation of 14 hydropower dams in the Federal System, while the third governs salmon harvest by the states and tribes. The Biological Opinion for the Federal System has been the subject of ongoing litigation in U.S. District Court (Oregon). The U.S. Department of Commerce and NOAA Fisheries, in coordination with the U.S. Department of Justice, completed an extensive review of the Biological Opinion and filed the findings of the review and an Adaptive Management Implementation Plan (“AMIP”) for the salmon recovery with the U.S. District Court in 2009. NOAA Fisheries submitted a supplemental Biological Opinion on May 20, 2010, that considered new research and fully integrated the AMIP into the 2008 Biological Opinion. In May 2011, the U.S. District Court ruled that the 2008/2010 Biological Opinion was illegal because it failed to identify specific mitigation plans beyond 2013, and issued a remand order for a new Biological Opinion to be submitted by NOAA Fisheries. In response to this remand order, NOAA Fisheries issued a supplemental Biological Opinion on January 17, 2014. The adequacy of the updated Biological Opinion was challenged by a legal complaint filed by the National Wildlife Federation, Sierra Club, State of Oregon, Nez Perce Tribe, NW Energy Coalition, American Rivers, and several fish and wildlife conservation organizations. In response to this legal complaint, the U.S. District Court rejected the federal government’s recovery plan for Columbia River salmon and steelhead in an opinion and order filed on May 4, 2016. The court remanded the Biological Opinion but left it in place so that ongoing recovery actions could continue, while ordering NOAA Fisheries to complete a new recovery plan by March 1, 2018. The court order also required updated environmental impact statements for the recovery plan that will need to be completed by NOAA, the Army Corps of Engineers, and the Bureau of Reclamation. The anadromous fish and ESA issues in the Columbia River system affect the amount of electricity the Department receives from BPA’s Slice program. See “Power Resources and Costs of Power—Purchased Power Arrangements.”

The Department’s power generation at the Boundary Project has been affected by the 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. Generation at the Boundary Project therefore is

reduced in the fall and winter, when the region experiences its highest sustained energy demand. Due to the recommendations of the Biological Opinions, the water not released in the fall and winter 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 results in a reduction in the Boundary Project's firm capability under the terms of the Coordination Agreement. See "Power Resources and Cost of Power—Overview of Resources." The new Biological Opinion issued by NOAA Fisheries will likely result in changes in flows that could have an impact on the Boundary Project. These Biological Opinions may have similar effects on the amounts the Department receives under contracts with Grant PUD and BPA. For a discussion of additional environmental issues and the Boundary project, see "Power Resources and Cost of Power—Department-Owned Resources—Boundary Project."

*Skagit, Tolt, and Cedar Rivers ESA-Listed Fish.* Other ESA fish listings that may affect Department operations include Bull Trout, Chinook Salmon, and steelhead in Puget Sound. Bull Trout, which were listed as a threatened species in 1999 by the USFWS, have a wide geographic range in the Pacific Northwest. The Skagit River populations of Bull Trout are recognized as being among the healthiest in the U.S. due to excellent habitat conditions, cold water temperatures, and an abundant food supply. Bull Trout are also found in Chester Morse Lake and the Cedar River in the vicinity of the Cedar Falls Project. This species is also occasionally observed in the mainstream Tolt River at the confluence with the North and South Fork Tolt Rivers, which is downstream of the 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. The Tolt and Cedar Rivers and reservoirs are excluded from the Critical Habitat designations for this species. The draft recovery plan for Bull Trout throughout the coterminous United States was completed by the USFWS in 2004. The final recovery plan for Bull Trout was released by the USFWS on September 28, 2015.

Bull Trout are also found in the Boundary Reservoir. In March 2013, FERC issued a license that includes requiring additional measures to support the recovery efforts for Bull Trout, including habitat enhancements and the suppression of non-native trout. See "Power Resources and Cost of Power—Department-Owned Resources." The Boundary FERC license includes the participation of State and federal agencies responsible for the protection of Bull Trout. The measures to be implemented as part of the license will not affect power generation, although there will be costs associated with implementing protection measures for native salmonids, which include Bull Trout. See "Power Resources and Costs of Power—Department-Owned Resources—Boundary Project."

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 to average levels in 2007 and 2008, further declined from 2009 to 2011, and improved to average levels from 2012 to 2014. The Skagit River downstream of the Skagit Project continues to sustain the largest native population of Chinook Salmon in the Puget Sound region. 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. Steelhead populations declined to 30-year-low levels in most Puget Sound rivers during the early 2000s. Steelhead returns to the Skagit River basin remained below the floor level established by WDFW from 2006 to 2009, and reached an historic low point in 2009. Since then, the returns have shown incremental improvement, and exceeded the floor level in 2013 and 2014. Steelhead returning to the upper Skagit River, the area most affected by the Skagit Project, exceeded average annual counts for this reach from 2010 through 2014. NOAA Fisheries is in the process of developing a recovery plan for steelhead in the Puget Sound region, with the plan expected to be completed in early 2018.

A wide range of actions has been taken by the Department to reduce and mitigate the 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 authorizes operations with regard to all listed species of the Cedar Falls Project and by an incidental take permit. Both the Skagit and 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 complex 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 Early Action program that is supporting 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 3,000 acres of high quality habitat for listed fish species in these watersheds for permanent conservation protection. Monitoring and research studies by the Department are continuing in partnership with WDFW, National Park Service, U.S. Fish and Wildlife Service, 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 Tulalip Tribes and WDFW on the South Fork Tolt River focused on Chinook Salmon and both summer and winter steelhead. These studies will be used to develop management and recovery plans in cooperation with State and federal agencies to improve habitat conditions for listed fish species.

The Skagit Project Biological Opinion for Chinook Salmon and steelhead was completed by NOAA Fisheries in November 2012; it included the adoption of four additional flow protection measures that had already been in effect on a voluntary basis by the Department to provide for the ongoing protection and recovery of steelhead and Chinook Salmon. The Skagit Project Biological Opinion for Bull Trout was completed by the USFWS in February 2013 and adopted the same flow protection measures contained in the NOAA Fisheries Biological Opinion, as well as specific habitat conservation measures and population monitoring requirements, to aid in the protection and recovery of Bull Trout. Continued implementation of these required conservation measures will have no significant effect on the Department's operations at the Skagit Project.

### **Clean Water Act**

Section 401 of the federal Clean Water Act ("CWA") requires states to provide a "water quality certification" regarding compliance of discharges with state water quality requirements as a precondition for federal actions including licensing of hydroelectric projects. The purpose of the certification is to ensure that the project complies with state water quality standards. These standards address various physical and chemical parameters. Section 401 also has been interpreted to authorize states to condition their certification on maintenance of a minimum stream flow determined to be necessary to protect fish.

An agreement with State and federal agencies was reached on minimum flows for the Newhalem Project, and incorporated into the FERC license issued in 1997. These minimum flows were a condition of the Section 401 certification issued in 1996. Ecology implemented new water quality standards for the State 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 April 21, 2014, the EPA and the Corps proposed a rule defining the waters protected under the CWA. Following a public review period, the final rule became effective on August 29, 2015. The new rule redefines the "waters of the United States," which is used to determine whether individual water bodies are jurisdictional under the CWA and thus subject to federal permitting requirements. The rule provides greater clarity on the type of water bodies that are under protected by the CWA, including tributaries, wetlands, and ditches that are connected to designated Waters of the United States." A nationwide stay of the rule was issued by the U.S. Court of Appeals (Sixth Circuit) on October 9, 2015, due to numerous legal challenges pending throughout the country. On May 31, 2016, the U.S. Supreme Court ruled that landowners can challenge "Waters of the United States" rulings in federal court. The impacts of the rule on the Department are 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 Seattle. In 2005, the Department became the first electric utility in the country to publicly declare achievement of zero net greenhouse gas emissions. It has maintained that carbon neutral status every year since.

The Department currently uses hydroelectric resources for 90% of the power it provides, the primary reason the Department's greenhouse gas emissions are so low. The Department's carbon emissions are further reduced by its aggressive energy efficiency and conservation programs, which help customers to save energy and money. 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 on only new renewables and conservation to meet future load growth.

The Department has a very low emission factor as reported to and verified through the Climate Registry. The direct costs of carbon dioxide (CO<sub>2</sub>) regulation are likely to be paid by direct emitters; the Department has no fossil fuel plants and very small operational emissions. The Department purchases greenhouse gas offsets for these emissions.

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. Ecology released the draft of the proposed Clean Air Rule in June 2016. The Department is not expected to be regulated under this newly proposed rule. On August 3, 2015, the EPA finalized a new rule, "The Clean Power Plan," under Section 111(d) of the Clean Air Act designed to regulate greenhouse gas emissions from existing power plants. The new rule includes state-specific goals and guidelines for states to develop plans for meeting these goals. The Department is reviewing this new rule and is working with key stakeholders to monitor it as it moves toward possible final implementation. At this time, it is unknown how the State will choose to implement the rule. The Department reports to EPA a small amount of emissions of a potent greenhouse gas used in electrical equipment, but any cost impacts resulting from future legislation are expected to be low. 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 90% are from power resources with no CO<sub>2</sub> emissions.

### **Climate Change**

The Department continues to research and monitor potential effects of climate change. In 2016, the Department completed a Climate Change Vulnerability Assessment and Adaptation Plan to identify potential actions to reduce risks associated with climate change. 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's resource mix is 90% 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, the Department is studying how projected changes in temperature, rainfall, and snowpack could affect glaciers and stream flow 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 2014 IRPs suggest little change in annual generation, but gradually increasing runoff during the winter peak demand period, accompanied by gradually decreasing runoff during the late summer and fall. Warmer temperatures may also cause decreases in winter electricity demand. In the adoption of the Strategic Plan 2017-2022 Update City Council has instructed City Light to study its retail load. See "Strategic Plan." 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 continues to monitor new information on potential climate change effects through its Climate Change Initiative as part of the Strategic Plan.

## VARIOUS FACTORS AFFECTING 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, statewide 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. This Official Statement includes a brief discussion of certain of these factors. This discussion 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.

## 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. In 2013, voters approved a charter amendment shifting from nine at-large City Council positions to seven City Council positions elected by district and two at-large positions. As a result, all nine City Council positions were up for election in 2015. The City Council members elected by district will serve four-year terms and the at-large City Council members elected in 2015 will serve a two-year term. In 2017, the at-large positions will be up for re-election, and thereafter, all City Council positions will be for 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 2015 may be obtained from the Department of Finance and Administrative Services and is available at <http://www.seattle.gov/cafrs/default.htm>. The Department's 2015 financial statements are also audited by an independent auditor and are attached as Appendix C.

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 2016 budget was adopted on November 23, 2015. The City's adopted General Subfund budget is \$1,048.1 million in 2015 and \$1,071.6 million in 2016.

## **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, 2015, the combined investment portfolios of the City, not including pensions, totaled \$1,762 million at par value. The City’s investment portfolios consist solely of City funds. The City does not invest funds in any other pools, with the exception of tax collection receipts initially held by the County. As of December 31, 2015, the earnings yield on the City’s investment portfolios was 1.11%. As of December 31, 2015, the average maturity of the City’s investment portfolios was 897 days. Approximately 19.7%, or \$298.4 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-Sponsored Enterprises	27%
U.S. Treasuries <sup>(1)</sup>	26%
Taxable Municipal Bonds	16%
Mortgage-Backed Securities	13%
Commercial Paper	12%
Repurchase Agreements	3%
Certificates of Deposit	3%

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(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 to establish a rate of interest on such loans. Loans of a longer duration require City Council approval.

### **Risk Management**

The City purchases excess liability insurance to address general, automobile, professional, public official, and other exposures. The policies provide \$40 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. City hydroelectric generation and transmission equipment and certain other utility systems and equipment are not covered by the property insurance policy.

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, notary publics, and workers who are permanently and totally disabled from a workplace injury or occupational disease.

### **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: SCERS, Firefighters' Pension Fund, Police Relief and Pension Fund, and Law Enforcement Officers' and Fire Fighters' Retirement System ("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"). In January 2016, the City announced plans, resulting from labor negotiations, to create a second plan within SCERS, referred to as "SCERS II." The City is currently in the process of preparing the City legislation necessary to implement the proposed SCERS II plan, which is proposed to become effective for new hires beginning in 2017. See "Update on SCERS Pension Benefit Agreement with Coalition and Non-Coalition City Unions" below.

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.

*Change in Accounting Standards.* In 2012, the Governmental Accounting Standards Board ("GASB") approved Statement No. 67 ("GASB 67") and GASB 68, which modified the accounting and financial reporting of pensions by pension plans (GASB 67) and by state and local government employers (GASB 68). GASB 67 affects the financial reporting requirements for the pension systems and does not change the funding requirements for members, employers, or the State. Under GASB 67, pension plans are required to report Total Pension Liability ("TPL") and Net Pension Liability instead of the previously required Unfunded Actuarial Accrued Liability ("UAAL"). GASB 67 requires multi-employer plans to provide a schedule in the notes to the financial statements that displays the proportionate share of contributions per employer, to be used in determining the proportionate share of the NPL that the employer recognizes on its financial statements under GASB 68. GASB 68 requires employers to report any NPL, including a proportionate share of the multiple-employer plans to which they contribute, as a liability in their Statement of Net Position.

The SCERS Annual Report (for the fiscal year ended December 31, 2015) and the State Department of Retirement Systems' Comprehensive Annual Financial Reports for LEOFF (for the fiscal year ended June 30, 2015) were prepared in accordance with GASB 67.

The City's 2015 Financial Statements have been prepared in accordance with GASB 68. As of December 31, 2015, the Seattle City Light Fund reported a liability of \$271.8 million, representing its proportionate share of NPL for SCERS. The effect of this recognition is reflected in its Balance Sheets and as a cumulative adjustment to net position in its Statement of Revenues, Expenses and Changes in Net Position in the 2015 Financial Statements. The NPL was measured as of December 31, 2014, and the TPL used to calculate the NPL was determined by the actuarial valuation as of December 31, 2013, rolled forward to December 31, 2014. The Seattle City Light Fund's proportion of the NPL was based on contributions to SCERS during the fiscal year ended December 31, 2014. As of December 31, 2014, the Seattle City Light Fund's proportion was 24.53%. Schedules of 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 2015 Audited Financial Statements.

The City’s financial statements for the fiscal year ended December 31, 2015 were prepared in accordance with GASB 68. The City’s Comprehensive Annual Financial Report for 2015 may be obtained from the Department of Finance and Administrative Services and is available at <http://www.seattle.gov/cafrs/default.htm>.

*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 Seattle 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.

SCERS provides retirement, death, and disability benefits. 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. According to the actuarial valuation prepared as of January 1, 2016, there were 6,223 retirees and beneficiaries receiving benefits, and 8,882 active members of SCERS. There are an additional 1,220 terminated employees who are vested and entitled to future benefits and another 977 who are not vested and not entitled to benefits beyond contributions and accumulated interest. From January 1, 2015, to January 1, 2016, the net number of active members increased by 1.6%, the net number of retirees receiving benefits increased by 3.4%, and the net number of vested terminated members increased by 2.7%.

Certain demographic data from the most recent actuarial valuation (with a valuation date as of January 1, 2016), which was completed on June 17, 2016 (the “2015 Actuarial Valuation”), is shown below:

**TABLE 10  
PLAN MEMBER DEMOGRAPHIC INFORMATION**

<b>Age Range</b>	<b>Retirees and Beneficiaries Receiving Benefits</b>		<b>Active Employees</b>	
	<b>Number<sup>(1)</sup></b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
<25	-	0.0%	85	1.0%
25-39	-	0.0%	2,103	23.7%
40-49	9 <sup>(2)</sup>	0.1% <sup>(2)</sup>	2,210	24.9%
50-59	325	5.3%	2,754	31.0%
60-69	2,390	39.0%	1,623	18.3%
70+	3,408	55.6%	107	1.2%

(1) Does not include 91 survivors receiving Option B or Option C benefits for a certain period.

(2) Includes everyone under the age of 50

*Source: 2015 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 most recent such audited report, for the years ended December 31, 2014, and December 31, 2015, was transmitted on July 11, 2016, by CliftonLarsonAllen LLP (the “2015 SCERS Annual Report”).

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](http://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 is the 2015 Actuarial Valuation (with a valuation date as of January 1, 2016). The next actuarial valuation (with a valuation date as of January 1, 2017) is expected to be completed by mid-2017. Historically, the City prepared actuarial valuations biennially, but has prepared them annually since 2010.

As of January 1, 2016 (as set forth in the 2015 Actuarial Valuation), the actuarial value of net assets available for benefits was \$2.397 billion and the actuarial accrued liability was \$3.605 billion. The 2015 Actuarial Valuation utilized the following assumptions:

Investment return	7.50%
Price inflation	3.25%
Expected annual average membership growth	0.50%
Wage inflation	4.00%
Interest on member contributions made prior to January 1, 2012 <sup>(1)</sup>	5.75%

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(1) Contributions made on or after January 1, 2012, are assumed to accrue interest at 4.75%.

To the extent that actuarial accrued liability exceeds plan assets, an unfunded actuarial accrued liability ("UAAL") exists. The UAAL increased from \$1,165.9 million as of January 1, 2015, to \$1,208.0 million as of January 1, 2016. The funding ratio increased from 66.0% as of January 1, 2015, to 66.5% as of January 1, 2016, which increase is primarily due to the UAAL amortization payment made by the City during the prior year, partially offset by the recognition of deferred asset losses in the actuarial value of assets ("AVA"). For the year ending December 31, 2015, SCERS assets returned about 0.3% on a market basis (gross of investment expenses), a rate of return less than the assumed rate of 7.50%. The result is an actuarial loss on assets for 2015, but only one-fifth of this loss will be recognized in the current year 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.

The following table provides historical plan funding information:

**TABLE 11**  
**HISTORICAL SCERS SCHEDULE OF FUNDING PROGRESS <sup>(1)</sup>**  
**(\$000,000)**

<b>Actuarial Valuation Date (January 1)<sup>(2)</sup></b>	<b>Actuarial Value of Assets (AVA)</b>	<b>Actuarial Accrued Liability (AAL)<sup>(3)</sup></b>	<b>Unfunded AAL (UAAL)</b>	<b>Funding Ratio</b>	<b>Covered Payroll<sup>(4)</sup></b>	<b>UAAL as % of Covered Payroll</b>
2006	\$ 1,791.8	\$ 2,017.5	\$ (225.7)	88.8%	\$ 447.0	50.5 %
2008	2,119.4	2,294.6	(175.2)	92.4%	501.9	34.9 %
2010	1,645.3	2,653.8	(1,008.5)	62.0%	580.9	173.6 %
2011 <sup>(5)</sup>	2,013.7	2,709.0	(695.4)	74.3%	563.2	123.5 %
2012 <sup>(5)</sup>	1,954.3	2,859.3	(905.0)	68.3%	557.0	162.5 %
2013 <sup>(5)</sup>	1,920.1	3,025.3	(1,105.2)	63.5%	567.8	194.6 %
2014 <sup>(5)</sup>	2,094.3	3,260.1	(1,165.8)	64.2%	597.9	195.0 %
2015 <sup>(5)</sup>	2,266.7	3,432.6	(1,165.9)	66.0%	630.9	184.8 %
2016 <sup>(5)</sup>	2,397.1	3,605.1	(1,208.0)	66.5%	641.7	188.3 %

(1) For accounting purposes under GASB 67/68, UAAL is replaced with NPL. However, because the City continues to set its contribution rates based on an actuarially required contribution (“ARC”) 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: 2015 Actuarial Valuation*

In accordance with GASB 67, the SCERS 2015 Annual Report calculated TPL and NPL based on the actuarial valuation dated as of January 1, 2016, rolled forward using generally accepted actuarial procedures (assuming a 7.50% investment rate of return and 4.00% salary increases) to December 31, 2015, as follows: TPL was calculated to be \$3,612.2 million; plan fiduciary net position (“Plan Net Position”) was calculated to be \$2,313.0 million, and NPL was calculated to be \$1,299.2 million, for a funding ratio (Plan Net Position as a percentage of TPL) of 64.0%. A Schedule of the Department’s Proportionate Share of the Net Pension Liability and Schedule of the Department’s Contributions are set forth in the required supplementary information in Appendix C—2015 Audited Financial Statements of the Department.

**SCERS CONTRIBUTION RATES.** Member and employer contribution rates are established by Chapter 4.36 of the SMC, which provides that the City contribution must match the normal contributions of members and does not permit the employer rate to drop below the employee rate. 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 a result, for purposes of the 2015 Actuarial Valuation calculation, a 27-year amortization period was used. This policy may be revised by the City Council in future years. The 2015 Actuarial Valuation was prepared using the Entry Age Actuarial

Cost Method. Under this 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, based on a percentage of employee compensation (exclusive of overtime), are shown in the table below:

**TABLE 12  
EMPLOYER AND EMPLOYEE SCERS CONTRIBUTION RATES**

<b>Calendar Years (beginning Jan. 1)</b>	<b>Employer Rate</b>	<b>Employee Rate</b>	<b>Total Contribution Rate</b>	<b>Total ARC<sup>(1)</sup></b>	<b>% of Total ARC Contributed</b>	<b>Total ARC per GASB 27<sup>(2)</sup></b>	<b>% of Total ARC Contributed per GASB 27</b>
2011	9.03%	9.03%	18.06%	25.03%	72%	22.14%	82%
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	15.23%	10.03%	25.26%	25.26%	100%	26.38%	98%
2016	15.29%	10.03%	25.32%	25.32%	100%	N/A	N/A

- (1) Reflects total actuarial required contribution (i.e., employer plus employee contribution rates). Beginning November 21, 2011, this rate is used for City budgeting purposes.
- (2) The primary difference between the Total ARC calculation and that calculated under GASB 27 is that the Total ARC calculation uses a 0.50% membership growth assumption, while GASB specifies no membership growth assumption. 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 27 was superseded by GASB 68, so this calculation will no longer be performed.

*Source: Seattle Municipal Code; 2016 Budget; Annual Actuarial Valuation Reports*

In 2011, the City failed to increase contribution rates sufficiently to fund the ARC. The City limited its contribution to matching the employee contribution (which was capped pursuant to certain collective bargaining agreements described in the following paragraph), without regard to any amortization of UAAL. This resulted in an increase in unfunded liability, underfunded the pension obligations, and deferred pension funding. On November 21, 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 12—Employer and Employee SCERS Contribution Rates and Table 13—Projected Actuarially Required Total Contribution Rates by Employer and Employee.”

The City’s contracts with all labor unions that represent SCERS members describe how contribution rates would be changed in the event that higher contributions are needed to improve the funding status of the system. Under these contracts, the City and employees will share in any contribution rate increase equally, up to a maximum increase of 2% in the employee contribution. The 2% employee contribution rate increase was implemented via 1% increases in 2011 and 2012. This contractual restriction shifts the risk of future increases to the City’s employer contribution.



Projected total actuarially required contribution rates reported in the 2015 Actuarial Valuation are shown in the table below:

**TABLE 13**  
**PROJECTED ACTUARIALLY REQUIRED TOTAL CONTRIBUTION RATES**  
**BY EMPLOYER AND EMPLOYEE**

<b>Contribution Year<sup>(1)</sup></b>	<b>Assuming 7.50% Returns</b>	<b>Confidence Range<sup>(2)</sup></b>
2017	25.32%	25.32-25.32
2018	25.28%	25.99-24.56
2019	25.40%	26.98-23.87
2020	25.78%	28.47-23.24
2021	26.10%	30.14-22.36
2022	26.10%	31.73-20.95

(1) Contribution year lags valuation year by one. For example, contribution year 2017 is based on the 2015 Actuarial Valuation (as of January 1, 2016) results, amortized over 27 years beginning in 2016 if the contribution rate increase takes place in 2016.

(2) Confidence range if asset return at 95th percentile and if asset return at 5th percentile.

*Source: 2015 Actuarial Valuation*

Employer contributions were \$90 million in 2014, of which approximately \$22 million was from the Seattle City Light Fund. In 2015, employer contributions were approximately \$101 million, of which approximately \$25 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.

SCERS' net assets decreased by \$9.7 million (-0.4%) during 2015, including member and employer contributions of \$166.9 million and net revenue from investment activity totaling \$7.1 million. Expenses increased by \$13.0 million in 2015, primarily attributed to an \$9.1 million increase in retiree benefit payments.

Table 14 below shows the historical market value of SCERS' net assets (as of each December 31). Table 15 shows the revenue or loss from investment activity for the last ten years.

**TABLE 14**  
**MARKET VALUE OF ASSETS**

<b>Year</b> <b>(As of December 31)</b>	<b>Market Value of</b> <b>Assets (MVA)<sup>(1)</sup></b>
2006	\$ 2,011.2
2007	2,119.4
2008	1,477.4
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

(1) In millions.

Source: SCERS Actuarial Valuations

**TABLE 15**  
**SCERS INVESTMENT RETURNS**

<b>Year</b> <b>(As of December 31)</b>	<b>Net Investment Income (Loss)</b>	
	<b>Amount<sup>(1)</sup></b>	<b>%<sup>(2)</sup></b>
2006	\$ 242.7	13.9%
2007	138.8	7.3%
2008	(619.7)	-26.8%
2009	194.7	10.8%
2010	208.5	13.2%
2011	(15.8)	0.0%
2012	230.7	14.0%
2013	289.8	15.5%
2014	122.5	5.7%
2015	7.1	0.3%

(1) In millions.

(2) Represents one-year return on asset classes.

Source: SCERS Annual Reports

The table below shows the historical distribution of SCERS investments over the last five years:

**TABLE 16**  
**HISTORICAL SCERS DISTRIBUTION OF INVESTMENTS BY CLASS**

<b>Investment Categories (January 1)</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Fixed Income	28.4%	24.2%	23.7%	23.1%	22.8%
Domestic and International Stocks	53.3%	33.4%	32.1%	30.4%	30.8%
Real Estate	12.8%	11.0%	10.6%	11.3%	12.7%
Alternative Investments	5.4%	4.8%	4.9%	6.2%	8.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

*Source: SCERS Actuarial Valuations*

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.

*Update on SCERS Pension Benefit Agreement with Coalition and Non-Coalition City Unions.* As part of an agreement with the Coalition of City Unions, reached in December 2015, and agreements with individual bargaining units that are not part of the Coalition, the City Council is expected to consider ratifying legislation in 2016 to create a new defined benefit retirement plan ("SCERS II") covering non-uniformed employees. The new plan is expected to be open to employees first hired on or after January 1, 2017. The current SCERS plan is expected to close to new entrants as of that date. The conceptual agreement regarding SCERS II includes, among other adjustments, 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 II to provide a more cost-effective method for the City to provide retirement benefits to its employees. It would have no effect on uniformed employees.

See "The City of Seattle—Labor Relations."

*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 December 31, 2015, membership in these plans consisted of 799 fire employees (15 of whom are active employees) and 719 police employees (11 of whom are active employees). See "Other Post-Employment Benefits" below for a discussion of medical benefits paid to retirees.

These pension plans do not issue separate financial reports. The most recent actuarial valuations, dated January 1, 2016, use the Entry Age Normal ("EAN") Actuarial Cost Method and value plan assets at fair value. The actuarial valuation for the firefighters' pension fund uses the following 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 actuarial assumptions: inflation rate (CPI), 2.25%; investment rate of return, 3.50%; 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 2023). For 2015, the City funded 100% of the ARC but only a portion of the projected payment necessary to fully fund the AAL by 2023. The City's 2016 budget also anticipates fully funding the ARC and making partial payments toward the full funding of the AAL. As of January 1, 2016, the actuarial value of net assets available for benefits in the Firefighters' Pension Fund was \$14.9 million, and the AAL was \$82.9 million. As a result, the UAAL was \$68.0 million and the funded ratio was 18.0%. The City's employer contribution to the fund in 2015 was \$7.0 million, representing 143% of the ARC; 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. As of January 1, 2016, the actuarial value of net assets available for benefits in the Police Relief and Pension Fund was \$4.7 million, and the AAL was \$95.8 million. As a result, the UAAL was \$91.1 million and the funded ratio was 5.1%. The City's employer contribution to the fund in 2015 was \$7.9 million, representing 127% of the ARC; 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 \$14.2 million in 2015 and \$13.9 million in 2014. The following table outlines the contribution rates of employees and employers under LEOFF.

**TABLE 17**  
**LEOFF CONTRIBUTION RATES EXPRESSED AS A PERCENTAGE OF COVERED PAYROLL**  
**(As of December 31, 2015)**

	<b>Plan 1</b>	<b>Plan 2</b>
Employer	0.18% <sup>(1)</sup>	5.23% <sup>(1)</sup>
Employee	0.00	8.41%
State	N/A	3.36%

(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 of LEOFF. For additional information, see Note 11 to the City’s 2015 Comprehensive Annual Financial Report, which may be obtained from the Department of Finance and Administrative Services and is available at <http://www.seattle.gov/cafrs/default.htm>.

According to the Office of the State Actuary’s June 1, 2015, valuation, LEOFF had no UAAL. LEOFF Plan 1 had a funded ratio of 125% and LEOFF Plan 2 had a funded ratio of 105%. 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, and 3.0% consumer price index increase. Liabilities were valued using the EAN Actuarial Cost 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.

### **Other Post-Employment Benefits**

The City has liability for two types of other post-employment benefits (“OPEB”): (i) an implicit rate subsidy for health insurance covering employees retiring under SCERS 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. The City has assessed its OPEB liability in order to satisfy the expanded reporting requirements specified by GASB 45. While GASB 45 requires reporting and disclosure of the unfunded OPEB liability, it does not require that it be funded. The City funds its OPEB 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 or LEOFF plans. The last valuation was as of January 1, 2015, and showed the UAAL for the implicit rate subsidy was \$44.4 million; the City’s estimated annual cost in 2015 was \$3.7 million and the City’s estimated contribution in 2015 was \$1.1 million. The valuation of the OPEB liability associated with the City’s Firefighters’ Pension Fund and Police Relief and Pension Fund is updated annually. As of January 1, 2016, the UAAL for OPEB in the City’s Firefighters’ Pension Fund was \$311.4 million; the estimated annual cost for 2016 was \$16.9 million and the estimated annual contribution for 2016 was \$11.2 million. As of January 1, 2016, the UAAL for OPEB in the Police Relief and Pension Fund was \$357.0 million; the estimated annual cost for 2016 was \$24.3 million and the estimated annual contribution for 2016 was \$14.2 million.

For additional information regarding the City’s OPEB liability, see Note 11 to the City’s 2015 Comprehensive Annual Financial Report.

### **Labor Relations**

As of March 2016, the City had 36 separate departments and offices with approximately 13,200 regular and temporary employees. Twenty-six different unions and 51 bargaining units represent approximately 75% of the City’s regular employees.

In early 2016, the City adopted legislation approving an agreement reached in December 2015 with the Coalition of City Unions (comprising bargaining units representing the majority of City employees) and other non-Coalition unions. All of the agreements with the bargaining units comprising the Coalition of City Unions and with the other non-Coalition unions have been ratified and implemented, or are in the process of ratification and implementation. The final agreements become effective, retroactively back to January 1, 2015, with a term through December 31, 2018.

The City is in negotiations with certain non-Coalition bargaining groups who are operating under expired contracts: Seattle Police Management Association (expired December 2013), IBEW Local 77 Construction Maintenance and Equipment Operators (expired December 2013), Seattle Police Officers' Guild (expired December 2014), Seattle Fire Chiefs' Association (expired December 2014), and IBEW Local 77 Material Controllers (expired December 2015).

In July 2016, the Seattle Police Officers' Guild failed to ratify a tentative agreement and negotiations will return to mediation. Under Washington State law, police are prohibited from striking, so if mediation fails, the parties would be subject to arbitration.

The City is also negotiating contracts with IBEW Local 77 City Light and Transportation that expires in January 2017, and with a newly created IT Professional unit, also represented by IBEW Local 77.

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.

All of the recent agreements (including those with Coalition and non-Coalition bargaining groups) contain a provision for implementation of a SCERS II Retirement System beginning January 1, 2017. The City is in the process of preparing legislation that will be necessary for implementation. See "Pension Plans—Update on SCERS Pension Benefit Agreement with Coalition and Non-Coalition City Unions."

### **Emergency Management and Preparedness**

The City's Office of Emergency Management ("OEM") is responsible for managing and coordinating the City's resources and responsibilities in dealing with emergencies. The OEM prepares for emergencies, trains City staff in emergency response, 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, breaches in cybersecurity, and civil disorder), transportation incidents, fires, hazardous materials, 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.

### **Considerations Related to Alaskan Way Viaduct and Seawall Replacement Program**

The Alaskan Way Viaduct and Seawall Replacement Program ("AWVSR Program") consists of multiple projects to remove and replace the State Route 99 Alaskan Way Viaduct, replace an existing seawall, and carry out the redevelopment of the City's central waterfront area. The various projects comprising the AWVSR Program are separate public projects by separate lead public agencies being implemented in a coordinated manner pursuant to a series of written agreements.

Many elements of the AWVSR Program are presently underway. The State's project to replace the Alaskan Way viaduct with a bored tunnel (the "State's Project") and the City's project to replace the existing aging seawall along the waterfront (the "City's Seawall Project") are by far the largest projects in the AWVSR Program. There is also coordination between the AWVSR Program waterfront redevelopment elements (*e.g.*, the City's "Waterfront Seattle" project) and redevelopment projects undertaken by other public agencies in the central waterfront area, such as the Pike Place Market Preservation and Development Authority's MarketFront Project.

*Status of State's Project.* The State's Project was delayed by more than two years due to the malfunctioning of a deep bore tunneling machine (the "TBM") and is currently scheduled for completion in 2019. The contractor resumed tunneling in February 2016 following repairs and implementation of new quality and safety plans. Tunneling could be suspended again at any time, resulting in additional delays.

*Direct Cost Overruns.* The State's Project is being undertaken pursuant to a contract between the Washington State Department of Transportation ("WSDOT") and a joint venture named Seattle Tunnel Partners. The City is not a party to that contract. Responsibility for direct cost overruns resulting from the repair of the TBM will be governed by that contract; the City has no direct contractual liability.

*Indirect Cost Overruns.* The City has a series of agreements with WSDOT relating to the coordination of projects within the AWVSR Program, covering various issues including the protection, repair, and relocation of the City's utility infrastructure impacted by or constructed as part of the State's Project, including infrastructure owned by the Department. See "Capital Requirements—Distribution." In general, these agreements provide that the City is responsible for relocating certain utility infrastructure that conflicts with the State's Project and the State is responsible for avoiding damage and repairing or replacing damaged utility infrastructure as defined in the agreements. It is the City's position that any increase in these indirect costs resulting from the TBM's malfunction or delays are governed by these agreements, and the City's utilities have budgeted according to the agreed-upon City obligations, plus necessary contingencies. The City and the State are currently in negotiations regarding this indirect cost responsibility as well as direct and indirect costs related to other AWVSR projects affected by the delays.

*Status of City's Seawall Project.* The majority of the City's Seawall Project is currently scheduled for completion in 2017. In addition to the Seawall Project, a number of other public and private projects comprise the AWVSR Program. The final component of the Seawall Project will be constructed in conjunction with these Waterfront Seattle projects on a timeline that is yet to be determined. As with the State's Project, the Seawall Project and Waterfront Seattle Projects will involve 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 of the Seawall Project and other Waterfront Seattle projects 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% (referenda) 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. Tax and fee initiative measures continue to be filed, 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 Affecting 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—2015 Audited Financial Statements of the Department—Notes 9, 10, and 13.) 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.

### **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 form of the opinion of Bond Counsel with respect to the Bonds is attached hereto as Appendix B. The opinion of Bond Counsel is given based on factual representations made to Bond Counsel and under existing law as of the date of initial delivery 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 do 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 upon the occurrence of an event of default under the Bond Legislation 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 Legislation 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 Registered Owners of the Bonds.

The rights and obligations under the Bonds and the Bond Legislation 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 to 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 1898 federal bankruptcy statute that was superseded by the current Bankruptcy Code. The State Legislature has not amended the 1935 State statute to update the cross-reference to the current Bankruptcy Code, but several Washington municipal corporations nonetheless been permitted to seek 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 certain discretionary powers under the Bankruptcy Code.



In the event of a chapter 9 bankruptcy filing by the City, owners of the Bonds may not be able to exercise any of their remedies under the Bond Legislation during the course of the proceeding. Legal proceedings to resolve issues could be time consuming, and substantial delays or reductions in payments to Bondholders may result. The opinion 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. A copy of the proposed form of opinion of Bond Counsel is set forth in Appendix B.

### **Tax Matters**

In the opinion of 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 and corporations. Bond Counsel notes that, with respect to corporations, interest on the Bonds may be included as an adjustment in the calculation of alternative minimum taxable income, which may affect the alternative minimum tax liability of corporations.

The Bonds that have a yield that is higher than their respective stated interest rates, as shown on page i, are being sold with original issue discount (the "Discount Bonds"). The excess of the stated redemption price at maturity of a Discount Bond over the issue price of such Discount Bond constitutes original issue discount. Original issue discount accrues under a constant yield method, and original issue discount will accrue to a Discount Bond Owner before receipt of cash attributable to such income. The amount of original issue discount deemed received by the Discount Bond Owner will increase the Discount Bond Owner's basis in the respective Discount Bond. For federal tax purposes, original issue discount is treated as interest on a Discount Bond.

The Bonds that have a yield that is lower than their respective stated interest rates, as shown on page i, are being sold at a premium (the "Premium Bonds"). The amount by which a Premium Bond Owner's original basis for determining gain or loss on the sale or exchange of a Premium Bond (generally, the purchase price) exceeds the amount payable on maturity (or on an earlier call date) constitutes bond premium, which must be amortized under Section 171 of the Code. Amortized bond premium reduces the Premium Bond Owner's basis in the applicable Premium Bond, and reduces the amount of tax-exempt interest received. Amortized bond premium is not deductible for federal income tax purposes. The basis reduction as a result of the amortization of bond premium may result in a Premium Bond Owner realizing a taxable gain when a Premium Bond is sold by the Owner for an amount equal to or less (under certain circumstances) than the original cost of the Premium Bond to the Owner. Purchasers of any of the Premium Bonds should consult their own tax advisors as to the treatment, computation, and collateral consequences of amortizable bond premium.

Bond Counsel's opinion as to the exclusion from gross income 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 Code that must be satisfied subsequent to the issuance of the Bonds to assure that interest on the Bonds will be excluded from gross income for federal income tax purposes. Failure to comply with such requirements of the Code might cause 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 IRS has initiated an expanded program for the auditing of tax-exempt bond issues that includes 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). It is possible that any such audit might adversely affect 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 INTERPRETATIONS OF FEDERAL, STATE, OR LOCAL LAW) THAT AFFECT THE FEDERAL, STATE, OR LOCAL TAX TREATMENT OF THE**

INTEREST ON THE BONDS OR THE MARKET VALUE OF THE BONDS. LEGISLATIVE CHANGES HAVE BEEN PROPOSED IN CONGRESS, WHICH, IF ENACTED, WOULD RESULT IN ADDITIONAL FEDERAL INCOME TAX BEING IMPOSED ON CERTAIN OWNERS OF TAX-EXEMPT STATE OR LOCAL OBLIGATIONS, SUCH AS THE BONDS. THE INTRODUCTION OR ENACTMENT OF ANY OF SUCH 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, SUCH CHANGES (OR OTHER CHANGES) WILL NOT BE INTRODUCED OR ENACTED OR INTERPRETATIONS WILL NOT OCCUR. 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.

Bond Counsel's opinion 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 Legislation and the Tax Certificate relating to the Bonds permit certain actions to be taken or to be omitted if a favorable opinion of Bond Counsel is provided with respect thereto. Bond Counsel expresses no opinion as to the effect on the exclusion from gross income of interest on the Bonds for federal income tax purposes with respect to any Bond if any such action is taken or omitted based upon the advice of counsel other than Stradling Yocca Carlson & Rauth.

Although Bond Counsel has rendered 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.

### **Continuing Disclosure Undertaking**

*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 undertake in the Bond Legislation (the "Undertaking") 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:

- (i) annual financial information and operating data of the type included in this Official Statement as generally described below ("annual financial information"); and
- (ii) 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:
  - (a) principal and interest payment delinquencies;
  - (b) non-payment related defaults, if material;
  - (c) unscheduled draws on debt service reserves reflecting financial difficulties;
  - (d) unscheduled draws on credit enhancements reflecting financial difficulties;
  - (e) substitution of credit or liquidity providers, or their failure to perform;
  - (f) 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;
  - (g) modifications to rights of holders of the Bonds, if material;

- (h) Bond calls (other than scheduled mandatory redemptions of Term Bonds), if material, and tender offers;
- (i) defeasances;
- (j) release, substitution, or sale of property securing repayment of the Bonds, if material;
- (k) rating changes;
- (l) bankruptcy, insolvency, receivership, or similar event of the City, as such “Bankruptcy Events” are defined in Rule 15c2-12;
- (m) 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; and
- (n) appointment of a successor or additional trustee or the change of name of a trustee, if material.

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, which financial statements will not be audited, except that if and when audited financial statements are otherwise prepared and available to the City, they will be provided;
- (ii) a statement of outstanding bonded debt secured by Gross Revenues of the Light System;
- (iii) debt service coverage ratios for the bond debt secured by Gross Revenues 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, 2016. 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 Undertaking.* The Undertaking 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.

The City will give notice to the MSRB of the substance (or provide a copy) of any amendment to the Undertaking 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 Undertaking.* The City’s obligations under the Undertaking 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 Undertaking will terminate if those provisions of Rule 15c2-12 that require the City to comply with the Undertaking 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 Undertaking.* The City has agreed to proceed with due diligence to cause any failure to comply with the Undertaking 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 Undertaking 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 Undertaking.

*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.

## **OTHER BOND INFORMATION**

### **Ratings on the Bonds**

The Bonds have been rated "Aa2" and "AA" by Moody's Investors Service, Inc. and Standard & Poor's Ratings Services, respectively. In general, rating agencies base their ratings on rating materials furnished to them (which may include information provided by the City that is not included in this Official Statement) and on the rating agency's own investigations, studies and assumptions. The ratings will reflect only the views of the rating agencies, and an explanation of the significance of the ratings may be obtained from each rating agency. The ratings were applied for by the City and no application was made to any other rating agency for the purpose of obtaining an additional rating on the Bonds. There is no assurance that the ratings will be retained for any given period of time or that the ratings will not be revised downward, suspended, or withdrawn entirely by the rating agencies if, in their judgment, circumstances so warrant. Any such downward revision, suspension, or withdrawal of the ratings will be likely to have an adverse effect on the market price of the Bonds.

### **Underwriting**

The Bonds are being purchased by \_\_\_\_\_ (the "Underwriter") at a price of \$\_\_\_\_\_, and will be reoffered at a price of \$\_\_\_\_\_. The Underwriter may offer and sell the Bonds to certain dealers (including dealers depositing Bonds into investment trusts) and others at prices lower than the initial offering prices set forth on page i hereof, and such initial offering prices may be changed from time to time by the Underwriter. After the initial public offering, the public offering prices may be varied from time to time

### **Conflicts of Interest**

Some of the fees of the Financial Advisor and Bond Counsel are contingent upon the sale of the Bonds. From time to time Bond Counsel serves as counsel to the Financial Advisor in matters unrelated to the Bonds. None of the members of the City Council or other officers of the City have any conflict of interest in the issuance of the Bonds that is prohibited by applicable law.

### **Official Statement**

This Official Statement is not to be construed as a contract with the owners of any of the Bonds.

The City of Seattle

By: \_\_\_\_\_

Glen M. Lee  
Director of Finance