#### Overview

City Light is a municipal electric utility owned by the residents of Seattle and run by the City's elected officials. The utility serves a population of over 776,000 people living in a 131-squaremile area which includes the City of Seattle and several adjoining jurisdictions. To serve these customers, City Light owns, maintains, and operates a multi-billion-dollar physical plant. The physical plant includes:

- ☐ A power supply generation system consisting of seven hydroelectric plants on the Pend Oreille, Skagit, Cedar, and Tolt rivers with a combined capacity of almost 2,000 megawatts;
- ☐ 656 miles of high-voltage transmission lines linking these plants to Seattle;
- A distribution system with 15 major substations and more than 2,500 miles of overhead and underground cable;
- A state-of-the-art System Control Center coordinating these activities; and
- Billing and metering equipment tracking approximately 423,000 accounts.

City Light's Capital Improvement Program (CIP) is the vehicle for repairing, upgrading, and expanding this infrastructure. The CIP funds a variety of safety improvements, mitigation activities, and licensing requirements. The goal of the utility's capital program is to ensure that the facilities required to serve City Light customers with low-cost, reliable power are in place. Funding for the CIP comes primarily from retail electricity sales, sales of surplus power on the wholesale market, and the sale of revenue bonds.

The 2017-2022 Strategic Plan update for City Light established spending priorities and a sixyear rate path for the utility. The updated Strategic Plan guides development of City Light's 2017-2022 Proposed CIP budget.

#### **CIP Revenue Sources**

Retail electricity sales and surplus energy sales on the wholesale market fund a large part of City Light's CIP. Other funding comes from direct customer billing (including service connections and other customer requested work) and assorted fees. City Light also finances a portion of the CIP through the sale of revenue bonds. City Light's policy is to limit debt financing to 60% of any given six-year CIP (Resolution 31187).

#### **CIP Highlights**

The 2017-2022 Proposed CIP budget outlines \$2.37 billion in capital spending over six years for power supply, transmission, distribution, customer services, and central utility needs. In 2017, approximately \$65.8 million of this spending is in response to external projects, including suburban undergrounding requests, maintenance of the streetlight system, infrastructure relocations due to transportation projects, and other reimbursable customer-requested work.

City Light monitors and refines CIP project spending plans throughout the year and reports progress to the Mayor and City Council quarterly. City Light submits all significant project changes to the Mayor and the Council for approval through the quarterly supplemental budget process.

A more expansive look at CIP highlights scheduled for 2017-2022 is provided below.

#### **CIP Expenditures by Major Program**

The 2017-2022 Proposed CIP summarizes spending in five broad programs: Power Supply, Transmission, Distribution, External Projects and Central Utility Projects. The table below displays the projects and associated spending included in each of these programs for the 2017-2022 Proposed CIP. The dollar amounts shown in this document reflect the projects' total costs to be capitalized, and include both direct costs and associated overhead costs.

	2017	2018	2019	2020	2021	2022	Total
Power Supply	68,067	91,135	77,706	86,476	100,735	98,466	522,585
Boundary	26,427	59,601	50,004	37,933	57,479	34,800	266,244
Cedar Falls - Tolt	3,514	1,927	3,978	4,583	6,518	3,239	23,759
Power Supply Other	7,883	9,624	4,783	3,630	2,430	2,479	30,829
Skagit	30,243	19,983	18,941	40,330	34,308	57,948	201,753
Transmission	13,383	15,865	8,351	10,759	45,901	4,563	98,822
Distribution	223,777	192,893	195,508	182,143	208,718	218,045	1,221,084
Distribution Other	12,642	15,576	26,209	17,404	24,365	20,569	116,765
Network	27,355	21,953	22,423	31,491	42,856	39,524	185,602
Radial	57,423	54,958	68,747	67,520	70,466	76,597	395,711
Service Connections	48,414	66,747	51,962	39,573	42,938	52,956	302,590
Substations	77,943	33,659	26,167	26,155	28,093	28,399	220,416
External Projects	65,828	57,047	41,286	33,400	32,284	31,444	261,289
Customer Other	309	19	8	8	8	15	367
Local Jurisdictions	17,109	16,628	17,546	24,239	25,184	27,306	128,012
Transportation Relocations	48,410	40,400	23,732	9,153	7,092	4,123	132,910
Central Utility Projects	39,118	28,287	21,160	25,659	86,462	69,705	270,391
Customer and Billing	6,169	501	-	-	-	-	6,670
Finance and IT Systems	10,207	6,979	3,608	3,236	2,347	2,012	28.389
Fleets and Facilities	22,742	20,807	17,552	22,423	84,115	67,693	235,332
Grand Total	410,173	385,227	344,011	338,437	474,100	422,223	2,374,171

#### 2017-2022 Proposed CIP Summary of CIP Project Allocations (in \$1,000s)

#### A more detailed description and summary of each Program follows.

**Power Supply:** Projects in this program includes improvements to City Light's dams, generators, powerhouses, and other related projects. In addition, the program contains projects designed to help City Light comply with federal licensing and environmental mitigation requirements at the utility's dams. City Light sequences work on major power production equipment (i.e., generator rebuilds and runner replacements) to reduce the impact to power generation and level capital spending.

For 2017, the CIP includes \$68 million in funding for 65 projects in Power Supply. *Highlights, ordered by project number, include:* 

- <u>Boundary Powerhouse Unit 51 Generator Rebuild (6351):</u> (\$3,307,000 in 2017) This project funds the rewinding and refurbishing of the Unit 51 generator to extend its useful life. It also replaces the carbon dioxide fire-suppression system with a water sprinkler system to enhance worker safety. If technology is sufficiently advanced, it may also include a rotor-mounted scanner or other diagnostic equipment.
- <u>Power Production Network Controls (6385)</u>: (\$812,000 in 2017) This project provides the infrastructure required to install the basic control network and integrate existing, major control systems for a Skagit wide network controls program. Also included are features that lead to enhanced data acquisition that meets NERC requirements.
- <u>Diablo Powerhouse Rebuild Generator Unit 31 (6422)</u>: (\$5,591,000 in 2017) This project rebuilds generator Unit 31 at Diablo Powerhouse as part of the utility's generator rebuild program.
- <u>Diablo Powerhouse Rebuild Generator Unit 32 (6423)</u>: (\$11,577,000 in 2016) The project rebuilds generator Unit 32 at Diablo Powerhouse as part of the utility's generator rebuild program. Unit 31 will be rebuilt the year after Unit 32.
- <u>Boundary Switchyard Generator Step-Up Transformers (6493)</u>: (\$6,195,000 in 2017) This project replaces the transformers used to step-up voltage and feed the transmission lines. The transformers are past their useful life. Additionally, efficiency gains can be realized by matching the new transformers to the rebuilt generators.
- <u>Ross Governors (6562):</u> (\$3,579,000 in 2017)
  This project replaces Governors and Exciters on all four of the Ross Powerhouse generating units.
- <u>Boundary Licensing Mitigation (6601): (</u>\$2,289,000 in 2017) This project makes the security entrance to the Boundary Hydro Project safer for employees and visitors. The access road to the security gate will be realigned so the guard station can access both incoming and outgoing traffic. A permanent building will be installed with water service, a restroom, and an electrical room among other amenities. A vehicle turn-around and new signage will also be installed.
- <u>Western Energy Imbalance Market (9976)</u>: (\$3,470,000 in 2017) The new project provides funding to allow City Light to participate in the Western Energy Imbalance Market (EIM) run by the California Independent System Operator (CAISO). City Light is planning to begin participating in the market in the spring of 2019.

**Transmission:** Projects in this program include transmission capacity and reliability projects to deliver power from City Light's dams to City Light's distribution system and the regional power grid. City Light owns and maintains 656 miles of transmission capacity that connect the Skagit facilities to Seattle. City Light leases additional transmission capacity to connect to the Boundary, Cedar Falls, and Tolt hydroelectric projects.

For 2017, the CIP budget includes \$13.4 million in funding for six projects in Transmission. *Highlights, ordered by project number, include:* 

- <u>Transmission Reliability (7104):</u> (\$3,106,000 in 2017) This ongoing project replaces approximately one percent of City Light's transmission structures and conductors each year. This project also provides engineering, construction, and related work improving and maintaining the reliability of the overhead or underground transmission system.
- <u>Denny Substation Transmission Lines (7125)</u>: (\$8,096,000 in 2017) This project designs and constructs transmission lines to support the new Denny Substation. These transmission lines are created by dividing the existing Pine to Broad Street transmission line into two transmission lines. The remaining new lines will come from the Canal and Massachusetts substations. This project also provides for undergrounding the transmission lines.
- <u>Transmission Line Inductor Installation (8461)</u>: (\$1,433,000 in 2017) This project addresses the issue of increased electric transmission congestion load growth in the Puget Sound Area. The project funds the installation of inductors or phase shifting transformers that curtail the flow of power through the Seattle area, while improving customer and asset strengths and maintaining reliability.

**Distribution:** Projects in this program include improvements to City Light's distribution substations, relays, feeders, network distribution systems, overhead and underground radial distribution systems, service connections, customer meters, and other facilities related to the distribution system.

For 2017, the CIP includes \$223.8 million in funding for 67 projects in Distribution. *Highlights, ordered by project number, include:* 

Denny Substation Development (7757): (\$57,211,000 in 2017)
 This project designs and builds a 200 MVA substation on Denny Ave

This project designs and builds a 200 MVA substation on Denny Avenue. The project funds site acquisition, environmental management and remediation of land, design of the substation, and construction of the substation. It provides capacity to meet load growth, provides the operational flexibility to operate the electrical system to serve new development and existing load, and supports development of an underground network. This project coordinates with Denny Tenant Improvements and the build out of the Denny network and construction of transmission lines to the new substation.

- <u>Substation Breaker Replacements and Reliability Additions (7779)</u>: (\$6,243,000 in 2017)
  This ongoing project funds the review of City Light's inventory of approximately 400 transmission and distribution voltage circuit breakers. It determines which have the greatest wear, gas or oil leaks, maintenance cost, service stress, and fault interrupting history. It replaces those circuit breakers with the highest failure risk. This project also replaces transformer bank breakers at Union Street substation to support load growth.
- <u>Broad Street Substation Network (8203):</u> (\$6,024,000 in 2017)

This ongoing project funds construction of underground network assets serving customers in the Belltown and Denny Regrade areas. The project enhances network reliability and provides sufficient service capacity for the growing electrical power needs of the Denny Triangle.

- <u>Overhead Equipment Replacements (8351):</u> (\$18,847,000 in 2017) This ongoing project replaces older equipment in City Light's distribution system that is nearing the end of its usable life, is overloaded, or is of an outdated design and requires replacement due to the lack of spare parts. This project enhances distribution system reliability, avoiding unplanned outages or interruption of service due to equipment failure.
- <u>Underground Equipment Replacements (8353)</u>: (\$11,138,000 in 2017) This ongoing project replaces and improves underground electrical system equipment that is failing or approaching the end of its useful life. This project enhances distribution system reliability, avoiding unplanned outages or interruption of service due to equipment failure.
- <u>Medium Overhead and Underground Services (8366)</u>: (\$13,845,000 in 2017) This ongoing project provides medium size electric power service connections from City Light's distribution system to customers' meter for power requirements of 50 KVA to 2.5 MVA and 26 kV radial services. Most of this related work is billable to the customer. The project allows Seattle City Light to provide service to new customers in a safe, reliable, timely, and cost effective manner.
- <u>Small Overhead and Underground Services (8367)</u>: (\$6,205,000 in 2017) This ongoing project provides small size electric power service connections from City Light's distribution system to customers' meter for power requirements of less than 50 KVA and 26 kV radial services. Most of this related work is billable to the customer. The project allows Seattle City Light to provide service to new customers in a safe, reliable, timely, and cost effective manner.
- <u>Denny Substation Network (8404)</u>: (\$7,485,000 in 2017) This ongoing project provides network system design and construction, engineering design at the substation network interface, and underground conversion of the streetlight, traffic signals, and telecom and fiber optic systems within the Denny Substation network area.
- <u>Distribution Automation (8425)</u>: (\$3,885,000 in 2017) This ongoing project automates radial distribution feeders, which includes installation of equipment to provide remote control of operations of switches on power lines and gather real time data on conditions in distribution power lines. The installation of strategically placed switches will provide the ability to automatically perform outage restoration, shift blocks of load to maximize efficiencies of feeders, and reconfigure the feeder grid.
- <u>Advanced Metering Infrastructure (8426):</u> (\$5,944,000 in 2017) This project replaces approximately 430,000 existing meters, residential or commercial, with Smart Meters allowing two-way communication between City Light and its customers. Smart Meters automate meter reading, increase customer service, heighten billing capacity, allow for reduced energy consumption by providing more information on use, improve outage restoration efficiency and support rate structure flexibility. Implementation of the project positions the utility to comply with NERC and FERC programs and requirements.
- <u>Pole Attachment Requests Preparation Work (8452)</u>: (\$3,525,000 in 2017) This ongoing project funds utility crews and engineers to prepare City Light poles for the attachment of other communication infrastructure. This project provides for

additional revenues through pole attachment fees and construction costs, which are fully reimbursable.

- <u>Broadband City Light (8465):</u> (\$2,755,000 in 2017) This project provides funding to allow City Light to meet increased customer demand for wireless capabilities.
- <u>Security Improvements (9202)</u>: (\$3,009,000 in 2017) This ongoing program plans, designs, and implements projects that improve the physical security of City Light critical facilities in order to mitigate unauthorized access and criminal activities that could cause system damage, power outages, and other related disruptions to the electrical system.
- Enterprise Geographic Information System (9957): (\$2,438,000 in 2017) This project investigates, evaluates, and provides a recommendation to develop a unified GIS system that meets all of the Utility's needs by replacing the two separate and incompatible Geographic Information Systems (GIS) that City Light currently maintains which will allow integration with future software systems (such as Mobile Workforce).

**External Projects:** Projects in this program respond to requests from local jurisdictions to relocate distribution services from overhead to underground systems per the terms of franchise agreements; maintain and upgrade the streetlight system; relocate utility infrastructure in response to major transportation projects; and provide capital improvements in response to other customer-requested service needs. Allocation changes reflect revised scope and schedule projections provided by the transportation project managers.

For 2017, the CIP includes \$65.8 million in funding for 17 External Projects. *Highlights, ordered by project number, include:* 

- <u>Alaskan Way Viaduct & Seawall Replacement Utility Relocations (8307):</u> (\$39,858,000 in 2017) The project provides for the relocation of utility infrastructure in conjunction with the Washington State Department of Transportation project. This project is experiencing delays due to repairs to Bertha.
- <u>Overhead and Underground Relocations (8369)</u>: (\$2,227,000 in 2017) This ongoing project relocates Seattle City Light electrical lines as required by transportation projects.
- <u>Transportation Streetlights (8377)</u>: (\$4,407,000 in 2017) This ongoing project relocates City Light owned streetlights as required by City of Seattle Department of Transportation (SDOT) projects.
- <u>Streetlights: Arterial, Residential and Floodlights (8378):</u> (\$3,495,000 in 2017) This ongoing project provides street lighting as requested by various taxing jurisdictions and other customers. Streetlights and floodlights are provided in the public right of way, and on private property, for either public or private benefit.
- <u>Streetlight LED Conversion Program (8441)</u>: (\$5,799,000 in 2017) This project upgrades streetlights with LED fixtures in order to reduce annual energy consumption and utility maintenance costs. The utility recovers costs for this project through streetlight rates.
- <u>Streetlight Infrastructure Program (8460):</u> (\$3,098,000 in 2017) This ongoing project will replace the highest priority streetlights and related underground infrastructure identified in the Streetlight Horizon Plan over the six-

year planning horizon. Streetlight infrastructure replacements include poles, fixtures, conduits, hand holes, and wiring. Emphasis will be placed on standardization of fixtures, construction materials, and construction methods. This project will provide the engineering resources needed to prioritize replacements, develop estimates, and manage and track construction.

- <u>Center City Connector Streetcar (8470)</u>: (\$2,020,000 in 2017) This City Light will provide power relocations & service for the proposed SDOT Center City Connector Streetcar project. The SDOT project is intended to link the existing North Downtown Streetcar with the First Hill Connector Streetcar.
- <u>Sound Transit Lynnwood City Light (8471):</u> (\$1,473,000 in 2017) This project supports Sound Transit's Lynnwood Link. This project will include 100 blocks of relocations, a significant fraction of which will convert lines from overhead to underground. The project will install two feeders for each of the light rail line's traction power stations and upgrade the radial system's capacity where needed to serve the new load.

**Central Utility Projects**: Projects in this program provide for centralized billing and customer service systems, financial and information technology systems that are critical to the utility's operation, and vehicle fleets and facilities that are not part of the power generating plant (e.g., equipment shops, service centers, and maintenance yards).

For 2017, the CIP includes \$39.1 million in funding for 28 Central Utility Projects. *Highlights, ordered by project number, include:* 

- <u>Building Envelope Upgrades (9072)</u>: (\$1,781,000 in 2017) This ongoing project replaces or restores exterior moisture and thermal barrier components of buildings such as roofing and insulation systems, exterior siding and cladding systems, windows and exterior doors. This project allows for the proactive replacement of building exteriors in order to avert costly structural damage and prevent the growth of toxic mold inside wall cavities and ceiling spaces that can easily render a building uninhabitable. The project also enhances operational
- efficiency by mitigating emergency repairs which disrupt utility operations.
  <u>Equipment Fleet Replacement (9101)</u>: (\$7,500,000 in 2017) This ongoing project replaces, updates, and expands City Light's heavy duty mobile equipment fleet. This project also funds the gradual replacement of light-duty vehicles owned by City Light, including those previously leased from the Department of Finance & Administrative Services and now owned by City Light.
- <u>Workplace and Process Improvement (9159)</u>: (\$2,362,000 in 2017) This ongoing project funds alterations that preserve workplace efficiency, focusing on adapting exterior work spaces and interior building elements to support business process improvements for occupant work groups. Interior systems improvements could include flooring replacements, interior remodeling, computer network cabling upgrades, uninterruptible power systems and computer flooring. Exterior system improvements could include fencing, security systems, paving and striping, and exterior building components.
- <u>Information Technology Infrastructure (9915)</u>: (\$3,351,000 in 2017) This ongoing project funds replacement and improvement of the Utility's information technology infrastructure. Components purchased by this project include servers, network and communications equipment, disk storage, and application and operating

system software.

- <u>New Customer Information System (9937)</u>: (\$5,668,000 in 2017) This project replaces the existing Consolidated Customer Service System (CCSS) application with a more current and viable technology solution. The CCSS provides Customer Information System (CIS) processing and support for City Light, Seattle Public Utilities, the City's Utility Call Center, and other customer service staff. The existing system does not support the current business model and direction of the City of Seattle's utilities, and is no longer supported by the vendor. The project will preserve and enhance the City's ability to continue to deliver this critical function into the future.
- <u>PeopleSoft Reimplementation City Light (9970)</u>: (\$7,945,000 in 2017) This project funds City Light's costs for the replacement of the City's accounting system with an upgraded version of the PeopleSoft software.

#### **Thematic Priorities**

The Updated 2017-2022 City Light Strategic Plan is organized around four key objectives:

- Improve Customer Experience and Rate Predictability Seattle's technology-savvy population expects City Light to efficiently manage the energy system and respond quickly to customer concerns and outages, and to be able to predict and budget their utility costs.
- Increase Workforce Performance and Safety Practices The Strategic Plan gives City Light a path to proactively manage an impending wave of retirements and be able to retain highly skilled workers. City Light encourages staff to focus on safety awareness and strives to continuously improve its employee safety record.
- Enhance Organizational Performance City Light's goal is to be in the top 10% of peer utilities on measures of efficiency and effectiveness, and to reduce baseline costs by an ongoing \$18 million per year, at a minimum, starting in 2015.
- Continue Conservation and Environmental Stewardship Leadership The Strategic Plan ensures that the utility remains the nation's greenest utility. City Light invests in research and strategic initiatives such as promoting electric vehicles that will help it adapt to the impacts of climate change. The utility is also looking at ways to strengthen its financial resources in environmentally-responsible ways such as optimizing its ability to sell excess power on the wholesale energy market, among other things.

CIP projects implement these objectives in the following ways:

• Maintaining existing infrastructure and supporting basic operations – The majority of CIP projects involve maintaining existing systems and equipment or supporting the ongoing daily operations of the utility. These projects include major maintenance work that extends the life and function of facilities and equipment, scheduled replacements of old and failing equipment, supporting customer connections, and addressing unexpected system outages. Some projects respond to external conditions, such as relocations due to major transportation projects. The CIP also includes projects for renovating streetlights and underground cables.

- Upgrading capacity and services to provide new functionality CIP Projects also increase the utility's generation and distribution capacity, and provide new functionality for management and customer service systems. The 2017-2022 CIP continues funding for these capacity-related projects, such as the Customer Information System, the Denny Substation, Automated Metering Infrastructure, and the Energy Management System.
- Addressing licensing, regulatory and safety requirements Federal licenses governing the operation of the utility's dams require a number of environmental, historic preservation, and recreation mitigation measures. In addition, federal regulation of the transmission grid and energy market transactions requires system upgrades and improvements. The CIP includes projects that improve safety, proactively reduce infrastructure risks, and address transmission grid improvements and regulatory compliance.
- Maintaining the utility's information technology systems The electric utility industry relies heavily on information technology systems. IT systems help City Light provide real time management and automation of operations; design and digitally record utility systems and assets; regulate power across the regional transmission grid; manage financial transactions on the energy market; and increase business efficiencies throughout the organization. The CIP includes projects that maintain the hardware and software necessary to provide these functions, and implements Strategic Plan initiatives that improve cyber security and disaster recovery.

#### **Project Selection Criteria**

Four years ago, City Light completed the most extensive planning process ever undertaken by the utility to serve as a road map for how to best meet customers' current and future needs. The plan was the product of a process launched by the Mayor and City Council in 2010 and overseen by a newly chartered City Light Review Panel representing key customer groups.

The 2017-18 CIP is based on the proposed 2017 Strategic Plan update. Project ideas to implement the Strategic Plan and accomplish baseline service delivery come from throughout City Light. Staff members in the operational divisions are responsible for creating official proposals. Members of each of the utility's organizational lines of business (e.g., power supply, transmission and distribution, customer service) prioritize capital spending within their divisions and then submit recommended projects to a centralized capital budgeting system.

City Light management compares proposals against criteria that evaluate the projects' costs, benefits, and risks. The utility gives priority to mandatory requirements and projects currently underway before considering future projects and new initiatives. Utility staff develops business cases to document the project expectations and rationale and provide a cost-benefit analysis of alternatives.

Availability of funding and labor resources constrains the CIP. City Light management seeks to balance the overall needs of the utility within these constraints and may rescope, reschedule, or defer projects in its six-year CIP. City Light intends to revisit the adopted Strategic Plan every two years to maintain transparency and set direction for future CIP development.

#### CIP Budget Control Levels in the 2017-18 Proposed Budget

The dollar amounts shown in the CIP are total project costs to be capitalized and include both direct costs and associated overhead costs. Overhead costs include a share of the department's support functions (such as finance, administration, and human resources), employee benefits, and interest incurred during construction.

Because City Light requests budget authority for indirect overhead costs in Operating Budget Control Levels, the total project allocations in the CIP Programs are higher than the corresponding CIP Budget Control Levels in the 2017-2022 Proposed Budget. A table explaining how the 2017-2022 Proposed CIP program totals align with CIP Budget Control Levels in the 2017-2018 Proposed Budget is shown below.

#### CIP Programs -- Project Totals for 2017 (\$1,000s)

#### Loadings and Overhead Estimates (appropriated separately in Operating BCLs)

			CIP	Programs Pro	ject Totals for	2017	
Dire	– ect Costs (in \$1s)	Power Supply	Transmission	Distribution	External Projects	Central Utility Projects	2017 Appropriations
Levels	Power Supply & Environmental Affairs (SCL 250)	51,095	0	0	0	19,725	70,820
CIP Budget Control Levels	Transmission and Distribution (SCL360)	0	10,558	131,812	0	0	142,370
udget C	Customer Focused -CIP (SCL370)	0	0	29,359	58,001	6,067	93,427
CIP B	Financial Services (SCL550)	0	0	0	0	8,633	8,633
	- Total Direct Costs	51,095	10,558	161,171	58,001	34,425	315,250
Loa	dings and Overhead Estimates	(appropriated	l separately in C	perating BCLs	)		
	Interest During Construction	2,685	743	7,645	2,061	1,236	14,370
	Paid Time Off	1,627	231	5,110	489	381	7,838
	Fringe Benefits	3,283	466	10,297	986	779	15,811
	Payroll Tax (FICA)	758	106	2,881	258	161	4,164
	Material	3	12	2,960	898	0	3,873
	Transportation	374	177	3,817	337	34	4,739
	Shop	67	0	208	0	68	343
	Administrative & General	8,176	1,091	29,686	2,797	2,035	43,785
	Total Overhead	16,973	2,826	62,604	7,826	4,694	94,923
CIP	Project Allocations	68,068	13,384	223,775	65,827	39,119	410,173

City Light typically abandons unspent capital appropriation authority in the CIP Budget Control Levels at the end of each year and re-appropriates the necessary capital authority in the following year's budget. In order to manage total spending on certain high-profile projects, the utility manages their total "lifetime" appropriations and carries forward their unspent capital appropriation authority into subsequent years. This allows for careful review of project changes, and easier tracking of total budget and spending on these projects. The 2017-2022 Proposed CIP includes 35 "lifetime" appropriation projects. Examples include:

- Boundary Licensing Mitigation (6987)
- Denny Substation Development (7757)
- Denny Substation Network (8404)
- Advanced Metering Infrastructure (8426)
- Technical Training Center Development (9230)
- Enterprise Geographic Information System (9957)
- PeopleSoft Reimplementation (9970)

Because unspent "lifetime" budget authority is carried forward from year to year, allocations for these projects can vary significantly from the spending plans shown on the project pages. The spending plans reflect the anticipated scheduled spending on these projects. Other projects may also show variance between budgeted allocations and spending plans because of encumbrances for multi-year contracts.

#### Summary of Upcoming Budget Issues and Challenges

City Light faces a series of challenges common to electric utilities:

- Infrastructure constructed in the 1950s and 1960s is now reaching the end of its useful life.
- Retirements of the "Boomer" generation are causing gaps in institutional knowledge and experience.
- Material procurement is becoming more complex due to inflation in commodity prices such as copper and the movement of manufacturing of large electrical equipment overseas.
- The impacts of transportation projects and franchise city undergrounding initiatives are difficult to plan for because the external agencies sponsoring these projects have relatively short planning horizons and sometimes have difficulty staying on schedule.
- Security risks continue to be a challenge. And both physical and cyber security are subject to greatly increasing regulatory requirements.
- Requirements for environmental mitigation, permitting, and construction site mitigation are difficult to accurately estimate and involve substantial schedule risk.
- Licensing requirements are key to the continued operation of City Light's hydro generation assets, and these requirements can change over time.
- One challenge that contains substantial promise of improvement is the movement to digital electrical operations. The technology exists for great efficiency improvements by use of real-time monitoring and control systems.

City Light is well positioned to meet these challenges through implementation of the carefully planned portfolio of programs and projects in the Strategic Plan.

#### Future Projects/What is on the Horizon

The updated 2017-2022 Strategic Plan highlights two new initiatives that will provide enhanced services and efficiencies. Brief descriptions of new CIP projects are also listed below. Highlights for existing baseline projects are included in the CIP Highlights section.

#### Adapting to a Changing Future

The electric industry is changing. Seattle's electric load growth is slowing and may decline long term, even as the economy grows. That means less revenue for the utility as it faces increasing costs to replace aging infrastructure and deploy new technology customers want. The fast pace of technological change means electric vehicles, solar power and battery storage are becoming more efficient and less expensive. The reality is that customers may not need traditional utility service tomorrow as the do today.

#### Utility of the Future

City Light is committed to adapting to these and other change. As part of the Strategic Plan update, we will explore how to become an agile "Utility of the Future" and have already identified two areas where the utility must evolve: transportation electrification and climate adaptation.

Additional CIP projects in the updated 2017-2022 Strategic Plan include the following:

- Cedar Falls Rehabilitation
- Dam Safety Improvements
- Fauntleroy Undergrounding
- Seattle Waterfront Streetlight Installation
- Vista Switch Automation
- Battery Storage Pilot
- Special Work Equipment Tech Metering
- Stormwater Compliance
- Electric Vehicle Infrastructure
- Outage Management System Phases II Implementation
- Call Center Improvements City Light
- Project Management System Implementation
- Asset Condition Assessment and Test Tracking System
- Data Warehouse Implementation
- Western Energy Imbalance Market

#### Service centers master plan

Also included in the 2017-2022 Proposed CIP Budget, but not beginning until 2021, is the Service Center Development project. City Light's service centers are the backbone of its operations, directly impacting its mission to provide reliable, low-cost power to customers. Many essential functions are located in the service centers including line trucks and dispatching; materials and equipment; shipping and receiving; staging of supplies; and shops operations and fabrication. Built in the 1950s and 1920s, respectively, City Light's North and South Service Centers have exceeded their intended operational lifespans. The following challenges exist at the service centers:

- Building systems are aging and increasingly unreliable.
- Service yard areas are constrained and highly congested, and there is little

opportunity to accommodate growth or reconfigure spaces to meet changing needs.

• The South Service Center sits in an area of Seattle that has a high susceptibility to soil liquefaction during an earthquake, which would have significant impacts on the continuity of operations following an earthquake.

This initiative will carry out a site master planning process to evaluate options for making improvements to the current facilities, or potentially consolidate them into one centralized location.

#### Anticipated Operating Expenses Associated with Capital Facilities Projects

Operations and maintenance costs, where identified, are included in City Light's operating budget. In some projects, City Light identified operations and maintenance costs of zero or did not calculate a number (N/C). In these cases, the operating cost impacts of the project are either insignificant or are offset by cost savings realized by other projects.

BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
A1 Power Supply - Boundary					В	CL/Progra	m Code:	S	CL250-A1
Boundary - Access Road Stability Improvements (6615)	0	519	561	1,134	0	0	0	0	2,214
Boundary - DC Battery System & Charge Modernization (6566)	0	264	152	0	0	0	0	0	416
Boundary - Entrance Improvements (6601)	0	1,945	2,289	0	0	0	0	0	4,234
Boundary - Licensing Mitigation (6987)	25,887	44,862	9,040	29,520	15,780	11,260	21,710	7,301	165,360
Boundary - Unit 55 Exciter Replacement (6602)	129	847	18	0	0	0	0	0	994
Boundary - Unit 56 Exciter Replacement (6603)	0	1,198	638	42	0	0	0	0	1,878
Boundary Crane Improvements (6620)	0	0	1,011	1,082	0	0	0	0	2,093
Boundary Dam - Instrumentation Upgrade and Integration (6343)	10,312	278	1,094	505	0	0	0	0	12,189
Boundary Facility - Minor Improvements Program (6401)	18,373	2,175	1,515	1,981	4,395	10,829	7,217	12,420	58,905
Boundary Powerhouse - Transformer Bank Rockfall Mitigation (6485)	502	0	0	0	254	83	12,281	13,261	26,381
Boundary Powerhouse - Unit 51 Generator Rebuild (6351)	0	838	3,307	11,271	5,120	1,845	0	0	22,381
Boundary Powerhouse - Unit 52 Generator Rebuild (6535)	0	0	0	0	11,836	1,447	5,750	1,818	20,851
Boundary Powerhouse - Unit 54 Generator Rebuild (6353)	0	0	0	7,320	5,678	5,552	1,853	0	20,403
Boundary Switchyard - Generator Step-up Transformers (6493)	1,262	10,326	6,802	6,746	6,463	6,186	8,083	0	45,868
Landis and Gyr RTU Modernization Boundary, CF, Skagit (6565)	0	0	0	0	478	731	585	0	1,794
A1 Power Supply - Boundary	56,465	63,252	26,427	59,601	50,004	37,933	57,479	34,800	385,961
A2 Power Supply - Skagit					В	C <b>L/Progra</b>	m Code:	S	CL250-A2
Diablo - Load Interrupters Replacement (6532)	61	3,126	1,002	718	0	0	0	0	4,907
Diablo - Replace Bank Transformers (6589)	0	0	0	0	0	112	927	7,658	8,697
Diablo Dam - Spill Gate Trunnion Upgrades (6610)	0	120	500	522	548	576	604	335	3,205
Diablo Facility - Incline Lift Rehabilitation (6457)	0	0	0	0	0	32	57	600	689

# **Project Summary**

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BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Diablo Facility - Lines Protection Upgrades (6483)	4,967	405	2	81	1,777	96	0	0	7,328
Diablo Powerhouse - Rebuild Generator Unit 31 (6422)	752	14,493	5,807	473	0	0	0	0	21,525
Diablo Powerhouse - Rebuild Generator Unit 32 (6423)	1,339	12,378	5,988	5,035	341	0	0	0	25,081
Gorge - 240V AC Station Service Switchgear Replacement (6581)	0	629	530	0	0	0	0	0	1,159
Gorge Powerhouse - Fire Protection Improvements (6326)	0	87	71	54	221	325	120	122	1,000
Newhalem - Generator 20/Support Facility Rebuild (6479)	2,790	772	110	257	0	0	0	0	3,929
Ross - 480V AC Station Service Switchgear Replacement (6580)	0	0	0	0	110	5,707	0	0	5,817
Ross - Exciters 41-44 (6564)	0	237	0	439	3,274	216	695	0	4,861
Ross - Governors (6562)	320	2,803	3,579	556	0	0	0	0	7,258
Ross - Powerhouse Rockfall Mitigation (6577)	0	0	106	400	50	4,484	0	0	5,040
Ross - R1 and R2 Relay and Instrumentation Upgrade (6582)	0	0	105	110	459	127	0	0	801
Ross - Rock Slide Area Improvements (6516)	8,919	533	10	0	0	0	0	0	9,462
Ross Dam - AC/DC Distribution System Upgrade (6373)	2,105	546	1,741	483	11	3,682	0	0	8,568
Ross Dam - New Access Road from SR20 to Dam (6452)	0	0	0	0	0	11,453	2,167	7,342	20,962
Ross Powerhouse - Programmable Language Controller Upgrade (6376)	81	283	454	141	0	0	0	0	959
Ross Powerhouse - Replace Transformer Banks 42 and 44 (6541)	644	11,619	1,737	50	0	0	0	0	14,050
Skagit - Babcock Creek Crossing (6514)	152	646	58	0	0	0	0	0	856
Skagit - Boat Facility Improvements (6540)	102	1,236	736	382	0	0	0	0	2,456
Skagit - DC Battery System & Charge Modernization (6583)	23	117	341	0	0	0	0	0	481
Skagit - Facilities Energy Conservation Program (6515)	5,142	4,381	19	1,074	0	0	0	0	10,616
Skagit - Relicensing (6986)	0	0	528	1,331	7,373	6,542	14,175	26,288	56,237

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BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Skagit - Sewer System Rehabilitation (6232)	3,904	1,759	658	605	2,945	165	0	0	10,036
Skagit Facilities Plan (6520)	2,747	2,291	2,196	2,672	0	0	0	0	9,906
Skagit Facility - Minor Improvements Program (6405)	21,007	2,973	2,339	2,661	1,213	4,726	13,934	14,448	63,301
Skagit Licensing Mitigation (6991)	36,680	925	73	74	134	123	139	136	38,284
Skagit Powerhouses - Install Protection Relays (6415)	4,186	912	1,553	1,865	485	1,964	1,490	1,019	13,474
A2 Power Supply - Skagit	95,921	63,271	30,243	19,983	18,941	40,330	34,308	57,948	360,945
A3 Power Supply - Cedar Falls	s - Tolt				B	CL/Progra	m Code:	S	CL250-A3
Cedar Falls - Bank 6 Replacement (6573)	0	0	0	355	2,177	776	0	0	3,308
Cedar Falls - DC Battery System and Charge Modernization (6572)	0	28	24	0	0	0	0	0	52
Cedar Falls - New Generator 5/6 Exciters (6531)	0	0	214	0	0	0	0	0	214
Cedar Falls Powerhouse - Penstock Stabilization (6358)	2,084	0	0	0	343	568	187	0	3,182
Cedar Falls Powerhouse - Unit 5/6 Generator Protective Relay (6450)	1,027	532	547	61	0	0	0	0	2,167
Cedar Falls Powerhouse - Valvehouse Rehabilitation (6324)	0	0	0	0	0	675	3,155	0	3,830
Cedar Falls Rehabilitation (6625)	0	0	250	250	250	250	250	250	1,500
Cedar Falls/South Fork Tolt - Minor Improvements Program (6406)	6,710	1,360	2,455	1,261	1,208	2,314	2,926	2,989	21,223
South Fork Tolt - DC Battery System & Charge Modernization (6570)	0	28	24	0	0	0	0	0	52
A3 Power Supply - Cedar Falls - Tolt	9,821	1,948	3,514	1,927	3,978	4,583	6,518	3,239	35,528
A4 Power Supply - Power Supp	ply Other				B	CL/Progra	m Code:	S	CL250-A4
Dam Safety Part 12 Improvements (6626)	0	0	451	250	250	200	200	200	1,551
Endangered Species Act Mitigation (6990)	14,671	1,924	1,100	1,124	1,146	1,169	1,192	1,216	23,542
Generation Federal Reliability Standards Improvements (6470)	9,520	10	10	11	11	11	0	0	9,573
Hydro Project Spill Containment (6530)	1,658	781	838	267	831	786	0	0	5,161

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BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Power Production - Network Controls (6385)	4,333	1,661	812	989	1,116	0	0	0	8,911
SMT AutoLab (6600)	0	0	273	484	0	0	0	0	757
Special Work Equipment - Generation Plant (6102)	12,614	1,538	929	951	1,429	1,464	1,038	1,063	21,026
Western Energy Imbalance Market (9976)	0	0	3,470	5,548	0	0	0	0	9,018
A4 Power Supply - Power Supply Other	42,796	5,914	7,883	9,624	4,783	3,630	2,430	2,479	79,539
<b>B1</b> Transmission - Transmissio	n				В	CL/Progra	m Code:	S	CL360-B1
Denny Substation Transmission Lines (7125)	758	1,726	8,096	5,318	2,887	6,801	42,373	0	67,959
Transmission Capacity (7011)	10,822	2,060	32	24	25	25	11	22	13,021
Transmission Inter-Agency (7105)	2,208	665	591	603	617	627	638	605	6,554
Transmission Line Inductor Installation (8461)	2,824	8,298	1,429	6,522	1,583	0	0	0	20,656
Transmission Line Reconductoring (8462)	303	7,607	129	229	0	0	0	0	8,268
Transmission Reliability (7104)	20,598	4,071	3,106	3,169	3,239	3,306	2,879	3,936	44,304
B1 Transmission - Transmission	37,513	24,427	13,383	15,865	8,351	10,759	45,901	4,563	160,762
C1 Distribution - Substations					В	CL/Progra	m Code:	S	CL360-C1
Denny Substation Development (7757)	90,956	50,442	57,405	10,833	0	0	0	0	209,636
Interbay Substation - Development (7756)	2,489	0	0	0	83	87	416	500	3,575
Relaying Improvements (7753)	29,489	4,422	4,050	4,634	5,614	4,626	4,978	5,053	62,866
Replace Breakers BPA Covington and Maple Valley Substations (7121)	546	13	11	11	11	12	12	12	628
Substation Automation (8424)	6,057	756	1,390	1,505	1,776	1,804	1,385	1,393	16,066
Substation Breaker Replacements and Reliability Additions (7779)	28,442	5,072	6,243	4,854	5,651	5,239	6,098	5,985	67,584
Substation Capacity Additions (7751)	11,094	2,069	1,864	2,057	2,208	2,511	2,096	2,196	26,095
Substation Equipment Improvements (7752)	59,830	5,963	5,310	6,092	6,901	6,915	6,655	6,302	103,968
Substation Plant Improvements (7750)	8,838	1,161	925	946	971	951	1,208	1,539	16,539
improvemento (veo)									

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BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Substations Demand Driven Improvements (7755)	5,811	5	6	6	6	6	6	6	5,852
Substations Oil Containment (7783)	10	280	337	344	339	346	227	602	2,485
C1 Distribution - Substations	247,711	76,693	77,943	33,659	26,167	26,155	28,093	28,399	544,820
C2 Distribution - Network					B	CL/Progra	m Code:	S	CL360-C2
Broad Street Substation - Network (8203)	72,714	24,243	6,060	2,424	3,762	4,672	9,098	3,095	126,068
Denny Substation - Network (8404)	5,709	41,959	7,582	5,741	3,657	11,047	12,618	11,383	99,696
First Hill - Network (8301)	14,990	2,463	2,654	2,702	2,751	2,774	2,048	5,130	35,512
First Hill - Network Load Transfer (8407)	0	0	0	0	915	919	7,927	8,107	17,868
Massachusetts Street Substation - Networks (8202)	33,162	3,131	4,124	4,018	4,152	4,488	3,222	4,866	61,163
Network Hazeltine Upgrade (8129)	6,466	631	545	549	557	784	746	748	11,026
Network Maintenance Hole and Vault Rebuild (8130)	54,677	2,456	3,467	3,539	3,597	3,572	3,714	2,649	77,671
Union Street Substation Networks (8201)	27,512	2,415	2,540	2,590	2,636	2,753	2,986	3,041	46,473
University Substation - Network (8464)	2,771	457	383	390	396	482	497	505	5,881
C2 Distribution - Network	218,001	77,755	27,355	21,953	22,423	31,491	42,856	39,524	481,358
C3 Distribution - Radial					B	CL/Progra	m Code:	S	CL360-C3
Asset Condition Assessment and Test Tracking System (9974)	0	0	0	0	1,926	747	1,000	400	4,073
Automated Utility Design Implementation (9950)	3,741	2,019	869	92	0	0	0	0	6,721
Battery Storage Pilot (8484)	0	0	501	501	501	501	501	501	3,006
Broadband - City Light (8465)	2,321	3,643	2,755	2,709	2,760	3,141	3,153	3,224	23,706
Dallas Ave. 26 kV Crossing (8322)	838	459	80	184	55	44	46	0	1,706
Distribution Automation (8425)	2,209	3,430	3,885	2,281	2,850	2,948	2,982	1,503	22,088
Fauntleroy Undergroundings (8480)	0	0	0	0	1,502	2,003	0	0	3,505
Laurelhurst - Underground Rebuild (8373)	9,056	1,454	329	0	0	0	0	0	10,839
Mobile Workforce Implementation (8429)	0	4,030	205	436	1,226	1,254	0	0	7,151

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BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Overhead 26kV Conversion (8358)	13,982	2,098	1,750	1,768	1,762	1,785	1,817	1,447	26,409
Overhead Customer Driven Capacity Additions (8355)	33,771	3,623	3,799	4,376	5,035	5,684	4,083	6,081	66,452
Overhead Equipment Replacements (8351)	80,689	21,063	18,848	18,171	25,379	25,676	23,474	25,191	238,491
Overhead System Capacity Additions (8356)	30,539	2,520	2,735	2,661	2,637	2,703	3,434	3,485	50,714
Pole Attachment Requests Preparation Work (8452)	6,919	4,321	3,525	3,582	3,627	4,023	4,539	4,587	35,123
Special Work Equipment - Tech Metering (8485)	0	0	205	210	215	220	225	231	1,306
Underground 26kV Conversion (8362)	5,489	2,533	1,677	2,028	2,522	2,550	2,775	4,159	23,733
Underground Customer Driven Capacity Additions (8360)	28,119	2,949	2,200	2,237	2,403	2,292	2,298	3,687	46,185
Underground Equipment Replacements (8353)	32,476	12,728	11,156	10,367	10,519	8,695	14,963	16,947	117,851
Underground System Capacity Additions (8361)	30,839	3,451	2,904	2,954	3,027	2,453	4,375	4,353	54,356
Vista Switch Automation (8483)	0	0	0	401	801	801	801	801	3,605
C3 Distribution - Radial	280,988	70,321	57,423	54,958	68,747	67,520	70,466	76,597	747,020
C4 Distribution - Service Conn	ections				B	CL/Progra	m Code:	S	CL370-C4
Advanced Metering Infrastructure (8426)	2,558	35,434	7,980	25,952	12,179	0	0	0	84,103
Large Overhead and Underground Services (8365)	19,429	2,947	2,944	3,071	4,225	3,290	5,127	6,522	47,555
Major Emergency (8380)	2,469	256	262	266	270	274	1,431	1,462	6,690
Medium Overhead and Underground Services (8366)	96,012	10,380	13,845	14,299	11,290	11,161	8,826	14,320	180,133
Meter Additions (8054)	66,327	2,246	2,282	2,317	2,644	2,711	2,839	2,977	84,343
Network Additions and Services - Denny (8405)	2,044	1,595	2,311	2,665	2,717	2,477	3,114	4,930	21,853
Network Additions and Services: Broad Street Substation (8363)	53,305	5,889	6,504	6,856	6,824	6,960	7,218	7,096	100,652
Network Additions and Svcs: First Hill, Mass, Union & Univer (8364)	33,519	3,580	4,037	2,926	3,007	3,042	3,557	3,605	57,273
Normal Emergency (8379)	10,768	494	569	579	1,311	1,328	2,500	2,545	20,094
Overhead Outage Replacements (8350)	3,268	272	310	318	456	956	971	1,118	7,669

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BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Small Overhead and Underground Services (8367)	54,153	6,200	6,205	6,314	5,504	5,396	5,343	6,709	95,824
Underground Outage Replacements (8352)	18,619	1,126	1,165	1,184	1,535	1,978	2,012	1,672	29,291
C4 Distribution - Service Connections	362,471	70,419	48,414	66,747	51,962	39,573	42,938	52,956	735,480
C5 Distribution - Distribution	Other				B	CL/Progra	m Code:	S	CL360-C5
Asset Investment and Optimization (9968)	0	0	0	0	0	0	3,373	1,151	4,524
Communications Improvements (9009)	11,749	1,555	1,121	944	909	912	975	852	19,017
Distribution Area Communications Networks (9307)	21,251	1,641	1,115	2,718	2,605	2,957	2,848	2,056	37,191
Distribution Management System (9966)	0	0	0	0	6,307	1,628	121	0	8,056
Energy Management System (9956)	8,251	14,121	398	0	0	0	0	0	22,770
Enterprise Geographic Information System (9957)	5	5,039	2,308	2,912	1,738	0	0	0	12,002
Enterprise Software Solution Replacement Strategy (9969)	0	0	0	1,564	10,016	7,011	10,528	11,018	40,137
Outage Management System Phase II Implementation (9967)	0	0	1,392	2,131	0	0	0	0	3,523
Project Management System Implementation (9973)	0	0	0	0	0	0	2,003	1,002	3,005
Security Improvements (9202)	21,362	10,321	3,275	2,357	2,252	2,292	2,342	2,272	46,473
Special Work Equipment - Other Plant (9102)	20,728	1,186	1,077	1,102	1,129	1,156	1,184	1,212	28,774
Stormwater Compliance (9236)	0	0	501	501	501	501	0	0	2,004
Tool Room Automation (9965)	0	989	232	0	0	0	0	0	1,221
Transmission & Generation Radio Systems (9108)	15,005	294	1,223	1,347	752	947	991	1,006	21,565
C5 Distribution - Distribution Other	98,351	35,146	12,642	15,576	26,209	17,404	24,365	20,569	250,262
Distribution Other D1 External Projects - Local Ju	urisdictions				<b>BCL/Program Code:</b>			S	CL370-D1
Citywide Undergrounding Initiative - City Light (8403)	0	2,842	10	4	4	4	5	12	2,881
Seattle Waterfront Streetlight Installation (8481)	0	0	300	300	401	5,008	5,008	4,006	15,023
Streetlight Infrastructure Replacement (8460)	6,459	5,066	3,098	3,170	3,296	3,966	4,360	4,184	33,599
Streetlight LED Conversion Program (8441)	25,189	8,048	5,799	5,435	6,090	6,993	6,773	6,933	71,260

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BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Streetlights: Arterial, Residential and Floodlights (8378)	24,063	5,041	3,495	3,494	3,756	4,258	4,946	5,067	54,120
Transportation Streetlights (8377)	10,792	2,740	4,407	4,225	3,999	4,010	4,092	7,104	41,369
D1 External Projects - Local Jurisdictions	66,503	23,737	17,109	16,628	17,546	24,239	25,184	27,306	218,252
D2 External Projects - Transpo	ortation Rel	ocations			B	CL/Progra	m Code:	S	CL370-D2
Alaskan Way Viaduct and Seawall Replacement - Utility Relocs (8307)	105,520	35,664	39,881	31,916	19,297	3,660	2,098	143	238,179
Center City Connector Streetcar – City Light (8470)	64	424	2,020	4,168	0	0	0	0	6,676
First Hill Connector Streetcar (8442)	2,750	948	306	11	0	0	0	0	4,015
Overhead and Underground Relocations (8369)	13,220	2,505	2,227	2,304	2,574	3,827	3,904	3,980	34,541
Sound Transit - City Light System Upgrades (8475)	0	0	98	0	0	0	0	0	98
Sound Transit Light Rail East Link - City Light (8450)	52	828	851	23	0	0	0	0	1,754
Sound Transit Lynnwood - City Light (8471)	13	216	1,473	1,549	1,625	1,622	1,068	0	7,566
Sound Transit Northlink - City Light (8427)	3,170	3,455	957	0	0	0	0	0	7,582
State Route 520 Bridge Relocations (8435)	0	598	597	429	236	44	22	0	1,926
D2 External Projects - Transportation Relocations	124,789	44,638	48,410	40,400	23,732	9,153	7,092	4,123	302,337
D3 External Projects - Custome	er Other				B	CL/Progra	m Code:	S	CL370-D3
Creston-Nelson to Intergate East Feeder Installation (8430)	6,160	369	301	11	0	0	0	0	6,841
Neighborhood Voluntary Undergrounding Program (8383)	277	472	8	8	8	8	8	15	804
D3 External Projects - Customer Other	6,437	841	309	19	8	8	8	15	7,645
E1 Central Utility Projects - Cu	ustomer and	l Billing			B	CL/Progra	m Code:	S	CL370-E1
Call Center Improvements - City Light (9972)	0	0	501	501	0	0	0	0	1,002
New Customer Information System (9937)	33,141	15,014	5,668	0	0	0	0	0	53,823
E1 Central Utility Projects - Customer and Billing	33,141	15,014	6,169	501	0	0	0	0	54,825

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BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
E2 Central Utility Projects - Fi	nance and I	T Systems			BC	CL/Progra	m Code:	SCL550-E2	
Data Warehouse Implentation (9975)	0	0	200	150	150	150	150	150	950
Enterprise Document Management System (9962)	2,939	3,340	582	2,914	1,814	1,424	1,168	772	14,953
Enterprise Performance Management (9933)	4,671	1,442	420	0	0	0	0	0	6,533
Information Technology Infrastructure (9915)	46,785	5,646	500	503	501	500	500	500	55,435
IT Security Upgrades (9960)	3,176	609	560	1,112	1,143	1,162	529	590	8,881
PeopleSoft Reimplementation - City Light (9970)	1,535	15,930	7,945	2,300	0	0	0	0	27,710
E2 Central Utility Projects - Finance and IT Systems	59,106	26,967	10,207	6,979	3,608	3,236	2,347	2,012	114,462
E3 Central Utility Projects - Fl	eets and Fa	cilities			BC	CL/Progra	m Code:	S	CL250-E3
Building Envelope Upgrades (9072)	7,855	1,945	1,781	1,632	1,263	1,276	1,306	1,337	18,395
Denny Substation Tenant Improvements (9235)	0	3,301	1,995	1,412	21	0	0	0	6,729
Electric Vehicle Infrastructure (9237)	0	0	1,753	1,052	0	0	0	0	2,805
Energy Conservation (9320)	2,551	955	323	332	117	117	119	122	4,636
Environmental Safeguarding and Remediation of Facilities (9152)	1,237	49	92	98	58	59	60	61	1,714
Equipment Fleet Replacement (9101)	86,338	12,513	7,500	7,652	7,190	7,195	7,198	10,050	145,636
Facilities Infrastructure Improvements (9156)	3,472	523	449	456	65	64	65	67	5,161
Facilities Regulatory Compliance (9151)	1,358	479	334	342	350	359	367	376	3,965
Georgetown Steamplant Access Road (9233)	2	361	691	703	0	0	0	0	1,757
Miscellaneous Building Improvements (9007)	11,794	1,478	1,594	2,210	2,307	3,749	3,828	3,903	30,863
North and South Service Center Improvements (9107)	34,843	400	363	354	823	3,956	5,374	5,530	51,643
Office Furniture and Equipment Purchase (9103)	19,397	732	683	699	1,101	1,128	1,155	1,182	26,077
Safety Modifications (9006)	3,993	1,936	1,376	1,353	1,383	1,373	1,405	1,437	14,256
Seismic Mitigation (9134)	5,527	60	136	89	96	602	605	607	7,722
Service Center Development Project (9232)	0	0	0	0	0	0	59,720	40,340	100,060

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name									
Project Title & ID	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
Solar Microgrid for Resilience (9238)	0	0	12	11	0	0	0	0	23
Special Work Equipment - Shops (8389)	1,178	293	300	307	314	322	330	338	3,382
Substation Comprehensive Improvements (9161)	3,823	270	273	283	266	269	274	0	5,458
Technical Training Center Development (9230)	1,847	11,309	725	484	122	0	0	0	14,487
Workplace and Process Improvement (9159)	5,002	1,573	2,362	1,338	2,076	1,954	2,309	2,343	18,957
E3 Central Utility Projects - Fleets and Facilities	190,217	38,177	22,742	20,807	17,552	22,423	84,115	67,693	463,726
Department Total*:	1,930,231	638,520	410,173	385,227	344,011	338,437	474,100	422,223	4,942,922

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

				ai	<b>J</b>				
Fund Name & Code	LTD Actuals	2016	2017	2018	2019	2020	2021	2022	Total
City Light Fund (41000)	1,930,231	638,520	410,173	385,227	344,011	338,437	474,100	422,223	4,942,922
Department Total*:	1,930,231	638,520	410,173	385,227	344,011	338,437	474,100	422,223	4,942,922

## **Fund Summary**

\*Amounts in thousands of dollars

#### **Advanced Metering Infrastructure**

<b>BCL/Program Name:</b>	C4 Distribution - Service Connections	BCL/Program Code:	SCL370-C4
Project Type:	New Facility	Start Date:	Q1/2015
Project ID:	8426	End Date:	Q4/2019
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project replaces approximately 400,000 existing meters with Smart Meters allowing two-way communication between Seattle City Light and its customers, residential or commercial. Smart Meters continuously record and transmit consumption data to the utility. They also automate meter reading, increase customer service, heighten billing capacity, reduce energy consumption, improve outage restoration efficiency, and support rate structure flexibility. Implementation of the project positions the utility to comply with North American Electric Reliability Corporation (NERC) and Federal Energy Regulatory Commission (FERC) programs and requirements.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,558	35,434	7,980	25,952	12,179	0	0	0	84,103
Total:	2,558	35,434	7,980	25,952	12,179	0	0	0	84,103
Fund Appropriations/Allocations									
City Light Fund	2,558	35,434	7,980	25,952	12,179	0	0	0	84,103
Total*:	2,558	35,434	7,980	25,952	12,179	0	0	0	84,103
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		10,033	29,980	25,952	12,179	0	0	0	78,144
Total:		10,033	29,980	25,952	12,179	0	0	0	78,144

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Alaskan Way Viaduct and Seawall Replacement - Utility Relocs

BCL/Program Name:	D2 External Projects - Transportation Relocations	BCL/Program Code:	SCL370-D2
Project Type:	New Facility	Start Date:	Q1/2002
Project ID:	8307	End Date:	Q4/2022
Location:	SR 99 / Battery St		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	7
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project allows the City to comply with its requirements to relocate Seattle City Light's infrastructure associated with the replacement of the Alaskan Way Viaduct and improvements to the Seawall and Central waterfront.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	105,520	35,664	39,881	31,916	19,297	3,660	2,098	143	238,179
Total:	105,520	35,664	39,881	31,916	19,297	3,660	2,098	143	238,179
Fund Appropriations/Allocations									
City Light Fund	105,520	35,664	39,881	31,916	19,297	3,660	2,098	143	238,179
Total*:	105,520	35,664	39,881	31,916	19,297	3,660	2,098	143	238,179
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		32,406	41,309	35,316	19,297	3,660	2,098	143	134,229
Total:		32,406	41,309	35,316	19,297	3,660	2,098	143	134,229

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Asset Condition Assessment and Test Tracking System

BCL/Program Name:	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	9974	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project funds the purchase and implementation of a system capable of storing and analyzing complex asset condition assessment data, including inspection, testing and sampling results. This project will replace the current XFMR transformer system and would also track the environmental impacts of related transformers.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	1,926	747	1,000	400	4,073
Total:	0	0	0	0	1,926	747	1,000	400	4,073
Fund Appropriations/Alloca	ntions								
City Light Fund	0	0	0	0	1,926	747	1,000	400	4,073
Total*:	0	0	0	0	1,926	747	1,000	400	4,073

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Asset Investment and Optimization**

BCL/Program Name:	C5 Distribution - Distribution Other	<b>BCL/Program Code:</b>	SCL360-C5
Project Type:	New Investment	Start Date:	Q1/2021
Project ID:	9968	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project provides development and deployment of a software tool that will enable City Light to perform analytics on its electrical assets; predicting end of life, and performing risk analysis and investment planning to minimize risk for the utility. This project also provides a software tool with the ability to run multiple funding scenarios and sensitivity analyses to create a consistent and long-term approach that can be easily modified when parameters change.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	0	0	3,373	1,151	4,524
Total:	0	0	0	0	0	0	3,373	1,151	4,524
Fund Appropriations/Alloc	ations								
City Light Fund	0	0	0	0	0	0	3,373	1,151	4,524
Total*:	0	0	0	0	0	0	3,373	1,151	4,524

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Automated Utility Design Implementation**

<b>BCL/Program Name:</b>	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	New Facility	Start Date:	Q1/2011
Project ID:	9950	End Date:	Q4/2018
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project purchases and installs Automatic Utility Design, a new engineering design software tool to replace outdated drafting software, which is no longer supported by the vendor. The AUD software will provide significant design and production efficiencies at a time when the engineering work load is increasing because of a shift to the engineers of productior tasks. Additionally, the AUD software will enforce common North and South Service Center engineering practices and procedures and provide an essential interface with WAMS (Work and Asset Management System) and OMS (Outage Management System).

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	3,741	2,019	869	92	0	0	0	0	6,721
Total:	3,741	2,019	869	92	0	0	0	0	6,721
Fund Appropriations/Alloc	cations								
City Light Fund	3,741	2,019	869	92	0	0	0	0	6,721
Total*:	3,741	2,019	869	92	0	0	0	0	6,721
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,800	886	93	0	0	0	0	2,779
Total:		1,800	886	93	0	0	0	0	2,779

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Battery Storage Pilot**

BCL/Program Name:	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	8484	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	Council District:	
Neighborhood District:		Urban Village:	

This new project will fund the installation of a grid-connected utility-scale battery. City Light will either work independently or with a partner to develop and demonstrate this new technology. This project will give City Light an opportunity to explore the storage technology and its impact on our local grid.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	501	501	501	501	501	501	3,006
Total:	0	0	501	501	501	501	501	501	3,006
Fund Appropriations/Alloca	tions								
City Light Fund	0	0	501	501	501	501	501	501	3,006
Total*:	0	0	501	501	501	501	501	501	3,006

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Boundary - Access Road Stability Improvements

BCL/Program Name:	A1 Power Supply - Boundary	BCL/Program Code:	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6615	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project provides construction of a substantial slope stabilization (design tbd, pending geotechnical report) in the area of the cut to limit maintenance inputs, insure continued access to the powerhouse and downstream areas, and improve safety (present debris flows occasionally contain larger sized rocks).

The relocated portions of the West Access Road's slopes have continued to ravel since relocation occurred in the early 00's. This causes a maintenance issue for the crews as cleaning behind the existing containment line of ecology blocks at either roac edge is difficult. There is also believed to be a risk that the slope could fail in a more conclusive fashion and block access to the downstream area and powerhouse. Additionally the upslope interceptor ditch (a concrete channel) has suffered undermining erosion causing the concrete to subside and not perform well at channelizing and conveying sheet flow away from the slope face.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	519	561	1,134	0	0	0	0	2,214
Total:	0	519	561	1,134	0	0	0	0	2,214
Fund Appropriations/Alloc	ations								
City Light Fund	0	519	561	1,134	0	0	0	0	2,214
Total*:	0	519	561	1,134	0	0	0	0	2,214
Spending Plan by Fund									
City Light Fund		395	561	1,134	0	0	0	0	2,090
Total:		395	561	1,134	0	0	0	0	2,090

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Boundary - DC Battery System & Charge Modernization

BCL/Program Name:	A1 Power Supply - Boundary	BCL/Program Code:	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6566	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project will replace the existing DC battery system at Boundary.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	264	152	0	0	0	0	0	416
Total:	0	264	152	0	0	0	0	0	416
Fund Appropriations/Alloc	cations								
City Light Fund	0	264	152	0	0	0	0	0	416
Total*:	0	264	152	0	0	0	0	0	416
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		233	152	0	0	0	0	0	385
Total:		233	152	0	0	0	0	0	385

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Boundary - Entrance Improvements**

BCL/Program Name:	A1 Power Supply - Boundary	BCL/Program Code:	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6601	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project will make the security entrance to the Boundary Hydro Project safer for employees, working at the site, for the security guard, and for visitors. The access road to the security gate will be realigned so the guard station can be accessed between lanes of incoming and outgoing traffic instead of from the road shoulder. This will increase the guards' view of approaching traffic and will also allow traffic more time to slow down when approaching the guard station. A permanent building will be installed with water service, a restroom, and an electrical room. New signage will also be installed.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	1,945	2,289	0	0	0	0	0	4,234
Total:	0	1,945	2,289	0	0	0	0	0	4,234
Fund Appropriations/Alloc	ations								
City Light Fund	0	1,945	2,289	0	0	0	0	0	4,234
Total*:	0	1,945	2,289	0	0	0	0	0	4,234
Spending Plan by Fund									
City Light Fund		303	2,289	0	0	0	0	0	2,592
Total:		303	2,289	0	0	0	0	0	2,592

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Boundary - Licensing Mitigation**

BCL/Program Name:	A1 Power Supply - Boundary	BCL/Program Code:	SCL250-A1
Project Type:	New Investment	Start Date:	Q1/2009
Project ID:	6987	End Date:	Q4/2026
Location:	10382 Boundary Rd, Metaline, WA 99153		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project implements Protection, Mitigation and Enhancement measures (PME) required by the terms and conditions of a settlement agreement and new license to be issued by the Federal Energy Regulatory Commission (FERC). The license allows for the continued operation of the Boundary Hydroelectric Project, Seattle City Light's largest generating station producing approximately 25 to 40% of the City's power supply.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	25,887	44,862	9,040	29,520	15,780	11,260	21,710	7,301	165,360
Total:	25,887	44,862	9,040	29,520	15,780	11,260	21,710	7,301	165,360
Fund Appropriations/Alloc	ations								
City Light Fund	25,887	44,862	9,040	29,520	15,780	11,260	21,710	7,301	165,360
Total*:	25,887	44,862	9,040	29,520	15,780	11,260	21,710	7,301	165,360
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		17,847	23,755	35,289	16,710	11,789	21,838	7,513	134,741
Total:		17,847	23,755	35,289	16,710	11,789	21,838	7,513	134,741

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Boundary - Unit 55 Exciter Replacement**

BCL/Program Name:	A1 Power Supply - Boundary	<b>BCL/Program Code:</b>	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6602	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project installs a new electrical exciter for the Boundary Powerhouse Unit 55 Generator. A recent rewind has increased the generating capacity of the unit, and an upgraded exciter is required to reliably realize the increased capacity.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	129	847	18	0	0	0	0	0	994
Total:	129	847	18	0	0	0	0	0	994
Fund Appropriations/Alloc	cations								
City Light Fund	129	847	18	0	0	0	0	0	994
Total*:	129	847	18	0	0	0	0	0	994
Spending Plan by Fund									
City Light Fund		1,962	18	0	0	0	0	0	1,980
Total:		1,962	18	0	0	0	0	0	1,980

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Boundary - Unit 56 Exciter Replacement**

BCL/Program Name:	A1 Power Supply - Boundary	<b>BCL/Program Code:</b>	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6603	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project provides installation of a new electrical exciter on the Boundary Powerhouse Unit 56 Generator. The unit's schedule for a rewind started in 2014, ioncreasing the capacity of the unit. The project also provides an upgraded exciter needed to reliably realize the additional capacity over the new life of the unit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	1,198	638	42	0	0	0	0	1,878
Total:	0	1,198	638	42	0	0	0	0	1,878
Fund Appropriations/Alloc	cations								
City Light Fund	0	1,198	638	42	0	0	0	0	1,878
Total*:	0	1,198	638	42	0	0	0	0	1,878
Spending Plan by Fund									
City Light Fund		875	638	42	0	0	0	0	1,555
Total:		875	638	42	0	0	0	0	1,555

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Boundary Crane Improvements**

BCL/Program Name:	A1 Power Supply - Boundary	<b>BCL/Program Code:</b>	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	6620	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project rehabilitates and modernizes control systems and other components on two bridge cranes at the Boundary Powerhouse. The controls have exceeded their useful life and other systems, such as fall protection, are not up to current safety codes. A comprehensive crane assessment may identify additional systems requiring replacement, rehabilitation, or repair. These cranes are critical to the operation and maintenance of the six hydroelectric generators at Boundary and are directly linked to generator availability. This work supports upcoming rewind projects on Boundary Units 51, 52 and 54.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	1,011	1,082	0	0	0	0	2,093
Total:	0	0	1,011	1,082	0	0	0	0	2,093
Fund Appropriations/Allo	cations								
City Light Fund	0	0	1,011	1,082	0	0	0	0	2,093
Total*:	0	0	1,011	1,082	0	0	0	0	2,093
<b>Spending Plan by Fund</b> City Light Fund		152	1.011	1,082	0	0	0	0	2,245
Total:		152	1,011	1,082	0	0	0	0	2,245

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

	-		
<b>BCL/Program Name:</b>	A1 Power Supply - Boundary	<b>BCL/Program Code:</b>	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2006
Project ID:	6343	End Date:	Q4/2018
Location:	10382 Boundary Rd, Metaline, WA 99153		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

### **Boundary Dam - Instrumentation Upgrade and Integration**

This project funds a purchase and installation contract with an electrical contractor or supplier to upgrade or replace Unit 51-56 unit control boards, to enhance and permit a full interface with a new network-based control system. Full interface is required for long-term goal of complete plant automation.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	10,312	278	1,094	505	0	0	0	0	12,189
Total:	10,312	278	1,094	505	0	0	0	0	12,189
Fund Appropriations/Alloc	ations								
City Light Fund	10,312	278	1,094	505	0	0	0	0	12,189
Total*:	10,312	278	1,094	505	0	0	0	0	12,189
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,030	1,094	505	0	0	0	0	2,629
Total:		1,030	1,094	505	0	0	0	0	2,629

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

**Project ID:** 

## **Seattle City Light**

Q4/2022

	Boundary Facility - Willor Impro	vements Frogram	
BCL/Program Name:	A1 Power Supply - Boundary	BCL/Program Code:	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1989

6401

#### **Boundary Facility - Minor Improvements Program**

End Date:

Location:	10382 Boundary Rd, Metaline, WA 99153		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides financial coverage for emergent capital projects, specifically related to Boundary Facilities. These projects are, by definition, unforeseeable, unscheduled, unpredictable, and occur on a first-come, first serve basis. This project shows increased project allocations in years 2015 to 2017. This increase reflects anticipated baseline CIP spending levels for the Boundary Facility that are in line with Strategic Plan assumptions. These future year allocations will be broken out into specific CIP projects.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	18,373	2,175	1,515	1,981	4,395	10,829	7,217	12,420	58,905
Total:	18,373	2,175	1,515	1,981	4,395	10,829	7,217	12,420	58,905
Fund Appropriations/Alloc	ations								
City Light Fund	18,373	2,175	1,515	1,981	4,395	10,829	7,217	12,420	58,905
Total*:	18,373	2,175	1,515	1,981	4,395	10,829	7,217	12,420	58,905
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,344	1,515	1,981	4,395	10,829	7,217	12,420	39,701
Total:		1,344	1,515	1,981	4,395	10,829	7,217	12,420	39,701

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Boundary Powerhouse - Transformer Bank Rockfall Mitigation**

BCL/Program Name:	A1 Power Supply - Boundary	BCL/Program Code:	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2008
Project ID:	6485	End Date:	Q4/2022
Location:	10382 Boundary Rd, Metaline, WA 99153		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project constructs an intermediate switchyard at Boundary, installs new cables routed through tunnels to the surface from the Boundary Dam transformers to the switchyard, and constructs a transmission line from the switchyard to the BPA Switching Station. This project mitigates the likelihood of rock fall damage to a transformer, the bonnet over the transformer, transformer equipment, conductors, or outriggers. It reduces the likelihood of damage from such an incident which could be catastrophic and result in extended outages, personal injury, and death.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	502	0	0	0	254	83	12,281	13,261	26,381
Total:	502	0	0	0	254	83	12,281	13,261	26,381
Fund Appropriations/Alloc	Fund Appropriations/Allocations								
City Light Fund	502	0	0	0	254	83	12,281	13,261	26,381
Total*:	502	0	0	0	254	83	12,281	13,261	26,381
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		0	0	0	254	83	3,281	15,081	18,699
Total:		0	0	0	254	83	3,281	15,081	18,699

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Boundary Powerhouse - Unit 51 Generator Rebuild

<b>BCL/Program Name:</b>	A1 Power Supply - Boundary	<b>BCL/Program Code:</b>	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6351	End Date:	Q4/2020
Location:	10382 Boundary Rd, Metaline, WA 99153		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides the rewinding and refurbishing of the Unit 51 generator to extend its useful life, which is part of a programmatic series of projects to maintain the Utility's aging generators. It also replaces the carbon dioxide fire-suppression system with a water sprinkler system to enhance worker safety. If technology is sufficiently advanced, it may also include a rotor-mounted scanner or other diagnostic equipment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	838	3,307	11,271	5,120	1,845	0	0	22,381
Total:	0	838	3,307	11,271	5,120	1,845	0	0	22,381
Fund Appropriations/Alloc	cations								
City Light Fund	0	838	3,307	11,271	5,120	1,845	0	0	22,381
Total*:	0	838	3,307	11,271	5,120	1,845	0	0	22,381
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		876	3,307	11,271	5,120	1,845	0	0	22,419
Total:		876	3,307	11,271	5,120	1,845	0	0	22,419

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Boundary Powerhouse - Unit 52 Generator Rebuild**

BCL/Program Name:	A1 Power Supply - Boundary	BCL/Program Code:	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2019
Project ID:	6535	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project provides the rebuilding of Generator Unit 52 at the Boundary Powerhouse, as the current unit has reached the end of its normal service life. The rewind and rehabilitation of the generator includes the stator core, stator bars, rotor poles, etc. Mechanical upgrades such as seal rings and wicket gates may also be installed.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	11,836	1,447	5,750	1,818	20,851
Total:	0	0	0	0	11,836	1,447	5,750	1,818	20,851
Fund Appropriations/Alloc	ations								
City Light Fund	0	0	0	0	11,836	1,447	5,750	1,818	20,851
Total*:	0	0	0	0	11,836	1,447	5,750	1,818	20,851
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Boundary Powerhouse - Unit 54 Generator Rebuild

<b>BCL/Program Name:</b>	A1 Power Supply - Boundary	BCL/Program Code:	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2018
Project ID:	6353	End Date:	Q4/2021
Location:	10382 Boundary Rd, Metaline, WA 99153		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides rewinding and refurbishing of the Boundary Powerhouse Unit 54 generator, which is part of a programmatic series of projects to maintain and extend the useful life of the Utility's aging generators. This project also provides replacement of the carbon dioxide fire-suppression system with a water sprinkler system to improve worker safety. If technology is sufficiently advanced, it may also include a rotor-mounted scanner or other diagnostic equipment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	7,320	5,678	5,552	1,853	0	20,403
Total:	0	0	0	7,320	5,678	5,552	1,853	0	20,403
Fund Appropriations/Alloc	ations								
City Light Fund	0	0	0	7,320	5,678	5,552	1,853	0	20,403
Total*:	0	0	0	7,320	5,678	5,552	1,853	0	20,403
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Boundary Switchyard - Generator Step-up Transformers**

<b>BCL/Program Name:</b>	A1 Power Supply - Boundary	<b>BCL/Program Code:</b>	SCL250-A1
Project Type:	New Facility	Start Date:	Q1/2010
Project ID:	6493	End Date:	Q4/2021
Location:	10382 Boundary Rd, Metaline, WA 99153		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project replaces existing step-up transformers at Boundary Dam, which are 50 years old and have exceeded their reliable service life. This project also includes a spare transformer as normal delivery time for transformers from order to on-site is 18 to 24 months. This project enhances long term reliability and allows for City Light to avoid a prolonged loss of generation capacity.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	1,262	10,326	6,802	6,746	6,463	6,186	8,083	0	45,868
Total:	1,262	10,326	6,802	6,746	6,463	6,186	8,083	0	45,868
Fund Appropriations/Alloc	ations								
City Light Fund	1,262	10,326	6,802	6,746	6,463	6,186	8,083	0	45,868
Total*:	1,262	10,326	6,802	6,746	6,463	6,186	8,083	0	45,868
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		7,709	8,402	6,746	6,463	6,186	8,083	0	43,589
Total:		7,709	8,402	6,746	6,463	6,186	8,083	0	43,589

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Broad Street Substation - Network**

<b>BCL/Program Name:</b>	C2 Distribution - Network	BCL/Program Code:	SCL360-C2
Project Type:	New Facility	Start Date:	Q1/1999
Project ID:	8203	End Date:	Q4/2026
Location:	319 6th AVE N		
Neighborhood Plan:	South Lake Union	<b>Council District:</b>	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project funds a programmatic approach for comprehensive management of underground network assets serving customers in the Belltown and Denny Regrade areas. The project enhances network reliability and provides sufficient service capacity for the growing electrical power needs of the Denny Triangle and potentially a portion of South Lake Union area.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	72,714	24,243	6,060	2,424	3,762	4,672	9,098	3,095	126,068
Total:	72,714	24,243	6,060	2,424	3,762	4,672	9,098	3,095	126,068
Fund Appropriations/Allocations									
City Light Fund	72,714	24,243	6,060	2,424	3,762	4,672	9,098	3,095	126,068
Total*:	72,714	24,243	6,060	2,424	3,762	4,672	9,098	3,095	126,068
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		20,315	9,260	3,243	3,762	4,672	9,098	3,095	53,445
Total:		20,315	9,260	3,243	3,762	4,672	9,098	3,095	53,445

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Broadband - City Light**

BCL/Program Name:	C3 Distribution - Radial	<b>BCL/Program Code:</b>	SCL360-C3
Project Type:	New Facility	Start Date:	Q1/2015
Project ID:	8465	End Date:	Q4/2023
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project provides support for expansion of broadband service to the entire City. This will involve the installation of approximately 200-250 miles of fiber optic cable, impacting about 8,000 - 10,000 utility poles. Types of construction City Light will perform include pole replacements, relocations of existing wires, equipment installation, commissioning, and inspections. This work is 100% customer driven and reimbursable.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,321	3,643	2,755	2,709	2,760	3,141	3,153	3,224	23,706
Total:	2,321	3,643	2,755	2,709	2,760	3,141	3,153	3,224	23,706
Fund Appropriations/Allocations									
City Light Fund	2,321	3,643	2,755	2,709	2,760	3,141	3,153	3,224	23,706
Total*:	2,321	3,643	2,755	2,709	2,760	3,141	3,153	3,224	23,706
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		3,073	2,755	2,709	2,760	3,141	3,153	3,224	20,815
Total:		3,073	2,755	2,709	2,760	3,141	3,153	3,224	20,815

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Building Envelope Upgrades**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2004
Project ID:	9072	End Date:	Q4/2026
Location:	500 Newhalem Creek Rd, Marblemount, WA 98267		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces or restores exterior moisture and thermal barrier components of buildings such as roofing and insulation systems, exterior siding and cladding systems, windows and exterior doors. This project allows for the proactive replacement of building exteriors in order to avert costly structural damage and prevent the growth of toxic mold inside wall cavities and ceiling spaces that can easily render a building uninhabitable. The project also enhances operational efficiency by mitigating emergency repairs which disrupt utility operations.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	7,855	1,945	1,781	1,632	1,263	1,276	1,306	1,337	18,395
Total:	7,855	1,945	1,781	1,632	1,263	1,276	1,306	1,337	18,395
Fund Appropriations/Allocations									
City Light Fund	7,855	1,945	1,781	1,632	1,263	1,276	1,306	1,337	18,395
Total*:	7,855	1,945	1,781	1,632	1,263	1,276	1,306	1,337	18,395
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,889	1,781	1,632	1,263	1,276	1,306	1,337	10,484
Total:		1,889	1,781	1,632	1,263	1,276	1,306	1,337	10,484

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Call Center Improvements - City Light

BCL/Program Name:	E1 Central Utility Projects - Customer and Billing	BCL/Program Code:	SCL370-E1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	9972	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	Council District:	
Neighborhood District:		Urban Village:	

This project funds costs for the joint Seattle Public Utilities and Seattle City Light call center improvements. This project focuses on the capital improvement of the call center facility and systems.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	501	501	0	0	0	0	1,002
Total:	0	0	501	501	0	0	0	0	1,002
Fund Appropriations/Alloca	ntions								
City Light Fund	0	0	501	501	0	0	0	0	1,002
Total*:	0	0	501	501	0	0	0	0	1,002

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Cedar Falls - Bank 6 Replacement

BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt	<b>BCL/Program Code:</b>	SCL250-A3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2018
Project ID:	6573	End Date:	Q4/2020
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project replaces the 60 yr old Bank 6 power step up transformer at Cedar Falls. Bank 6 provides the connection between our Cedar Falls Generating Units 5 and 6 and the transmission system. The transformer is approaching the end of its useful life and the goal of this project is to replace it during a planned outage before it fails.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	355	2,177	776	0	0	3,308
Total:	0	0	0	355	2,177	776	0	0	3,308
Fund Appropriations/Alloc	cations								
City Light Fund	0	0	0	355	2,177	776	0	0	3,308
Total*:	0	0	0	355	2,177	776	0	0	3,308
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Cedar Falls - DC Battery System and Charge Modernization

BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt	BCL/Program Code:	SCL250-A3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6572	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project will replace the existing DC battery system at Cedar Falls.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	28	24	0	0	0	0	0	52
Total:	0	28	24	0	0	0	0	0	52
Fund Appropriations/Allo	cations								
City Light Fund	0	28	24	0	0	0	0	0	52
Total*:	0	28	24	0	0	0	0	0	52
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		27	24	0	0	0	0	0	51
Total:		27	24	0	0	0	0	0	51

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Cedar Falls - New Generator 5/6 Exciters

BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt	<b>BCL/Program Code:</b>	SCL250-A3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	6531	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City
Project Type: Project ID: Location: Neighborhood Plan:	Rehabilitation or Restoration 6531 Not in a Neighborhood Plan	Start Date: End Date: Council District:	Q1/2017 Q4/2017 Outside Seattle

This project replaces the aging generator excitation systems for Generators 5 & 6 at Cedar Falls, to standardize systems with Basler products, in order to meet current WECC standards.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	214	0	0	0	0	0	214
Total:	0	0	214	0	0	0	0	0	214
Fund Appropriations/Allo	cations								
City Light Fund	0	0	214	0	0	0	0	0	214
Total*:	0	0	214	0	0	0	0	0	214
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		101	214	0	0	0	0	0	315
Total:		101	214	0	0	0	0	0	315

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

Village

BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt	<b>BCL/Program Code:</b>	SCL250-A3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	6358	End Date:	Q4/2021
Location:	19901 Cedar Falls Rd SE, North Bend, WA 98045		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban

#### Cedar Falls Powerhouse - Penstock Stabilization

This project installs a seismic upgrade of penstock bridges, repairs sagging or broken penstock support saddles, and refurbishes the exterior surfaces to extend the life of two 78-inch diameter steel penstocks. It also reduces risks of damage from earthquakes and restores the exterior coating on the pipes in the areas where the penstocks are buried. Any penstock failure will likely damage the environment and Seattle's water supply, and could jeopardize the City's ability to fulfill its obligation to regulate fish flows in the Cedar River.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,084	0	0	0	343	568	187	0	3,182
Total:	2,084	0	0	0	343	568	187	0	3,182
Fund Appropriations/All	ocations								
City Light Fund	2,084	0	0	0	343	568	187	0	3,182
Total*:	2,084	0	0	0	343	568	187	0	3,182
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Cedar Falls Powerhouse - Unit 5/6 Generator Protective Relay

BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt	BCL/Program Code:	SCL250-A3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	6450	End Date:	Q4/2018
Location:	19901 Cedar Falls Rd SE, North Bend, WA 98045		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project upgrades the present generator protection for Units 5 and 6, which lacks some basic protection elements to protect it from abnormal frequency and voltages. This project replaces existing protective relays, upgrades the generator protection packages, and replaces the electrical and mechanical lockout relays. The project permits City Light to comply with the North American Electric Reliability Council (NERC) and the Western Electricity Coordinating Council (WECC) regional requirements for maintaining the generator in-service during system disturbances.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	1,027	532	547	61	0	0	0	0	2,167
Total:	1,027	532	547	61	0	0	0	0	2,167
Fund Appropriations/Alloc	cations								
City Light Fund	1,027	532	547	61	0	0	0	0	2,167
Total*:	1,027	532	547	61	0	0	0	0	2,167
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		23	547	61	0	0	0	0	631
Total:		23	547	61	0	0	0	0	631

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt	BCL/Program Code:	SCL250-A3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2020
Project ID:	6324	End Date:	Q4/2021
Location:	19901 Cedar Falls Rd SE, North Bend, WA 98045		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

### Cedar Falls Powerhouse - Valvehouse Rehabilitation

This project provides rehabilitation to the Cedar Falls Valvehouse. The extent of the rehabilitation is yet to be determined, but could include exterior structural improvements, replacement of windows, oil spill prevention, and interior remodeling.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	0	675	3,155	0	3,830
Total:	0	0	0	0	0	675	3,155	0	3,830
Fund Appropriations/Alloc	eations								
City Light Fund	0	0	0	0	0	675	3,155	0	3,830
Total*:	0	0	0	0	0	675	3,155	0	3,830
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Cedar Falls Rehabilitation**

BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt	BCL/Program Code:	SCL250-A3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	6625	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	Council District:	
Neighborhood District:		Urban Village:	

This project funds the rehabilitation of the Cedar Falls Hydroelectric Project, which includes completion of the Cedar Falls project analysis, equipment inspections, penstock analysis, building analysis which will uncover items City Lights as a dam owner must address. These items will ensure public safety, employee safety, and environmental stewardship.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	0	0	250	250	250	250	250	250	1,500
Total:	0	0	250	250	250	250	250	250	1,500
Fund Appropriations/Alloca		0	250	250	250	250	250	250	1 500
City Light Fund	0	0	250	250	250	250	250	250	1,500
Total*:	0	0	250	250	250	250	250	250	1,500

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt	BCL/Program Code:	SCL250-A3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2005
Project ID:	6406	End Date:	Q4/2022
Location:	19901 Cedar Falls Rd SE, North Bend, WA 98045		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

#### Cedar Falls/South Fork Tolt - Minor Improvements Program

This ongoing project provides financial coverage for emergent capital projects related to the Cedar Falls and South Fork Tolt Facilities. In addition, it funds scheduled, small capital projects that have cost estimates less than \$25,000. These projects are, by definition, unforeseeable, unscheduled, unpredictable, and occur on a first-come, first serve basis. This project shows increased project allocations in years 2015 to 2018. This increase reflects anticipated baseline CIP spending levels for the Cedar Falls and South Fork Tolt Facility that are in line with Strategic Plan assumptions. These future year allocations will be broken out into specific CIP projects for the next year's CIP.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	6,710	1,360	2,455	1,261	1,208	2,314	2,926	2,989	21,223
Total:	6,710	1,360	2,455	1,261	1,208	2,314	2,926	2,989	21,223
Fund Appropriations/Allocations									
City Light Fund	6,710	1,360	2,455	1,261	1,208	2,314	2,926	2,989	21,223
Total*:	6,710	1,360	2,455	1,261	1,208	2,314	2,926	2,989	21,223
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,370	2,455	1,261	1,208	2,314	2,926	2,989	14,523
Total:		1,370	2,455	1,261	1,208	2,314	2,926	2,989	14,523

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	D2 External Projects - Transportation Relocations	BCL/Program Code:	SCL370-D2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	8470	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

### Center City Connector Streetcar - City Light

This project provides power relocations & service for the proposed SDOT Center City Connector Streetcar project. City Light has buried primary distribution power cables, some of which are encased in old clay tile ducts, which do not meet current standards, and are unlikely to be able to withstand the forces generated by the streetcar's operation. Any streetcar alignment to be built across such old facilities would likely need a reinforced roadbed for SCL facilities to withstand the additional weight.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	64	424	2,020	4,168	0	0	0	0	6,676
Total:	64	424	2,020	4,168	0	0	0	0	6,676
Fund Appropriations/Allo	cations								
City Light Fund	64	424	2,020	4,168	0	0	0	0	6,676
Total*:	64	424	2,020	4,168	0	0	0	0	6,676
Spending Plan by Fund									
City Light Fund		350	2,120	4,168	0	0	0	0	6,638
Total:		350	2,120	4,168	0	0	0	0	6,638

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	D1 External Projects - Local Jurisdictions	BCL/Program Code:	SCL370-D1
Project Type:	New Facility	Start Date:	Q1/2010
Project ID:	8403	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

### **Citywide Undergrounding Initiative - City Light**

This ongoing project provides funding for emergent undergrounding projects. It provides a baseline commitment to take advantage of undergrounding opportunities in the course of transportation and utility projects in the City.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	2,842	10	4	4	4	5	12	2,881
Total:	0	2,842	10	4	4	4	5	12	2,881
Fund Appropriations/Alloc	cations								
City Light Fund	0	2,842	10	4	4	4	5	12	2,881
Total*:	0	2,842	10	4	4	4	5	12	2,881
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		8	10	11	11	11	12	12	75
Total:		8	10	11	11	11	12	12	75

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Communications Improvements**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	9009	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing program provides funding for unforeseen emergent and critical work on City Light's communications systems to replace communications components due to failure, changing regulatory and security requirements, and requests from customers or other agencies. This project enhances flexibility to address emergent communication systems problems.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	11,749	1,555	1,121	944	909	912	975	852	19,017
Total:	11,749	1,555	1,121	944	909	912	975	852	19,017
Fund Appropriations/Allocations									
City Light Fund	11,749	1,555	1,121	944	909	912	975	852	19,017
Total*:	11,749	1,555	1,121	944	909	912	975	852	19,017
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		2,059	1,121	944	909	912	975	852	7,772
Total:		2,059	1,121	944	909	912	975	852	7,772

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Creston-Nelson to Intergate East Feeder Installation**

<b>BCL/Program Name:</b>	D3 External Projects - Customer Other	<b>BCL/Program Code:</b>	SCL370-D3
Project Type:	New Facility	Start Date:	Q1/2009
Project ID:	8430	End Date:	Q4/2018
Location:	Tukwila		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

The project installs a new feeder to supply the Sabey Corporation's Intergate East Internet Center in Tukwila from the Creston-Nelson Substation. The project includes design, permit preparation, and evaluates customer load requirements.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	6,160	369	301	11	0	0	0	0	6,841
Total:	6,160	369	301	11	0	0	0	0	6,841
Fund Appropriations/Alloc	cations								
City Light Fund	6,160	369	301	11	0	0	0	0	6,841
Total*:	6,160	369	301	11	0	0	0	0	6,841
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		283	301	11	0	0	0	0	595
Total:		283	301	11	0	0	0	0	595

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Dallas Ave. 26 kV Crossing

BCL/Program Name:	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2005
Project ID:	8322	End Date:	Q4/2021
Location:	Dallas Ave S/14th Ave S		
Neighborhood Plan:	Duwamish	Council District:	2
Neighborhood District:	Greater Duwamish	Urban Village:	South Park

This project reinstalls two 26kV feeders across the Duwamish River. This crossing backs up the Cambridge Corridor Crossing, providing redundant power supply to the area along East Marginal Way South. The area has many large industrial accounts, including Jorgenson Steel, Kenworth Trucking, and a number of Boeing plants.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	838	459	80	184	55	44	46	0	1,706
Total:	838	459	80	184	55	44	46	0	1,706
Fund Appropriations/Alloc	cations								
City Light Fund	838	459	80	184	55	44	46	0	1,706
Total*:	838	459	80	184	55	44	46	0	1,706
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		440	80	184	55	44	46	0	849
Total:		440	80	184	55	44	46	0	849

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Dam Safety Part 12 Improvements

BCL/Program Name:	A4 Power Supply - Power Supply Other	<b>BCL/Program Code:</b>	SCL250-A4
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	6626	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project funds the support analysis and data required to meet FERC regulations. City Light must demonstrate that the dams are monitored and engineering improvements are based on current climate conditions, most current engineering standards, and the appropriate devices, instrumentation, and tools. Activities may include Skagit bulkhead, Boundary new instrumentation, Diablo & Gorge GPS System, Boundary instrumentation, Boundary Part 12 Implementation and Skagit Part 12 Implementation.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	0	0	451	250	250	200	200	200	1,551
Total:	0	0	451	250	250	200	200	200	1,551
Fund Appropriations/Alloca		0	451	250	250	200	200	200	1.551
City Light Fund	0	0	451	250	250	200	200	200	1,551
Total*:	0	0	451	250	250	200	200	200	1,551

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Data Warehouse Implentation**

BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems	BCL/Program Code:	SCL550-E2
Project Type:	New Investment	Start Date:	Q1/2017
Project ID:	9975	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project funds the development of data marts to be added to a Data Warehouse. The data marts include a new data mart for City Light for the PeopleSoft Reimplementation, Automated Metering Infrastructure, Mobile Workforce Management, Customer Energy Solutions, and upgrades to systems such as City Light's Work and Asset Management System and the Outage Management System to be implemented during this timeframe and which do not yet have existing data marts. The data marts enable City Light to build reports from any front end business intelligence toll such as Cognos, Oracle OBIEE and OUA, Tableau, or Power BI.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	200	150	150	150	150	150	950
Total:	0	0	200	150	150	150	150	150	950
Fund Appropriations/Alloca		_							
City Light Fund	0	0	200	150	150	150	150	150	950
Total*:	0	0	200	150	150	150	150	150	950

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Denny Substation - Network**

BCL/Program Name:	C2 Distribution - Network	BCL/Program Code:	SCL360-C2
Project Type:	New Facility	Start Date:	Q1/2012
Project ID:	8404	End Date:	Q4/2026
Location:	Valley Street/Denny Ave		
Neighborhood Plan:	South Lake Union	Council District:	TBD
Neighborhood District:	Lake Union	Urban Village:	South Lake Union

This ongoing project provides network system design and construction, engineering design at the substation network interface, and underground conversion of the streetlight, traffic signals, and telecom and fiber optic systems. This project relates Project 7757, Denny Substation Development and Project 8405, Denny Network Services and Additions whose objective is customer hookups via the network to the new substation.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	5,709	41,959	7,582	5,741	3,657	11,047	12,618	11,383	99,696
Total:	5,709	41,959	7,582	5,741	3,657	11,047	12,618	11,383	99,696
Fund Appropriations/Allocations									
City Light Fund	5,709	41,959	7,582	5,741	3,657	11,047	12,618	11,383	99,696
Total*:	5,709	41,959	7,582	5,741	3,657	11,047	12,618	11,383	99,696
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		20,835	27,842	6,441	3,657	11,047	12,618	11,383	93,823
Total:		20,835	27,842	6,441	3,657	11,047	12,618	11,383	93,823

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Denny Substation Development**

BCL/Program Name:	C1 Distribution - Substations	<b>BCL/Program Code:</b>	SCL360-C1
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	7757	End Date:	Q4/2018
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project designs and builds a 200 MVA substation on Denny Ave. The project funds site acquisition, environmental management and remediation of land, design of the substation, and construction of the substation. It provides capacity to meet load growth, provides the operational flexibility to operate the electrical system to serve new development and existing load, and supports development of an underground network.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	90,956	50,442	57,405	10,833	0	0	0	0	209,636
Total:	90,956	50,442	57,405	10,833	0	0	0	0	209,636
Fund Appropriations/Alloc	ations								
City Light Fund	90,956	50,442	57,405	10,833	0	0	0	0	209,636
Total*:	90,956	50,442	57,405	10,833	0	0	0	0	209,636
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		41,232	65,405	10,833	0	0	0	0	117,470
Total:		41,232	65,405	10,833	0	0	0	0	117,470

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	9235	End Date:	Q4/2019
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

**Denny Substation Tenant Improvements** 

This ongoing project provides program, design, and construction of interior improvements within two building shell spaces within the Denny Substation. The two spaces are a southwest shell space which may house a community center or similar public amenity and a southeast shell space which may house a learning resource center or similar public amenity.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	3,301	1,995	1,412	21	0	0	0	6,729
Total:	0	3,301	1,995	1,412	21	0	0	0	6,729
Fund Appropriations/Alloc	ations								
City Light Fund	0	3,301	1,995	1,412	21	0	0	0	6,729
Total*:	0	3,301	1,995	1,412	21	0	0	0	6,729
Spending Plan by Fund									
City Light Fund		25	4,220	1,412	21	0	0	0	5,678
Total:		25	4,220	1,412	21	0	0	0	5,678

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Denny Substation Transmission Lines**

<b>BCL/Program Name:</b>	B1 Transmission - Transmission	<b>BCL/Program Code:</b>	SCL360-B1
Project Type:	New Facility	Start Date:	Q1/2008
Project ID:	7125	End Date:	Q4/2021
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project designs and constructs transmission lines to support the new Denny Substation. These transmission lines are created by dividing the existing Pine to Broad Street transmission line into two transmission lines. The remaining new lines will come from the Canal and Massachusetts substations. This project also provides for undergrounding the transmission lines.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	758	1,726	8,096	5,318	2,887	6,801	42,373	0	67,959
Total:	758	1,726	8,096	5,318	2,887	6,801	42,373	0	67,959
Fund Appropriations/Alloc	ations								
City Light Fund	758	1,726	8,096	5,318	2,887	6,801	42,373	0	67,959
Total*:	758	1,726	8,096	5,318	2,887	6,801	42,373	0	67,959
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		3,009	8,096	5,318	2,887	6,801	42,373	0	68,484
Total:		3,009	8,096	5,318	2,887	6,801	42,373	0	68,484

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Diablo - Load Interrupters Replacement**

BCL/Program Name:	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6532	End Date:	Q4/2018
Location:	Milepost 126 Stte Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project replaces load interrupters at Diablo Banks Generators No. 31 and 32. The existing 230kV load interrupters have reached the end of their useful life and need to be replaced. This project will replace the load interrupters with SF6 Gas Insulated Switchgear.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	61	3,126	1,002	718	0	0	0	0	4,907
Total:	61	3,126	1,002	718	0	0	0	0	4,907
Fund Appropriations/Alloc	cations								
City Light Fund	61	3,126	1,002	718	0	0	0	0	4,907
Total*:	61	3,126	1,002	718	0	0	0	0	4,907
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,581	2,577	718	0	0	0	0	4,876
Total:		1,581	2,577	718	0	0	0	0	4,876

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Diablo - Replace Bank Transformers**

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2020
Project ID:	6589	End Date:	Q4/2022
Location:	Milepost 126 Stte Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project replaces the Diablo power step up transformers in 2021 when they reach the end of their useful life.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	0	112	927	7,658	8,697
Total:	0	0	0	0	0	112	927	7,658	8,697
Fund Appropriations/Alloc	cations								
City Light Fund	0	0	0	0	0	112	927	7,658	8,697
Total*:	0	0	0	0	0	112	927	7,658	8,697
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Diablo Dam - Spill Gate Trunnion Upgrades**

BCL/Program Name:	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6610	End Date:	Q4/2022
Location:	Milepost 126 Stte Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project provides replacement of the trunnion bushings in all 20 of Diablo Dam's spill gates with new synthetic bushings that are permanently sealed and lubricated, and perform associated supporting work.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	120	500	522	548	576	604	335	3,205
Total:	0	120	500	522	548	576	604	335	3,205
Fund Appropriations/Alloca	ations								
City Light Fund	0	120	500	522	548	576	604	335	3,205
Total*:	0	120	500	522	548	576	604	335	3,205
Spending Plan by Fund									
City Light Fund		483	500	522	548	576	604	335	3,568
Total:		483	500	522	548	576	604	335	3,568

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Diablo Facility - Incline Lift Rehabilitation**

BCL/Program Name:	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2020
Project ID:	6457	End Date:	Q4/2022
Location:	Milepost 126 Stte Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project provides restoration of the backup access route to the Ross Powerhouse and Ross Dam. The Diablo Incline Lift, which had provided backup access, has become unusable due to deterioration of its components. The backup access is essential as there is only one road to get to the Ross Project. If the road becomes impassable, all means of access are cut off, which prevents emergency transportation or delivery of spare parts.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	0	32	57	600	689
Total:	0	0	0	0	0	32	57	600	689
Fund Appropriations/Allo	cations								
City Light Fund	0	0	0	0	0	32	57	600	689
Total*:	0	0	0	0	0	32	57	600	689
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Diablo Facility - Lines Protection Upgrades**

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2011
Project ID:	6483	End Date:	Q4/2020
Location:	Milepost 126 State Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides updated line protection schemes on the Diablo Facility D1, D2, & D3 Lines, utilizing electro-mechanical relays. The project also replaces existing relays, which are approaching the reasonable service life and lack essential fault location capability. The project replacements include microprocessor based digital relays, fault location and event reporting, lockout and test switching capabilities, and communication assisted transfer trip utilizing the mirrored bits function of the digital relays.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	4,967	405	2	81	1,777	96	0	0	7,328
Total:	4,967	405	2	81	1,777	96	0	0	7,328
Fund Appropriations/Allocations									
City Light Fund	4,967	405	2	81	1,777	96	0	0	7,328
Total*:	4,967	405	2	81	1,777	96	0	0	7,328
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		28	2	81	1,777	96	0	0	1,984
Total:		28	2	81	1,777	96	0	0	1,984

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Diablo Powerhouse - Rebuild Generator Unit 31**

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2012
Project ID:	6422	End Date:	Q4/2018
Location:	Milepost 126 State Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project rebuilds Generator 31 at Diablo Powerhouse, which provides 4.4 percent of the total power Seattle City Light generates. This project is part of the Utility's Generator Rebuild Program, a series of projects to maintain and extend the useful life of the Utility's aging generators. The program rebuilds ten generators, accounting for 70 percent of City Light's generating capability.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	752	14,493	5,807	473	0	0	0	0	21,525
Total:	752	14,493	5,807	473	0	0	0	0	21,525
Fund Appropriations/Allocations									
City Light Fund	752	14,493	5,807	473	0	0	0	0	21,525
Total*:	752	14,493	5,807	473	0	0	0	0	21,525
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		9,691	14,126	1,580	0	0	0	0	25,397
Total:		9,691	14,126	1,580	0	0	0	0	25,397

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Diablo Powerhouse - Rebuild Generator Unit 32**

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6423	End Date:	Q4/2019
Location:	Milepost 126 State Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project rebuilds Generator 32 at Diablo Powerhouse, which provides 4.4 percent of the total power Seattle City Light generates. This project is part of the Utility's Generator Rebuild Program, a series of projects to maintain and extend the useful life of the Utility's aging generators. The program rebuilds ten generators, accounting for 70 percent of City Light's generating capability.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	1,339	12,378	5,988	5,035	341	0	0	0	25,081
Total:	1,339	12,378	5,988	5,035	341	0	0	0	25,081
Fund Appropriations/Allocations									
City Light Fund	1,339	12,378	5,988	5,035	341	0	0	0	25,081
Total*:	1,339	12,378	5,988	5,035	341	0	0	0	25,081
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		3,208	7,145	10,649	391	0	0	0	21,393
Total:		3,208	7,145	10,649	391	0	0	0	21,393

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Distribution Area Communications Networks**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	New Facility	Start Date:	Q1/2000
Project ID:	9307	End Date:	Q4/2026
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project installs fiber cable and equipment to all City Light dams, substations and service centers to create a secure, reliable, fast and redundant digital communications system for operations command and control. The fiber infrastructure provides a secure path for power distribution system control and dispatch, Energy Management System data, and other City Light communications. This project also supports Substation Automation, Distribution Automation, Distributed Generation, and automated meter reading projects.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	21,251	1,641	1,115	2,718	2,605	2,957	2,848	2,056	37,191
Total:	21,251	1,641	1,115	2,718	2,605	2,957	2,848	2,056	37,191
Fund Appropriations/Allocations									
City Light Fund	21,251	1,641	1,115	2,718	2,605	2,957	2,848	2,056	37,191
Total*:	21,251	1,641	1,115	2,718	2,605	2,957	2,848	2,056	37,191
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,706	1,115	2,718	2,605	2,957	2,848	2,056	16,005
Total:		1,706	1,115	2,718	2,605	2,957	2,848	2,056	16,005

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Distribution Automation**

BCL/Program Name:	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	8425	End Date:	Q4/2026
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project automates radial distribution feeders, which includes installation of equipment to provide remote control of operations of switches on power lines and gather real time data on conditions in distribution power lines. The installation of strategically placed switches will provide the ability to automatically perform outage restoration, shift blocks of load to maximize efficiencies of feeders, and reconfigure the feeder grid. Typical operation will involve remotely detecting that a feeder fault has occurred, locating the damaged portion of the feeder between two remote controlled line switches, isolating the damaged portions of the feeder via the primary feeder source and one or more backup sources using automatically controlled tie switches.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,209	3,430	3,885	2,281	2,850	2,948	2,982	1,503	22,088
Total:	2,209	3,430	3,885	2,281	2,850	2,948	2,982	1,503	22,088
Fund Appropriations/Allocations									
City Light Fund	2,209	3,430	3,885	2,281	2,850	2,948	2,982	1,503	22,088
Total*:	2,209	3,430	3,885	2,281	2,850	2,948	2,982	1,503	22,088
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		2,381	3,885	2,281	2,850	2,948	2,982	1,503	18,830
Total:		2,381	3,885	2,281	2,850	2,948	2,982	1,503	18,830

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Distribution Management System**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	New Facility	Start Date:	Q1/2019
Project ID:	9966	End Date:	Q4/2021
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project provides installation of the Distribution Management System (DMS) beginning in 2019. This comprehensive software application enables Power Dispatchers to operate automated distribution devices more effectively by interfacing with the Utility's Energy Management System (EMS), Outage Management System (OMS), Customer Information System, and the Geospatial Information System. The DMS will improve planning, coordination, and operations by enabling dispatchers to improve their switching operations for planned shutdowns. It will also make it easier to prepare planned outages and reduce the area needed for an outage.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	6,307	1,628	121	0	8,056
Total:	0	0	0	0	6,307	1,628	121	0	8,056
Fund Appropriations/Alloc	cations								
City Light Fund	0	0	0	0	6,307	1,628	121	0	8,056
Total*:	0	0	0	0	6,307	1,628	121	0	8,056
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		0	0	0	5,007	2,828	221	0	8,056
Total:		0	0	0	5,007	2,828	221	0	8,056

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Electric Vehicle Infrastructure**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	New Investment	Start Date:	Q1/2017
Project ID:	9237	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

City Light is playing an essential role in the success of transportation electrification in Seattle and will implement two charging infrastructure pilot programs in 2017: one focused on public DC fast chargers and one focused on residential charging. The utility will roll out 10 to 20 public DC fast charging stations for Electric Vehicles within its service territory, at either City-owned property or private sites. City Light will own and install the public charging infrastructure. Through the residential pilot, City Light will install stations in customers' homes that will create a service that lowers the initial cost and uncertainty of installing at-home charging. This program model will offer customers a manageable monthly cost, while allowing the utility to better understand load managment options like demand response. These programs will allow customers access to carbon-neutral electricity that customers are demanding, better utilize current utility assets and contribute to the aggressive goals of the Drive Clean Seattle Initiative.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	1,753	1,052	0	0	0	0	2,805
Total:	0	0	1,753	1,052	0	0	0	0	2,805
Fund Appropriations/Alloca	ations								
City Light Fund	0	0	1,753	1,052	0	0	0	0	2,805
Total*:	0	0	1,753	1,052	0	0	0	0	2,805

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Endangered Species Act Mitigation**

BCL/Program Name:	A4 Power Supply - Power Supply Other	BCL/Program Code:	SCL250-A4
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2000
Project ID:	6990	End Date:	Q4/2023
Location:	Outside the City of Seattle		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project protects and restores fisheries habitat in the Skagit and Tolt river basins. It implements the Endangered Species Act (ESA) Program for recovery of listed fish species that are potentially affected by City Light projects. The project includes land purchase, restoration, assessment, and management. The project reduces the likelihood of third party lawsuits under ESA and the reopening of claims by Federal agencies, e.g. the U.S. Fish and Wildlife Service, seeking additional measures to protect and restore the listed species.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	14,671	1,924	1,100	1,124	1,146	1,169	1,192	1,216	23,542	
Total:	14,671	1,924	1,100	1,124	1,146	1,169	1,192	1,216	23,542	
Fund Appropriations/Allocations										
City Light Fund	14,671	1,924	1,100	1,124	1,146	1,169	1,192	1,216	23,542	
Total*:	14,671	1,924	1,100	1,124	1,146	1,169	1,192	1,216	23,542	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		1,149	1,100	1,124	1,146	1,169	1,192	1,216	8,096	
Total:		1,149	1,100	1,124	1,146	1,169	1,192	1,216	8,096	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Energy Conservation**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	9320	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project installs improvements at SCL facilities to reduce energy consumption. Work is performed at facilities including generation sites, service centers, and substations. With documented savings, some project costs may be recovered from the Bonneville Power Administration.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,551	955	323	332	117	117	119	122	4,636
Total:	2,551	955	323	332	117	117	119	122	4,636
Fund Appropriations/Alloc	cations								
City Light Fund	2,551	955	323	332	117	117	119	122	4,636
Total*:	2,551	955	323	332	117	117	119	122	4,636
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		254	323	332	117	117	119	122	1,384
Total:		254	323	332	117	117	119	122	1,384

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Energy Management System**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	9956	End Date:	Q4/2017
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

The project replaces the existing Energy Management System (EMS), which includes (but is not limited to) replacing portions of the EMS map board and all of the front end processors, implementing a hot EMS off site backup (Backup Control System) with live cutover testing and hot cutover without loss of historic data, and supporting design criteria of a no single point of failure and quality assurance testing on a dedicated quality assurance system.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	8,251	14,121	398	0	0	0	0	0	22,770
Total:	8,251	14,121	398	0	0	0	0	0	22,770
Fund Appropriations/Allocations									
City Light Fund	8,251	14,121	398	0	0	0	0	0	22,770
Total*:	8,251	14,121	398	0	0	0	0	0	22,770
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		11,990	398	0	0	0	0	0	12,388
Total:		11,990	398	0	0	0	0	0	12,388

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

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BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems	BCL/Program Code:	SCL550-E2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	9962	End Date:	Q4/2026
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

#### Enterprise Document Management System

This project plans, builds, deploys, and provides ongoing management of an enterprise document management system that effectively and efficiently captures, secures, shares, and distributes digital and paper based documents and reports. The project streamlines collaboration, automates routine tasks, and lowers costs related to creation, management, and storage of business documents. The project provides the governance and audit capabilities needed to minimize the risks and costs associated with regulatory and legal compliance.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	2,939	3,340	582	2,914	1,814	1,424	1,168	772	14,953
Total:	2,939	3,340	582	2,914	1,814	1,424	1,168	772	14,953
Fund Appropriations/Alloc	ations								
City Light Fund	2,939	3,340	582	2,914	1,814	1,424	1,168	772	14,953
Total*:	2,939	3,340	582	2,914	1,814	1,424	1,168	772	14,953
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,746	2,272	2,914	1,814	1,424	1,168	772	12,110
Total:		1,746	2,272	2,914	1,814	1,424	1,168	772	12,110

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Enterprise Geographic Information System**

BCL/Program Name:	C5 Distribution - Distribution Other	<b>BCL/Program Code:</b>	SCL360-C5
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	9957	End Date:	Q4/2019
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project investigates, evaluates, and makes a recommendation to develop a unified GIS system that meets all of the needs of the Utility, replacing the two separate and incompatible Geographic Information Systems (GIS) that City Light currently maintains, and allowing integration with future software systems (such as Mobile Workforce).

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	5	5,039	2,308	2,912	1,738	0	0	0	12,002
Total:	5	5,039	2,308	2,912	1,738	0	0	0	12,002
Fund Appropriations/Alloc	ations								
City Light Fund	5	5,039	2,308	2,912	1,738	0	0	0	12,002
Total*:	5	5,039	2,308	2,912	1,738	0	0	0	12,002
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		0	3,342	4,912	2,905	0	0	0	11,159
Total:		0	3,342	4,912	2,905	0	0	0	11,159

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems	BCL/Program Code:	SCL550-E2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2008
Project ID:	9933	End Date:	Q4/2017
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

**Enterprise Performance Management** 

This project implements a business intelligence system for City Light. The project provides software tools and consultant support to identify and track performance metrics for each of the Departments programs, aligning organizational strategy to goal setting, planning and performance monitoring, and providing a single comprehensive system for measuring the Utility's financial and corporate health.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	4,671	1,442	420	0	0	0	0	0	6,533
Total:	4,671	1,442	420	0	0	0	0	0	6,533
Fund Appropriations/Alloc	cations								
City Light Fund	4,671	1,442	420	0	0	0	0	0	6,533
Total*:	4,671	1,442	420	0	0	0	0	0	6,533
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		247	1,620	0	0	0	0	0	1,867
Total:		247	1,620	0	0	0	0	0	1,867

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Enterprise Software Solution Replacement Strategy

<b>BCL/Program Name:</b>	C5 Distribution - Distribution Other	<b>BCL/Program Code:</b>	SCL360-C5
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2018
Project ID:	9969	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project upgrades or replaces components of the Enterprise Solution Portfolio for the Utility as prescribed by the preferred vendor, Oracle, or other vendor deemed more appropriate, which will maintain enterprise resources that benefit all customers in the City Light service area.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	0	0	0	1,564	10,016	7,011	10,528	11,018	40,137
Total:	0	0	0	1,564	10,016	7,011	10,528	11,018	40,137
Fund Appropriations/Alloca		0	0	1.564	10.016	7.011	10.500	11.010	40.127
City Light Fund	0	0	0	1,564	10,016	7,011	10,528	11,018	40,137
Total*:	0	0	0	1,564	10,016	7,011	10,528	11,018	40,137

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Environmental Safeguarding and Remediation of Facilities**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	9152	End Date:	Q4/2026
Location:	Outside the City of Seattle		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds improvements to prevent air and water pollution at City Light facilities. The project implements cost appropriate solutions for identified environmental programs and provides facilities for meeting environmental and remediation concerns. Typical projects include ventilation for painting operations, storage equipment for toxic material, containment provisions to provide protection in the event of a spill or leak, and handling equipment to enable safe movement of hazardous items.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	1,237	49	92	98	58	59	60	61	1,714
Total:	1,237	49	92	98	58	59	60	61	1,714
Fund Appropriations/Allocations									
City Light Fund	1,237	49	92	98	58	59	60	61	1,714
Total*:	1,237	49	92	98	58	59	60	61	1,714
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		47	92	98	58	59	60	61	475
Total:		47	92	98	58	59	60	61	475

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Equipment Fleet Replacement**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	New Facility	Start Date:	Q1/1999
Project ID:	9101	End Date:	Q4/2022
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces, updates, and expands City Light's - light and heavy duty mobile equipment fleet. This project also funds the replacement of light-duty vehicles owned by City Light, including those previously leased from the Fleets & Facilities Department and now owned by City Light.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	86,338	12,513	7,500	7,652	7,190	7,195	7,198	10,050	145,636	
Total:	86,338	12,513	7,500	7,652	7,190	7,195	7,198	10,050	145,636	
Fund Appropriations/Allocations										
City Light Fund	86,338	12,513	7,500	7,652	7,190	7,195	7,198	10,050	145,636	
Total*:	86,338	12,513	7,500	7,652	7,190	7,195	7,198	10,050	145,636	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		7,203	7,500	7,652	7,190	7,195	7,198	10,050	53,988	
Total:		7,203	7,500	7,652	7,190	7,195	7,198	10,050	53,988	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Facilities Infrastructure Improvements

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	9156	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project upgrades and replaces the structural, electrical or mechanical systems, or other base building systems critical to building operations, and site development items. Work under this project may include plumbing replacements, HVAC related systems, power distribution systems, tanks, elevators, fire suppression systems, drainage systems, exterior and interior lighting, landscaping, irrigation, paving, stairs, and sidewalks. This project is intended for emergent work not yet identified and is not intended as a duplicate for other infrastructure improvements included in specific projects.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	3,472	523	449	456	65	64	65	67	5,161
Total:	3,472	523	449	456	65	64	65	67	5,161
Fund Appropriations/Allocations									
City Light Fund	3,472	523	449	456	65	64	65	67	5,161
Total*:	3,472	523	449	456	65	64	65	67	5,161
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		713	449	456	65	64	65	67	1,879
Total:		713	449	456	65	64	65	67	1,879

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Facilities Regulatory Compliance**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	9151	End Date:	Q4/2022
Location:	500 Newhalem Creek Rd, Marblemount, WA 98267		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project is for the investigation of contamination and remediation, if necessary, of property that the utility is targeting for disposal

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	1,358	479	334	342	350	359	367	376	3,965
Total:	1,358	479	334	342	350	359	367	376	3,965
Fund Appropriations/Alloc	ations								
City Light Fund	1,358	479	334	342	350	359	367	376	3,965
Total*:	1,358	479	334	342	350	359	367	376	3,965
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		358	334	342	350	359	367	376	2,486
Total:		358	334	342	350	359	367	376	2,486

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Fauntleroy Undergroundings

BCL/Program Name:	C3 Distribution - Radial	<b>BCL/Program Code:</b>	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2019
Project ID:	8480	End Date:	Q4/2020
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	Council District:	
Neighborhood District:		Urban Village:	

This project provides major reconstruction of Fauntleroy WAY SW from approximately SW Alaska St to 35th Ave SW. Seattl Department of Transportation (SDOT) and Seattle City Light (SCL) are jointly performing this work. According to the draft MOA, SCL is to fund 60% of the cost to underground the electrical distribution system in the project area. The project improves public access for pedestrians and vehicles as determined by City Council and will be completed in conjunction with SDOT.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	1,502	2,003	0	0	3,505
Total:	0	0	0	0	1,502	2,003	0	0	3,505
Fund Appropriations/Alloca									
City Light Fund	0	0	0	0	1,502	2,003	0	0	3,505
Total*:	0	0	0	0	1,502	2,003	0	0	3,505

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### First Hill - Network

<b>BCL/Program Name:</b>	C2 Distribution - Network	BCL/Program Code:	SCL360-C2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2002
Project ID:	8301	End Date:	Q4/2026
Location:	1100 Madison St		
Neighborhood Plan:	First Hill	Council District:	3
Neighborhood District:	East District	Urban Village:	First Hill

This project funds a programmatic approach for comprehensive management of underground network assets serving customers in the First Hill area. This project funds annual work required, such as balancing feeder cables to their maximum service build out limit, performing engineering analysis to determine system feeder assignments, required for new service connections, and replacement of cables that fail while in service.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
<b>Revenue Sources</b>										
City Light Fund Revenues	14,990	2,463	2,654	2,702	2,751	2,774	2,048	5,130	35,512	
Total:	14,990	2,463	2,654	2,702	2,751	2,774	2,048	5,130	35,512	
Fund Appropriations/Allocations										
City Light Fund	14,990	2,463	2,654	2,702	2,751	2,774	2,048	5,130	35,512	
Total*:	14,990	2,463	2,654	2,702	2,751	2,774	2,048	5,130	35,512	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		2,340	2,654	2,702	2,751	2,774	2,048	5,130	20,399	
Total:		2,340	2,654	2,702	2,751	2,774	2,048	5,130	20,399	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### First Hill - Network Load Transfer

BCL/Program Name:	C2 Distribution - Network	BCL/Program Code:	SCL360-C2
Project Type:	New Facility	Start Date:	Q1/2019
Project ID:	8407	End Date:	Q4/2023
Location:	1100 Madison St.		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	3
Neighborhood District:	East District	Urban Village:	First Hill

This project provides the transfer of the First Hill Network to the Denny Substation. Work includes installation of transmission lines, reconfiguration of the network, transfer of the power source, and support to customers during the process.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	915	919	7,927	8,107	17,868
Total:	0	0	0	0	915	919	7,927	8,107	17,868
Fund Appropriations/Alloc	cations								
City Light Fund	0	0	0	0	915	919	7,927	8,107	17,868
Total*:	0	0	0	0	915	919	7,927	8,107	17,868
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### First Hill Connector Streetcar

BCL/Program Name:	D2 External Projects - Transportation Relocations	BCL/Program Code:	SCL370-D2
Project Type:	New Facility	Start Date:	Q1/2010
Project ID:	8442	End Date:	Q4/2018
Location:	Broadway / Boren / Jackson / King		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project facilitates construction of the First Hill Connector Streetcar project, linking Sound Transit's International District station and the Capitol Hill station. The project provides for system improvements and repairs to existing duct banks identified along this route. Typical system improvements could include replacement of old poles and the installation of new ducts under the track way for future system capacity.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,750	948	306	11	0	0	0	0	4,015
Total:	2,750	948	306	11	0	0	0	0	4,015
Fund Appropriations/Alloc	ations								
City Light Fund	2,750	948	306	11	0	0	0	0	4,015
Total*:	2,750	948	306	11	0	0	0	0	4,015
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		161	1,025	11	0	0	0	0	1,197
Total:		161	1,025	11	0	0	0	0	1,197

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Generation Federal Reliability Standards Improvements

<b>BCL/Program Name:</b>	A4 Power Supply - Power Supply Other	<b>BCL/Program Code:</b>	SCL250-A4
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	6470	End Date:	Q4/2020
Location:	500 Newhalem Creek Rd, Marblemount, WA 98267		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides compliance with emergent power production (Generation) regional reliability standards mandated by the North American Electric Reliability Corporation (NERC) and its regional compliance partner, the Western Electricity Coordinating Council (WECC). Typical improvements may include, but are not limited to, power system stabilizers, generator and control system testing equipment, cyber security equipment, and system disturbance monitoring equipment. The project mitigates the probability of financial penalties of up to \$1 million per day per violation for failure to comply. Publication of new and revised standards requires an on-going project level effort to put improvements into service which keep generation equipment and operations in full compliance.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	9,520	10	10	11	11	11	0	0	9,573
Total:	9,520	10	10	11	11	11	0	0	9,573
Fund Appropriations/Alloc	cations								
City Light Fund	9,520	10	10	11	11	11	0	0	9,573
Total*:	9,520	10	10	11	11	11	0	0	9,573
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		8	10	11	11	11	0	0	51
Total:		8	10	11	11	11	0	0	51

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3				
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015				
Project ID:	9233	End Date:	Q4/2018				
Location:							
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>					
Neighborhood District:		Urban Village:					

## Georgetown Steamplant Access Road

This ongoing project provides design and construction of roads and related infrastructure to provide public access to City Light's Georgetown Steamplant. This access will provide visibility of the Steam Plant to the public as a National Historic Site. King County has agreed to pay for most of this project.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2	361	691	703	0	0	0	0	1,757
Total:	2	361	691	703	0	0	0	0	1,757
Fund Appropriations/Alloc	ations								
City Light Fund	2	361	691	703	0	0	0	0	1,757
Total*:	2	361	691	703	0	0	0	0	1,757
Spending Plan by Fund									
City Light Fund		9	691	703	0	0	0	0	1,403
Total:		9	691	703	0	0	0	0	1,403

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Gorge - 240V AC Station Service Switchgear Replacement

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6581	End Date:	Q4/2017
Location:	Milepost 121 Stte Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project mitigates safety hazards at the Gorge Switchyard by replacing the 240V circuit breakers with new breakers that allow for remote operation. Recent policy and regulation changes related to electrical Arc Flash hazards have highlighted safety issues related to this equipment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	629	530	0	0	0	0	0	1,159
Total:	0	629	530	0	0	0	0	0	1,159
Fund Appropriations/Alloc	ations								
City Light Fund	0	629	530	0	0	0	0	0	1,159
Total*:	0	629	530	0	0	0	0	0	1,159
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		632	2,030	0	0	0	0	0	2,662
Total:		632	2,030	0	0	0	0	0	2,662

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Gorge Powerhouse - Fire Protection Improvements**

<b>BCL/Program Name:</b>	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6326	End Date:	Q4/2024
Location:	Milepost 121 State Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project designs and installs a water spray generator fire suppression system for the Gorge Powerhouse Generator 24. The scope of the project includes piping, valving, nozzles for a water delivery system, and a new control system for detection, alarming, and system initiation.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	0	87	71	54	221	325	120	122	1,000	
Total:	0	87	71	54	221	325	120	122	1,000	
Fund Appropriations/Allocations										
City Light Fund	0	87	71	54	221	325	120	122	1,000	
Total*:	0	87	71	54	221	325	120	122	1,000	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		0	71	54	221	325	120	122	913	
Total:		0	71	54	221	325	120	122	913	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Hydro Project Spill Containment

BCL/Program Name:	A4 Power Supply - Power Supply Other	BCL/Program Code:	SCL250-A4
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6530	End Date:	Q4/2020
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project will implement upgrades to generating plants that will either prevent oil spills through process improvements and equipment replacement, or provide additional containment capacity for accidental spills. These upgrades will include replacing oil filled transformers with dry-type transformers, building larger containment basins around oil filled equipment, reconfiguring powerhouse sumps, installing oil/water separators, and replacing greased valve bushings with greaseless bushings.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	1,658	781	838	267	831	786	0	0	5,161
Total:	1,658	781	838	267	831	786	0	0	5,161
Fund Appropriations/Alloc	cations								
City Light Fund	1,658	781	838	267	831	786	0	0	5,161
Total*:	1,658	781	838	267	831	786	0	0	5,161
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		453	838	267	831	786	0	0	3,175
Total:		453	838	267	831	786	0	0	3,175

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems	BCL/Program Code:	SCL550-E2						
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999						
Project ID:	9915	End Date:	Q4/2026						
Location:	System Wide								
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide						
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village						

#### Information Technology Infrastructure

This ongoing project funds replacement and improvement of the Utility's information technology infrastructure. This infrastructure provides applications, data storage, and print services to the utility, and supports activities and applications including Microsoft Outlook, remote connectivity, electronic communications and recording of power marketing transactions (E-tagging), the City InWeb and network, common and City Light applications, UNIX services, and infrastructure change management. Components purchased by this project include servers, network and communications equipment, disk storage, and application and operating system software. Infrastructure is upgraded or replaced based upon a combination of factors, such as maintenance schedules, equipment warranties, availability of vendor support, Gartner recommendations, application growth, and security demands.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	46,785	5,646	500	503	501	500	500	500	55,435
Total:	46,785	5,646	500	503	501	500	500	500	55,435
Fund Appropriations/Allo	cations								
City Light Fund	46,785	5,646	500	503	501	500	500	500	55,435
Total*:	46,785	5,646	500	503	501	500	500	500	55,435
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		4,664	500	503	501	500	500	500	7,668
Total:		4,664	500	503	501	500	500	500	7,668

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Interbay Substation - Development**

BCL/Program Name:	C1 Distribution - Substations	<b>BCL/Program Code:</b>	SCL360-C1
Project Type:	New Facility	Start Date:	Q1/2019
Project ID:	7756	End Date:	Q4/2023
Location:	17th Ave West/West Bertona St		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	7
Neighborhood District:	Magnolia/Queen Anne	Urban Village:	Ballard Interbay

This project plans, designs, and constructs a 26 kV substation in the Interbay area. This project installs 2-100 MVA transformers into a facility large enough to accommodate a third transformer at the site if required in the future. The project adds to the distribution network and provides a new path for power to the area. It provides assurance to the developers who are interested in projects in the SLU district that City Light will be able to serve their needs reliably.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,489	0	0	0	83	87	416	500	3,575
Total:	2,489	0	0	0	83	87	416	500	3,575
Fund Appropriations/Allo	cations								
City Light Fund	2,489	0	0	0	83	87	416	500	3,575
Total*:	2,489	0	0	0	83	87	416	500	3,575
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **IT Security Upgrades**

BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems	BCL/Program Code:	SCL550-E2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	9960	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

The ongoing project updates or replaces information security systems that are at high risk of failure. The project enhances vulnerability and intrusion detection as well as response capabilities and procedures. The project provides (by way of illustration but not limitation) for implementation of systems to replace or upgrade firewalls, routers, switches, operating systems, intrusion detection capabilities, security information and event management, Linux patching procedures, Dynamic Host Configuration Protocol server, Domain Name System server, internal vulnerability scanning, and physical security cameras and networks for SCL locations.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	3,176	609	560	1,112	1,143	1,162	529	590	8,881
Total:	3,176	609	560	1,112	1,143	1,162	529	590	8,881
Fund Appropriations/Alloc	ations								
City Light Fund	3,176	609	560	1,112	1,143	1,162	529	590	8,881
Total*:	3,176	609	560	1,112	1,143	1,162	529	590	8,881
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		395	560	1,112	1,143	1,162	529	590	5,491
Total:		395	560	1,112	1,143	1,162	529	590	5,491

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

# Landis and Gyr RTU Modernization Boundary, CF, Skagit

BCL/Program Name:	A1 Power Supply - Boundary	BCL/Program Code:	SCL250-A1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2019
Project ID:	6565	End Date:	Q4/2021
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	Council District:	
Neighborhood District:		Urban Village:	

This project will be combined with projects 6571 and 6579 to form a larger project to install new remote temperature monitoring equipment at the Boundary, Skagit and Cedar Falls power facilities.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	478	731	585	0	1,794
Total:	0	0	0	0	478	731	585	0	1,794
Fund Appropriations/Alloc	ations								
City Light Fund	0	0	0	0	478	731	585	0	1,794
Total*:	0	0	0	0	478	731	585	0	1,794
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Large Overhead and Underground Services

BCL/Program Name:	C4 Distribution - Service Connections	<b>BCL/Program Code:</b>	SCL370-C4
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8365	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides large size electric power service connections from Seattle City Light's distribution system to the customer's meter for power requirements of greater than 3 MVA and 26 kV radial services. Most of this related work is billable to the customer. The project allows Seattle City Light to provide service to new customers in a safe, reliable, timely and cost effective manner as a means to fulfill its commitment to be a customer and community-focused organization.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	19,429	2,947	2,944	3,071	4,225	3,290	5,127	6,522	47,555	
Total:	19,429	2,947	2,944	3,071	4,225	3,290	5,127	6,522	47,555	
Fund Appropriations/Allocations										
City Light Fund	19,429	2,947	2,944	3,071	4,225	3,290	5,127	6,522	47,555	
Total*:	19,429	2,947	2,944	3,071	4,225	3,290	5,127	6,522	47,555	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		3,196	2,944	3,071	4,225	3,290	5,127	6,522	28,375	
Total:		3,196	2,944	3,071	4,225	3,290	5,127	6,522	28,375	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Laurelhurst - Underground Rebuild

<b>BCL/Program Name:</b>	C3 Distribution - Radial	<b>BCL/Program Code:</b>	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8373	End Date:	Q4/2017
Location:	45th Street/38th Street		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	4
Neighborhood District:	Northeast	Urban Village:	Not in an Urban Village

This project completes the final three phases of a nine phase rebuilding of the underground distribution system in Laurelhurst. It replaces increasingly failure-prone aging 4 kV equipment and direct buried cables with a buried conduit system. The project improves service reliability, customer satisfaction, economic operating efficiencies, and safety, and, since PCB transformers are replaced, reduces environmental damage exposure.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	9,056	1,454	329	0	0	0	0	0	10,839
Total:	9,056	1,454	329	0	0	0	0	0	10,839
Fund Appropriations/Alloc	cations								
City Light Fund	9,056	1,454	329	0	0	0	0	0	10,839
Total*:	9,056	1,454	329	0	0	0	0	0	10,839
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,438	329	0	0	0	0	0	1,767
Total:		1,438	329	0	0	0	0	0	1,767

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Major Emergency

BCL/Program Name:	C4 Distribution - Service Connections	<b>BCL/Program Code:</b>	SCL370-C4
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8380	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project covers unexpected problems that occur with the electrical system and result in repairs of over \$100,000 for any one event and for capital costs that are incurred during any single emergency situation lasting over 48 hours.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	2,469	256	262	266	270	274	1,431	1,462	6,690	
Total:	2,469	256	262	266	270	274	1,431	1,462	6,690	
Fund Appropriations/Allocations										
City Light Fund	2,469	256	262	266	270	274	1,431	1,462	6,690	
Total*:	2,469	256	262	266	270	274	1,431	1,462	6,690	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		242	262	266	270	274	1,431	1,462	4,207	
Total:		242	262	266	270	274	1,431	1,462	4,207	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Massachusetts Street Substation - Networks

BCL/Program Name:	C2 Distribution - Network	BCL/Program Code:	SCL360-C2
Project Type:	New Facility	Start Date:	Q1/1999
Project ID:	8202	End Date:	Q4/2026
Location:	1555 Utah AV S		
Neighborhood Plan:	Duwamish	<b>Council District:</b>	2
Neighborhood District:	Greater Duwamish	Urban Village:	Duwamish

The ongoing project increases Massachusetts Street Substation network capacity. It funds a programmatic approach for comprehensive management of underground network assets serving customers in Pioneer Square and the area bounded by University Street, Third Avenue, Terrace Street, and the Freeway. The project funds completion of engineering design and analysis work required before construction of any civil facilities into which feeders can be relocated from the Alaskan Way Viaduct. This project defers the need date for a new network substation until no further capacity is available from Union Street and the other network substations. It provides sufficient and reliable electrical capacity for the growing power needs of City Light customers.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	33,162	3,131	4,124	4,018	4,152	4,488	3,222	4,866	61,163	
Total:	33,162	3,131	4,124	4,018	4,152	4,488	3,222	4,866	61,163	
Fund Appropriations/Allocations										
City Light Fund	33,162	3,131	4,124	4,018	4,152	4,488	3,222	4,866	61,163	
Total*:	33,162	3,131	4,124	4,018	4,152	4,488	3,222	4,866	61,163	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		3,615	4,124	4,018	4,152	4,488	3,222	4,866	28,485	
Total:		3,615	4,124	4,018	4,152	4,488	3,222	4,866	28,485	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Medium Overhead and Underground Services**

BCL/Program Name:	C4 Distribution - Service Connections	<b>BCL/Program Code:</b>	SCL370-C4
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8366	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides medium size electric power service connections from Seattle City Light's distribution system to the customer's meter for power requirements of 50 KVA to 2.5 MVA and 26 kV radial services. Most of this related work is billable to the customer. The project allows Seattle City Light to provide service to new customers in a safe, reliable, timely, and cost effective manner as a means to fulfill its commitment to be a customer and community-focused organization.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	96,012	10,380	13,845	14,299	11,290	11,161	8,826	14,320	180,133	
Total:	96,012	10,380	13,845	14,299	11,290	11,161	8,826	14,320	180,133	
Fund Appropriations/Allocations										
City Light Fund	96,012	10,380	13,845	14,299	11,290	11,161	8,826	14,320	180,133	
Total*:	96,012	10,380	13,845	14,299	11,290	11,161	8,826	14,320	180,133	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		13,412	13,845	14,299	11,290	11,161	8,826	14,320	87,153	
Total:		13,412	13,845	14,299	11,290	11,161	8,826	14,320	87,153	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Meter Additions**

BCL/Program Name:	C4 Distribution - Service Connections	<b>BCL/Program Code:</b>	SCL370-C4
Project Type:	New Facility	Start Date:	Q1/1999
Project ID:	8054	End Date:	Q4/2022
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides new or replacement meters for both residential and commercial services. Work included in this project includes nstallations of new and/or upgraded meter services; obsolete meter exchanges; audits of new meter services, solar metering, and technology impacting the distribution system; testing, calibration, meter inventory management, and verifying electrical measurement standards. This project ensures accurate customer billing.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	66,327	2,246	2,282	2,317	2,644	2,711	2,839	2,977	84,343	
Total:	66,327	2,246	2,282	2,317	2,644	2,711	2,839	2,977	84,343	
Fund Appropriations/Allocations										
City Light Fund	66,327	2,246	2,282	2,317	2,644	2,711	2,839	2,977	84,343	
Total*:	66,327	2,246	2,282	2,317	2,644	2,711	2,839	2,977	84,343	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		2,568	2,282	2,317	2,644	2,711	2,839	2,977	18,338	
Total:		2,568	2,282	2,317	2,644	2,711	2,839	2,977	18,338	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Miscellaneous Building Improvements**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	9007	End Date:	Q4/2026
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project capitalizes on emergent opportunities to make improvements to City Light's buildings and facilities. The project also provides for cost effective asset preservation measures, the need for which had not been previously foreseen. The project protects employees and customers from health and safety hazards and permits SCL to meet safety and health code requirements.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	11,794	1,478	1,594	2,210	2,307	3,749	3,828	3,903	30,863	
Total:	11,794	1,478	1,594	2,210	2,307	3,749	3,828	3,903	30,863	
Fund Appropriations/Allocations										
City Light Fund	11,794	1,478	1,594	2,210	2,307	3,749	3,828	3,903	30,863	
Total*:	11,794	1,478	1,594	2,210	2,307	3,749	3,828	3,903	30,863	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		1,044	1,594	2,210	2,307	3,749	3,828	3,903	18,635	
Total:		1,044	1,594	2,210	2,307	3,749	3,828	3,903	18,635	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Mobile Workforce Implementation**

<b>BCL/Program Name:</b>	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	New Facility	Start Date:	Q1/2016
Project ID:	8429	End Date:	Q4/2020
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides mobile communication and computing equipment for Seattle City Light workers to use in the field. The project improves operational efficiencies for scheduling of crews, rapid revision of crew schedules during emergencies, and reducing transit time between job sites.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	0	4,030	205	436	1,226	1,254	0	0	7,151	
Total:	0	4,030	205	436	1,226	1,254	0	0	7,151	
Fund Appropriations/Allocations										
City Light Fund	0	4,030	205	436	1,226	1,254	0	0	7,151	
Total*:	0	4,030	205	436	1,226	1,254	0	0	7,151	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		0	2,974	1,636	1,226	1,254	0	0	7,090	
Total:		0	2,974	1,636	1,226	1,254	0	0	7,090	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Neighborhood Voluntary Undergrounding Program**

<b>BCL/Program Name:</b>	D3 External Projects - Customer Other	BCL/Program Code:	SCL370-D3
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8383	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides City Light resources to serve potential Voluntary Undergrounding Program (VUP) customers through the VUP process from initial estimate, financial planning, design, construction, and reimbursement of costs from the customers. The purpose of the Voluntary Underground Program (VUP) is to satisfy residential customers who are interested in converting their overhead distribution system to an underground system. This VUP is proscribed by Seattle Municipal Code, Section 21.49.110.T.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	277	472	8	8	8	8	8	15	804
Total:	277	472	8	8	8	8	8	15	804
Fund Appropriations/Alloc	cations								
City Light Fund	277	472	8	8	8	8	8	15	804
Total*:	277	472	8	8	8	8	8	15	804
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		4	15	15	15	15	15	15	94
Total:		4	15	15	15	15	15	15	94

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Network Additions and Services - Denny**

BCL/Program Name:	C4 Distribution - Service Connections	<b>BCL/Program Code:</b>	SCL370-C4
Project Type:	New Facility	Start Date:	Q1/2015
Project ID:	8405	End Date:	Q4/2023
Location:	Valley Street/Denny Ave		
Neighborhood Plan:	South Lake Union	Council District:	TBD
Neighborhood District:	Lake Union	Urban Village:	South Lake Union

This ongoing project provides electrical service connections and related improvements in response to customer service needs within the North Downtown network area. The project provides civil and electrical design assistance to customers to connect existing and proposed buildings to the North Downtown network system. This project also performs capacity addition work associated with service connections, and replaces or installs network transformers, network protectors, and bus ties switches.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	2,044	1,595	2,311	2,665	2,717	2,477	3,114	4,930	21,853	
Total:	2,044	1,595	2,311	2,665	2,717	2,477	3,114	4,930	21,853	
Fund Appropriations/Allocations										
City Light Fund	2,044	1,595	2,311	2,665	2,717	2,477	3,114	4,930	21,853	
Total*:	2,044	1,595	2,311	2,665	2,717	2,477	3,114	4,930	21,853	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		1,896	2,311	2,665	2,717	2,477	3,114	4,930	20,110	
Total:		1,896	2,311	2,665	2,717	2,477	3,114	4,930	20,110	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Network Additions and Services: Broad Street Substation

BCL/Program Name:	C4 Distribution - Service Connections	<b>BCL/Program Code:</b>	SCL370-C4
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8363	End Date:	Q4/2026
Location:	319 6th AV N		
Neighborhood Plan:	South Lake Union	<b>Council District:</b>	7
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides electrical service connections and related improvements in response to customer service requests within the Broad Street network areas. The project performs capacity additions work associated with service connections to customers including condominiums, office buildings, medical facilities, hotels, and commercial and apartment buildings. The project also replaces or installs network transformers, network protectors and specialty transformers, and performs short duration system improvement work identified during operations, including retrofitting in-building vaults.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	53,305	5,889	6,504	6,856	6,824	6,960	7,218	7,096	100,652	
Total:	53,305	5,889	6,504	6,856	6,824	6,960	7,218	7,096	100,652	
Fund Appropriations/Allocations										
City Light Fund	53,305	5,889	6,504	6,856	6,824	6,960	7,218	7,096	100,652	
Total*:	53,305	5,889	6,504	6,856	6,824	6,960	7,218	7,096	100,652	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		6,717	6,504	6,856	6,824	6,960	7,218	7,096	48,175	
Total:		6,717	6,504	6,856	6,824	6,960	7,218	7,096	48,175	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Network Additions and Svcs: First Hill, Mass, Union & Univer

BCL/Program Name:	C4 Distribution - Service Connections	<b>BCL/Program Code:</b>	SCL370-C4
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8364	End Date:	Q4/2026
Location:	1555 Utah AV S		
Neighborhood Plan:	Duwamish	<b>Council District:</b>	2
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project provides electrical service connections and related improvements in response to customer service requests within the First Hill, Massachusetts, Union, and University District network areas. The project performs capacity additions work associated with service connections to customers, including condominiums, office buildings, medical facilities, hotels, and commercial and apartment buildings. The project also replaces or installs network transformers, network protectors and specialty transformers, and performs short-duration system improvement work identified during operations, including retrofitting in-building vaults.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	33,519	3,580	4,037	2,926	3,007	3,042	3,557	3,605	57,273	
Total:	33,519	3,580	4,037	2,926	3,007	3,042	3,557	3,605	57,273	
Fund Appropriations/Allocations										
City Light Fund	33,519	3,580	4,037	2,926	3,007	3,042	3,557	3,605	57,273	
Total*:	33,519	3,580	4,037	2,926	3,007	3,042	3,557	3,605	57,273	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		4,057	4,037	2,926	3,007	3,042	3,557	3,605	24,231	
Total:		4,057	4,037	2,926	3,007	3,042	3,557	3,605	24,231	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Network Hazeltine Upgrade**

BCL/Program Name:	C2 Distribution - Network	<b>BCL/Program Code:</b>	SCL360-C2
Project Type:	New Facility	Start Date:	Q1/1999
Project ID:	8129	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project upgrades City Light's remote vault monitoring capability for the Hazeltine system. The project provides remote monitoring of network transformers, protectors, vaults, and supports daily utility operations. The project enhances the network monitoring capability by allowing an alarm to be sent to the System Control Center within 30 seconds of an abnormal electrical component or environmental condition occurrence.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	6,466	631	545	549	557	784	746	748	11,026
Total:	6,466	631	545	549	557	784	746	748	11,026
Fund Appropriations/Allo	cations								
City Light Fund	6,466	631	545	549	557	784	746	748	11,026
Total*:	6,466	631	545	549	557	784	746	748	11,026
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		535	545	549	557	784	746	748	4,464
Total:		535	545	549	557	784	746	748	4,464

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Network Maintenance Hole and Vault Rebuild**

<b>BCL/Program Name:</b>	C2 Distribution - Network	BCL/Program Code:	SCL360-C2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	8130	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project repairs or replaces damaged electrical manholes, vaults and ducts located in the street right of way within the Downtown Central and Pioneer Square business districts. The project provides reliable and safe electrical service to the network, and enhances safety for City Light crews and the public by reducing the large backlog of old or damaged electrical facilities.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	54,677	2,456	3,467	3,539	3,597	3,572	3,714	2,649	77,671	
Total:	54,677	2,456	3,467	3,539	3,597	3,572	3,714	2,649	77,671	
Fund Appropriations/Allocations										
City Light Fund	54,677	2,456	3,467	3,539	3,597	3,572	3,714	2,649	77,671	
Total*:	54,677	2,456	3,467	3,539	3,597	3,572	3,714	2,649	77,671	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		2,309	3,467	3,539	3,597	3,572	3,714	2,649	22,847	
Total:		2,309	3,467	3,539	3,597	3,572	3,714	2,649	22,847	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **New Customer Information System**

BCL/Program Name:	E1 Central Utility Projects - Customer and Billing	BCL/Program Code:	SCL370-E1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	9937	End Date:	Q4/2017
Location:	700 5th Avenue		
Neighborhood Plan:	Commercial Core	<b>Council District:</b>	3
Neighborhood District:	Downtown	Urban Village:	Commercial Core

This project replaces the existing Consolidated Customer Service System (CCSS) application with a more current and viable technology solution. The CCSS provides Customer Information System (CIS) processing and support for Seattle City Light, Seattle Public Utilities, the City's Utility Call Center, and other customer service staff. The existing system does not support the current business model and direction of the City of Seattle's utilities, and is no longer supported by the vendor. The project will preserve and enhance the City's ability to continue to deliver this critical function into the future.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	33,141	15,014	5,668	0	0	0	0	0	53,823	
Total:	33,141	15,014	5,668	0	0	0	0	0	53,823	
Fund Appropriations/Allocations										
City Light Fund	33,141	15,014	5,668	0	0	0	0	0	53,823	
Total*:	33,141	15,014	5,668	0	0	0	0	0	53,823	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		17,693	5,668	0	0	0	0	0	23,361	
Total:		17,693	5,668	0	0	0	0	0	23,361	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Newhalem - Generator 20/Support Facility Rebuild

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2011
Project ID:	6479	End Date:	Q4/2018
Location:	500 Newhalem Creek Rd, Marblemount, WA 98267		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project rehabilitates the Newhalem Generator 20 turbine runner and penstock. Placed in service in 1921, the turbine runner and penstock have reached the end of their useful life. This system has a 2.5 megawatts generating capacity of clean renewable power. In addition, it provides emergency power backup to Newhalem and Gorge facilities.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,790	772	110	257	0	0	0	0	3,929
Total:	2,790	772	110	257	0	0	0	0	3,929
Fund Appropriations/Alloc	cations								
City Light Fund	2,790	772	110	257	0	0	0	0	3,929
Total*:	2,790	772	110	257	0	0	0	0	3,929
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		2,141	110	257	0	0	0	0	2,508
Total:		2,141	110	257	0	0	0	0	2,508

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Normal Emergency

<b>BCL/Program Name:</b>	C4 Distribution - Service Connections	<b>BCL/Program Code:</b>	SCL370-C4
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8379	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project covers unexpected problems that occur with the electrical system incurred during any single emergency situation that lasts less than 48 hours, such as lightning storms and brief wind storms, and result in necessary repairs that cost over \$5,000.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	10,768	494	569	579	1,311	1,328	2,500	2,545	20,094	
Total:	10,768	494	569	579	1,311	1,328	2,500	2,545	20,094	
Fund Appropriations/Allocations										
City Light Fund	10,768	494	569	579	1,311	1,328	2,500	2,545	20,094	
Total*:	10,768	494	569	579	1,311	1,328	2,500	2,545	20,094	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		3,175	569	579	1,311	1,328	2,500	2,545	12,007	
Total:		3,175	569	579	1,311	1,328	2,500	2,545	12,007	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	9107	End Date:	Q4/2026
Location:	Outside the City of Seattle		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

#### North and South Service Center Improvements

This ongoing project improves office, shop, and storage areas in the North and South Service Centers. The project increases efficiency, productivity, safety improvements and optimal use of space.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	34,843	400	363	354	823	3,956	5,374	5,530	51,643
Total:	34,843	400	363	354	823	3,956	5,374	5,530	51,643
Fund Appropriations/Alloc	cations								
City Light Fund	34,843	400	363	354	823	3,956	5,374	5,530	51,643
Total*:	34,843	400	363	354	823	3,956	5,374	5,530	51,643
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		338	363	354	823	3,956	5,374	5,530	16,738
Total:		338	363	354	823	3,956	5,374	5,530	16,738

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Office Furniture and Equipment Purchase** E3 Central Utility Projects - Fleets and **BCL/Program Code:** SCL250-E3 **BCL/Program Name:** Facilities **Project Type:** New Facility **Start Date:** Q1/2004 **Project ID:** 9103 **End Date:** Q4/2022 Location: System Wide **Council District: Neighborhood Plan:** Not in a Neighborhood Plan Citywide **Neighborhood District:** Not in a Neighborhood District **Urban Village:** Not in an Urban Village

This ongoing project provides office equipment and furniture costing more than \$5,000 each. This project furnishes newly created or modified space under the Workplace and Process Improvement program, and replaces aging office furnishings with modular office workstations, conference room ensemble furniture, and major office machines. This project enhances worker safety and morale by purchasing ergonomic furniture and providing modern workspaces.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	19,397	732	683	699	1,101	1,128	1,155	1,182	26,077
Total:	19,397	732	683	699	1,101	1,128	1,155	1,182	26,077
Fund Appropriations/Allocations									
City Light Fund	19,397	732	683	699	1,101	1,128	1,155	1,182	26,077
Total*:	19,397	732	683	699	1,101	1,128	1,155	1,182	26,077
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		415	683	699	1,101	1,128	1,155	1,182	6,363
Total:		415	683	699	1,101	1,128	1,155	1,182	6,363

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Outage Management System Phase II Implementation**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	9967	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project funds City Light's Outage Management System (OMS) upgraded in order to maintain its availability as it be available 100% of the time. However, its application, operating system, and database have aged to the point where OMS' availability is at risk. It was fielded in 2011 and has not been significantly modified since. The upgrade of OMS will bring it tc a currently supported product version (application, OS, database, physical infrastructure, etc.). The scope of this project is to cover as much as possible of the as-is system, with an additional change to integrate with the ongoing deployment of the Advanced Metering Infrastructure (AMI) initiative.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	1,392	2,131	0	0	0	0	3,523
Total:	0	0	1,392	2,131	0	0	0	0	3,523
Fund Appropriations/Alloca	ations								
City Light Fund	0	0	1,392	2,131	0	0	0	0	3,523
Total*:	0	0	1,392	2,131	0	0	0	0	3,523

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Overhead 26kV Conversion**

BCL/Program Name:	C3 Distribution - Radial	<b>BCL/Program Code:</b>	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8358	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces the 4 kV electrical equipment remaining in the electrical distribution system with new, efficient and reliable 26 kV distribution equipment. This project increases capacity to deliver power to City Light customers, rebuilds and maintains the backbone of City Light's system, saves energy by reducing transformer and line losses, improves quality and reliability of service to customers, and releases unit substation properties for better neighborhood uses.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	13,982	2,098	1,750	1,768	1,762	1,785	1,817	1,447	26,409
Total:	13,982	2,098	1,750	1,768	1,762	1,785	1,817	1,447	26,409
Fund Appropriations/Allocations									
City Light Fund	13,982	2,098	1,750	1,768	1,762	1,785	1,817	1,447	26,409
Total*:	13,982	2,098	1,750	1,768	1,762	1,785	1,817	1,447	26,409
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,898	1,750	1,768	1,762	1,785	1,817	1,447	12,227
Total:		1,898	1,750	1,768	1,762	1,785	1,817	1,447	12,227

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Overhead and Underground Relocations**

BCL/Program Name:	D2 External Projects - Transportation Relocations	BCL/Program Code:	SCL370-D2
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8369	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project moves electrical lines to accommodate or take advantage of transportation-related projects, street vacations, or other projects being constructed by non-City Light agencies. This project addresses modifications to the distribution system, including replacement or modifications of old line segments, poles, and underground facilities, as necessary. Some project costs are paid by City Light and some are paid by the requesting agencies, depending on the circumstances.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	13,220	2,505	2,227	2,304	2,574	3,827	3,904	3,980	34,541
Total:	13,220	2,505	2,227	2,304	2,574	3,827	3,904	3,980	34,541
Fund Appropriations/Allocations									
City Light Fund	13,220	2,505	2,227	2,304	2,574	3,827	3,904	3,980	34,541
Total*:	13,220	2,505	2,227	2,304	2,574	3,827	3,904	3,980	34,541
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		2,597	2,227	2,304	2,574	3,827	3,904	3,980	21,413
Total:		2,597	2,227	2,304	2,574	3,827	3,904	3,980	21,413

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Overhead Customer Driven Capacity Additions**

BCL/Program Name:	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8355	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides electrical lines from substations to customers' property lines. This project builds new and replaces old line segments, relocates lines for construction clearances and replaces rotten and damaged poles in the distribution system. This work is driven by specific customer projects, for their direct benefit, to identify and upgrade feeders that are affected before the new load from those projects comes online. City Light is reimbursed by the customers for this work.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	33,771	3,623	3,799	4,376	5,035	5,684	4,083	6,081	66,452
Total:	33,771	3,623	3,799	4,376	5,035	5,684	4,083	6,081	66,452
Fund Appropriations/Allocations									
City Light Fund	33,771	3,623	3,799	4,376	5,035	5,684	4,083	6,081	66,452
Total*:	33,771	3,623	3,799	4,376	5,035	5,684	4,083	6,081	66,452
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		3,366	3,799	4,376	5,035	5,684	4,083	6,081	32,424
Total:		3,366	3,799	4,376	5,035	5,684	4,083	6,081	32,424

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Overhead Equipment Replacements**

<b>BCL/Program Name:</b>	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8351	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces older equipment in City Light'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. These items include, but are not limited to, poles, cross-arms, transformers, and open-wire secondaries.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	80,689	21,063	18,848	18,171	25,379	25,676	23,474	25,191	238,491
Total:	80,689	21,063	18,848	18,171	25,379	25,676	23,474	25,191	238,491
Fund Appropriations/Allocations									
City Light Fund	80,689	21,063	18,848	18,171	25,379	25,676	23,474	25,191	238,491
Total*:	80,689	21,063	18,848	18,171	25,379	25,676	23,474	25,191	238,491
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		15,679	18,848	18,171	25,379	25,676	23,474	25,191	152,418
Total:		15,679	18,848	18,171	25,379	25,676	23,474	25,191	152,418

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Overhead Outage Replacements**

BCL/Program Name:	C4 Distribution - Service Connections	BCL/Program Code:	SCL370-C4
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8350	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project supports the capitalized portion of work resulting from unplanned, non-emergency, overhead outages. These outages result from events, such as storms, accidents, and equipment failures. The project funds permanent storm repairs and construction of new infrastructure to bypass failing equipment. The project ensures that customers' electric power is restored as quickly as possible.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	3,268	272	310	318	456	956	971	1,118	7,669
Total:	3,268	272	310	318	456	956	971	1,118	7,669
Fund Appropriations/Alloc	cations								
City Light Fund	3,268	272	310	318	456	956	971	1,118	7,669
Total*:	3,268	272	310	318	456	956	971	1,118	7,669
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		225	310	318	456	956	971	1,118	4,354
Total:		225	310	318	456	956	971	1,118	4,354

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Overhead System Capacity Additions**

BCL/Program Name:	C3 Distribution - Radial	<b>BCL/Program Code:</b>	SCL360-C3
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8356	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides electrical lines from substations to customers' property lines. This project builds new and replaces old line segments, replaces rotten and damaged poles in the distribution system. City Light customers pay for some of this work.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	30,539	2,520	2,735	2,661	2,637	2,703	3,434	3,485	50,714
Total:	30,539	2,520	2,735	2,661	2,637	2,703	3,434	3,485	50,714
Fund Appropriations/Allocations									
City Light Fund	30,539	2,520	2,735	2,661	2,637	2,703	3,434	3,485	50,714
Total*:	30,539	2,520	2,735	2,661	2,637	2,703	3,434	3,485	50,714
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		3,101	2,735	2,661	2,637	2,703	3,434	3,485	20,756
Total:		3,101	2,735	2,661	2,637	2,703	3,434	3,485	20,756

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

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BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems	BCL/Program Code:	SCL550-E2
Project Type:	Improved Facility	Start Date:	Q1/2015
Project ID:	9970	End Date:	Q4/2018
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

#### **PeopleSoft Reimplementation - City Light**

The PeopleSoft reimplementation and upgrade is a City-wide effort to replace the City's accounting system with an upgraded version of the PeopleSoft software. In addition to City Light's costs for the upgrade, reflected in the 2013-2020 Strategic Plan - FinMAP CIP Project 9961, this project includes \$6.2M from the 2014 Strategic Plan update, which is a 25% allocated share of the City's Financial and Administrative Services departments estimated project costs.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	1,535	15,930	7,945	2,300	0	0	0	0	27,710
Total:	1,535	15,930	7,945	2,300	0	0	0	0	27,710
Fund Appropriations/Alloc	ations								
City Light Fund	1,535	15,930	7,945	2,300	0	0	0	0	27,710
Total*:	1,535	15,930	7,945	2,300	0	0	0	0	27,710
Spending Plan by Fund									
City Light Fund		10,362	10,145	2,300	0	0	0	0	22,807
Total:		10,362	10,145	2,300	0	0	0	0	22,807

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Pole Attachment Requests Preparation Work**

BCL/Program Name:	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	New Facility	Start Date:	Q1/2011
Project ID:	8452	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds utility crews and engineers to prepare City Light poles for the attachment of other communication infrastructure. This project provides for additional revenues through pole attachment fees and construction costs, which are fully reimbursable.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	6,919	4,321	3,525	3,582	3,627	4,023	4,539	4,587	35,123	
Total:	6,919	4,321	3,525	3,582	3,627	4,023	4,539	4,587	35,123	
Fund Appropriations/Alloc	Fund Appropriations/Allocations									
City Light Fund	6,919	4,321	3,525	3,582	3,627	4,023	4,539	4,587	35,123	
Total*:	6,919	4,321	3,525	3,582	3,627	4,023	4,539	4,587	35,123	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		3,827	3,525	3,582	3,627	4,023	4,539	4,587	27,710	
Total:		3,827	3,525	3,582	3,627	4,023	4,539	4,587	27,710	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Power Production - Network Controls**

<b>BCL/Program Name:</b>	A4 Power Supply - Power Supply Other	BCL/Program Code:	SCL250-A4
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	6385	End Date:	Q4/2019
Location:	500 Newhalem Creek Rd, Marblemount, WA 98267		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides the infrastructure required to install the basic control network and integrate existing, major control systems for a Skagit wide network controls program, to be located at each of the Skagit facilities. This project improves monitoring and control of the Skagit facilities, reduces maintenance and potential outages, and reduces cost and time of maintenance and outages. This project incorporates features that lead to enhanced data acquisition that is part of the NERC requirements.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	4,333	1,661	812	989	1,116	0	0	0	8,911
Total:	4,333	1,661	812	989	1,116	0	0	0	8,911
Fund Appropriations/Alloc	cations								
City Light Fund	4,333	1,661	812	989	1,116	0	0	0	8,911
Total*:	4,333	1,661	812	989	1,116	0	0	0	8,911
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,067	812	989	1,116	0	0	0	3,984
Total:		1,067	812	989	1,116	0	0	0	3,984

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Project Management System Implementation**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2021
Project ID:	9973	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project funds obtaining, configuring, and implementing an enterprise project management system to help manage, track, and report on City Light projects, programs, and portfolios. This project creates a central location to manage project schedules risks, issues, documents, action items. It supports City Light's goals of improving project management practices across the organization.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	0	0	2,003	1,002	3,005
Total:	0	0	0	0	0	0	2,003	1,002	3,005
Fund Appropriations/Alloca	tions								
City Light Fund	0	0	0	0	0	0	2,003	1,002	3,005
Total*:	0	0	0	0	0	0	2,003	1,002	3,005

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Relaying Improvements**

BCL/Program Name:	C1 Distribution - Substations	<b>BCL/Program Code:</b>	SCL360-C1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2001
Project ID:	7753	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces protective relays, to ensure system reliability by protecting the rest of the distribution system from potentially cascading effects if one part fails to operate properly. It upgrades relay technology, allowing remote control and documentation of system events, which enhances the detection and management of equipment problems.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	29,489	4,422	4,050	4,634	5,614	4,626	4,978	5,053	62,866
Total:	29,489	4,422	4,050	4,634	5,614	4,626	4,978	5,053	62,866
Fund Appropriations/Allocations									
City Light Fund	29,489	4,422	4,050	4,634	5,614	4,626	4,978	5,053	62,866
Total*:	29,489	4,422	4,050	4,634	5,614	4,626	4,978	5,053	62,866
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		4,571	4,050	4,634	5,614	4,626	4,978	5,053	33,526
Total:		4,571	4,050	4,634	5,614	4,626	4,978	5,053	33,526

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Replace Breakers BPA Covington and Maple Valley Substations**

<b>BCL/Program Name:</b>	C1 Distribution - Substations	<b>BCL/Program Code:</b>	SCL360-C1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	7121	End Date:	Q4/2023
Location:	Kent		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	TBD
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project meets the terms of City Light's interconnection agreement with Bonneville Power Administration (BPA) by upgrading breaker capacity in two substations that are owned by BPA, but where City Light is responsible for the breakers.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	546	13	11	11	11	12	12	12	628
Total:	546	13	11	11	11	12	12	12	628
Fund Appropriations/Alloc	cations								
City Light Fund	546	13	11	11	11	12	12	12	628
Total*:	546	13	11	11	11	12	12	12	628
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		9	11	11	11	12	12	12	78
Total:		9	11	11	11	12	12	12	78

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Ross - 480V AC Station Service Switchgear Replacement**

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2019
Project ID:	6580	End Date:	Q4/2020
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project mitigates safety hazards at the Ross switchyard by replacing all 480kV circuit breakers with new breakers that allow for remote operation. Recent Policy changes and regulations related to electrical Arc Flash hazards have highlighted safety issues related to this equipment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	110	5,707	0	0	5,817
Total:	0	0	0	0	110	5,707	0	0	5,817
Fund Appropriations/Alloc	ations								
City Light Fund	0	0	0	0	110	5,707	0	0	5,817
Total*:	0	0	0	0	110	5,707	0	0	5,817
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Ross - Exciters 41-44

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6564	End Date:	Q4/2021
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project provides installation of new remote temperature monitoring equipment at the Boundary, Skagit and Cedar Falls power facilities. This project is combined with projects 6571 and 6579 to form a larger project.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	237	0	439	3,274	216	695	0	4,861
Total:	0	237	0	439	3,274	216	695	0	4,861
Fund Appropriations/Alloc	ations								
City Light Fund	0	237	0	439	3,274	216	695	0	4,861
Total*:	0	237	0	439	3,274	216	695	0	4,861
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		0	0	439	3,274	216	695	0	4,624
Total:		0	0	439	3,274	216	695	0	4,624

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Ross - Governors

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6562	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project replaces Governors and Exciters on all four of the Ross Powerhouse generating units.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	320	2,803	3,579	556	0	0	0	0	7,258
Total:	320	2,803	3,579	556	0	0	0	0	7,258
Fund Appropriations/Alloc	cations								
City Light Fund	320	2,803	3,579	556	0	0	0	0	7,258
Total*:	320	2,803	3,579	556	0	0	0	0	7,258
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,030	3,579	556	0	0	0	0	5,165
Total:		1,030	3,579	556	0	0	0	0	5,165

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Ross - Powerhouse Rockfall Mitigation**

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	6577	End Date:	Q4/2020
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project mitigates risks to the powerhouse by installing rock fall protection measures above the Ross Powerhouse. Specific measure to be implemented will be determined during design but could include rock bolting, rock fencing, rock scaling or other measures.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	106	400	50	4,484	0	0	5,040
Total:	0	0	106	400	50	4,484	0	0	5,040
Fund Appropriations/Alloc	cations								
City Light Fund	0	0	106	400	50	4,484	0	0	5,040
Total*:	0	0	106	400	50	4,484	0	0	5,040
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Ross - R1 and R2 Relay and Instrumentation Upgrade

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	6582	End Date:	Q4/2020
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project installs new microprocessor based relays to protect the Ross R1 and R2 lines from major electrical faults. This improves transmission reliability. The R1 and R2 lines transmit power generated at Ross to Diablo Switchyard where it is sent out to the transmission grid.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	105	110	459	127	0	0	801
Total:	0	0	105	110	459	127	0	0	801
Fund Appropriations/Alloc	cations								
City Light Fund	0	0	105	110	459	127	0	0	801
Total*:	0	0	105	110	459	127	0	0	801
O & M Costs (Savings)			0	0	0	0	0	0	0

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Ross - Rock Slide Area Improvements**

BCL/Program Name:	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2010
Project ID:	6516	End Date:	Q4/2017
Location:	Milepost 128 State Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project reestablishes boat and barge access to the Ross Powerhouse and Dam, Ross Lake Resort, and National Parks Facilities, severed by a rock slide in March 2010. The project stabilizes the rock slope, reestablishes a road between Ross Powerhouse and Ross Dam, and reconstructs ramps, docks, and loading areas on Diablo Reservoir for Ross Powerhouse, Ross Dam, and Ross Lake access.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	8,919	533	10	0	0	0	0	0	9,462
Total:	8,919	533	10	0	0	0	0	0	9,462
Fund Appropriations/Allo	cations								
City Light Fund	8,919	533	10	0	0	0	0	0	9,462
Total*:	8,919	533	10	0	0	0	0	0	9,462
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		476	10	0	0	0	0	0	486
Total:		476	10	0	0	0	0	0	486

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Ross Dam - AC/DC Distribution System Upgrade

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2005
Project ID:	6373	End Date:	Q4/2020
Location:	Milepost 128 State Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project upgrades aging AC electrical distribution system at Ross Dam with a new electrical distribution system. It installs conduit, ducting, distribution panels and wire. It improves the 4 kV system, improves lighting, and provides improvements on top of the dam including a center substation room, emergency generator, valve houses, and a 130-volt battery bank. New conduit and conductors improve reliability of spillgate operations and other dam operations requiring electric power. New electrical equipment, new lighting, and the addition of emergency lighting allow staff greater operational flexibility, safety, and efficiency.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,105	546	1,741	483	11	3,682	0	0	8,568
Total:	2,105	546	1,741	483	11	3,682	0	0	8,568
Fund Appropriations/Allo	cations								
City Light Fund	2,105	546	1,741	483	11	3,682	0	0	8,568
Total*:	2,105	546	1,741	483	11	3,682	0	0	8,568
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		975	1,741	483	11	3,682	0	0	6,892
Total:		975	1,741	483	11	3,682	0	0	6,892

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Ross Dam - New Access Road from SR20 to Dam

BCL/Program Name:	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2020
Project ID:	6452	End Date:	Q4/2022
Location:	500 Newhalem Creek Rd, Marblemount, WA 98267		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project provides construction of an access/service road from State Route 20 to Ross Dam. Preliminary designs made in the 1970's and 1980's have been reviewed, updated, and evaluated as a first phase. This first phase study includes review of construction costs, permit and public review processes, and timetables.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	0	11,453	2,167	7,342	20,962
Total:	0	0	0	0	0	11,453	2,167	7,342	20,962
Fund Appropriations/Alloc	ations								
City Light Fund	0	0	0	0	0	11,453	2,167	7,342	20,962
Total*:	0	0	0	0	0	11,453	2,167	7,342	20,962
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		0	0	0	0	458	13,162	7,342	20,962
Total:		0	0	0	0	458	13,162	7,342	20,962

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Ross Powerhouse - Programmable Language Controller Upgrade

BCL/Program Name:	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2008
Project ID:	6376	End Date:	Q4/2018
Location:	Milepost 128 State Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project replaces the five Ross Dam Powerhouse Programmable Logic Controllers (PLC). There is one PLC for each of the four generator units, and a fifth PLC monitoring other critical powerhouse equipment. The project improves City Light's ability to make programming enhancements commensurate with operational and regulatory needs, assures comprehensive and correct documentation, and delivers a 24VDC system that eliminates the need of LOTO (Lock-Out/Tag-Out) safety procedures. It provides redundancy, which yields the ability to perform remote start-stop and other control functions of the generators.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	81	283	454	141	0	0	0	0	959
Total:	81	283	454	141	0	0	0	0	959
Fund Appropriations/Allo	cations								
City Light Fund	81	283	454	141	0	0	0	0	959
Total*:	81	283	454	141	0	0	0	0	959
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		52	454	141	0	0	0	0	647
Total:		52	454	141	0	0	0	0	647

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Ross Powerhouse - Replace Transformer Banks 42 and 44

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6541	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project will fund the design and installation of two new step-up power transformer banks at Ross Powerhouse to replace the sixty-year-old units that have exceeded their useful life and have shown indications of failure.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	644	11,619	1,737	50	0	0	0	0	14,050
Total:	644	11,619	1,737	50	0	0	0	0	14,050
Fund Appropriations/Allo	cations								
City Light Fund	644	11,619	1,737	50	0	0	0	0	14,050
Total*:	644	11,619	1,737	50	0	0	0	0	14,050
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		8,427	8,718	50	0	0	0	0	17,195
Total:		8,427	8,718	50	0	0	0	0	17,195

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Safety Modifications**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	9006	End Date:	Q4/2026
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project modifies City Light's facilities and provides equipment to correct imminent and critical safety hazards. The project includes upgrades and revisions to systems, equipment and operations, properties and facilities, as needed to comply with safety regulations and best practices for a safe, efficient, and secure work environment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	3,993	1,936	1,376	1,353	1,383	1,373	1,405	1,437	14,256	
Total:	3,993	1,936	1,376	1,353	1,383	1,373	1,405	1,437	14,256	
Fund Appropriations/Allocations										
City Light Fund	3,993	1,936	1,376	1,353	1,383	1,373	1,405	1,437	14,256	
Total*:	3,993	1,936	1,376	1,353	1,383	1,373	1,405	1,437	14,256	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		1,755	1,376	1,353	1,383	1,373	1,405	1,437	10,082	
Total:		1,755	1,376	1,353	1,383	1,373	1,405	1,437	10,082	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## Seattle Waterfront Streetlight Installation

BCL/Program Name:	D1 External Projects - Local Jurisdictions	BCL/Program Code:	SCL370-D1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	8481	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project funds the street lighting associated with the bored tunnel hybrid plan for the Alaskan Way Viaduct replacement which is a project that will result in the City rebuilding Alaskan Way, led by the Office of the Waterfront.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	300	300	401	5,008	5,008	4,006	15,023
Total:	0	0	300	300	401	5,008	5,008	4,006	15,023
Fund Appropriations/Alloca	<b>itions</b> 0	0	300	300	401	5.008	5,008	4.006	15 022
City Light Fund	0	0	300	300	401	5,008	5,008	4,006	15,023
Total*:	0	0	300	300	401	5,008	5,008	4,006	15,023

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Security Improvements**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	New Facility	Start Date:	Q1/2005
Project ID:	9202	End Date:	Q4/2022
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing program plans, designs and implements projects, improving the physical security of City Light critical facilities, in order to mitigate unauthorized access and criminal activities that could cause significant system damage, power outages, and other related disruptions to the electrical system. The project reduces the risk of sabotage, vandalism, theft, and terrorism that can result in the loss of valuable infrastructure for generation and distribution of power. The project also reduces risk of noncompliance with North American Reliability Council (NERC) 1200 Standards, adopted May 2, 2006, to improve security at critical facilities that house command and control systems. It enhances reliability of the power system in the Pacific Northwest, reduces the risk of lost revenues, and reduces the jeopardy to public safety and emergency response due to loss of lifeline services such as medical services, water and wastewater systems, communications, law enforcement, banking, transportation system, etc.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	21,362	10,321	3,275	2,357	2,252	2,292	2,342	2,272	46,473	
Total:	21,362	10,321	3,275	2,357	2,252	2,292	2,342	2,272	46,473	
Fund Appropriations/Allocations										
City Light Fund	21,362	10,321	3,275	2,357	2,252	2,292	2,342	2,272	46,473	
Total*:	21,362	10,321	3,275	2,357	2,252	2,292	2,342	2,272	46,473	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		11,401	3,275	2,357	2,252	2,292	2,342	2,272	26,191	
Total:		11,401	3,275	2,357	2,252	2,292	2,342	2,272	26,191	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Seismic Mitigation**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1998
Project ID:	9134	End Date:	Q4/2026
Location:	Outside the City of Seattle		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds structural upgrades to buildings. This project is for miscellaneous, unidentified seismic issues other than the Georgetown Steam Plant, Service Centers and Substations, which are funded through other projects. The project protects City Light's assets, employees, customers, visitors, equipment, and materials.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	5,527	60	136	89	96	602	605	607	7,722	
Total:	5,527	60	136	89	96	602	605	607	7,722	
Fund Appropriations/Allocations										
City Light Fund	5,527	60	136	89	96	602	605	607	7,722	
Total*:	5,527	60	136	89	96	602	605	607	7,722	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		77	136	89	96	602	605	607	2,212	
Total:		77	136	89	96	602	605	607	2,212	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## Service Center Development Project

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	New Facility	Start Date:	Q1/2021
Project ID:	9232	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This ongoing project provides a Service Center Master Plan to revitalize City Light's customer service centers. A phase one report has been prepared that identifies preliminary options and associated costs, and further work is needed to refine the findings of this report to an actionable set of recommendations. In order to manage the financial impact of this initiative, major development is not anticipated to occur until 2019.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	0	0	0	59,720	40,340	100,060
Total:	0	0	0	0	0	0	59,720	40,340	100,060
Fund Appropriations/Alloca	<b>itions</b> 0	0	0	0	0	0	59,720	40,340	100,060
Total*:	0	0	0	0	0	0	59,720	40,340	100,060

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## Skagit - Babcock Creek Crossing

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6514	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project will construct a permanent and more stable crossing across Babcock Creek, near Newhalem. The road to Babcock Creek provides access to a critical communication tower and currently only has a temporary bridge crossing it. The permanent crossing will be either a bridge or vented ford.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
<b>Revenue Sources</b>									
City Light Fund Revenues	152	646	58	0	0	0	0	0	856
Total:	152	646	58	0	0	0	0	0	856
Fund Appropriations/Alloc	cations								
City Light Fund	152	646	58	0	0	0	0	0	856
Total*:	152	646	58	0	0	0	0	0	856
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,038	58	0	0	0	0	0	1,096
Total:		1,038	58	0	0	0	0	0	1,096

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Skagit - Boat Facility Improvements**

BCL/Program Name:	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6540	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project will design and construct several new structures to support industrial and recreational boat operations on our Skagit reservoirs. Structures will include a new tour dock, new dry dock, additions to the existing boat houses and a new barge landing in Diablo. The project will provide improved visitor access for the Skagit Boat Tour, safer boat fueling facilities, reduced impact of snowfall on boats, consolidated barge landings, and improved dry docks.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	102	1,236	736	382	0	0	0	0	2,456
Total:	102	1,236	736	382	0	0	0	0	2,456
Fund Appropriations/Allocations									
City Light Fund	102	1,236	736	382	0	0	0	0	2,456
Total*:	102	1,236	736	382	0	0	0	0	2,456
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		895	736	382	0	0	0	0	2,013
Total:		895	736	382	0	0	0	0	2,013

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## Skagit - DC Battery System & Charge Modernization

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6583	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project will replace the existing DC battery systems at Skagit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	23	117	341	0	0	0	0	0	481
Total:	23	117	341	0	0	0	0	0	481
Fund Appropriations/Alloc	ations								
City Light Fund	23	117	341	0	0	0	0	0	481
Total*:	23	117	341	0	0	0	0	0	481
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		486	341	0	0	0	0	0	827
Total:		486	341	0	0	0	0	0	827

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Skagit - Facilities Energy Conservation Program**

<b>BCL/Program Name:</b>	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2012
Project ID:	6515	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project provides funding for structural improvements to existing facilities at Skagit, both residential and commercial. It replaces lights, windows, and HVAC systems, insulates buildings, and performs related work. The project dramatically reduces the amount of energy expended to keep structures warm or cool depending upon the season.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	5,142	4,381	19	1,074	0	0	0	0	10,616
Total:	5,142	4,381	19	1,074	0	0	0	0	10,616
Fund Appropriations/Allocations									
City Light Fund	5,142	4,381	19	1,074	0	0	0	0	10,616
Total*:	5,142	4,381	19	1,074	0	0	0	0	10,616
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		2,668	19	1,074	0	0	0	0	3,761
Total:		2,668	19	1,074	0	0	0	0	3,761

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## Skagit - Relicensing

<b>BCL/Program Name:</b>	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	New Investment	Start Date:	Q1/2017
Project ID:	6986	End Date:	Q4/2023
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This ongoing project provides support of the relicensing activities for the Skagit River Hydroelectric Project including support of staff, environmental studies, documentation, and consultation needed to submit an application to relicense the project. Relicensing work will begin in 2019. The current Federal Energy Regulatory Commission (FERC) license for the Skagit Project expires in 2025, and the license application is due for submission to FERC in May 2023.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	528	1,331	7,373	6,542	14,175	26,288	56,237
Total:	0	0	528	1,331	7,373	6,542	14,175	26,288	56,237
Fund Appropriations/Alloca	tions								
City Light Fund	0	0	528	1,331	7,373	6,542	14,175	26,288	56,237
Total*:	0	0	528	1,331	7,373	6,542	14,175	26,288	56,237

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Skagit - Sewer System Rehabilitation**

BCL/Program Name:	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	6232	End Date:	Q4/2020
Location:	Milepost 126 State Highway 20		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project replaces or repairs numerous sewer pipe breaks, leaks, and sags in the combined Skagit River sewer/drainage collection system, located at the Diablo Dam site. This project eliminates potential overloads in the sewage treatment plant that can cause pollution of the Skagit River and surrounding soil contamination.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	3,904	1,759	658	605	2,945	165	0	0	10,036	
Total:	3,904	1,759	658	605	2,945	165	0	0	10,036	
Fund Appropriations/Allocations										
City Light Fund	3,904	1,759	658	605	2,945	165	0	0	10,036	
Total*:	3,904	1,759	658	605	2,945	165	0	0	10,036	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		1,232	658	605	2,945	165	0	0	5,605	
Total:		1,232	658	605	2,945	165	0	0	5,605	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Skagit Facilities Plan**

<b>BCL/Program Name:</b>	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2010
Project ID:	6520	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project implements a comprehensive facility plan to optimize buildings and structures at two Skagit town sites. The project preserves essential facilities that support SCL's power production needs, and retains important civic, cultural, and historic features in keeping with the historic preservation requirements of the Skagit FERC Licensing agreement. The project will reduce operational costs by dismantling and removing surplus facilities that require significant on-going maintenance.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	2,747	2,291	2,196	2,672	0	0	0	0	9,906	
Total:	2,747	2,291	2,196	2,672	0	0	0	0	9,906	
Fund Appropriations/Allocations										
City Light Fund	2,747	2,291	2,196	2,672	0	0	0	0	9,906	
Total*:	2,747	2,291	2,196	2,672	0	0	0	0	9,906	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		702	2,196	2,672	0	0	0	0	5,570	
Total:		702	2,196	2,672	0	0	0	0	5,570	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

**Neighborhood District:** 

Not in an Urban Village

<u>Sha</u>	Skagit Facility - Millor Improvements Frogram									
BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2							
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1989							
Project ID:	6405	End Date:	Q4/2026							
Location:	500 Newhalem Creek Rd, Marblemount, WA 98267									
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle							

Not in a Neighborhood District

#### Skagit Facility - Minor Improvements Program

This Ongoing project provides financial coverage for emergent capital projects related to all Skagit Facilities, which are by definition, unforeseeable, unscheduled, unpredictable, and occur on a first-come, first serve basis. In addition, it funds scheduled, small capital projects that have cost estimates less than \$25,000. This project shows increased project allocations in years 2015 to 2018. This increase reflects anticipated baseline CIP spending levels for the Skagit Facility that are in line with Strategic Plan assumptions. These future year allocations will be broken out into specific CIP projects in the next year's CIP.

**Urban Village:** 

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	21,007	2,973	2,339	2,661	1,213	4,726	13,934	14,448	63,301
Total:	21,007	2,973	2,339	2,661	1,213	4,726	13,934	14,448	63,301
Fund Appropriations/Allocations									
City Light Fund	21,007	2,973	2,339	2,661	1,213	4,726	13,934	14,448	63,301
Total*:	21,007	2,973	2,339	2,661	1,213	4,726	13,934	14,448	63,301
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		2,094	2,339	2,661	1,213	4,726	13,934	14,448	41,415
Total:		2,094	2,339	2,661	1,213	4,726	13,934	14,448	41,415

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Skagit Licensing Mitigation**

BCL/Program Name:	A2 Power Supply - Skagit	<b>BCL/Program Code:</b>	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1998
Project ID:	6991	End Date:	Q4/2022
Location:	500 Newhalem Creek Rd, Marblemount, WA 98267		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	TBD
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project enhances and protects wildlife habitat on utility owned land in the Upper Skagit River and South Fork Nooksack River valleys to meet the obligations outlined in City Light's 1995 Skagit license. It includes land acquisition, restoration, and management.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	36,680	925	73	74	134	123	139	136	38,284	
Total:	36,680	925	73	74	134	123	139	136	38,284	
Fund Appropriations/Allocations										
City Light Fund	36,680	925	73	74	134	123	139	136	38,284	
Total*:	36,680	925	73	74	134	123	139	136	38,284	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		208	73	74	134	123	139	136	887	
Total:		208	73	74	134	123	139	136	887	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	A2 Power Supply - Skagit	BCL/Program Code:	SCL250-A2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2005
Project ID:	6415	End Date:	Q4/2022
Location:	500 Newhalem Creek Rd, Marblemount, WA 98267		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

#### Skagit Powerhouses - Install Protection Relays

This project enhances generating reliability by adding protective relays to generating systems at the Ross, Diablo, and Gorge plants, whose generator protective relays do not meet present IEEE Standards. The project funds the addition of microprocessor relays to the existing system, certain auxiliary protective equipment, and modifies the design of the existing protection system to upgrade functionality. This will limit the potential for damage when surges and faults occur in transmission lines due to lightning strikes, load rejections, and other unexpected events.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	4,186	912	1,553	1,865	485	1,964	1,490	1,019	13,474	
Total:	4,186	912	1,553	1,865	485	1,964	1,490	1,019	13,474	
Fund Appropriations/Allocations										
City Light Fund	4,186	912	1,553	1,865	485	1,964	1,490	1,019	13,474	
Total*:	4,186	912	1,553	1,865	485	1,964	1,490	1,019	13,474	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		1,072	1,553	1,865	485	1,964	1,490	1,019	9,448	
Total:		1,072	1,553	1,865	485	1,964	1,490	1,019	9,448	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## Small Overhead and Underground Services

BCL/Program Name:	C4 Distribution - Service Connections	<b>BCL/Program Code:</b>	SCL370-C4
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8367	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides small size electric power service connections from Seattle City Light's distribution system to the customer's meter for power requirements of less than 50 KVA and 26 kV radial services. Most of this related work is billable to the customer. The project allows Seattle City Light to provide service to new customers in a safe, reliable, timely, and cost effective manner as a means to fulfill its commitment to be a customer and community-focused organization.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	54,153	6,200	6,205	6,314	5,504	5,396	5,343	6,709	95,824	
Total:	54,153	6,200	6,205	6,314	5,504	5,396	5,343	6,709	95,824	
Fund Appropriations/Allocations										
City Light Fund	54,153	6,200	6,205	6,314	5,504	5,396	5,343	6,709	95,824	
Total*:	54,153	6,200	6,205	6,314	5,504	5,396	5,343	6,709	95,824	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		5,914	6,205	6,314	5,504	5,396	5,343	6,709	41,385	
Total:		5,914	6,205	6,314	5,504	5,396	5,343	6,709	41,385	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## SMT AutoLab

BCL/Program Name:	A4 Power Supply - Power Supply Other	<b>BCL/Program Code:</b>	SCL250-A4
Project Type:	Improved Facility	Start Date:	Q1/2017
Project ID:	6600	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project provides expansion of the AutoLab in the Seattle Municipal Tower to what is now the Central Files Room. The extra space will be used as an equipment lab for Power Production electrical engineers to conduct necessary testing of cyber security, remote monitoring and automation equipment in a simulation environment. The testing will be conducted prior to installing and activating the equipment at our generation sites. THis project also provides required HVAC upgrades as well as the installation of equipment racks, wire ways, and access security.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	273	484	0	0	0	0	757
Total:	0	0	273	484	0	0	0	0	757
Fund Appropriations/Alloca	tions								
City Light Fund	0	0	273	484	0	0	0	0	757
Total*:	0	0	273	484	0	0	0	0	757

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Solar Microgrid for Resilience

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	New Investment	Start Date:	Q1/2016
Project ID:	9238	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This project will construct an islandable microgrid that will be located at a City of Seattle designated emergency shelter such as a community center, where a solar photovoltaic (PV) system coupled with an appropriately-sized battery energy storage system will be installed. The project is envisioned to provide backup power to support critical emergency facilities and services during extended power outages when electricity distribution facilities are down due to a catastrophic event, such as an earthquake, severe windstorm (or associated flooding), fire or landslide. Smart microgrids improve resiliency and reliability, minimize carbon footprints, and reduce costs. This project will position City Light as one of the utilities in the forefront of an innovative application of microgrids and serve as a test bed for testing and operating not just the microgrid, but the solar and battery energy storage system equipment as well. The Washington State Dept. of Commerce will grant the utility approximately half of the funding to cover the costs for this project.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	12	11	0	0	0	0	23
Total:	0	0	12	11	0	0	0	0	23
Fund Appropriations/Alloc	ations								
City Light Fund	0	0	12	11	0	0	0	0	23
Total*:	0	0	12	11	0	0	0	0	23

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	D2 External Projects - Transportation Relocations	BCL/Program Code:	SCL370-D2
Project Type:	Improved Facility	Start Date:	Q1/2017
Project ID:	8475	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

#### Sound Transit - City Light System Upgrades

This project increases the capacity of City Light power distribution systems to serve increased power requirements projected for Sound Transit's Link system. Initial upgrades will be in the Capitol Hill Sound Transit Station area. Construction there may be underway in 2017. Other areas projected to need power distribution system upgrades include area between the International District Station and Lake Washington, the University of Washington Station area, areas in the Rainier valley, and some areas along the proposed Lynnwood Link line.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	98	0	0	0	0	0	98
Total:	0	0	98	0	0	0	0	0	98
Fund Appropriations/Alloc	cations								
City Light Fund	0	0	98	0	0	0	0	0	98
Total*:	0	0	98	0	0	0	0	0	98
Spending Plan by Fund									
City Light Fund		945	98	0	0	0	0	0	1,043
Total:		945	98	0	0	0	0	0	1,043

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

Village

<u></u>			
BCL/Program Name:	D2 External Projects - Transportation Relocations	BCL/Program Code:	SCL370-D2
Project Type:	New Facility	Start Date:	Q1/2011
Project ID:	8450	End Date:	Q4/2018
Location:	I-90/International District Station/I-90 Bridge		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Central	Urban Village:	Not in an Urban

#### Sound Transit Light Rail East Link - City Light

This project plans for and relocates City Light's electrical facilities, as required by state law, enabling Sound Transit's construction of the East LINK light rail line from Seattle's International District Station to the Bellevue Redmond area. The department also plans to work with Sound Transit on a memorandum of agreement regarding cost reimbursement for its work, which is expected to be 100% reimbursable in keeping with past work with Sound Transit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	52	828	851	23	0	0	0	0	1,754
Total:	52	828	851	23	0	0	0	0	1,754
Fund Appropriations/Alloc	cations								
City Light Fund	52	828	851	23	0	0	0	0	1,754
Total*:	52	828	851	23	0	0	0	0	1,754
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		694	951	23	0	0	0	0	1,668
Total:		694	951	23	0	0	0	0	1,668

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

Total:

# **Seattle City Light**

-		
D2 External Projects - Transportation Relocations	BCL/Program Code:	SCL370-D2
Rehabilitation or Restoration	Start Date:	Q1/2015
8471	End Date:	Q4/2021
Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Outside Seattle City	Urban Village:	Outside Seattle City
	Relocations Rehabilitation or Restoration 8471 Not in a Neighborhood Plan	RelocationsStart Date:Rehabilitation or RestorationStart Date:8471End Date:Not in a Neighborhood PlanCouncil District:

### Sound Transit Lynnwood - City Light

This project supports Sound Transit's Lynwood Link, which will extend from the Northgate Transit Center at 5th Ave NE & NE 100th Street to our service area boundary at NE 200th Street, near the I-5 Right of Way. This project will include 100 blocks of relocations, a significant fraction of which will convert lines from overhead to underground. The project will install two feeders for each of the light rail line's traction power stations and upgrade the radial system's capacity where needed to serve the new load. The low and medium power service connections for the line's stations will be handled through the existing service projects, ?business as usual.?

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	13	216	1,473	1,549	1,625	1,622	1,068	0	7,566
Total:	13	216	1,473	1,549	1,625	1,622	1,068	0	7,566
Fund Appropriations/Allo	cations								
City Light Fund	13	216	1,473	1,549	1,625	1,622	1,068	0	7,566
Total*:	13	216	1,473	1,549	1,625	1,622	1,068	0	7,566
Craudine Dien ber Frund									
Spending Plan by Fund									
City Light Fund		150	1,473	1,549	1,625	1,622	1,068	0	7,487

1,473

1,549

1,625

1,622

1,068

0

7,487

150

## Sound Transit Northlink - City Light

BCL/Program Name:	D2 External Projects - Transportation Relocations	BCL/Program Code:	SCL370-D2
Project Type:	New Facility	Start Date:	Q1/2010
Project ID:	8427	End Date:	Q4/2017
Location:	University District / Roosevelt / Northgate		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	5
Neighborhood District:	Northwest	Urban Village:	In more than one Urban Village

The project will manage utility relocations and feeder construction needed for Sound Transit to build the North Link light rail line to Northgate as part of the design and construction agreements made between the City of Seattle and Sound Transit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	3,170	3,455	957	0	0	0	0	0	7,582
Total:	3,170	3,455	957	0	0	0	0	0	7,582
Fund Appropriations/Alloc	cations								
City Light Fund	3,170	3,455	957	0	0	0	0	0	7,582
Total*:	3,170	3,455	957	0	0	0	0	0	7,582
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		2,487	1,357	0	0	0	0	0	3,844
Total:		2,487	1,357	0	0	0	0	0	3,844

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## South Fork Tolt - DC Battery System & Charge Modernization

BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt	BCL/Program Code:	SCL250-A3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	6570	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Outside Seattle City	Urban Village:	Outside Seattle City

This project will replace the existing DC battery system at South Fork Tolt.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	28	24	0	0	0	0	0	52
Total:	0	28	24	0	0	0	0	0	52
Fund Appropriations/Allo	cations								
City Light Fund	0	28	24	0	0	0	0	0	52
Total*:	0	28	24	0	0	0	0	0	52
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		27	24	0	0	0	0	0	51
Total:		27	24	0	0	0	0	0	51

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Special Work Equipment - Generation Plant**

BCL/Program Name:	A4 Power Supply - Power Supply Other	BCL/Program Code:	SCL250-A4
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	6102	End Date:	Q4/2022
Location:	Outside the City of Seattle		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides for the purchase of machinery and tools, and special work equipment to be used for operations activities of the Generation Branch, which include all the utility's generating sites, to ensure timely and efficient maintenance of generation facilities. Purchases are based on a five-year plan to ensure updates for technological improvements.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	12,614	1,538	929	951	1,429	1,464	1,038	1,063	21,026
Total:	12,614	1,538	929	951	1,429	1,464	1,038	1,063	21,026
Fund Appropriations/Allocations									
City Light Fund	12,614	1,538	929	951	1,429	1,464	1,038	1,063	21,026
Total*:	12,614	1,538	929	951	1,429	1,464	1,038	1,063	21,026
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		994	929	951	1,429	1,464	1,038	1,063	7,868
Total:		994	929	951	1,429	1,464	1,038	1,063	7,868

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Special Work Equipment - Other Plant**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2001
Project ID:	9102	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides new tools and work equipment to replace old or broken tools for all individual City Light units, except those required at the generation plants or substations, which have their own capital projects for special work equipment. The project ensures that field crews and other employees can accomplish their work assignments. The project supports the Department's goals of safety, productivity and employee morale.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	20,728	1,186	1,077	1,102	1,129	1,156	1,184	1,212	28,774
Total:	20,728	1,186	1,077	1,102	1,129	1,156	1,184	1,212	28,774
Fund Appropriations/Allocations									
City Light Fund	20,728	1,186	1,077	1,102	1,129	1,156	1,184	1,212	28,774
Total*:	20,728	1,186	1,077	1,102	1,129	1,156	1,184	1,212	28,774
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		882	1,077	1,102	1,129	1,156	1,184	1,212	7,742
Total:		882	1,077	1,102	1,129	1,156	1,184	1,212	7,742

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Special Work Equipment - Shops**

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8389	End Date:	Q4/2022
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides new tools and work equipment to replace outdated equipment and testing software that is no longer supported. The project updates technical systems to current standards and provides the tools to ensure that City Light transformers are safe and will last up to and beyond the average life span for this equipment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	1,178	293	300	307	314	322	330	338	3,382
Total:	1,178	293	300	307	314	322	330	338	3,382
Fund Appropriations/Alloc	cations								
City Light Fund	1,178	293	300	307	314	322	330	338	3,382
Total*:	1,178	293	300	307	314	322	330	338	3,382
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		214	300	307	314	322	330	338	2,125
Total:		214	300	307	314	322	330	338	2,125

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## Special Work Equipment - Tech Metering

BCL/Program Name:	C3 Distribution - Radial	<b>BCL/Program Code:</b>	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	8485	End Date:	Q4/2023
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This ongoing project provides new work equipment to replace old or broken tools (that cost more than \$5000) for Tech Metering. The project supports the Department's goals of safety, productivity and employee morale.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	205	210	215	220	225	231	1,306
Total:	0	0	205	210	215	220	225	231	1,306
Fund Appropriations/Alloca	ations 0	0	205	210	215	220	225	231	1,306
Total*:	0	0	205	210	215	220	225	231	1,306

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## State Route 520 Bridge Relocations

BCL/Program Name:	D2 External Projects - Transportation Relocations	BCL/Program Code:	SCL370-D2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2016
Project ID:	8435	End Date:	Q4/2021
Location:	SR 520 / Lake Washington		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project relocates electrical infrastructure to support WSDOT's replacement of the State Route 520 Bridge from Montlake to I-5. This project is projected to be fully reimbursable to SCL from WSDOT.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	598	597	429	236	44	22	0	1,926
Total:	0	598	597	429	236	44	22	0	1,926
Fund Appropriations/Alloc	cations								
City Light Fund	0	598	597	429	236	44	22	0	1,926
Total*:	0	598	597	429	236	44	22	0	1,926
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		54	597	429	236	44	22	0	1,382
Total:		54	597	429	236	44	22	0	1,382

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Stormwater Compliance**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	9236	End Date:	Q4/2020
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	Council District:	
Neighborhood District:		Urban Village:	

The new project will fund the installation of lighted canopies and the associated drainage improvements that would be necessary to bring City Light into compliance with the current rules and regulations. As a result of a City wide storm water audit and several surprise inspections from the Department of Ecology, it was discovered that there are several areas where measures are needed to bring City Light's storm water protection program into compliance. Some of our facilities drain directly to Superfund sites and the successful implementation of a compliant storm water system not only reduces our liability in the short term, but it has a direct impact on the amount of funding we may be ordered to provide for the cleanup of current and future Superfund sites. Currently, City Light stores raw materials (gravel, cold mix, backfill material, vegetative matter), salvage material (wire, metal products, electronics, transformers, poles) and warehouse materials (timbers, unfinished metal, galvanized poles) outside, where product can leach into the drainage systems.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	501	501	501	501	0	0	2,004
Total:	0	0	501	501	501	501	0	0	2,004
Fund Appropriations/Alloc	ations								
City Light Fund	0	0	501	501	501	501	0	0	2,004
Total*:	0	0	501	501	501	501	0	0	2,004

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Streetlight Infrastructure Replacement**

BCL/Program Name:	D1 External Projects - Local Jurisdictions	BCL/Program Code:	SCL370-D1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	8460	End Date:	Q4/2023
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This ongoing project will replace 1,603, or 33 percent, of the highest priority streetlights and related underground infrastructure identified in the Streetlight Horizon Plan over the six-year planning horizon. Streetlight infrastructure that will be replaced includes poles, fixtures, conduits, hand holes, and wiring. Emphasis will be placed on standardization of fixtures, construction materials, and construction methods. This project will provide the engineering resources needed to prioritize replacements, develop estimates, and manage and track construction.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	6,459	5,066	3,098	3,170	3,296	3,966	4,360	4,184	33,599
Total:	6,459	5,066	3,098	3,170	3,296	3,966	4,360	4,184	33,599
Fund Appropriations/Allocations									
City Light Fund	6,459	5,066	3,098	3,170	3,296	3,966	4,360	4,184	33,599
Total*:	6,459	5,066	3,098	3,170	3,296	3,966	4,360	4,184	33,599
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		4,291	3,098	3,170	3,296	3,966	4,360	4,184	26,365
Total:		4,291	3,098	3,170	3,296	3,966	4,360	4,184	26,365

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## Streetlight LED Conversion Program

BCL/Program Name:	D1 External Projects - Local Jurisdictions	BCL/Program Code:	SCL370-D1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2010
Project ID:	8441	End Date:	Q4/2023
Location:	Citywide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	More than one
Neighborhood District:	In more than one District	Urban Village:	In more than one Urban Village

This project upgrades streetlights with LED fixtures, which will reduce annual energy consumption by 40% (for those lights replaced), provide Greenhouse Gas avoidance of 5,446 metric tons of carbon per year, and reduce maintenance cost of the Utility's streetlight system. With a total system conversion, it is estimated that annual operating costs will be reduced \$3.7 Million per year. The savings in energy and maintenance costs will pay for the initial investment within the life of the new system.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	25,189	8,048	5,799	5,435	6,090	6,993	6,773	6,933	71,260
Total:	25,189	8,048	5,799	5,435	6,090	6,993	6,773	6,933	71,260
Fund Appropriations/Allocations									
City Light Fund	25,189	8,048	5,799	5,435	6,090	6,993	6,773	6,933	71,260
Total*:	25,189	8,048	5,799	5,435	6,090	6,993	6,773	6,933	71,260
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		6,323	5,799	5,435	6,090	6,993	6,773	6,933	44,346
Total:		6,323	5,799	5,435	6,090	6,993	6,773	6,933	44,346

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	D1 External Projects - Local Jurisdictions	BCL/Program Code:	SCL370-D1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8378	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

#### Streetlights: Arterial, Residential and Floodlights

This ongoing project provides street lighting as requested by various taxing jurisdictions and other customers. Streetlights and floodlights are provided in public right of way, and on private property, for either public or private benefit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	24,063	5,041	3,495	3,494	3,756	4,258	4,946	5,067	54,120
Total:	24,063	5,041	3,495	3,494	3,756	4,258	4,946	5,067	54,120
Fund Appropriations/Allocations									
City Light Fund	24,063	5,041	3,495	3,494	3,756	4,258	4,946	5,067	54,120
Total*:	24,063	5,041	3,495	3,494	3,756	4,258	4,946	5,067	54,120
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		4,744	3,495	3,494	3,756	4,258	4,946	5,067	29,760
Total:		4,744	3,495	3,494	3,756	4,258	4,946	5,067	29,760

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Substation Automation**

BCL/Program Name:	C1 Distribution - Substations	<b>BCL/Program Code:</b>	SCL360-C1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2011
Project ID:	8424	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces and upgrades substation automation systems, including Remote Terminal Units (RTU) and annunciators, in each of City Light's fourteen substations, and upgrades equipment at two substations annually. The project reduces the likelihood and length of system outages due to failure as the current equipment is wearing out and cannot be replaced in kind because the equipment is no longer manufactured. The project also enhances energy efficiency, and reduces the probability of fines from appropriate governing bodies if loss of a substation, due to equipment failure, causes instability of the western interconnection grid and/or loss of load.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	6,057	756	1,390	1,505	1,776	1,804	1,385	1,393	16,066
Total:	6,057	756	1,390	1,505	1,776	1,804	1,385	1,393	16,066
Fund Appropriations/Allocations									
City Light Fund	6,057	756	1,390	1,505	1,776	1,804	1,385	1,393	16,066
Total*:	6,057	756	1,390	1,505	1,776	1,804	1,385	1,393	16,066
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		755	1,390	1,505	1,776	1,804	1,385	1,393	10,008
Total:		755	1,390	1,505	1,776	1,804	1,385	1,393	10,008

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Substation Breaker Replacements and Reliability Additions**

BCL/Program Name:	C1 Distribution - Substations	<b>BCL/Program Code:</b>	SCL360-C1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2006
Project ID:	7779	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds the review of City Light's inventory of approximately 400 transmission and distribution voltage circuit breakers. It determines which have the greatest wear, gas or oil leaks, maintenance cost, service stress, and fault interrupting history. It replaces those circuit breakers with the highest failure risk. This project also replaces transformer bank breakers at Union Street substation to support load growth.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	28,442	5,072	6,243	4,854	5,651	5,239	6,098	5,985	67,584
Total:	28,442	5,072	6,243	4,854	5,651	5,239	6,098	5,985	67,584
Fund Appropriations/Allocations									
City Light Fund	28,442	5,072	6,243	4,854	5,651	5,239	6,098	5,985	67,584
Total*:	28,442	5,072	6,243	4,854	5,651	5,239	6,098	5,985	67,584
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		4,515	6,243	4,854	5,651	5,239	6,098	5,985	38,585
Total:		4,515	6,243	4,854	5,651	5,239	6,098	5,985	38,585

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

## **Substation Capacity Additions**

BCL/Program Name:	C1 Distribution - Substations	BCL/Program Code:	SCL360-C1
Project Type:	New Facility	Start Date:	Q1/2001
Project ID:	7751	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project adds new infrastructure to existing substations and systems, adds capacity to existing substations to meet increasing load demands, and enhances safety, reliability, and efficiency in the transmission of power from the substations to the distribution system.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	11,094	2,069	1,864	2,057	2,208	2,511	2,096	2,196	26,095
Total:	11,094	2,069	1,864	2,057	2,208	2,511	2,096	2,196	26,095
Fund Appropriations/Allocations									
City Light Fund	11,094	2,069	1,864	2,057	2,208	2,511	2,096	2,196	26,095
Total*:	11,094	2,069	1,864	2,057	2,208	2,511	2,096	2,196	26,095
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,547	1,864	2,057	2,208	2,511	2,096	2,196	14,479
Total:		1,547	1,864	2,057	2,208	2,511	2,096	2,196	14,479

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Substation Comprehensive Improvements

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	New Facility	Start Date:	Q1/2001
Project ID:	9161	End Date:	Q4/2021
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds substation improvements identified in City Light's Comprehensive Facilities Plan, seismic fitness reports, and periodic inspections targeting transmission and distribution buildings. The project implements items necessary to support assigned personnel, such as lunchroom and locker room facilities required by the union contracts, as well as structural and mechanical corrections and enhancements at substation facilities.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	3,823	270	273	283	266	269	274	0	5,458
Total:	3,823	270	273	283	266	269	274	0	5,458
Fund Appropriations/Allo	cations								
City Light Fund	3,823	270	273	283	266	269	274	0	5,458
Total*:	3,823	270	273	283	266	269	274	0	5,458
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		292	273	283	266	269	274	0	1,657
Total:		292	273	283	266	269	274	0	1,657

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Substation Equipment Improvements**

<b>BCL/Program Name:</b>	C1 Distribution - Substations	<b>BCL/Program Code:</b>	SCL360-C1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2001
Project ID:	7752	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project adds, replaces and upgrades substation equipment, particularly the substation electrical and control equipment. The project maintains or improves system reliability, permits compliance with high voltage and environmental regulations, and ensures safe work sites. The project allows remote control and monitoring of substation equipment from the System Control Center, which facilitates faster response time to correct system instability or outages.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	59,830	5,963	5,310	6,092	6,901	6,915	6,655	6,302	103,968	
Total:	59,830	5,963	5,310	6,092	6,901	6,915	6,655	6,302	103,968	
Fund Appropriations/Allocations										
City Light Fund	59,830	5,963	5,310	6,092	6,901	6,915	6,655	6,302	103,968	
Total*:	59,830	5,963	5,310	6,092	6,901	6,915	6,655	6,302	103,968	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		5,192	5,310	6,092	6,901	6,915	6,655	6,302	43,367	
Total:		5,192	5,310	6,092	6,901	6,915	6,655	6,302	43,367	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Substation Plant Improvements**

BCL/Program Name:	C1 Distribution - Substations	<b>BCL/Program Code:</b>	SCL360-C1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2001
Project ID:	7750	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project upgrades and retrofits substation buildings, their facilities and systems, and related structures. The project includes environmental improvements, and removal and replacement of outdated utilities and structures. The project provides station security, safe working conditions, and improvements in related services, such as water, sewer, and lighting.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	8,838	1,161	925	946	971	951	1,208	1,539	16,539
Total:	8,838	1,161	925	946	971	951	1,208	1,539	16,539
Fund Appropriations/Alloc	cations								
City Light Fund	8,838	1,161	925	946	971	951	1,208	1,539	16,539
Total*:	8,838	1,161	925	946	971	951	1,208	1,539	16,539
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,077	925	946	971	951	1,208	1,539	7,617
Total:		1,077	925	946	971	951	1,208	1,539	7,617

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Substation Transformer Replacements

BCL/Program Name:	C1 Distribution - Substations	BCL/Program Code:	SCL360-C1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	7776	End Date:	Q4/2026
Location:	2136 N 163rd St, Shoreline		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Outside Seattle
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project funds the review of power transformers at substations and determines dissolved gas concentration, insulation aging, oil leaks, maintenance cost, service stress, and fault interrupting history. The project replaces transformers with the highest failure risk, or those presenting substation capacity limits. The project enhances system reliability by replacing aging substation transformers before they fail in service. This project now includes the former projects 7778, Canal Substation - Transformer Replacements, 7810, Massachusetts Street Substation - Transformer Replacements, 7811, East Pine Substation - Transformer Replacements, and 7812, Bothell Substation - Transformer Replacements. They have been merged into this project, 7776, formerly North Substation - Transformer Replacements, to create a program to cover all substation transformers.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	4,149	6,510	402	2,377	2,607	3,658	5,012	4,811	29,526
Total:	4,149	6,510	402	2,377	2,607	3,658	5,012	4,811	29,526
Fund Appropriations/Alloc	ations								
City Light Fund	4,149	6,510	402	2,377	2,607	3,658	5,012	4,811	29,526
Total*:	4,149	6,510	402	2,377	2,607	3,658	5,012	4,811	29,526
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		4,183	2,253	2,586	2,647	3,658	5,012	4,811	25,150
Total:		4,183	2,253	2,586	2,647	3,658	5,012	4,811	25,150

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Substations Demand Driven Improvements**

BCL/Program Name:	C1 Distribution - Substations	BCL/Program Code:	SCL360-C1
Project Type:	New Facility	Start Date:	Q1/2001
Project ID:	7755	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project enables City Light to perform cooperative work on shared lines and systems that other electrical utilities in the region periodically ask City Light to do.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	5,811	5	6	6	6	6	6	6	5,852
Total:	5,811	5	6	6	6	6	6	6	5,852
Fund Appropriations/Alloc	ations								
City Light Fund	5,811	5	6	6	6	6	6	6	5,852
Total*:	5,811	5	6	6	6	6	6	6	5,852
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		5	6	6	6	6	6	6	41
Total:		5	6	6	6	6	6	6	41

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Substations Oil Containment**

<b>BCL/Program Name:</b>	C1 Distribution - Substations	<b>BCL/Program Code:</b>	SCL360-C1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2008
Project ID:	7783	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project will bring City Light's Power Substations into compliance with the federal Clean Water Act. By federal law, owners or operators of oil containing equipment, such as our substation transformers, must provide facilities that will prevent spilled oil from reaching any streams or open bodies of water.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	10	280	337	344	339	346	227	602	2,485
Total:	10	280	337	344	339	346	227	602	2,485
Fund Appropriations/Alloc	cations								
City Light Fund	10	280	337	344	339	346	227	602	2,485
Total*:	10	280	337	344	339	346	227	602	2,485
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		208	337	344	339	346	227	602	2,403
Total:		208	337	344	339	346	227	602	2,403

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	New Facility	Start Date:	Q1/2015
Project ID:	9230	End Date:	Q4/2019
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

#### Technical Training Center Development

Seattle City Light is seeking to develop a dedicated, state-of-art Technical Training Center that provides educational needs for classroom instruction and field experience training opportunities for entry-level as well as seasoned Utility service workers of SCL. The chosen site for the Technical Training Center is on an undeveloped parcel of land, west of the Duwamish River and north of the Duwamish Substation, located at 10,000 West Marginal Place South, Tukwila, WA 98108 in unincorporated King County. The classroom building, a single story, wood-framed structure, houses a number of instructional classrooms, hands-or learning environments and building support areas. The overall building's square footage is 9,000 SF and the overall training yard area is 5.75 acres. The design program focuses on flexible, hands-on instructional environments in both the Classroom Building and the Yard. These spaces include: three flexible Classrooms, Computer Lab, Bug Room, Substation Training Area, Vault Training Area, Overhead & Underground Distribution Area, Commercial & Residential Service Area, Pole Climbing Area, Crane Training Area, Commercial License Certification Area and Civil Construction Training Area. There are several shared building support spaces required which include: Administration Office, Break Room, Kitchen, Copy Room and Restrooms.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	1,847	11,309	725	484	122	0	0	0	14,487
Total:	1,847	11,309	725	484	122	0	0	0	14,487
Fund Appropriations/Allo	cations								
City Light Fund	1,847	11,309	725	484	122	0	0	0	14,487
Total*:	1,847	11,309	725	484	122	0	0	0	14,487
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		179	8,917	1,865	643	0	0	0	11,604
Total:		179	8,917	1,865	643	0	0	0	11,604

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Tool Room Automation**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	New Facility	Start Date:	Q1/2016
Project ID:	9965	End Date:	Q4/2017
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	Council District:	
Neighborhood District:		Urban Village:	

This project funds the purchase and implementation of a software solution to improve accountability of the tool room budget and tracking of tools. The project will provide electronic means of tracking tool inventory, age and condition of tools, tool check out and return, and costs to maintain them. It will also include process redesign and a complete inventory audit.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	989	232	0	0	0	0	0	1,221
Total:	0	989	232	0	0	0	0	0	1,221
Fund Appropriations/Alloc	ations								
City Light Fund	0	989	232	0	0	0	0	0	1,221
Total*:	0	989	232	0	0	0	0	0	1,221
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		386	398	0	0	0	0	0	784
Total:		386	398	0	0	0	0	0	784

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Transmission & Generation Radio Systems**

BCL/Program Name:	C5 Distribution - Distribution Other	BCL/Program Code:	SCL360-C5
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	9108	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project builds or replaces communications infrastructure consisting of fiber optic rings, digital microwave, telephone networks, and two-way radio systems. This project provides City Light with command and control capabilities for the operation of the electrical system. This project ensures the safe, reliable, and efficient operation of the system and positions City Light to meet the Federal Energy Regulatory Commission's vital communications systems requirements.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	15,005	294	1,223	1,347	752	947	991	1,006	21,565
Total:	15,005	294	1,223	1,347	752	947	991	1,006	21,565
Fund Appropriations/Allocations									
City Light Fund	15,005	294	1,223	1,347	752	947	991	1,006	21,565
Total*:	15,005	294	1,223	1,347	752	947	991	1,006	21,565
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		548	1,223	1,347	752	947	991	1,006	6,814
Total:		548	1,223	1,347	752	947	991	1,006	6,814

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Transmission Capacity**

<b>BCL/Program Name:</b>	B1 Transmission - Transmission	<b>BCL/Program Code:</b>	SCL360-B1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	7011	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project upgrades transmission lines, builds new lines, relocates lines, and provides for other system needs related to the transmission system. The project enhances City Light's transmission capacity, which is the available power capacity to meet the load on the transmission system.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	10,822	2,060	32	24	25	25	11	22	13,021
Total:	10,822	2,060	32	24	25	25	11	22	13,021
Fund Appropriations/Allocations									
City Light Fund	10,822	2,060	32	24	25	25	11	22	13,021
Total*:	10,822	2,060	32	24	25	25	11	22	13,021
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		1,333	32	24	25	25	11	22	1,472
Total:		1,333	32	24	25	25	11	22	1,472

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Transmission Inter-Agency**

BCL/Program Name:	B1 Transmission - Transmission	BCL/Program Code:	SCL360-B1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2001
Project ID:	7105	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides demand-driven improvements to City Light's transmission system, including reimbursable transmission work and relocations of transmission equipment to meet customer, other utility, agency, and regulatory requirements. It permits Seattle City Light to meet its duties to relocate facilities at the request of other agencies.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,208	665	591	603	617	627	638	605	6,554
Total:	2,208	665	591	603	617	627	638	605	6,554
Fund Appropriations/Alloc	cations								
City Light Fund	2,208	665	591	603	617	627	638	605	6,554
Total*:	2,208	665	591	603	617	627	638	605	6,554
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		835	591	603	617	627	638	605	4,516
Total:		835	591	603	617	627	638	605	4,516

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Transmission Line Inductor Installation**

<b>BCL/Program Name:</b>	B1 Transmission - Transmission	BCL/Program Code:	SCL360-B1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	8461	End Date:	Q4/2019
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project addresses the issue of increased electric transmission congestion load growth in the Puget Sound Area. The project funds the installation of inductors or phase shifting transformers which curtail the flow of power through the Seattle area, while improving customer and asset strengths and maintaining reliability.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,824	8,298	1,429	6,522	1,583	0	0	0	20,656
Total:	2,824	8,298	1,429	6,522	1,583	0	0	0	20,656
Fund Appropriations/Allocations									
City Light Fund	2,824	8,298	1,429	6,522	1,583	0	0	0	20,656
Total*:	2,824	8,298	1,429	6,522	1,583	0	0	0	20,656
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		2,584	6,541	6,522	1,583	0	0	0	17,230
Total:		2,584	6,541	6,522	1,583	0	0	0	17,230

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Transmission Line Reconductoring

<b>BCL/Program Name:</b>	B1 Transmission - Transmission	BCL/Program Code:	SCL360-B1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	8462	End Date:	Q4/2018
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This project addresses the issue of increased electric transmission congestion load growth in the Puget Sound Area by increasing the capacity of the Bothell-SnoKing double circuit 230kv line to meet area reliability requirements. The project funds the re-conductoring of both the Bothell-SnoKing double circuit 230kV line and the Delridge-Duwamish 230kV line to increase capacity and meet regional reliability requirements.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	303	7,607	129	229	0	0	0	0	8,268
Total:	303	7,607	129	229	0	0	0	0	8,268
Fund Appropriations/Allocations									
City Light Fund	303	7,607	129	229	0	0	0	0	8,268
Total*:	303	7,607	129	229	0	0	0	0	8,268
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		527	3,029	1,629	0	0	0	0	5,185
Total:		527	3,029	1,629	0	0	0	0	5,185

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Transmission Reliability**

BCL/Program Name:	B1 Transmission - Transmission	<b>BCL/Program Code:</b>	SCL360-B1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2001
Project ID:	7104	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces the worst one percent of City Light's transmission structures and conductors each year. This project also provides engineering, construction, and related work; improving and maintaining the reliability of the overhead or underground transmission system.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	20,598	4,071	3,106	3,169	3,239	3,306	2,879	3,936	44,304	
Total:	20,598	4,071	3,106	3,169	3,239	3,306	2,879	3,936	44,304	
Fund Appropriations/Allocations										
City Light Fund	20,598	4,071	3,106	3,169	3,239	3,306	2,879	3,936	44,304	
Total*:	20,598	4,071	3,106	3,169	3,239	3,306	2,879	3,936	44,304	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		4,261	3,106	3,169	3,239	3,306	2,879	3,936	23,896	
Total:		4,261	3,106	3,169	3,239	3,306	2,879	3,936	23,896	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Transportation Streetlights**

BCL/Program Name:	D1 External Projects - Local Jurisdictions	BCL/Program Code:	SCL370-D1
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2008
Project ID:	8377	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	Council District:	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project relocates Seattle City Light owned streetlights as required by City of Seattle transportation projects.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	10,792	2,740	4,407	4,225	3,999	4,010	4,092	7,104	41,369	
Total:	10,792	2,740	4,407	4,225	3,999	4,010	4,092	7,104	41,369	
Fund Appropriations/Allocations										
City Light Fund	10,792	2,740	4,407	4,225	3,999	4,010	4,092	7,104	41,369	
Total*:	10,792	2,740	4,407	4,225	3,999	4,010	4,092	7,104	41,369	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		2,618	4,407	4,225	3,999	4,010	4,092	7,104	30,455	
Total:		2,618	4,407	4,225	3,999	4,010	4,092	7,104	30,455	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Underground 26kV Conversion

BCL/Program Name:	C3 Distribution - Radial	<b>BCL/Program Code:</b>	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8362	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces the 4 kV electrical equipment remaining in the electrical distribution system with new, efficient and reliable 26 kV distribution equipment. This project increases capacity to deliver power to City Light customers, rebuilds and maintains the backbone of the system, saves energy by reducing transformer and line losses, improves quality and reliability of service to customers, and releases unit substation properties for better neighborhood uses.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	5,489	2,533	1,677	2,028	2,522	2,550	2,775	4,159	23,733	
Total:	5,489	2,533	1,677	2,028	2,522	2,550	2,775	4,159	23,733	
Fund Appropriations/Allocations										
City Light Fund	5,489	2,533	1,677	2,028	2,522	2,550	2,775	4,159	23,733	
Total*:	5,489	2,533	1,677	2,028	2,522	2,550	2,775	4,159	23,733	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		1,315	1,677	2,028	2,522	2,550	2,775	4,159	17,026	
Total:		1,315	1,677	2,028	2,522	2,550	2,775	4,159	17,026	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Underground Customer Driven Capacity Additions**

BCL/Program Name:	C3 Distribution - Radial	<b>BCL/Program Code:</b>	SCL360-C3
Project Type:	New Facility	Start Date:	Q1/2007
Project ID:	8360	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides electrical lines from substations to customers' property lines. This project builds new and replaces old underground line segments, and may replace rotten and damaged poles in the distribution system that have underground facilities beneath them. This work is driven by specific customer projects, for their direct benefit, to identify and upgrade feeders that are impacted before the new load from those projects comes online. City Light is reimbursed by the customers for this work.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	28,119	2,949	2,200	2,237	2,403	2,292	2,298	3,687	46,185	
Total:	28,119	2,949	2,200	2,237	2,403	2,292	2,298	3,687	46,185	
Fund Appropriations/Allocations										
City Light Fund	28,119	2,949	2,200	2,237	2,403	2,292	2,298	3,687	46,185	
Total*:	28,119	2,949	2,200	2,237	2,403	2,292	2,298	3,687	46,185	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		4,352	2,200	2,237	2,403	2,292	2,298	3,687	19,469	
Total:		4,352	2,200	2,237	2,403	2,292	2,298	3,687	19,469	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Underground Equipment Replacements**

BCL/Program Name:	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2009
Project ID:	8353	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project replaces and improves underground electrical system equipment that is failing or approaching the end of its useful life. This project enhances distribution system reliability, avoiding unplanned outages or interruption of service due to equipment failure.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	32,476	12,728	11,156	10,367	10,519	8,695	14,963	16,947	117,851	
Total:	32,476	12,728	11,156	10,367	10,519	8,695	14,963	16,947	117,851	
Fund Appropriations/Allocations										
City Light Fund	32,476	12,728	11,156	10,367	10,519	8,695	14,963	16,947	117,851	
Total*:	32,476	12,728	11,156	10,367	10,519	8,695	14,963	16,947	117,851	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		11,728	12,056	10,367	10,519	8,695	14,963	16,947	85,275	
Total:		11,728	12,056	10,367	10,519	8,695	14,963	16,947	85,275	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Underground Outage Replacements**

BCL/Program Name:	C4 Distribution - Service Connections	BCL/Program Code:	SCL370-C4
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8352	End Date:	Q4/2023
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project supports the capitalized portion of work resulting from unplanned, non-emergency, underground outages These outages result from events, such as storms, accidents, and equipment failures. The project funds permanent storm repairs, and construction of new infrastructure to bypass failing equipment.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	18,619	1,126	1,165	1,184	1,535	1,978	2,012	1,672	29,291	
Total:	18,619	1,126	1,165	1,184	1,535	1,978	2,012	1,672	29,291	
Fund Appropriations/Allocations										
City Light Fund	18,619	1,126	1,165	1,184	1,535	1,978	2,012	1,672	29,291	
Total*:	18,619	1,126	1,165	1,184	1,535	1,978	2,012	1,672	29,291	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		435	1,165	1,184	1,535	1,978	2,012	1,672	9,981	
Total:		435	1,165	1,184	1,535	1,978	2,012	1,672	9,981	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **Underground System Capacity Additions**

<b>BCL/Program Name:</b>	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2007
Project ID:	8361	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project provides electrical lines from substations to customers' property lines. This project builds new and replaces old underground lines, and may replace rotten and damaged poles in the distribution system with underground facilities beneath them. This work identifies and upgrades the feeders that are impacted by increased loads, as needed, before those load increases come online. City Light customers pay for a portion of this work.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	30,839	3,451	2,904	2,954	3,027	2,453	4,375	4,353	54,356	
Total:	30,839	3,451	2,904	2,954	3,027	2,453	4,375	4,353	54,356	
Fund Appropriations/Allocations										
City Light Fund	30,839	3,451	2,904	2,954	3,027	2,453	4,375	4,353	54,356	
Total*:	30,839	3,451	2,904	2,954	3,027	2,453	4,375	4,353	54,356	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		2,350	2,904	2,954	3,027	2,453	4,375	4,353	22,416	
Total:		2,350	2,904	2,954	3,027	2,453	4,375	4,353	22,416	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### **Union Street Substation Networks**

BCL/Program Name:	C2 Distribution - Network	BCL/Program Code:	SCL360-C2
Project Type:	New Facility	Start Date:	Q1/1999
Project ID:	8201	End Date:	Q4/2026
Location:	1312 Western AV		
Neighborhood Plan:	Commercial Core	Council District:	7
Neighborhood District:	Downtown	Urban Village:	Commercial Core

This ongoing project increases the Union Street Substation network capacity to provide sufficient and reliable electrical capacity for the growing power needs of our customers. It funds a programmatic approach for the comprehensive management of underground network assets serving customers in the area bounded by Yesler Street, Alaskan Way, Pike Street, 6th Avenue Union Street, the Freeway, University Street, 3rd Avenue, and the Waterfront area from Denny to Yesler.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	27,512	2,415	2,540	2,590	2,636	2,753	2,986	3,041	46,473	
Total:	27,512	2,415	2,540	2,590	2,636	2,753	2,986	3,041	46,473	
Fund Appropriations/Allocations										
City Light Fund	27,512	2,415	2,540	2,590	2,636	2,753	2,986	3,041	46,473	
Total*:	27,512	2,415	2,540	2,590	2,636	2,753	2,986	3,041	46,473	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		2,059	2,540	2,590	2,636	2,753	2,986	3,041	18,605	
Total:		2,059	2,540	2,590	2,636	2,753	2,986	3,041	18,605	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### **University Substation - Network**

BCL/Program Name:	C2 Distribution - Network	BCL/Program Code:	SCL360-C2
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2015
Project ID:	8464	End Date:	Q4/2023
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	<b>Council District:</b>	
Neighborhood District:		Urban Village:	

This ongoing project funds a programmatic approach for comprehensive management of underground network assets serving customers in the University area. This project funds annual work required, such as feeder balancing, engineering analysis to determine system feeder assignments for new services, and replacement of cables that fail while in service. It reduces the probability of cable failures and long costly customer outages.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	2,771	457	383	390	396	482	497	505	5,881
Total:	2,771	457	383	390	396	482	497	505	5,881
Fund Appropriations/Allo	cations								
City Light Fund	2,771	457	383	390	396	482	497	505	5,881
Total*:	2,771	457	383	390	396	482	497	505	5,881
O & M Costs (Savings)			0	0	0	0	0	0	0
Spending Plan by Fund									
City Light Fund		382	383	390	396	482	497	505	3,035
Total:		382	383	390	396	482	497	505	3,035

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Vista Switch Automation

BCL/Program Name:	C3 Distribution - Radial	BCL/Program Code:	SCL360-C3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2018
Project ID:	8483	End Date:	Q4/2022
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	Council District:	
Neighborhood District:		Urban Village:	

This project funds the installation and maintenance of supervisory controls and System Control Center communication infrastructure upgrades for existing Vista Switches, which will increase safety measures for crew that work on distribution Vista switches. Updating vista switches for Supervisory Control and Data Acquisition (SCADA) remote control or distributior automation will allow operating switches remotely and eliminate the cost of dispatching a crew to perform work.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	0	401	801	801	801	801	3,605
Total:	0	0	0	401	801	801	801	801	3,605
Fund Appropriations/Alloca	ntions 0	0	0	401	801	801	801	801	3,605
Total*:	0	0	0	401	801	801	801	801	3,605

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

#### Western Energy Imbalance Market

BCL/Program Name:	A4 Power Supply - Power Supply Other	<b>BCL/Program Code:</b>	SCL250-A4
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/2017
Project ID:	9976	End Date:	Q4/2018
Location:			
Neighborhood Plan:	Not in Neighborhood Plan	Council District:	
Neighborhood District:		Urban Village:	

The new project will provide funding to allow City Light to participate in the Western energy imbalance market (EIM) run by the California Independent System Operator (CAISO). City Light will need IT systems, an implementation agreement with CAISO, possible additional staff and training to participate in the market. Participation will allow City Light to more efficiently use generation and transmission assets, buy and sell energy in shorter term increments, and use pricing to match loads and resources across more buyers and sellers than existing markets currently permit. By doing this, City Light will more effectively integrate renewable energy across the West due to its flexible hydro capacity. City Light is planning to begin participating in the market in the spring of 2018.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total
Revenue Sources									
City Light Fund Revenues	0	0	3,470	5,548	0	0	0	0	9,018
Total:	0	0	3,470	5,548	0	0	0	0	9,018
Fund Appropriations/Alloca	ations								
City Light Fund	0	0	3,470	5,548	0	0	0	0	9,018
Total*:	0	0	3,470	5,548	0	0	0	0	9,018

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.

### Workplace and Process Improvement

BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities	BCL/Program Code:	SCL250-E3
Project Type:	Rehabilitation or Restoration	Start Date:	Q1/1999
Project ID:	9159	End Date:	Q4/2026
Location:	System Wide		
Neighborhood Plan:	Not in a Neighborhood Plan	<b>Council District:</b>	Citywide
Neighborhood District:	Not in a Neighborhood District	Urban Village:	Not in an Urban Village

This ongoing project funds alterations that preserve workplace efficiency. The project focuses on adapting exterior work spaces and interior building elements to support business process improvements for occupant work groups. Interior systems improvements could include flooring replacements, interior remodeling, computer network cabling upgrades, uninterruptible power systems and computer flooring. Exterior system improvements could include fencing, security systems, paving and striping, and exterior building components.

	LTD Actuals	2016 Rev	2017	2018	2019	2020	2021	2022	Total	
Revenue Sources										
City Light Fund Revenues	5,002	1,573	2,362	1,338	2,076	1,954	2,309	2,343	18,957	
Total:	5,002	1,573	2,362	1,338	2,076	1,954	2,309	2,343	18,957	
Fund Appropriations/Allocations										
City Light Fund	5,002	1,573	2,362	1,338	2,076	1,954	2,309	2,343	18,957	
Total*:	5,002	1,573	2,362	1,338	2,076	1,954	2,309	2,343	18,957	
O & M Costs (Savings)			0	0	0	0	0	0	0	
Spending Plan by Fund										
City Light Fund		941	2,362	1,338	2,076	1,954	2,309	2,343	13,323	
Total:		941	2,362	1,338	2,076	1,954	2,309	2,343	13,323	

\* Funds are appropriated through the Adopted Budget at the Budget Control Level. Amounts shown above are in thousands of dollars.