## 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 square-mile 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 16 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 430,000 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 six-year rate path for the utility. The updated Strategic Plan guides development of City Light's 2018-2023 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 2018-2023 Proposed CIP budget outlines \$2.3 billion in capital spending over six years for power supply, transmission, distribution, customer services, and central utility needs. In 2018, approximately \$44.6 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 2018-2023 is provided below.

## **CIP Expenditure by Major Program**

The 2018-2023 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 2018-2023 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.

	2018	2019	2020	2021	2022	2023	Total
Power Supply	90,331	83,287	91,453	88,817	98,662	52,557	505,107
Boundary	51,511	46,529	54,724	50,347	45,832	28,964	277,907
Cedar Falls - Tolt	2,736	4,520	5,130	6,490	3,217	0	22,093
Power Supply Other	13,021	6,718	4,323	2,408	2,462	1,219	30,151
Skagit	23,063	25,520	27,276	29,572	47,151	22,374	174,956
Transmission	18,194	11,461	10,246	46,115	4,293	6,010	96,319
Distribution	209,101	192,005	184,534	211,701	219,493	210,095	1,226,929
Distribution Other	11,532	28,516	20,149	24,441	20,793	15,200	120,631
Network	21,815	22,038	30,887	41,942	38,648	39,332	194,662
Radial	68,948	67,366	66,028	71,310	77,887	75,399	426,938
Service Connections	72,525	45,680	40,617	46,255	54,044	53,746	312,867
Substations	34,281	28,405	26 <i>,</i> 853	27,753	28,121	26,418	171,831
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External Projects	44,600	46,666	48,243	32,403	33,865	20,877	226,654
Customer Other	441	1,400	430	156	15	15	2,457
Local Jurisdictions	16,638	17,568	24,621	22,453	27,814	17,317	126,411
Transportation Relocations	27,521	27,698	23,192	9,794	6,036	3,545	97,786
Central Utility Projects	26,667	20,994	25,556	86,775	69,946	14,145	244,083
Customer and Billing	503	53	215	110	226	58	1,165
Finance and IT Systems	4,925	2,866	2,957	2,615	2,125	2,389	17,877
Fleets and Facilities	21,239	18,075	22,384	84,050	67,595	11,698	225,041
Grand Total	388,893	354,413	360,032	465,811	426,259	303,684	2,299,092

	2018-2023 Proposed CIP									
Summary	of CIP Pro	ject 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 2018, the CIP includes \$90.3 million in funding for 72 projects in Power Supply. *Highlights, ordered by project number, include:* 

• Boundary Powerhouse – Unit 51 Generator Rebuild (6351): \$11,024,000

- 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>Boundary Powerhouse Unit 54 Generator Rebuild (6353): \$3,034,000</u> 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.
- <u>Skagit Facility Minor Improvements Program (6405): \$3,491,000</u> This ongoing project provides financial coverage for emergent capital projects related to all Skagit Facilities, which are 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.
- <u>Diablo Powerhouse Rebuild Generator Unit 32 (6423): \$6,491,000</u>
   This project rebuilds Generator 32 at Diablo Powerhouse, which provides 4.4% of the total power Seattle City Light generates. This project is part of the Utility's Generator Rebuild Program, a series of projects designed to maintain and extend the useful life of the utility's aging generators. The program rebuilds ten generators, accounting for 70% of City Light's generating capability.
- <u>Boundary Switchyard Generator Transformers (6493): \$6,168,000</u> 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 City Light to avoid a prolonged loss of generation capacity.
- <u>Skagit Boat Facility Improvements (6540): \$2,443,000</u> 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 boathouses 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.
- <u>Boundary Licensing Mitigation (6987): \$25,593,000</u> This ongoing project implements protection, mitigation and enhancement measures required by the terms and conditions of a settlement agreement and new license to be issued by the Federal Energy Regulatory Commission. The license allows for the continued operation of the Boundary Hydroelectric project, City Light's largest generating station, producing approximately 25 to 40% of the City's power

supply. The project will protect and enhance habitat for native fish and wildlife; increase the total area of land set aside for recreation in the region; and maintain or improve the water quality of the Pend Oreille River and its tributaries. The majority of the \$25.6 million budget for 2018 will be spent on the following: \$15.8 million for the Native Salmonid Conservation Facility, \$2.1 million for Sullivan Creek habitat restoration, \$1.7 million for recreation site improvements, and \$1.6 million for the Mill Pond Dam removal.

#### • Western Energy Imbalance Market (9976): \$9,464,000

This 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 will need IT systems, an implementation agreement with CAISO, possible additional staff, and employee 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 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 2018, the CIP budget includes \$18.2 million in funding for six projects in Transmission. *Highlights, ordered by project number, include:* 

- <u>Transmission Reliability (7104): \$4,257,000</u> 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.
- <u>Denny Substation Transmission Lines (7125): \$5,016,000</u> 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): \$7,580,000</u> 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 2018, \$12 million in funding is provided to support pole attachment work.

For 2018, the CIP includes \$209.1 million in funding for 67 projects in Distribution. *Highlights, ordered by project number, include:* 

- Substation Equipment Improvements (7752): \$6,060,000
  - 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.
- <u>Relaying Improvements (7753): \$4,614,000</u> 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 that enhances detection and management of equipment problems.
- <u>Denny Substation Development (7757): \$10,849,000</u> This project designs and builds a 200 megavolt amperes 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 the Denny Substation Tenant Improvements project 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): \$4,836,000</u> 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 and 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>Massachusetts Street Substation Networks (8202): \$4,206,000</u> 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.
- <u>Overhead Equipment Replacements (8351): \$12,384,000</u> 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): \$11,452,000</u>
   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.
- Overhead Customer Driven Capacity Additions (8355): \$4,334,000 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.

- <u>Network Additions and Services: Broad Street Substation (8363): \$7,200,000</u> 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.
- <u>Medium Overhead and Underground Services (8366): \$14,388,000</u>
   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 City Light to provide service to new customers in a safe, reliable, timely, and cost-effective manner.
- <u>Small Overhead and Underground Services (8367): \$6,267,000</u> 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): \$5,896,000</u>
   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>Advanced Metering Infrastructure (8426): \$31,812,000</u> This project replaces approximately 430,000 existing meters, residential or commercial, with Advanced Meters allowing two-way communication between City Light and its customers. Advanced 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): \$18,351,000</u> 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 that are fully reimbursable.

**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 2018, the CIP includes \$44.6 million in funding for 17 External Projects. *Highlights, ordered by project number, include:* 

• <u>Alaskan Way Viaduct & Seawall Replacement – Utility Relocations (8307): \$15,781,000</u> The project provides for the relocation of utility infrastructure in conjunction with the Washington State Department of Transportation project.

- <u>Overhead and Underground Relocations (8369): \$5,167,000</u> This ongoing project relocates Seattle City Light electrical lines as required by transportation projects.
- <u>Transportation Streetlights (8377): \$4,224,000</u>
   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): \$3,492,000</u> 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): \$5,434,000</u>
   This project upgrades streetlights with LED fixtures to reduce annual energy consumption and utility maintenance costs. The utility recovers costs for this project through streetlight rates.
- <u>Streetlight Infrastructure Program (8460): \$3,170,000</u> This ongoing project will replace the highest priority streetlights and related underground infrastructure identified in the Streetlight Horizon Plan. Streetlight infrastructure replacements include poles, fixtures, conduits, hand holes, and wiring. Emphasis will be placed on the 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): \$4,286,000</u>
   This project provides 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): \$1,604,000</u> This project supports Sound Transit's Lynnwood Link. It will include 100 blocks of relocations. 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 2018, the CIP includes \$26.7 million in funding for 28 Central Utility Projects. *Highlights, ordered by project number, include:* 

- Building Envelope Upgrades (9072): \$1,619,000
  - 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 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 that disrupt utility operations.
- Equipment Fleet Replacement (9101): \$7,639,000 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.

• Workplace and Process Improvement (9159): \$1,339,000

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>Denny Substation Tenant Improvements (9235): \$1,362,000</u>
   The project will program, design, and construct interior improvements within two building shell spaces within the Denny Substation. The two spaces are a southwest shell space that may house a community center or similar public amenity, and a southeast shell space that may house a learning resource center or similar public amenity.
- <u>PeopleSoft Reimplementation City Light (9970): \$2,686,000</u>
   The PeopleSoft reimplementation and upgrade is a citywide effort to replace 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 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 since 2015, the utility targeted and achieved an annual reduction of \$18 million in its baseline operating costs.
- **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.

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 numerous 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 implement Strategic Plan initiatives that improve cyber security and disaster recovery.

## **Project Selection Criteria**

Five 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 Plan is updated every two years to maintain transparency and set direction for future CIP development.

The 2018 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, and finance) prioritize capital spending within their divisions and then submit recommended projects to a centralized capital budgeting system.

City Light management prioritizes capital investment by comparing proposals against criteria that evaluate a project's 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 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.

## **CIP Budget Control Levels in the 2018 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 their operating, the total project allocations in the CIP Programs are higher than the corresponding CIP Budget Control Levels in the 2018-2023 Proposed Budget. A table explaining how the 2018-2023 Proposed CIP program totals align with CIP Budget Control Levels in the 2018-2023 Proposed Budget is shown below.

		CIP Programs Project Totals for 2018											
Dire	ct Costs (in \$1,000s)	Power Supply	Transmission	Distribution	External Projects	Central Utility Projects	2018 Appropriations						
Levels	Power Supply & Environmental Affairs (SCL 250)	75,161	0	0	0	18,745	93,906						
<b>CIP Budget Control Levels</b>	Transmission and Distribution (SCL360)	0	14,434	96,556	0	0	110,990						
Budge	Customer Focused -CIP (SCL370)	0	0	53,860	38,770	502	93,132						
CIP	Financial Services (SCL550)	0	0	0	0	4,164	4,164						
	Total Direct Costs	75,161	14,434	150,416	38,770	23,411	302,192						
Lo	adings and Overhead	Estimates	(appropriated se	parately in Opera	ating BCLs)								
	Interest During Construction	1,914	1,076	4,511	551	233	8,285						
	Paid Time Off	1,522	290	5,105	485	299	7,701						
	Fringe Benefits	3,068	585	10,331	976	603	15,563						
	Payroll Tax (FICA)	728	138	2,822	239	125	4,052						
	Material	9	12	2,785	698	-	3,504						
	Transportation	320	235	3,691	283	46	4,576						
	Shop	61	-	230	1	186	478						
	Administrative & General	7,549	1,424	29,210	2,598	1,764	42,545						
	Total Overhead	15,170	) 3,760	58,685	5,830	3,256	86,701						
CIP F	Project Allocations	90,331	18,194	209,101	44,600	26,667	388,893						

## Summary of Upcoming Budget Issues and Challenges

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

- Infrastructure constructed in the 50's and 60's 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.
- Security risks continue to be a challenge, as both physical and cyber security are subject to a significantly higher level of 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.
- The digitization of electrical operations is challenging but 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 2017-2022 Strategic Plan highlights two new initiatives that will provide enhanced services and efficiencies.

#### Adapting to an Updated Load Forecast

The electric industry is changing. Seattle's electric load growth is slowing and may decline in the long term, even as the economy grows. That means less revenue for the utility as it faces increasing costs to replace aging infrastructure and to deploy the new technology that customers want. The fast pace of technological change also means that electric vehicles, solar power and battery storage are becoming more efficient and less expensive. City Light will continue to monitor changes in load and is revising the methodology uses in the current load forecast to more accurately predict future electricity use.

#### **Utility of the Future**

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

BCL/Program Name									
Project Title & ID	LTD	2017	2018	2019	2020	2021	2022	2023	Total
A1 Power Supply - Boundary	Actuals				BC	L/Program	m Code:		L250-A1
<u>Discrete</u>							n coue.	JC	.2230-71
Boundary - Access Road Stability Improvements (6615)	717	573	544	1,024	18	0	0	0	2,876
Boundary - DC Battery System & Charge Modernization (6566)	93	152	197	0	0	0	0	0	442
Boundary - Entrance Improvements (6601)	13	2,289	347	0	0	0	0	0	2,649
Boundary - Unit 56 Exciter Replacement (6603)	1	1,326	28	0	0	0	0	0	1,355
Boundary Control Room Alarm system replacement (6637)	0	0	205	210	215	220	0	0	850
Boundary Crane Improvements (6620)	92	2,211	1,972	119	0	0	0	0	4,394
Boundary Dam - Instrumentation Upgrade and Integration (6343)	11,650	1,126	301	0	0	0	0	0	13,077
Boundary DC Panel Upgrade (6628)	0	0	513	0	0	0	0	0	513
Boundary Fiber Ring Upgrade (6635)	0	0	0	0	215	551	0	0	766
Boundary Governor Rehabilitation (6641)	0	0	0	0	0	0	4,624	4,619	9,243
Boundary Powerhouse - Transformer Bank Rockfall Mitigation (6485)	502	0	0	246	71	7,592	12,729	0	21,140
Boundary Powerhouse - Unit 51 Generator Rebuild (6351)	298	4,107	11,024	5,200	1,821	0	0	0	22,450
Boundary Powerhouse - Unit 52 Generator Rebuild (6535)	0	0	0	599	12,561	5,657	1,801	0	20,618
Boundary Powerhouse - Unit 54 Generator Rebuild (6353)	0	0	3,034	9,697	5,456	1,834	0	0	20,021
Boundary Powerhouse Exhaust system (6634)	0	0	0	0	0	0	338	577	915

**Project Summary** 

Boundary Powerhouse Generator Step-up Transformer Replacement (6493)	5,940	11,698	6,168	6,315	6,044	7,898	0	0	44,063
Boundary Service Area Paving (6632)	0	0	0	0	0	0	0	346	346
Boundary Sluice Gate Automation (6638)	0	0	0	0	0	0	1,466	0	1,466
Boundary Sluice Gate Walkway Replacement (6631)	0	0	0	0	0	573	0	0	573
Boundary Station Service Transformer Replacement (6627)	0	0	0	210	3,764	3,910	0	0	7,884
Boundary Sump Pump Drive Replacement (6633)	0	0	0	210	215	220	226	231	1,102
Boundary Tailrace Boat Ramp improvements (6630)	0	0	0	126	430	0	0	0	556
Boundary Tailrace East Access Road Improvements (6629)	0	0	0	0	559	0	0	0	559
Boundary U55/56 Fire Suppression (6636)	0	0	0	0	645	551	564	0	1,760
Landis and Gyr RTU Modernization Boundary, CF, Skagit (6565)	0	0	0	467	715	573	0	0	1,755
Ongoing									
Boundary - Licensing Mitigation (6987)	39,569	39,797	25,593	20,537	16,293	13,501	11,960	8,291	175,541
Boundary Facility - Minor Improvements Program (6401)	20,736	1,601	1,585	1,569	5,702	7,267	12,124	14,900	65,484
A1 Power Supply - Boundary	79,611	64,880	51,511	46,529	54,724	50,347	45,832	28,964	422,398
A2 Power Supply - Skagit					В	CL/Progra	m Code:	S	CL250-A2
<u>Discrete</u>									
Diablo - Load Interrupters Replacement (6532)	1,333	2,384	867	611	0	0	0	0	5,195
Diablo - Replace Bank Transformers (6589)	0	0	0	0	109	905	7,479	0	8,493
Diablo Dam - Spill Gate Trunnion Upgrades (6610)	258	500	336	353	371	389	409	337	2,953
Diablo Facility - Incline Lift Rehabilitation (6457)	0	0	0	0	32	54	578	0	664

5,005	502	40	719	736	3	0	0	7,005
4,253	17,601	517	0	0	0	0	0	22,371
2,904	13,055	6,491	133	0	0	0	0	22,583
16	1,030	35	0	0	0	0	0	1,081
0	0	0	0	0	1,982	0	0	1,982
0	71	53	220	323	117	119	122	1,025
0	0	0	0	0	0	564	16,167	16,731
3,899	1,837	313	0	0	0	0	0	6,049
0	0	165	3,194	214	693	0	0	4,266
358	879	555	1,062	3,449	0	0	0	6,303
0	106	0	109	4,784	221	0	0	5,220
2,231	841	1,481	3,932	2,696	0	0	0	11,181
95	454	140	28	0	0	0	0	717
10,289	10,743	126	0	0	0	0	0	21,158
194	59	59	1,096	1	0	0	0	1,409
267	1,663	2,443	65	0	0	0	0	4,438
5,318	3,117	1,029	0	0	0	0	0	9,464
4,960	703	549	2,838	165	0	0	0	9,215
2,844	1,517	1,860	1,583	1,100	0	0	0	8,904
	4,253 2,904 16 0 0 3,899 0 3,899 0 3,899 0 3,899 0 2,231 95 2,231 95 10,289 194 267 5,318	4,25317,6012,90413,055161,030161,03000071003,8991,8370035887901062,2318419545410,28910,743194592671,6635,3183,1174,960703	4,25317,6015172,90413,0556,491161,03035000000071530003,8991,83731300165358879555010602,2318411,4819545414010,28910,74312619459592671,6632,4435,3183,1171,0294,960703549	4,25317,60151702,90413,0556,491133161,0303500000000000003,8991,83731303588795551,062001053,1943588795551,062010601092,2318411,4813,932954541402810,28910,743126019459591,0962671,6632,443655,3183,1171,02904,9607035492,838	4,25317,601517002,90413,0556,4911330161,0303500000000000323000003,8991,8373130001653,1942,143588795551,0623,449010601094,7842,2318411,4813,9322,69610,28910,7431260010459551,0623,4491051,4632,44365010,28910,7431260019459591,09612671,6632,4436505,3183,1171,029004,9607035492,838165	4.25317,6015170002,90413,0556,49113300161,030355000000001,982071532203231170000003,8991,8373130003588795551,0623,44903588795551,0623,449021010601094,7842212,2318411,4813,9322,696010,28910,74312600010,28910,743126100010459591,096101053,1171,0290004,9607035492,8381650	4,25317,60151700002,90413,0556,491133000161,03035001,982000001,9820071532203231171190000005643,8991,83731300003588795551,0623,449003588795551,0623,449002,2318411,4813,9322,6960010,28910,743126000010,28910,743126109100010,2891,6632,44365500010,2893,1171,02900001459591,096110015,3183,1171,02900004,9607035492,83816500	A,25317,6015170000002,90413,0556,49113300000161,03035001,9820000001,982000715322032311711912200000056416,1673,8991,837313000003588795551,0623,44900003588795551,0623,449221003588795551,0623,449221003588411,4813,9322,696000010,28910,4412800000010,2910,991,09610000010,43126000000010,451,029000000010,453,1771,02900000004,9607035492,83816500000

Skagit Powerhouses - Install Protection Relays (6415)	4,514	800	1,400	1,851	1,956	1,487	1,018	0	13,026
Ongoing									
Skagit - Relicensing (6986)	0	528	1,039	6,448	6,057	13,858	26,723	4,207	58,860
Skagit Facility - Minor Improvements Program (6405)	22,878	3,761	3,491	1,146	5,162	9,726	10,127	1,541	57,832
Skagit Licensing Mitigation (6991)	36,862	821	74	132	121	137	134	0	38,281
A2 Power Supply - Skagit	108,478	62,972	23,063	25,520	27,276	29,572	47,151	22,374	346,406
A3 Power Supply - Cedar Fal	ls - Tolt				BC	CL/Progra	m Code:	S	CL250-A3
<u>Discrete</u>									
Cedar Falls - Bank 6 Replacement (6573)	0	0	352	2,126	758	0	0	0	3,236
Cedar Falls - New Generator 5/6 Exciters (6531)	0	914	238	593	0	0	0	0	1,745
Cedar Falls Powerhouse - Penstock Stabilization (6358)	2,084	0	0	343	567	187	0	0	3,181
Cedar Falls Powerhouse - Unit 5/6 Generator Protective Relay (6450)	1,028	47	0	0	591	53	0	0	1,719
Cedar Falls Powerhouse - Valvehouse Rehabilitation (6324)	0	0	0	0	669	3,101	0	0	3,770
Cedar Falls Rehabilitation (6625)	0	250	256	263	269	275	282	0	1,595
Ongoing									
Cedar Falls/South Fork Tolt - Minor Improvements Program (6406)	8,044	2,513	1,890	1,195	2,276	2,874	2,935	0	21,727
A3 Power Supply - Cedar Falls - Tolt	11,156	3,724	2,736	4,520	5,130	6,490	3,217	0	36,973
A4 Power Supply - Power Su	pply Other				BC	CL/Progra	m Code:	S	CL250-A4
<u>Discrete</u>									
Generation Federal Reliability Standards Improvements (6470)	9,521	10	10	11	11	0	0	0	9,563
Power Production - Network Controls (6385)	5,505	1,034	890	1,048	218	0	0	0	8,695
SMT AutoLab (6600)	0	273	0	277	481	0	0	0	1,031
Western Energy Imbalance Market (9976)	0	3,470	9,464	1,745	0	0	0	0	14,679

Ongoing									
Dam Safety Part 12 Improvements (6626)	0	451	256	263	215	220	226	0	1,631
Endangered Species Act Mitigation (6990)	15,996	1,721	1,108	1,130	1,152	1,175	1,198	1,219	24,699
Hydro Project Spill Containment (6530)	2,044	885	364	848	817	0	0	0	4,958
Special Work Equipment - Generation Plant (6102)	13,555	1,580	929	1,396	1,429	1,013	1,038	0	20,940
A4 Power Supply - Power Supply Other	46,621	9,424	13,021	6,718	4,323	2,408	2,462	1,219	86,196
B1 Transmission - Transmiss	ion				В	CL/Program	n Code:	S	CL360-B1
<u>Discrete</u>									
Denny Substation Transmission Lines (7125)	3,373	9,235	5,016	2,651	6,544	42,827	0	0	69,646
Transmission Line Inductor Installation (8461)	4,351	11,476	7,580	4,300	0	0	0	0	27,707
Transmission Line Reconductoring (8462)	376	3,718	728	153	0	0	0	0	4,975
<u>Ongoing</u>									
Transmission Capacity (7011)	10,895	1,237	24	25	25	11	21	28	12,266
Transmission Inter-Agency (7105)	2,548	606	589	603	613	623	591	623	6,796
Transmission Reliability (7104)	24,471	3,686	4,257	3,729	3,064	2,654	3,681	5,359	50,901
B1 Transmission - Transmission	46,014	29,958	18,194	11,461	10,246	46,115	4,293	6,010	172,291
C1 Distribution - Substations	;				BO	CL/Program	n Code:	S	CL360-C1
<u>Discrete</u>									
Denny Substation Development (7757)	122,799	74,587	10,849	0	0	0	0	0	208,235
Interbay Substation - Development (7756)	2,489	0	0	81	82	398	463	524	4,037
Ongoing									
Relaying Improvements (7753)	34,345	4,191	4,614	5,578	4,535	4,937	5,033	5,166	68,399
Replace Breakers BPA Covington and Maple Valley Substations (7121)	546	11	11	11	11	12	12	12	626
Substation Automation (8424)	6,566	1,396	1,522	1,562	1,583	1,381	1,337	997	16,344
Substation Breaker Replacements and Reliability Additions (7779)	32,611	6,168	4,836	5,656	5,217	5,900	5,647	6,699	72,734

	12 161	1 00 1	2 0 2 0	2 4 7 0	2 5 7 5	2 4 2 2	2 4 0 2	2 4 4 0	20 505
Substation Capacity Additions (7751)	13,464	1,904	2,038	2,170	2,575	2,123	2,192	3,119	29,585
Substation Equipment Improvements (7752)	64,261	5,810	6,060	6,878	6,882	6,606	6,261	6,161	108,919
Substation Plant Improvements (7750)	9,655	1,406	1,365	1,123	1,024	1,200	1,522	1,262	18,557
Substation Transformer Replacements (7776)	8,265	2,367	2,641	5,005	4,597	4,966	5,058	2,075	34,974
Substations Demand Driven Improvements (7755)	5,811	6	5	6	6	6	6	6	5,852
Substations Oil Containment (7783)	15	337	340	335	341	224	590	397	2,579
C1 Distribution - Substations	300,827	98,183	34,281	28,405	26,853	27,753	28,121	26,418	570,841
C2 Distribution - Network					В	CL/Progra	m Code:	S	CL360-C2
<u>Discrete</u>									
First Hill - Network Load Transfer (8407)	0	0	0	902	906	7,757	7,932	7,939	25,436
Ongoing									
Broad Street Substation - Network (8203)	89,822	12,702	3,983	3,685	4,591	8,920	3,019	3,059	129,781
Denny Substation - Network (8404)	13,414	38,949	5 <i>,</i> 896	3,549	10,724	12,204	11,011	11,246	106,993
First Hill - Network (8301)	16,251	3,267	1,087	2,698	2,730	2,022	5,034	5,150	38,239
Massachusetts Street Substation - Networks (8202)	36,933	4,150	4,206	4,108	4,436	3,194	4,805	5,090	66,922
Network Hazeltine Upgrade (8129)	7,144	545	572	552	778	740	742	743	11,816
Network Maintenance Hole and Vault Rebuild (8130)	56,762	3,518	3,439	3,557	3,535	3,674	2,612	2,589	79,686
Union Street Substation Networks (8201)	29,689	2,562	2,202	2,595	2,711	2,940	2,994	3,015	48,708
University Substation - Network (8464)	3,062	388	430	392	476	491	499	501	6,239
C2 Distribution - Network	253,077	66,081	21,815	22,038	30,887	41,942	38,648	39,332	513,820
C3 Distribution - Radial					В	CL/Progra	m Code:	S	CL360-C3
<u>Discrete</u>									
Automated Utility Design Implementation (9950)	4,951	1,391	380	0	0	0	0	0	6,722
Dallas Ave. 26 kV Crossing (8322)	867	80	168	61	1,029	725	40	6,068	9,038

Laurelhurst - Underground Rebuild (8373)	9,828	886	148	0	0	0	0	0	10,862
Mobile Workforce Implementation (8429)	0	1,113	1,269	4,135	176	0	0	0	6,693
PCB Tracking and Condition Assessment Project (9974)	0	500	3,357	1,338	0	0	0	0	5,195
Ongoing									
Battery Storage Pilot (8484)	0	501	501	2,003	0	0	0	0	3,005
Broadband - City Light (8465)	5,866	7,551	35	0	0	0	0	0	13,452
Distribution Automation (8425)	5,016	4,059	2,276	2,848	2,943	2,975	1,505	3,222	24,844
Overhead 26kV Conversion (8358)	16,709	2,750	1,764	1,750	1,771	1,802	1,629	1,566	29,741
Overhead Customer Driven Capacity Additions (8355)	37,422	3,901	4,334	4,980	5,618	4,042	6,008	6,092	72,397
Overhead Equipment Replacements (8351)	100,805	9,740	12,384	18,028	21,068	22,184	24,970	26,917	236,096
Overhead System Capacity Additions (8356)	32,030	2,755	2,631	2,543	2,670	3,398	3,448	3,497	52,972
Pole Attachments (8452)	12,502	13,467	18,351	6,528	7,298	7,829	7,957	7,320	81,252
Special Work Equipment - Tech Metering (8485)	0	205	102	105	215	110	113	233	1,083
Underground 26kV Conversion (8362)	6,625	2,200	3,476	5,022	2,510	2,722	4,074	2,841	29,470
Underground Customer Driven Capacity Additions (8360)	34,081	5,205	2,983	2,983	5,498	4,593	7,028	3,165	65,536
Underground Equipment Replacements (8353)	40,795	14,093	11,452	11,647	11,860	15,428	16,408	10,790	132,473
Underground System Capacity Additions (8361)	33,839	7,577	2,936	2,994	2,971	5,101	4,306	3,287	63,011
Vista Switch Automation (8483)	0	0	401	401	401	401	401	401	2,406
C3 Distribution - Radial	341,336	77,974	68,948	67,366	66,028	71,310	77,887	75,399	846,248
C4 Distribution - Service Con	nections				В	CL/Progra	m Code:	S	CL370-C4
<u>Discrete</u>									
Advanced Metering Infrastructure (8426)	8,883	36,455	31,812	6,295	0	0	0	0	83,445
Ongoing									
Large Overhead and Underground Services (8365)	22,108	3,083	3,065	4,194	3,284	5,079	6,442	6,589	53,844
Major Emergency (8380)	3,130	262	264	792	809	1,401	1,432	529	8,619

Medium Overhead and Underground Services (8366)	112,434	15,845	14,388	11,567	11,780	12,288	15,683	14,518	208,503
Meter Additions (8054)	69,988	2,282	2,351	2,792	2,840	3,013	3,065	2,800	89,131
Network Additions and Services - Denny (8405)	4,676	3,311	2,836	2,691	2,453	3,086	4,865	5,241	29,159
Network Additions and Services: Broad Street Substation (8363)	61,489	11,612	7,200	7,144	7,279	7,537	7,423	7,979	117,663
Network Additions and Svcs: First Hill, Mass, Union & Univer (8364)	40,306	5,437	3,270	3,367	3,407	3,917	3,970	4,249	67,923
Normal Emergency (8379)	12,875	569	573	582	590	1,726	1,762	1,999	20,676
Overhead Outage Replacements (8350)	3,300	310	314	449	937	951	1,098	1,119	8,478
Small Overhead and Underground Services (8367)	60,751	6,205	6,267	5,461	5,289	5,274	6,654	7,047	102,948
Underground Outage Replacements (8352)	18,714	287	185	346	1,949	1,983	1,650	1,676	26,790
C4 Distribution - Service Connections	418,654	85,658	72,525	45,680	40,617	46,255	54,044	53,746	817,179
C5 Distribution - Distributior	n Other				BC	CL/Progra	m Code:	S	CL360-C5
C5 Distribution - Distributior Discrete	n Other				BC	CL/Program	m Code:	S	CL360-C5
	n <b>Other</b> 0	0	0	0	<b>ВС</b> 0	3,294	m Code: 1,124	<b>S</b> 0	<b>CL360-C5</b> 4,418
<u>Discrete</u> Asset Investment and		0 0	0 0	0 5,674		_			
<u>Discrete</u> Asset Investment and Optimization (9968) Distribution Management	0				0	3,294	1,124	0	4,418
<u>Discrete</u> Asset Investment and Optimization (9968) Distribution Management System (9966) Enterprise Geographic	0 0	0	0	5,674	0 3,443	3,294 0	1,124 0	0 0	4,418 9,117
Discrete Asset Investment and Optimization (9968) Distribution Management System (9966) Enterprise Geographic Information System (9957) Enterprise Software Solution Replacement	0 0 5	0 6,528	0 553	5,674 5,364	0 3,443 1,668	3,294 0 125	1,124 0 0	0 0 0	4,418 9,117 14,243
Discrete Asset Investment and Optimization (9968) Distribution Management System (9966) Enterprise Geographic Information System (9957) Enterprise Software Solution Replacement Strategy (9969) Outage Management System Phase II	0 0 5 0	0 6,528 0	0 553 1,473	5,674 5,364 9,903	0 3,443 1,668 6,875	3,294 0 125 10,771	1,124 0 0 11,296	0 0 0 7,304	4,418 9,117 14,243 47,622
Discrete Asset Investment and Optimization (9968) Distribution Management System (9966) Enterprise Geographic Information System (9957) Enterprise Software Solution Replacement Strategy (9969) Outage Management System Phase II Implementation (9967) Project Management System Implementation	0 0 5 0	0 6,528 0 1,392	0 553 1,473 614	5,674 5,364 9,903 0	0 3,443 1,668 6,875 0	3,294 0 125 10,771 0	1,124 0 0 11,296 0	0 0 7,304 0	4,418 9,117 14,243 47,622 2,006
Discrete Asset Investment and Optimization (9968) Distribution Management System (9966) Enterprise Geographic Information System (9957) Enterprise Software Solution Replacement Strategy (9969) Outage Management System Phase II Implementation (9967) Project Management System Implementation (9973)	0 0 5 0	0 6,528 0 1,392	0 553 1,473 614	5,674 5,364 9,903 0	0 3,443 1,668 6,875 0	3,294 0 125 10,771 0	1,124 0 0 11,296 0	0 0 7,304 0	4,418 9,117 14,243 47,622 2,006

Security Improvements (9202)	23,604	11,175	2,344	2,243	2,288	2,343	2,322	2,320	48,639
Special Work Equipment - Other Plant (9102)	21,258	1,823	1,077	1,102	1,129	1,156	1,184	1,212	29,941
Stormwater Compliance (9236)	0	501	514	0	0	0	0	0	1,015
Transmission & Generation Radio Systems (9108)	15,342	1,223	1,328	750	936	980	995	1,222	22,776
C5 Distribution - Distribution Other	95,695	25,647	11,532	28,516	20,149	24,441	20,793	15,200	241,973
D1 External Projects - Local J	urisdiction	5			В	CL/Progra	m Code:	S	CL370-D1
<u>Discrete</u>									
Seattle Waterfront Streetlight Installation (8481)	0	300	308	421	5,386	5,515	4,518	0	16,448
Ongoing									
Citywide Undergrounding Initiative - City Light (8403)	3	10	10	11	11	11	12	12	80
Streetlight Infrastructure Replacement (8460)	8,110	5,429	3,170	3,296	3,966	4,360	4,184	4,491	37,006
Streetlight LED Conversion Program (8441)	31,460	7,099	5,434	6,089	6,993	6,773	6,932	4,887	75,667
Streetlights: Arterial, Residential and Floodlights (8378)	25,885	3,718	3,492	3,753	4,255	4,943	5,064	4,222	55,332
Transportation Streetlights (8377)	11,966	5,407	4,224	3,998	4,010	851	7,104	3,705	41,265
D1 External Projects - Local Jurisdictions	77,424	21,963	16,638	17,568	24,621	22,453	27,814	17,317	225,798
D2 External Projects - Transp	ortation R	elocations	5		BO	CL/Progra	m Code:	S	CL370-D2
<u>Discrete</u>									
Alaskan Way Viaduct and Seawall Replacement - Utility Relocs (8307)	135,547	48,457	15,781	19,831	16,792	2,609	1,465	0	240,482
Center City Connector Streetcar – City Light (8470)	212	2,076	4,286	2,370	0	0	0	0	8,944
First Hill Connector Streetcar (8442)	2,752	1,133	2	0	0	0	0	0	3,887
Sound Transit - City Light System Upgrades (8475)	0	148	0	0	330	1,350	0	0	1,828
Sound Transit Light Rail East Link - City Light (8450)	109	1,585	564	0	0	0	0	0	2,258
Sound Transit Lynnwood - City Light (8471)	166	1,473	1,604	1,513	2,113	1,976	661	0	9,506

Sound Transit Northlink - City Light (8427)	4,411	2,500	25	0	0	0	0	0	6,936
State Route 520 Bridge Relocations (8435)	30	597	92	108	45	22	0	0	894
Ongoing									
Overhead and Underground Relocations (8369)	14,597	3,127	5,167	3,876	3,912	3,837	3,910	3,545	41,971
D2 External Projects - Transportation Relocations	157,824	61,096	27,521	27,698	23,192	9,794	6,036	3,545	316,706
D3 External Projects - Custor	ner Other				BC	L/Program	n Code:	SC	CL370-D3
<u>Discrete</u>									
Creston-Nelson to Intergate East Feeder Installation (8430)	6,260	559	426	1,385	415	141	0	0	9,186
Ongoing									
Neighborhood Voluntary Undergrounding Program (8383)	277	8	15	15	15	15	15	15	375
D3 External Projects - Customer Other	6,537	567	441	1,400	430	156	15	15	9,561
E1 Central Utility Projects - C	ustomer a	nd Billing			BC	L/Program	n Code:	S	CL370-E1
Li central otinty Projects - C	astonici a	. 0							
<u>Discrete</u>		Ū				, 0			
	51,506	11,944	0	0	0	0	0	0	63,450
<u>Discrete</u> New Customer Information		_	0	0		_	0	0	63,450
<u>Discrete</u> New Customer Information System (9937)		_	0 503	0 53		_	0 226	0 58	63,450 1,666
<u>Discrete</u> New Customer Information System (9937) <u>Ongoing</u> Call Center Improvements -	51,506	11,944			0	0	-		
Discrete New Customer Information System (9937) Ongoing Call Center Improvements - City Light (9972) E1 Central Utility Projects -	51,506 0 51,506	11,944 501 12,445	503 503	53	0 215 215	0 110	226	58	1,666
Discrete New Customer Information System (9937) Ongoing Call Center Improvements - City Light (9972) E1 Central Utility Projects - Customer and Billing	51,506 0 51,506	11,944 501 12,445	503 503	53	0 215 215	0 110 110	226	58	1,666 65,116
Discrete New Customer Information System (9937) Ongoing Call Center Improvements - City Light (9972) E1 Central Utility Projects - Customer and Billing E2 Central Utility Projects - F	51,506 0 51,506	11,944 501 12,445	503 503	53	0 215 215	0 110 110	226	58	1,666 65,116
DiscreteNew Customer InformationSystem (9937)OngoingCall Center Improvements - City Light (9972)E1 Central Utility Projects - Customer and BillingE2 Central Utility Projects - FDiscreteData Warehouse	51,506 0 51,506 inance and	11,944 501 12,445	503 503 <b>15</b>	53	0 215 215 BC	0 110 110 :L/Program	226 226 n Code:	58 58 <b>S</b> (	1,666 65,116 CL550-E2
DiscreteNew Customer InformationSystem (9937)OngoingCall Center Improvements - City Light (9972)E1 Central Utility Projects - Customer and BillingE2 Central Utility Projects - FDiscreteData Warehouse Implementation (9975)Enterprise Document Management System	51,506 0 51,506 inance and	11,944 501 12,445 I <b>IT System</b> 200	503 503 <b>15</b> 501	53 53 150	0 215 215 BC 150	0 110 110 • <b>L/Program</b> 150	226 226 n Code: 150	58 58 <b>S</b> ( 150	1,666 65,116 <b>CL550-E2</b> 1,451
DiscreteNew Customer Information System (9937)OngoingCall Center Improvements - City Light (9972)E1 Central Utility Projects - Customer and BillingE2 Central Utility Projects - FDiscreteData Warehouse Implementation (9975)Enterprise Document Management System (9962)PeopleSoft Reimplementation - City	51,506 0 51,506 inance and 0 4,139	11,944 501 12,445 I IT System 200 2,907	503 503 <b>15</b> 501 106	53 53 150 1,066	0 215 215 BC 150 1,131	0 110 110 2L/Program 150 1,046	226 226 n Code: 150 785	58 58 <b>S</b> 150 1,033	1,666 65,116 <b>CL550-E2</b> 1,451 12,213

IT Security Upgrades (9960)	3,793	569	1,119	1,146	1,174	918	689	705	10,113
E2 Central Utility Projects - Finance and IT Systems	64,814	24,393	4,925	2,866	2,957	2,615	2,125	2,389	107,084
E3 Central Utility Projects - Fl	eets and F	acilities			ВС	CL/Progra	m Code:	S	CL250-E3
<u>Discrete</u>									
Georgetown Steamplant Access Road (9233)	13	1,042	690	0	0	0	0	0	1,745
Service Center Development Project (9232)	0	0	0	0	0	59,705	40,338	0	100,043
Solar Microgrid for Resilience (9238)	0	3,612	529	0	0	0	0	0	4,141
Technical Training Center Development (9230)	2,114	11,393	512	640	0	0	0	0	14,659
<u>Ongoing</u>									
Building Envelope Upgrades (9072)	8,697	2,247	1,619	1,259	1,271	1,301	1,332	7	17,733
Denny Substation Tenant Improvements (9235)	20	5,254	1,362	24	0	0	0	0	6,660
Electric Vehicle Infrastructure (9237)	0	1,753	1,077	53	11	0	0	0	2,894
Energy Conservation (9320)	3,289	703	325	115	114	116	119	2	4,783
Environmental Safeguarding and Remediation of Facilities (9152)	1,329	92	96	57	58	59	60	0	1,751
Equipment Fleet Replacement (9101)	95,021	11,875	7,639	7,178	7,182	7,185	10,037	8,867	154,984
Facilities Infrastructure Improvements (9156)	4,389	655	453	64	63	64	66	0	5,754
Facilities Regulatory Compliance (9151)	1,629	482	334	342	350	359	367	0	3,863
Miscellaneous Building Improvements (9007)	13,201	1,918	2,212	2,305	3,749	3,828	3,901	2,543	33,657
North and South Service Center Improvements (9107)	35,110	437	350	818	3,953	5,369	5,481	186	51,704
Office Furniture and Equipment Purchase (9103)	19,543	1,022	693	1,096	1,123	1,150	1,177	0	25,804
Safety Modifications (9006)	5,302	1,640	1,344	1,374	1,364	1,396	1,428	71	13,919
Seismic Mitigation (9134)	5,687	136	86	94	602	604	606	3	7,818

Special Work Equipment - Shops (8389)	1,322	357	300	307	314	322	330	0	3,252
Substation Comprehensive Improvements (9161)	4,210	273	279	275	279	284	13	7	5,620
Workplace and Process Improvement (9159)	6,089	2,740	1,339	2,074	1,951	2,308	2,340	12	18,853
E3 Central Utility Projects - Fleets and Facilities	206,965	47,631	21,239	18,075	22,384	84,050	67,595	11,698	479,637
Department Total:	2,266,539	692,596	388,894	354,412	360,032	465,811	426,259	303,684	5,258,227

<sup>\*</sup> Funds are appropriated through the Adopted Budget at the Budget Control Level. All amounts shown above are in thousands of dollars.

Fund Name & Code	LTD Actuals	2017	2018	2019	2020	2021	2022	2023	Total
City Light Fund (41000)	2,266,539	692,596	388,894	354,412	360,032	465,811	426,259	303,684	5,258,227
Department Total:	2,266,539	692,596	388,894	354,412	360,032	465,811	426,259	303,684	5,258,227

## **Fund Summary**

## **Advanced Metering Infrastructure**

Project Type:	Discrete	Project No.:	8426
Start/End Date:	2015-2019	BCL/Program Code:	SCL370-C4
Project Category:	New Facility	BCL/Program Name:	C4 Distribution - Service Connections
Current Project Stage:	Construction	Location:	Citywide
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	\$83,445	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	8,883	36,455	31,812	6,295	0	0	0	0	83,445
Total:	8,883	36,455	31,812	6,295	0	0	0	0	83,445
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	8,883	36,455	31,812	6,295	0	0	0	0	83,445
Total:	8,883	36,455	31,812	6,295	0	0	0	0	83,445
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	8,883	36,455	31,812	6,295	0	0	0	0	83,445
Total:	8,883	36,455	31,812	6,295	0	0	0	0	83,445
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

## Alaskan Way Viaduct and Seawall Replacement - Utility Relocs

Project Type:	Discrete	Project No.:	8307
Start/End Date:	2002-2022	BCL/Program Code:	SCL370-D2
Project Category:	New Facility	BCL/Program Name:	D2 External Projects - Transportation Relocations
Current Project Stage:	Construction	Location:	SR 99 / Battery St
Neighborhood District:	Not in a Neighborhood District	Council District:	7
Total Project Cost:	\$240,482	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	135,547	48,457	15,781	19,831	16,792	2,609	1,465	0	240,482
Total:	135,547	48,457	15,781	19,831	16,792	2,609	1,465	0	240,482
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	135,547	48,457	15,781	19,831	16,792	2,609	1,465	0	240,482
Total:	135,547	48,457	15,781	19,831	16,792	2,609	1,465	0	240,482
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	135,547	48,457	15,781	19,831	16,792	2,609	1,465	0	240,482
Total:	135,547	48,457	15,781	19,831	16,792	2,609	1,465	0	240,482
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

## **Asset Investment and Optimization**

Project Type:	Discrete	Project No.:	9968
Start/End Date:	2021-2022	BCL/Program Code:	SCL360-C5
Project Category:	New Investment	BCL/Program Name:	C5 Distribution - Distribution Other
Current Project Stage:	Pre-Project Development	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	\$4,418	Urban Village:	Not in an 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	3,294	1,124	0	4,418
Total:	0	0	0	0	0	3,294	1,124	0	4,418
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	3,294	1,124	0	4,418
Total:	0	0	0	0	0	3,294	1,124	0	4,418
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	0	3,294	1,124	0	4,418
Total:	0	0	0	0	0	3,294	1,124	0	4,418
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### Automated Utility Design Implementation

Project Type:	Discrete	Project No.:	9950
Start/End Date:	2011-2018	BCL/Program Code:	SCL360-C3
Project Category:	New Facility	BCL/Program Name:	C3 Distribution - Radial
Current Project Stage:	Construction	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$6,722	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 production 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,951	1,391	380	0	0	0	0	0	6,722
Total:	4,951	1,391	380	0	0	0	0	0	6,722
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,951	1,391	380	0	0	0	0	0	6,722
Total:	4,951	1,391	380	0	0	0	0	0	6,722
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,951	1,391	380	0	0	0	0	0	6,722
Total:	4,951	1,391	380	0	0	0	0	0	6,722
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

2018 - 2023 Proposed Capital Improvement Program

#### **Boundary - Access Road Stability Improvements**

Project Type:	Discrete	Project No.:	6615
Start/End Date:	2017-2020	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$2,876	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 road 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) 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	717	573	544	1,024	18	0	0	0	2,876
Total:	717	573	544	1,024	18	0	0	0	2,876
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	717	573	544	1,024	18	0	0	0	2,876
Total:	717	573	544	1,024	18	0	0	0	2,876
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	717	573	544	1,024	18	0	0	0	2,876
Total:	717	573	544	1,024	18	0	0	0	2,876
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

## **Boundary - DC Battery System & Charge Modernization**

Project Type:	Discrete	Project No.:	6566
Start/End Date:	2017-2018	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$442	Urban Village:	Outside Seattle City

This project replaces the existing DC battery system at Boundary.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	93	152	197	0	0	0	0	0	442
Total:	93	152	197	0	0	0	0	0	442
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	93	152	197	0	0	0	0	0	442
Total:	93	152	197	0	0	0	0	0	442
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	93	152	197	0	0	0	0	0	442
Total:	93	152	197	0	0	0	0	0	442
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6601
Start/End Date:	2017-2018	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Design	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$2,649	Urban Village:	Outside Seattle City

This project provides safety for employees at the security entrance to the Boundary Hydro Project, those working at the site, the security guard, and visitors. This project provides realingment of the access road to the security gate so the guard station is accessed between lanes of incoming and outgoing traffic instead of from the road shoulder. This increases the guards' view of approaching traffic and allows traffic more time to slow down when approaching the guard station. This project also provides a permanent building with water service, a restroom, and an electrical room as well as new signage.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	13	2,289	347	0	0	0	0	0	2,649
Total:	13	2,289	347	0	0	0	0	0	2,649
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	13	2,289	347	0	0	0	0	0	2,649
Total:	13	2,289	347	0	0	0	0	0	2,649
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	13	2,289	347	0	0	0	0	0	2,649
Total:	13	2,289	347	0	0	0	0	0	2,649
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6603
Start/End Date:	2017-2018	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Design	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$1,355	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, increasing 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	1	1,326	28	0	0	0	0	0	1,355
Total:	1	1,326	28	0	0	0	0	0	1,355
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	1	1,326	28	0	0	0	0	0	1,355
Total:	1	1,326	28	0	0	0	0	0	1,355
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	1	1,326	28	0	0	0	0	0	1,355
Total:	1	1,326	28	0	0	0	0	0	1,355
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

## **Boundary Control Room Alarm system replacement**

Project Type:	Discrete	Project No.:	6637
Start/End Date:	2017-2021	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$850	Urban Village:	Not in an Urban Village

This project replaces the system of alarms and annunciator panels in the Boundary Control room with a modern system that integrates with the current automation system. The current system of alarms and annunciator panels is not functioning properly, and is outdated. Alarms will be routed to PH Operator terminals where information will be displayed as to the nature of the alarm. Due to the large number of circuits that will need to be replaced, it is assumed that this project will be implemented in phases over four years, starting in 2018.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	205	210	215	220	0	0	850
Total:	0	0	205	210	215	220	0	0	850
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	205	210	215	220	0	0	850
Total:	0	0	205	210	215	220	0	0	850
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	205	210	215	220	0	0	850
Total:	0	0	205	210	215	220	0	0	850
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

## **Boundary Crane Improvements**

Project Type:	Discrete	Project No.:	6620
Start/End Date:	2017-2019	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Procurement/Bid	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$4,394	Urban Village:	Not in an 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	92	2,211	1,972	119	0	0	0	0	4,394
Total:	92	2,211	1,972	119	0	0	0	0	4,394
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	92	2,211	1,972	119	0	0	0	0	4,394
Total:	92	2,211	1,972	119	0	0	0	0	4,394
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	92	2,211	1,972	119	0	0	0	0	4,394
Total:	92	2,211	1,972	119	0	0	0	0	4,394
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6343
Start/End Date:	2006-2018	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Construction	Location:	10382 Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$13,077	Urban Village:	Not in an Urban Village

This project provides 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	11,650	1,126	301	0	0	0	0	0	13,077
Total:	11,650	1,126	301	0	0	0	0	0	13,077
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	11,650	1,126	301	0	0	0	0	0	13,077
Total:	11,650	1,126	301	0	0	0	0	0	13,077
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	11,650	1,126	301	0	0	0	0	0	13,077
Total:	11,650	1,126	301	0	0	0	0	0	13,077
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

2018 - 2023 Proposed Capital Improvement Program

### **Boundary DC Panel Upgrade**

Project Type:	Discrete	Project No.:	6628
Start/End Date:	2017-2018	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$513	Urban Village:	Not in an Urban Village

This project replaces and upgrades DC panels at Boundary. The panel capacity has been maxed out from the addition of many control circuits over the past several years, resulting in multiple circuits being connected to the same breaker. The work will include a load study, design of new main and sub panels, and construction. These panels provide back-up service to critical equipment via batteries in the event of a power failure in the powerhouse.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	513	0	0	0	0	0	513
Total:	0	0	513	0	0	0	0	0	513
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	513	0	0	0	0	0	513
Total:	0	0	513	0	0	0	0	0	513
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	513	0	0	0	0	0	513
Total:	0	0	513	0	0	0	0	0	513
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Boundary Fiber Ring Upgrade**

Project Type:	Discrete	Project No.:	6635
Start/End Date:	2020-2021	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$766	Urban Village:	Not in an Urban Village

This project installs additional fiber between Boundary powerhouse and the service area. This is necessary to continue to modernize our powerhouse controls, machine monitoring, cyber security systems and work environment.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	215	551	0	0	766
Total:	0	0	0	0	215	551	0	0	766
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	215	551	0	0	766
Total:	0	0	0	0	215	551	0	0	766
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	215	551	0	0	766
Total:	0	0	0	0	215	551	0	0	766
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Boundary Governor Rehabilitation**

Project Type:	Discrete	Project No.:	6641
Start/End Date:	2022-2023	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$9,243	Urban Village:	Not in an Urban Village

This project replaces the control systems on all six Boundary generating units. A recent condition assessment of the Boundary generating units found a number of problems with the governor controls including: poor transfer between primary and backup operation, reset problems and controller lock-up.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	0	4,624	4,619	9,243
Total:	0	0	0	0	0	0	4,624	4,619	9,243
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	0	4,624	4,619	9,243
Total:	0	0	0	0	0	0	4,624	4,619	9,243
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	0	0	4,624	4,619	9,243
Total:	0	0	0	0	0	0	4,624	4,619	9,243
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Boundary Powerhouse - Transformer Bank Rockfall Mitigation

Project Type:	Discrete	Project No.:	6485
Start/End Date:	2008-2022	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	10382 Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$21,140	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	502	0	0	246	71	7,592	12,729	0	21,140
Total:	502	0	0	246	71	7,592	12,729	0	21,140
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	502	0	0	246	71	7,592	12,729	0	21,140
Total:	502	0	0	246	71	7,592	12,729	0	21,140
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	502	0	0	246	71	7,592	12,729	0	21,140
Total:	502	0	0	246	71	7,592	12,729	0	21,140
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Boundary Powerhouse - Unit 51 Generator Rebuild**

Project Type:	Discrete	Project No.:	6351
Start/End Date:	2017-2020	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Procurement/Bid	Location:	10382 Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$22,450	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	298	4,107	11,024	5,200	1,821	0	0	0	22,450
Total:	298	4,107	11,024	5,200	1,821	0	0	0	22,450
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	298	4,107	11,024	5,200	1,821	0	0	0	22,450
Total:	298	4,107	11,024	5,200	1,821	0	0	0	22,450
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	298	4,107	11,024	5,200	1,821	0	0	0	22,450
Total:	298	4,107	11,024	5,200	1,821	0	0	0	22,450
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	6535
Start/End Date:	2019-2022	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Procurement/Bid	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$20,618	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	599	12,561	5,657	1,801	0	20,618
Total:	0	0	0	599	12,561	5,657	1,801	0	20,618
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	599	12,561	5,657	1,801	0	20,618
Total:	0	0	0	599	12,561	5,657	1,801	0	20,618
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	599	12,561	5,657	1,801	0	20,618
Total:	0	0	0	599	12,561	5,657	1,801	0	20,618
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Boundary Powerhouse - Unit 54 Generator Rebuild**

Project Type:	Discrete	Project No.:	6353
Start/End Date:	2018-2021	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Procurement/Bid	Location:	10382 Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$20,021	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	3,034	9,697	5,456	1,834	0	0	20,021
Total:	0	0	3,034	9,697	5,456	1,834	0	0	20,021
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	3,034	9,697	5,456	1,834	0	0	20,021
Total:	0	0	3,034	9,697	5,456	1,834	0	0	20,021
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	3,034	9,697	5,456	1,834	0	0	20,021
Total:	0	0	3,034	9,697	5,456	1,834	0	0	20,021
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Boundary Powerhouse Exhaust system**

Project Type:	Discrete	Project No.:	6634
Start/End Date:	2022-2023	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$915	Urban Village:	Not in an Urban Village

This project replaces and improves the existing Boundary powerhouse exhaust system. Boundary powerhouse is located in a rocky cavern and relies on a mechanical exhaust system to maintain air quality in the various levels of the powerhouse.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	0	338	577	915
Total:	0	0	0	0	0	0	338	577	915
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	0	338	577	915
Total:	0	0	0	0	0	0	338	577	915
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	0	0	338	577	915
Total:	0	0	0	0	0	0	338	577	915
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Boundary Powerhouse Generator Step-up Transformer Replacement**

Project Type:	Discrete	Project No.:	6493
Start/End Date:	2010-2021	BCL/Program Code:	SCL250-A1
Project Category:	New Facility	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Construction	Location:	10382 Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$44,063	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5,940	11,698	6,168	6,315	6,044	7,898	0	0	44,063
Total:	5,940	11,698	6,168	6,315	6,044	7,898	0	0	44,063
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5,940	11,698	6,168	6,315	6,044	7,898	0	0	44,063
Total:	5,940	11,698	6,168	6,315	6,044	7,898	0	0	44,063
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	5,940	11,698	6,168	6,315	6,044	7,898	0	0	44,063
Total:	5,940	11,698	6,168	6,315	6,044	7,898	0	0	44,063
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Boundary Service Area Paving**

Project Type:	Discrete	Project No.:	6632
Start/End Date:	2023-2024	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$346	Urban Village:	Not in an Urban Village

This project provides paving of the Boundary service area roadways and parking areas.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	0	0	346	346
Total:	0	0	0	0	0	0	0	346	346
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	0	0	346	346
Total:	0	0	0	0	0	0	0	346	346
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Boundary Sluice Gate Automation**

Project Type:	Discrete	Project No.:	6638
Start/End Date:	2022-2022	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$1,466	Urban Village:	Not in an Urban Village

This project upgrades the controls for Boundary sluice gates to allow for remote operation. Boundary's sluice gates are being used more under our new license because they help meet Total Dissolved Gas requirements in the tailrace. This has created a need for modern controls that include remote operation capability.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	0	1,466	0	1,466
Total:	0	0	0	0	0	0	1,466	0	1,466
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	0	1,466	0	1,466
Total:	0	0	0	0	0	0	1,466	0	1,466
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	0	0	1,466	0	1,466
Total:	0	0	0	0	0	0	1,466	0	1,466
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Boundary Sluice Gate Walkway Replacement**

Project Type:	Discrete	Project No.:	6631
Start/End Date:	2021-2021	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$573	Urban Village:	Not in an Urban Village

This project replaces and improves concrete walkways over the sluicegates in order to improve safety for the crews performing maintenance activities on the gates.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	573	0	0	573
Total:	0	0	0	0	0	573	0	0	573
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	573	0	0	573
Total:	0	0	0	0	0	573	0	0	573
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	0	573	0	0	573
Total:	0	0	0	0	0	573	0	0	573
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Boundary Station Service Transformer Replacement**

Project Type:	Discrete	Project No.:	6627
Start/End Date:	2019-2021	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$7,884	Urban Village:	Not in an Urban Village

This project replaces two aging station service transformers at Boundary. It is assumed that they will be specified and procured together, but installed in two sequential years. Station service transformers provide power to the powerhouse, dam and service area. It is likely that the rating of the transformers will need to be increased to accomodate load increases associated with the addition of new circuits in the powerhouse for automation, controls and machine monitoring.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	210	3,764	3,910	0	0	7,884
Total:	0	0	0	210	3,764	3,910	0	0	7,884
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	210	3,764	3,910	0	0	7,884
Total:	0	0	0	210	3,764	3,910	0	0	7,884
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	210	3,764	3,910	0	0	7,884
Total:	0	0	0	210	3,764	3,910	0	0	7,884
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Boundary Sump Pump Drive Replacement

Project Type:	Discrete	Project No.:	6633
Start/End Date:	2019-2023	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$1,102	Urban Village:	Not in an Urban Village

This project replaces and modernizes drive systems for sump pump at Boundary powerhouse. Portions of Boundary powerhouse are below the level of the tailrace and we rely on a series of sump pumps to keep the powerhouse dry. We have recently completed a project to replace the sump pumps, but now need to replace and modernize the drive systems for each pump. One drive system will be replaced per year, starting in 2019, and the final one will be in service in 2023.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	210	215	220	226	231	1,102
Total:	0	0	0	210	215	220	226	231	1,102
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	210	215	220	226	231	1,102
Total:	0	0	0	210	215	220	226	231	1,102
	LTD	2017	2018	2019	2020	2021	2022	2023	Total
	Actuals	REV							
Spending Plan									
City Light Fund	0	0	0	210	215	220	226	231	1,102
Total:	0	0	0	210	215	220	226	231	1,102
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Boundary Tailrace Boat Ramp improvements**

Project Type:	Discrete	Project No.:	6630
Start/End Date:	2019-2020	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$556	Urban Village:	Not in an Urban Village

This project replaces and improves the existing boat ramp that provides access to the tailrace for fishery boats, oil spill response equipment and personnel rescue equipment. The exiting ramp is rough and is difficult and time consuming to navigate using a truck and boat trailer.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	126	430	0	0	0	556
Total:	0	0	0	126	430	0	0	0	556
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	126	430	0	0	0	556
Total:	0	0	0	126	430	0	0	0	556
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	126	430	0	0	0	556
Total:	0	0	0	126	430	0	0	0	556
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Boundary Tailrace East Access Road Improvements**

Project Type:	Discrete	Project No.:	6629
Start/End Date:	2020-2020	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$559	Urban Village:	Not in an Urban Village

This project replaces and improves the road used to access the east side of the Boundary tailrace. This road is needed for emergency rescue situations and other river access.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	559	0	0	0	559
Total:	0	0	0	0	559	0	0	0	559
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	559	0	0	0	559
Total:	0	0	0	0	559	0	0	0	559
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	559	0	0	0	559
Total:	0	0	0	0	559	0	0	0	559
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Boundary U55/56 Fire Suppression**

Project Type:	Discrete	Project No.:	6636
Start/End Date:	2020-2022	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$1,760	Urban Village:	Not in an Urban Village

This project installs hybrid fire suppression system in Boundary units 53, 55, and 56. City Light Generation has recently determined that we will install hybrid-type fire suppression systems on our hydro generators. The system is currently being installed at Diablo powerhouse and is planned under separate projects for Boundary Units 51,52, and 54 when they undergo rewinds. Boundary Units 53,55 and 56 have already been rewound, but did not have fire suppression installed. The timing of the installations is assumed to be one unit per year beginning in 2020.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	645	551	564	0	1,760
Total:	0	0	0	0	645	551	564	0	1,760
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	645	551	564	0	1,760
Total:	0	0	0	0	645	551	564	0	1,760
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	645	551	564	0	1,760
Total:	0	0	0	0	645	551	564	0	1,760
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Cedar Falls - Bank 6 Replacement

Project Type:	Discrete	Project No.:	6573
Start/End Date:	2018-2020	BCL/Program Code:	SCL250-A3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt
Current Project Stage:	Pre-Project Development	Location:	Cedar Falls
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$3,236	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	352	2,126	758	0	0	0	3,236
Total:	0	0	352	2,126	758	0	0	0	3,236
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	352	2,126	758	0	0	0	3,236
Total:	0	0	352	2,126	758	0	0	0	3,236
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	352	2,126	758	0	0	0	3,236
Total:	0	0	352	2,126	758	0	0	0	3,236
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6531
Start/End Date:	2017-2019	BCL/Program Code:	SCL250-A3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt
Current Project Stage:	Design	Location:	Cedar Falls
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$1,745	Urban Village:	Outside Seattle City

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	914	238	593	0	0	0	0	1,745
Total:	0	914	238	593	0	0	0	0	1,745
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	914	238	593	0	0	0	0	1,745
Total:	0	914	238	593	0	0	0	0	1,745
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	914	238	593	0	0	0	0	1,745
Total:	0	914	238	593	0	0	0	0	1,745
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Cedar Falls Powerhouse - Penstock Stabilization**

Project Type:	Discrete	Project No.:	6358
Start/End Date:	2007-2021	BCL/Program Code:	SCL250-A3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt
Current Project Stage:	Pre-Project Development	Location:	19901 Cedar Falls Rd SE, North Bend, WA 98045
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$3,181	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	2,084	0	0	343	567	187	0	0	3,181
Total:	2,084	0	0	343	567	187	0	0	3,181
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	2,084	0	0	343	567	187	0	0	3,181
Total:	2,084	0	0	343	567	187	0	0	3,181
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	2,084	0	0	343	567	187	0	0	3,181
Total:	2,084	0	0	343	567	187	0	0	3,181
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6450
Start/End Date:	2007-2021	BCL/Program Code:	SCL250-A3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt
Current Project Stage:	Pre-Project Development	Location:	19901 Cedar Falls Rd SE, North Bend, WA 98045
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$1,719	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	1,028	47	0	0	591	53	0	0	1,719
Total:	1,028	47	0	0	591	53	0	0	1,719
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	1,028	47	0	0	591	53	0	0	1,719
Total:	1,028	47	0	0	591	53	0	0	1,719
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	1,028	47	0	0	591	53	0	0	1,719
Total:	1,028	47	0	0	591	53	0	0	1,719
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### Cedar Falls Powerhouse - Valvehouse Rehabilitation

Project Type:	Discrete	Project No.:	6324
Start/End Date:	2020-2021	BCL/Program Code:	SCL250-A3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt
Current Project Stage:	Pre-Project Development	Location:	19901 Cedar Falls Rd SE, North Bend, WA 98045
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$3,770	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	669	3,101	0	0	3,770
Total:	0	0	0	0	669	3,101	0	0	3,770
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	669	3,101	0	0	3,770
Total:	0	0	0	0	669	3,101	0	0	3,770
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	669	3,101	0	0	3,770
Total:	0	0	0	0	669	3,101	0	0	3,770
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Cedar Falls Rehabilitation**

Project Type:	Discrete	Project No.:	6625
Start/End Date:	2017-2022	BCL/Program Code:	SCL250-A3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Cedar Falls
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$1,595	Urban Village:	Not in an 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	250	256	263	269	275	282	0	1,595
Total:	0	250	256	263	269	275	282	0	1,595
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	250	256	263	269	275	282	0	1,595
Total:	0	250	256	263	269	275	282	0	1,595
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	250	256	263	269	275	282	0	1,595
Total:	0	250	256	263	269	275	282	0	1,595
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### <u>Center City Connector Streetcar – City Light</u>

Project Type:	Discrete	Project No.:	8470
Start/End Date:	2015-2019	BCL/Program Code:	SCL370-D2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	D2 External Projects - Transportation Relocations
Current Project Stage:	Construction	Location:	City Wide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$8,944	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	212	2,076	4,286	2,370	0	0	0	0	8,944
Total:	212	2,076	4,286	2,370	0	0	0	0	8,944
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	212	2,076	4,286	2,370	0	0	0	0	8,944
Total:	212	2,076	4,286	2,370	0	0	0	0	8,944
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	212	2,076	4,286	2,370	0	0	0	0	8,944
Total:	212	2,076	4,286	2,370	0	0	0	0	8,944
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	8430
Start/End Date:	2009-2021	BCL/Program Code:	SCL370-D3
Project Category:	New Facility	BCL/Program Name:	D3 External Projects - Customer Other
Current Project Stage:	Construction	Location:	Tukwila
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$9,186	Urban Village:	Not in an Urban Village

This 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	6,260	559	426	1,385	415	141	0	0	9,186
Total:	6,260	559	426	1,385	415	141	0	0	9,186
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	6,260	559	426	1,385	415	141	0	0	9,186
Total:	6,260	559	426	1,385	415	141	0	0	9,186
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	6,260	559	426	1,385	415	141	0	0	9,186
Total:	6,260	559	426	1,385	415	141	0	0	9,186
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### Dallas Ave. 26 kV Crossing

Project Type:	Discrete	Project No.:	8322
Start/End Date:	2005-2024	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Dallas Ave S/14th Ave S
Neighborhood District:	Greater Duwamish	Council District:	2
Total Project Cost:	\$9,038	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	867	80	168	61	1,029	725	40	6,068	9,038
Total:	867	80	168	61	1,029	725	40	6,068	9,038
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	867	80	168	61	1,029	725	40	6,068	9,038
Total:	867	80	168	61	1,029	725	40	6,068	9,038
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	867	80	168	61	1,029	725	40	6,068	9,038
Total:	867	80	168	61	1,029	725	40	6,068	9,038
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Data Warehouse Implementation**

Project Type:	Discrete	Project No.:	9975
Start/End Date:	2017-2023	BCL/Program Code:	SCL550-E2
Project Category:	New Investment	BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems
Current Project Stage:	Execution	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	\$1,451	Urban Village:	Not in an 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	200	501	150	150	150	150	150	1,451
Total:	0	200	501	150	150	150	150	150	1,451
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	200	501	150	150	150	150	150	1,451
Total:	0	200	501	150	150	150	150	150	1,451
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	200	501	150	150	150	150	150	1,451
Total:	0	200	501	150	150	150	150	150	1,451
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Denny Substation Development**

Project Type:	Discrete	Project No.:	7757
Start/End Date:	2007-2018	BCL/Program Code:	SCL360-C1
Project Category:	New Facility	BCL/Program Name:	C1 Distribution - Substations
Current Project Stage:	Construction	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$208,235	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	122,799	74,587	10,849	0	0	0	0	0	208,235
Total:	122,799	74,587	10,849	0	0	0	0	0	208,235
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	122,799	74,587	10,849	0	0	0	0	0	208,235
Total:	122,799	74,587	10,849	0	0	0	0	0	208,235
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	122,799	74,587	10,849	0	0	0	0	0	208,235
Total:	122,799	74,587	10,849	0	0	0	0	0	208,235
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Denny Substation Transmission Lines**

Project Type:	Discrete	Project No.:	7125
Start/End Date:	2008-2021	BCL/Program Code:	SCL360-B1
Project Category:	New Facility	BCL/Program Name:	B1 Transmission - Transmission
Current Project Stage:	Construction	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$69,646	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	3,373	9,235	5,016	2,651	6,544	42,827	0	0	69,646
Total:	3,373	9,235	5,016	2,651	6,544	42,827	0	0	69,646
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	3,373	9,235	5,016	2,651	6,544	42,827	0	0	69,646
Total:	3,373	9,235	5,016	2,651	6,544	42,827	0	0	69,646
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	3,373	9,235	5,016	2,651	6,544	42,827	0	0	69,646
Total:	3,373	9,235	5,016	2,651	6,544	42,827	0	0	69,646
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	6532
Start/End Date:	2015-2019	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Design	Location:	Milepost 126 Stte Highway 20
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$5,195	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	1,333	2,384	867	611	0	0	0	0	5,195
Total:	1,333	2,384	867	611	0	0	0	0	5,195
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	1,333	2,384	867	611	0	0	0	0	5,195
Total:	1,333	2,384	867	611	0	0	0	0	5,195
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	1,333	2,384	867	611	0	0	0	0	5,195
Total:	1,333	2,384	867	611	0	0	0	0	5,195
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6589
Start/End Date:	2020-2022	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Pre-Project Development	Location:	Milepost 126 Stte Highway 20
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$8,493	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	109	905	7,479	0	8,493
Total:	0	0	0	0	109	905	7,479	0	8,493
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	109	905	7,479	0	8,493
Total:	0	0	0	0	109	905	7,479	0	8,493
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	109	905	7,479	0	8,493
Total:	0	0	0	0	109	905	7,479	0	8,493
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### Diablo Dam - Spill Gate Trunnion Upgrades

Project Type:	Discrete	Project No.:	6610
Start/End Date:	2017-2025	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Construction	Location:	Milepost 126 Stte Highway 20
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$2,953	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	258	500	336	353	371	389	409	337	2,953
Total:	258	500	336	353	371	389	409	337	2,953
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	258	500	336	353	371	389	409	337	2,953
Total:	258	500	336	353	371	389	409	337	2,953
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	258	500	336	353	371	389	409	337	2,953
Total:	258	500	336	353	371	389	409	337	2,953
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6457
Start/End Date:	2020-2022	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Pre-Project Development	Location:	Milepost 126 Stte Highway 20
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$664	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	32	54	578	0	664
Total:	0	0	0	0	32	54	578	0	664
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	32	54	578	0	664
Total:	0	0	0	0	32	54	578	0	664
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	32	54	578	0	664
Total:	0	0	0	0	32	54	578	0	664
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	6483
Start/End Date:	2011-2021	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Construction	Location:	Milepost 126 State Highway 20
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$7,005	Urban Village:	Not in an Urban Village

This project provides updated line protection schemes on the Diablo Facility D1, D2, & D3 Lines, utilizing electromechanical 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5,005	502	40	719	736	3	0	0	7,005
Total:	5,005	502	40	719	736	3	0	0	7,005
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5,005	502	40	719	736	3	0	0	7,005
Total:	5,005	502	40	719	736	3	0	0	7,005
	LTD	2017	2018	2019	2020	2021	2022	2023	Total
	Actuals	REV							
Spending Plan									
City Light Fund	5,005	502	40	719	736	3	0	0	7,005
Total:	5,005	502	40	719	736	3	0	0	7,005
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	6422
Start/End Date:	2012-2018	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Construction	Location:	Milepost 126 State Highway 20
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$22,371	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,253	17,601	517	0	0	0	0	0	22,371
Total:	4,253	17,601	517	0	0	0	0	0	22,371
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,253	17,601	517	0	0	0	0	0	22,371
Total:	4,253	17,601	517	0	0	0	0	0	22,371
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,253	17,601	517	0	0	0	0	0	22,371
Total:	4,253	17,601	517	0	0	0	0	0	22,371
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	6423
Start/End Date:	2015-2019	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Design	Location:	Milepost 126 State Highway 20
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$22,583	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	2,904	13,055	6,491	133	0	0	0	0	22,583
Total:	2,904	13,055	6,491	133	0	0	0	0	22,583
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	2,904	13,055	6,491	133	0	0	0	0	22,583
Total:	2,904	13,055	6,491	133	0	0	0	0	22,583
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	2,904	13,055	6,491	133	0	0	0	0	22,583
Total:	2,904	13,055	6,491	133	0	0	0	0	22,583
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Distribution Management System**

Project Type:	Discrete	Project No.:	9966
Start/End Date:	2019-2020	BCL/Program Code:	SCL360-C5
Project Category:	New Facility	BCL/Program Name:	C5 Distribution - Distribution Other
Current Project Stage:	Pre-Project Development	Location:	City Wide
Neighborhood District:	Multiple	Council District:	Citywide
Total Project Cost:	\$9,117	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	5,674	3,443	0	0	0	9,117
Total:	0	0	0	5,674	3,443	0	0	0	9,117
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	5,674	3,443	0	0	0	9,117
Total:	0	0	0	5,674	3,443	0	0	0	9,117
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	5,674	3,443	0	0	0	9,117
Total:	0	0	0	5,674	3,443	0	0	0	9,117
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Enterprise Document Management System

Project Type:	Discrete	Project No.:	9962
Start/End Date:	2015-2026	BCL/Program Code:	SCL550-E2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems
Current Project Stage:	Execution	Location:	City Wide
Neighborhood District:	Multiple	Council District:	Citywide
Total Project Cost:	\$12,213	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,139	2,907	106	1,066	1,131	1,046	785	1,033	12,213
Total:	4,139	2,907	106	1,066	1,131	1,046	785	1,033	12,213
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,139	2,907	106	1,066	1,131	1,046	785	1,033	12,213
Total:	4,139	2,907	106	1,066	1,131	1,046	785	1,033	12,213
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,139	2,907	106	1,066	1,131	1,046	785	1,033	12,213
Total:	4,139	2,907	106	1,066	1,131	1,046	785	1,033	12,213
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### Enterprise Geographic Information System

Project Type:	Discrete	Project No.:	9957
Start/End Date:	2015-2021	BCL/Program Code:	SCL360-C5
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C5 Distribution - Distribution Other
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$14,243	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5	6,528	553	5,364	1,668	125	0	0	14,243
Total:	5	6,528	553	5,364	1,668	125	0	0	14,243
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5	6,528	553	5,364	1,668	125	0	0	14,243
Total:	5	6,528	553	5,364	1,668	125	0	0	14,243
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	5	6,528	553	5,364	1,668	125	0	0	14,243
Total:	5	6,528	553	5,364	1,668	125	0	0	14,243
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Enterprise Software Solution Replacement Strategy**

Project Type:	Discrete	Project No.:	9969
Start/End Date:	2018-2024	BCL/Program Code:	SCL360-C5
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C5 Distribution - Distribution Other
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	City Wide
Neighborhood District:	Multiple	Council District:	Citywide
Total Project Cost:	\$47,622	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	1,473	9,903	6,875	10,771	11,296	7,304	47,622
Total:	0	0	1,473	9,903	6,875	10,771	11,296	7,304	47,622
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	1,473	9,903	6,875	10,771	11,296	7,304	47,622
Total:	0	0	1,473	9,903	6,875	10,771	11,296	7,304	47,622
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	1,473	9,903	6,875	10,771	11,296	7,304	47,622
Total:	0	0	1,473	9,903	6,875	10,771	11,296	7,304	47,622
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### First Hill - Network Load Transfer

Project Type:	Discrete	Project No.:	8407
Start/End Date:	2019-2023	BCL/Program Code:	SCL360-C2
Project Category:	New Facility	BCL/Program Name:	C2 Distribution - Network
Current Project Stage:	Pre-Project Development	Location:	1100 Madison St.
Neighborhood District:	East District	Council District:	3
Total Project Cost:	\$25,436	Urban Village:	First Hill/Capitol 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	902	906	7,757	7,932	7,939	25,436
Total:	0	0	0	902	906	7,757	7,932	7,939	25,436
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	902	906	7,757	7,932	7,939	25,436
Total:	0	0	0	902	906	7,757	7,932	7,939	25,436
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	902	906	7,757	7,932	7,939	25,436
Total:	0	0	0	902	906	7,757	7,932	7,939	25,436
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **First Hill Connector Streetcar**

Project Type:	Discrete	Project No.:	8442
Start/End Date:	2010-2018	BCL/Program Code:	SCL370-D2
Project Category:	New Facility	BCL/Program Name:	D2 External Projects - Transportation Relocations
Current Project Stage:	Closeout	Location:	Broadway / Boren / Jackson / King
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$3,887	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	2,752	1,133	2	0	0	0	0	0	3,887
Total:	2,752	1,133	2	0	0	0	0	0	3,887
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	2,752	1,133	2	0	0	0	0	0	3,887
Total:	2,752	1,133	2	0	0	0	0	0	3,887
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	2,752	1,133	2	0	0	0	0	0	3,887
Total:	2,752	1,133	2	0	0	0	0	0	3,887
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Generation Federal Reliability Standards Improvements**

Project Type:	Discrete	Project No.:	6470
Start/End Date:	2007-2020	BCL/Program Code:	SCL250-A4
Project Category:	New Facility	BCL/Program Name:	A4 Power Supply - Power Supply Other
Current Project Stage:	Closeout	Location:	500 Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$9,563	Urban Village:	Not in an Urban Village

This 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	9,521	10	10	11	11	0	0	0	9,563
Total:	9,521	10	10	11	11	0	0	0	9,563
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	9,521	10	10	11	11	0	0	0	9,563
Total:	9,521	10	10	11	11	0	0	0	9,563
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	9,521	10	10	11	11	0	0	0	9,563
Total:	9,521	10	10	11	11	0	0	0	9,563
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Georgetown Steamplant Access Road**

Project Type:	Discrete	Project No.:	9233
Start/End Date:	2015-2018	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
Current Project Stage:	Construction	Location:	Off Wa 99 At King County Airport
Neighborhood District:	Greater Duwamish	Council District:	2
Total Project Cost:	\$1,745	Urban Village:	Greater Duwamish

This 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	13	1,042	690	0	0	0	0	0	1,745
Total:	13	1,042	690	0	0	0	0	0	1,745
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	13	1,042	690	0	0	0	0	0	1,745
Total:	13	1,042	690	0	0	0	0	0	1,745
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	13	1,042	690	0	0	0	0	0	1,745
Total:	13	1,042	690	0	0	0	0	0	1,745
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6581
Start/End Date:	2017-2018	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Design	Location:	Milepost 121 Stte Highway 20
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$1,081	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	16	1,030	35	0	0	0	0	0	1,081
Total:	16	1,030	35	0	0	0	0	0	1,081
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	16	1,030	35	0	0	0	0	0	1,081
Total:	16	1,030	35	0	0	0	0	0	1,081
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	16	1,030	35	0	0	0	0	0	1,081
Total:	16	1,030	35	0	0	0	0	0	1,081
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Gorge Crane Rehabilitation**

Project Type:	Discrete	Project No.:	6639
Start/End Date:	2021-2021	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Pre-Project Development	Location:	Milepost 121 State Highway 20
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$1,982	Urban Village:	Not in an Urban Village

This project refurbishes or replaces mechanical and electrical systems for the Gorge powerhouse crane and will provide safety upgrades to comply with current code. The Gorge powerhouse crane has never undergone a major refurbishment. The three Gorge generating units are planned for overhauls within the next ten years, and will require a reliable crane. The crane control system is being modernized to allow for better control and accuracy.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	1,982	0	0	1,982
Total:	0	0	0	0	0	1,982	0	0	1,982
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	1,982	0	0	1,982
Total:	0	0	0	0	0	1,982	0	0	1,982
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	0	1,982	0	0	1,982
Total:	0	0	0	0	0	1,982	0	0	1,982
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	6326
Start/End Date:	2017-2024	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Milepost 121 State Highway 20
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$1,025	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	71	53	220	323	117	119	122	1,025
Total:	0	71	53	220	323	117	119	122	1,025
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	71	53	220	323	117	119	122	1,025
Total:	0	71	53	220	323	117	119	122	1,025
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	71	53	220	323	117	119	122	1,025
Total:	0	71	53	220	323	117	119	122	1,025
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### Gorge U21-24 overhauls

Project Type:	Discrete	Project No.:	6640
Start/End Date:	2022-2026	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Pre-Project Development	Location:	Milepost 121 State Highway 20
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$16,731	Urban Village:	Not in an Urban Village

This project overhauls Gorge units 21 - 24. The final scope of work will be determined during project chartering, but is expected to include replacing the stator winding, stator core, and excitation system. Refurbishment is expected for rotor components and other mechanical components. Planning is currently forecast to start in 2022 which would mean construction on the first unit would likely begin in 2025.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	0	564	16,167	16,731
Total:	0	0	0	0	0	0	564	16,167	16,731
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	0	564	16,167	16,731
Total:	0	0	0	0	0	0	564	16,167	16,731
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	0	0	564	16,167	16,731
Total:	0	0	0	0	0	0	564	16,167	16,731
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	7756
Start/End Date:	2019-2023	BCL/Program Code:	SCL360-C1
Project Category:	New Facility	BCL/Program Name:	C1 Distribution - Substations
Current Project Stage:	Pre-Project Development	Location:	17th Ave West/West Bertona St
Neighborhood District:	Magnolia/Queen Anne	Council District:	7
Total Project Cost:	\$4,037	Urban Village:	Ballard-Interbay Northend

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	2,489	0	0	81	82	398	463	524	4,037
Total:	2,489	0	0	81	82	398	463	524	4,037
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	2,489	0	0	81	82	398	463	524	4,037
Total:	2,489	0	0	81	82	398	463	524	4,037
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	2,489	0	0	81	82	398	463	524	4,037
Total:	2,489	0	0	81	82	398	463	524	4,037
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### Landis and Gyr RTU Modernization Boundary, CF, Skagit

Project Type:	Discrete	Project No.:	6565
Start/End Date:	2019-2021	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
Current Project Stage:	Pre-Project Development	Location:	Boundary, Skagit and Cedar Falls power facilities.
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$1,755	Urban Village:	Not in an Urban Village

This project provides the installation of new remote temperature monitoring equipment at the Boundary, Skagit and Cedar Falls power facilities.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	467	715	573	0	0	1,755
Total:	0	0	0	467	715	573	0	0	1,755
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	467	715	573	0	0	1,755
Total:	0	0	0	467	715	573	0	0	1,755
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	467	715	573	0	0	1,755
Total:	0	0	0	467	715	573	0	0	1,755
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Laurelhurst - Underground Rebuild

Project Type:	Discrete	Project No.:	8373
Start/End Date:	2007-2018	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
Current Project Stage:	Construction	Location:	45th Street/38th Street
Neighborhood District:	Northeast	Council District:	4
Total Project Cost:	\$10,862	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	9,828	886	148	0	0	0	0	0	10,862
Total:	9,828	886	148	0	0	0	0	0	10,862
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	9,828	886	148	0	0	0	0	0	10,862
Total:	9,828	886	148	0	0	0	0	0	10,862
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	9,828	886	148	0	0	0	0	0	10,862
Total:	9,828	886	148	0	0	0	0	0	10,862
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Mobile Workforce Implementation**

Project Type:	Discrete	Project No.:	8429
Start/End Date:	2017-2020	BCL/Program Code:	SCL360-C3
Project Category:	New Facility	BCL/Program Name:	C3 Distribution - Radial
Current Project Stage:	Construction	Location:	Citywide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$6,693	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	1,113	1,269	4,135	176	0	0	0	6,693
Total:	0	1,113	1,269	4,135	176	0	0	0	6,693
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	1,113	1,269	4,135	176	0	0	0	6,693
Total:	0	1,113	1,269	4,135	176	0	0	0	6,693
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	1,113	1,269	4,135	176	0	0	0	6,693
Total:	0	1,113	1,269	4,135	176	0	0	0	6,693
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	9937
Start/End Date:	2015-2017	BCL/Program Code:	SCL370-E1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E1 Central Utility Projects - Customer and Billing
Current Project Stage:	Closeout	Location:	700 5th Avenue
Neighborhood District:	Downtown	Council District:	3
Total Project Cost:	\$63,450	Urban Village:	Downtown

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 preserves and enhances the City's ability to continue to deliver this critical function into the future.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	51,506	11,944	0	0	0	0	0	0	63,450
Total:	51,506	11,944	0	0	0	0	0	0	63,450
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	51,506	11,944	0	0	0	0	0	0	63,450
Total:	51,506	11,944	0	0	0	0	0	0	63,450
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	51,506	11,944	0	0	0	0	0	0	63,450
Total:	51,506	11,944	0	0	0	0	0	0	63,450
O & M Costs (Savings)			2018	2019	2020	2021	2022	2023	Total
Total:			0	0	0	0	0	0	0

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

### Newhalem - Generator 20/Support Facility Rebuild

Project Type:	Discrete	Project No.:	6479
Start/End Date:	2011-2018	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Construction	Location:	500 Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$6,049	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	3,899	1,837	313	0	0	0	0	0	6,049
Total:	3,899	1,837	313	0	0	0	0	0	6,049
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	3,899	1,837	313	0	0	0	0	0	6,049
Total:	3,899	1,837	313	0	0	0	0	0	6,049
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	3,899	1,837	313	0	0	0	0	0	6,049
Total:	3,899	1,837	313	0	0	0	0	0	6,049
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	9967
Start/End Date:	2017-2018	BCL/Program Code:	SCL360-C5
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C5 Distribution - Distribution Other
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$2,006	Urban Village:	Multiple

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 to 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	1,392	614	0	0	0	0	0	2,006
Total:	0	1,392	614	0	0	0	0	0	2,006
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	1,392	614	0	0	0	0	0	2,006
Total:	0	1,392	614	0	0	0	0	0	2,006
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	1,392	614	0	0	0	0	0	2,006
Total:	0	1,392	614	0	0	0	0	0	2,006
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### PCB Tracking and Condition Assessment Project

Project Type:	Discrete	Project No.:	9974
Start/End Date:	2017-2019	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	\$5 <i>,</i> 195	Urban Village:	Not in an 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. This project was formerly known as "Asset Condition Assessment and Test Tracking System."

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	500	3,357	1,338	0	0	0	0	5,195
Total:	0	500	3,357	1,338	0	0	0	0	5,195
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	500	3,357	1,338	0	0	0	0	5,195
Total:	0	500	3,357	1,338	0	0	0	0	5,195
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	500	3,357	1,338	0	0	0	0	5,195
Total:	0	500	3,357	1,338	0	0	0	0	5,195
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### PeopleSoft Reimplementation - City Light

Project Type:	Discrete	Project No.:	9970
Start/End Date:	2015-2018	BCL/Program Code:	SCL550-E2
Project Category:	Improved Facility	BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems
Current Project Stage:	Execution	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$27,453	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	6,951	17,816	2,686	0	0	0	0	0	27,453
Total:	6,951	17,816	2,686	0	0	0	0	0	27,453
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	6,951	17,816	2,686	0	0	0	0	0	27,453
Total:	6,951	17,816	2,686	0	0	0	0	0	27,453
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	6,951	17,816	2,686	0	0	0	0	0	27,453
Total:	6,951	17,816	2,686	0	0	0	0	0	27,453
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6385
Start/End Date:	2007-2020	BCL/Program Code:	SCL250-A4
Project Category:	New Facility	BCL/Program Name:	A4 Power Supply - Power Supply Other
Current Project Stage:	Construction	Location:	500 Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$8,695	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5,505	1,034	890	1,048	218	0	0	0	8,695
Total:	5,505	1,034	890	1,048	218	0	0	0	8,695
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5,505	1,034	890	1,048	218	0	0	0	8,695
Total:	5,505	1,034	890	1,048	218	0	0	0	8,695
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	5,505	1,034	890	1,048	218	0	0	0	8,695
Total:	5,505	1,034	890	1,048	218	0	0	0	8,695
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Project Management System Implementation**

Project Type:	Discrete	Project No.:	9973
Start/End Date:	2021-2022	BCL/Program Code:	SCL360-C5
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C5 Distribution - Distribution Other
Current Project Stage:	Pre-Project Development	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	3
Total Project Cost:	\$3,005	Urban Village:	Not in an 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	2,003	1,002	0	3,005
Total:	0	0	0	0	0	2,003	1,002	0	3,005
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	2,003	1,002	0	3,005
Total:	0	0	0	0	0	2,003	1,002	0	3,005
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	0	2,003	1,002	0	3,005
Total:	0	0	0	0	0	2,003	1,002	0	3,005
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### Ross - Exciters 41-44

Project Type:	Discrete	Project No.:	6564
Start/End Date:	2018-2021	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Ross Powerhouse
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$4,266	Urban Village:	Outside Seattle City

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	165	3,194	214	693	0	0	4,266
Total:	0	0	165	3,194	214	693	0	0	4,266
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	165	3,194	214	693	0	0	4,266
Total:	0	0	165	3,194	214	693	0	0	4,266
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	165	3,194	214	693	0	0	4,266
Total:	0	0	165	3,194	214	693	0	0	4,266
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Ross - Governors**

Project Type:	Discrete	Project No.:	6562
Start/End Date:	2015-2020	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Ross Powerhouse
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$6,303	Urban Village:	Outside Seattle City

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	358	879	555	1,062	3,449	0	0	0	6,303
Total:	358	879	555	1,062	3,449	0	0	0	6,303
	LTD	2017	2018	2019	2020	2021	2022	2023	Total
	Actuals	REV							
Fund Appropriations/ Allocations*									
City Light Fund	358	879	555	1,062	3,449	0	0	0	6,303
Total:	358	879	555	1,062	3,449	0	0	0	6,303
	LTD	2017	2018	2019	2020	2021	2022	2023	Total
	Actuals	REV							
Spending Plan									
City Light Fund	358	879	555	1,062	3,449	0	0	0	6,303
Total:	358	879	555	1,062	3,449	0	0	0	6,303
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6577
Start/End Date:	2017-2021	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Pre-Project Development	Location:	Ross Powerhouse
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$5,220	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	106	0	109	4,784	221	0	0	5,220
Total:	0	106	0	109	4,784	221	0	0	5,220
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	106	0	109	4,784	221	0	0	5,220
Total:	0	106	0	109	4,784	221	0	0	5,220
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	106	0	109	4,784	221	0	0	5,220
Total:	0	106	0	109	4,784	221	0	0	5,220
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6373
Start/End Date:	2005-2020	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Design	Location:	Milepost 128 State Highway 20
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$11,181	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	2,231	841	1,481	3,932	2,696	0	0	0	11,181
Total:	2,231	841	1,481	3,932	2,696	0	0	0	11,181
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	2,231	841	1,481	3,932	2,696	0	0	0	11,181
Total:	2,231	841	1,481	3,932	2,696	0	0	0	11,181
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	2,231	841	1,481	3,932	2,696	0	0	0	11,181
Total:	2,231	841	1,481	3,932	2,696	0	0	0	11,181
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Ross Powerhouse - Programmable Language Controller Upgrade

Project Type:	Discrete	Project No.:	6376
Start/End Date:	2008-2019	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	Milepost 128 State Highway 20
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$717	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	95	454	140	28	0	0	0	0	717
Total:	95	454	140	28	0	0	0	0	717
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	95	454	140	28	0	0	0	0	717
Total:	95	454	140	28	0	0	0	0	717
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	95	454	140	28	0	0	0	0	717
Total:	95	454	140	28	0	0	0	0	717
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	6541
Start/End Date:	2015-2018	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Construction	Location:	Ross Powehouse
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$21,158	Urban Village:	Outside Seattle City

This project provides 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	10,289	10,743	126	0	0	0	0	0	21,158
Total:	10,289	10,743	126	0	0	0	0	0	21,158
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	10,289	10,743	126	0	0	0	0	0	21,158
Total:	10,289	10,743	126	0	0	0	0	0	21,158
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	10,289	10,743	126	0	0	0	0	0	21,158
Total:	10,289	10,743	126	0	0	0	0	0	21,158
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### Seattle Waterfront Streetlight Installation

Project Type:	Discrete	Project No.:	8481
Start/End Date:	2017-2022	BCL/Program Code:	SCL370-D1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	D1 External Projects - Local Jurisdictions
Current Project Stage:	Design	Location:	1312 Western AVE
Neighborhood District:	Not in a Neighborhood District	Council District:	7
Total Project Cost:	\$16,448	Urban Village:	Not in an 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	300	308	421	5,386	5,515	4,518	0	16,448
Total:	0	300	308	421	5,386	5,515	4,518	0	16,448
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	300	308	421	5,386	5,515	4,518	0	16,448
Total:	0	300	308	421	5,386	5,515	4,518	0	16,448
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	300	308	421	5,386	5,515	4,518	0	16,448
Total:	0	300	308	421	5,386	5,515	4,518	0	16,448
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Service Center Development Project

Project Type:	Discrete	Project No.:	9232
Start/End Date:	2021-2022	BCL/Program Code:	SCL250-E3
Project Category:	New Facility	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
Current Project Stage:	Pre-Project Development	Location:	TBD
Neighborhood District:	Not in a Neighborhood District	Council District:	TBD
Total Project Cost:	\$100,043	Urban Village:	Not in an Urban Village

This 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	0	0	0	59,705	40,338	0	100,043
Total:	0	0	0	0	0	59,705	40,338	0	100,043
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	0	0	0	59,705	40,338	0	100,043
Total:	0	0	0	0	0	59,705	40,338	0	100,043
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	0	0	0	59,705	40,338	0	100,043
Total:	0	0	0	0	0	59,705	40,338	0	100,043
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Skagit - Babcock Creek Crossing**

Project Type:	Discrete	Project No.:	6514
Start/End Date:	2015-2020	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Design	Location:	Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$1,409	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	194	59	59	1,096	1	0	0	0	1,409
Total:	194	59	59	1,096	1	0	0	0	1,409
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	194	59	59	1,096	1	0	0	0	1,409
Total:	194	59	59	1,096	1	0	0	0	1,409
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	194	59	59	1,096	1	0	0	0	1,409
Total:	194	59	59	1,096	1	0	0	0	1,409
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Skagit - Boat Facility Improvements**

Project Type:	Discrete	Project No.:	6540
Start/End Date:	2015-2019	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Construction	Location:	Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$4,438	Urban Village:	Outside Seattle City

This project provides design and construction of several new structures to support industrial and recreational boat operations on our Skagit reservoirs. Structures include a new tour dock, new dry dock, additions to the existing boat houses and a new barge landing in Diablo. The project provides 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	267	1,663	2,443	65	0	0	0	0	4,438
Total:	267	1,663	2,443	65	0	0	0	0	4,438
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	267	1,663	2,443	65	0	0	0	0	4,438
Total:	267	1,663	2,443	65	0	0	0	0	4,438
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	267	1,663	2,443	65	0	0	0	0	4,438
Total:	267	1,663	2,443	65	0	0	0	0	4,438
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	6515
Start/End Date:	2012-2018	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Design	Location:	Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$9,464	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5,318	3,117	1,029	0	0	0	0	0	9,464
Total:	5,318	3,117	1,029	0	0	0	0	0	9,464
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5,318	3,117	1,029	0	0	0	0	0	9,464
Total:	5,318	3,117	1,029	0	0	0	0	0	9,464
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	5,318	3,117	1,029	0	0	0	0	0	9,464
Total:	5,318	3,117	1,029	0	0	0	0	0	9,464
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Discrete	Project No.:	6232
Start/End Date:	2015-2020	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Construction	Location:	Milepost 126 State Highway 20
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$9,215	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,960	703	549	2,838	165	0	0	0	9,215
Total:	4,960	703	549	2,838	165	0	0	0	9,215
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,960	703	549	2,838	165	0	0	0	9,215
Total:	4,960	703	549	2,838	165	0	0	0	9,215
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,960	703	549	2,838	165	0	0	0	9,215
Total:	4,960	703	549	2,838	165	0	0	0	9,215
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Skagit Facilities Plan**

Project Type:	Discrete	Project No.:	6520
Start/End Date:	2010-2020	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Construction	Location:	Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$8,904	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	2,844	1,517	1,860	1,583	1,100	0	0	0	8,904
Total:	2,844	1,517	1,860	1,583	1,100	0	0	0	8,904
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	2,844	1,517	1,860	1,583	1,100	0	0	0	8,904
Total:	2,844	1,517	1,860	1,583	1,100	0	0	0	8,904
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	2,844	1,517	1,860	1,583	1,100	0	0	0	8,904
Total:	2,844	1,517	1,860	1,583	1,100	0	0	0	8,904
O & M Costs (Savings)			2018	2019	2020	2021	2022	2023	Total
Total:			0	0	0	0	0	0	0

### **Skagit Powerhouses - Install Protection Relays**

Project Type:	Discrete	Project No.:	6415
Start/End Date:	2005-2022	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
Current Project Stage:	Construction	Location:	500 Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	\$13,026	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,514	800	1,400	1,851	1,956	1,487	1,018	0	13,026
Total:	4,514	800	1,400	1,851	1,956	1,487	1,018	0	13,026
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,514	800	1,400	1,851	1,956	1,487	1,018	0	13,026
Total:	4,514	800	1,400	1,851	1,956	1,487	1,018	0	13,026
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,514	800	1,400	1,851	1,956	1,487	1,018	0	13,026
Total:	4,514	800	1,400	1,851	1,956	1,487	1,018	0	13,026
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### SMT AutoLab

Project Type:	Discrete	Project No.:	6600
Start/End Date:	2017-2020	BCL/Program Code:	SCL250-A4
Project Category:	Improved Facility	BCL/Program Name:	A4 Power Supply - Power Supply Other
Current Project Stage:	Pre-Project Development	Location:	System Wide
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$1,031	Urban Village:	Not in an 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	273	0	277	481	0	0	0	1,031
Total:	0	273	0	277	481	0	0	0	1,031
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	273	0	277	481	0	0	0	1,031
Total:	0	273	0	277	481	0	0	0	1,031
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	273	0	277	481	0	0	0	1,031
Total:	0	273	0	277	481	0	0	0	1,031
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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### **Solar Microgrid for Resilience**

Project Type:	Discrete	Project No.:	9238
Start/End Date:	2016-2018	BCL/Program Code:	SCL250-E3
Project Category:	New Investment	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	TBD
Neighborhood District:	Not in a Neighborhood District	Council District:	TBD
Total Project Cost:	\$4,141	Urban Village:	Not in an Urban Village

This project provides construction of an islandable microgrid 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 provides 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 positions City Light as one of the utilities in the forefront of an innovative application of microgrids and serve as a testbed 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	3,612	529	0	0	0	0	0	4,141
Total:	0	3,612	529	0	0	0	0	0	4,141
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	3,612	529	0	0	0	0	0	4,141
Total:	0	3,612	529	0	0	0	0	0	4,141
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	3,612	529	0	0	0	0	0	4,141
Total:	0	3,612	529	0	0	0	0	0	4,141

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CIP Project Page					Seattl	e City	Light
	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

#### Sound Transit - City Light System Upgrades

Project Type:	Discrete	Project No.:	8475
Start/End Date:	2017-2021	BCL/Program Code:	SCL370-D2
Project Category:	Improved Facility	BCL/Program Name:	D2 External Projects - Transportation Relocations
Current Project Stage:	Pre-Project Development	Location:	City Wide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	\$1,828	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	148	0	0	330	1,350	0	0	1,828
Total:	0	148	0	0	330	1,350	0	0	1,828
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	148	0	0	330	1,350	0	0	1,828
Total:	0	148	0	0	330	1,350	0	0	1,828
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	148	0	0	330	1,350	0	0	1,828
Total:	0	148	0	0	330	1,350	0	0	1,828
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Discrete	Project No.:	8450
Start/End Date:	2011-2018	BCL/Program Code:	SCL370-D2
Project Category:	New Facility	BCL/Program Name:	D2 External Projects - Transportation Relocations
Current Project Stage:	Design	Location:	I-90/International District Station/I-90 Bridge
Neighborhood District:	Central	Council District:	Outside City of Seattle
Total Project Cost:	\$2,258	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	109	1,585	564	0	0	0	0	0	2,258
Total:	109	1,585	564	0	0	0	0	0	2,258
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	109	1,585	564	0	0	0	0	0	2,258
Total:	109	1,585	564	0	0	0	0	0	2,258
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	109	1,585	564	0	0	0	0	0	2,258
Total:	109	1,585	564	0	0	0	0	0	2,258
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Sound Transit Lynnwood - City Light

Project Type:	Discrete	Project No.:	8471
Start/End Date:	2015-2022	BCL/Program Code:	SCL370-D2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	D2 External Projects - Transportation Relocations
Current Project Stage:	Design	Location:	City Wide
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	\$9,506	Urban Village:	Outside Seattle City

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	166	1,473	1,604	1,513	2,113	1,976	661	0	9,506
Total:	166	1,473	1,604	1,513	2,113	1,976	661	0	9,506
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	166	1,473	1,604	1,513	2,113	1,976	661	0	9,506
Total:	166	1,473	1,604	1,513	2,113	1,976	661	0	9,506
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	166	1,473	1,604	1,513	2,113	1,976	661	0	9,506
Total:	166	1,473	1,604	1,513	2,113	1,976	661	0	9,506
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### Sound Transit Northlink - City Light

Project Type:	Discrete	Project No.:	8427
Start/End Date:	2010-2018	BCL/Program Code:	SCL370-D2
Project Category:	New Facility	BCL/Program Name:	D2 External Projects - Transportation Relocations
Current Project Stage:	Construction	Location:	University District / Roosevelt / Northgate
Neighborhood District:	Northwest	Council District:	5
Total Project Cost:	\$6,936	Urban Village:	Multiple

This project provides management and construction of SCL's utility relocations and feeder construction needed for Sound Transit to build the North Link light rail line to the proposed Sound Transit Northgate Station, from the University of Washingtoh Station, as part of the design and construction agreements made between the City of Seattle and Sound Transit.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,411	2,500	25	0	0	0	0	0	6,936
Total:	4,411	2,500	25	0	0	0	0	0	6,936
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,411	2,500	25	0	0	0	0	0	6,936
Total:	4,411	2,500	25	0	0	0	0	0	6,936
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,411	2,500	25	0	0	0	0	0	6,936
Total:	4,411	2,500	25	0	0	0	0	0	6,936
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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#### State Route 520 Bridge Relocations

Project Type:	Discrete	Project No.:	8435
Start/End Date:	2017-2021	BCL/Program Code:	SCL370-D2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	D2 External Projects - Transportation Relocations
Current Project Stage:	Design	Location:	SR 520 / Lake Washington
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$894	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	30	597	92	108	45	22	0	0	894
Total:	30	597	92	108	45	22	0	0	894
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	30	597	92	108	45	22	0	0	894
Total:	30	597	92	108	45	22	0	0	894
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	30	597	92	108	45	22	0	0	894
Total:	30	597	92	108	45	22	0	0	894
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Technical Training Center Development**

Project Type:	Discrete	Project No.:	9230
Start/End Date:	2015-2019	BCL/Program Code:	SCL250-E3
Project Category:	New Facility	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
Current Project Stage:	Design	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$14,659	Urban Village:	Not in an Urban Village

The project provides Seattle City Light with 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-on 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	2,114	11,393	512	640	0	0	0	0	14,659
Total:	2,114	11,393	512	640	0	0	0	0	14,659
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	2,114	11,393	512	640	0	0	0	0	14,659
Total:	2,114	11,393	512	640	0	0	0	0	14,659
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	2,114	11,393	512	640	0	0	0	0	14,659
Total:	2,114	11,393	512	640	0	0	0	0	14,659

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

	2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)							
Total:	0	0	0	0	0	0	0

### **Transmission Line Inductor Installation**

Project Type:	Discrete	Project No.:	8461
Start/End Date:	2015-2019	BCL/Program Code:	SCL360-B1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	B1 Transmission - Transmission
Current Project Stage:	Design	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$27,707	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,351	11,476	7,580	4,300	0	0	0	0	27,707
Total:	4,351	11,476	7,580	4,300	0	0	0	0	27,707
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,351	11,476	7,580	4,300	0	0	0	0	27,707
Total:	4,351	11,476	7,580	4,300	0	0	0	0	27,707
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,351	11,476	7,580	4,300	0	0	0	0	27,707
Total:	4,351	11,476	7,580	4,300	0	0	0	0	27,707
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Transmission Line Reconductoring**

Project Type:	Discrete	Project No.:	8462
Start/End Date:	2015-2019	BCL/Program Code:	SCL360-B1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	B1 Transmission - Transmission
Current Project Stage:	Design	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	\$4,975	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	376	3,718	728	153	0	0	0	0	4,975
Total:	376	3,718	728	153	0	0	0	0	4,975
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	376	3,718	728	153	0	0	0	0	4,975
Total:	376	3,718	728	153	0	0	0	0	4,975
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	376	3,718	728	153	0	0	0	0	4,975
Total:	376	3,718	728	153	0	0	0	0	4,975
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### Western Energy Imbalance Market

Project Type:	Discrete	Project No.:	9976
Start/End Date:	2017-2019	BCL/Program Code:	SCL250-A4
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A4 Power Supply - Power Supply Other
Current Project Stage:	Initiation, Project Definition, & Planning	Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	\$14,679	Urban Village:	Not in an Urban Village

This 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 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 2019.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	3,470	9,464	1,745	0	0	0	0	14,679
Total:	0	3,470	9,464	1,745	0	0	0	0	14,679
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	3,470	9,464	1,745	0	0	0	0	14,679
Total:	0	3,470	9,464	1,745	0	0	0	0	14,679
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	3,470	9,464	1,745	0	0	0	0	14,679
Total:	0	3,470	9,464	1,745	0	0	0	0	14,679
O.S.M.Costa (Covinge)			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)			0	0	0	0	0	0	0
Total:			0	0	0	0	0	0	0

### **Battery Storage Pilot**

Project Type:	Ongoing	Project No.:	8484
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing project funds 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 gives City Light an opportunity to explore the storage technology and its impact on our local grid.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	501	501	2,003	0	0	0	0	3,005
Total:	0	501	501	2,003	0	0	0	0	3,005
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	501	501	2,003	0	0	0	0	3,005
Total:	0	501	501	2,003	0	0	0	0	3,005
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	501	501	2,003	0	0	0	0	3,005
Total:	0	501	501	2,003	0	0	0	0	3,005
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Boundary - Licensing Mitigation**

Project Type:	Ongoing	Project No.:	6987
Start/End Date:	N/A	BCL/Program Code:	SCL250-A1
Project Category:	New Investment	BCL/Program Name:	A1 Power Supply - Boundary
		Location:	10382 Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	39,569	39,797	25,593	20,537	16,293	13,501	11,960	8,291	175,541
Total:	39,569	39,797	25,593	20,537	16,293	13,501	11,960	8,291	175,541
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	39,569	39,797	25,593	20,537	16,293	13,501	11,960	8,291	175,541
Total:	39,569	39,797	25,593	20,537	16,293	13,501	11,960	8,291	175,541
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	39,569	39,797	25,593	20,537	16,293	13,501	11,960	8,291	175,541
Total:	39,569	39,797	25,593	20,537	16,293	13,501	11,960	8,291	175,541
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Ongoing	Project No.:	6401
Start/End Date:	N/A	BCL/Program Code:	SCL250-A1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A1 Power Supply - Boundary
		Location:	10382 Boundary Rd, Metaline, WA 99153
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	20,736	1,601	1,585	1,569	5,702	7,267	12,124	14,900	65,484
Total:	20,736	1,601	1,585	1,569	5,702	7,267	12,124	14,900	65,484
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	20,736	1,601	1,585	1,569	5,702	7,267	12,124	14,900	65,484
Total:	20,736	1,601	1,585	1,569	5,702	7,267	12,124	14,900	65,484
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	20,736	1,601	1,585	1,569	5,702	7,267	12,124	14,900	65,484
Total:	20,736	1,601	1,585	1,569	5,702	7,267	12,124	14,900	65,484
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Ongoing	Project No.:	8203
Start/End Date:	N/A	BCL/Program Code:	SCL360-C2
Project Category:	New Facility	BCL/Program Name:	C2 Distribution - Network
		Location:	319 6th AVE N
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	89,822	12,702	3,983	3,685	4,591	8,920	3,019	3,059	129,781
Total:	89,822	12,702	3,983	3,685	4,591	8,920	3,019	3,059	129,781
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	89,822	12,702	3,983	3,685	4,591	8,920	3,019	3,059	129,781
Total:	89,822	12,702	3,983	3,685	4,591	8,920	3,019	3,059	129,781
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	89,822	12,702	3,983	3,685	4,591	8,920	3,019	3,059	129,781
Total:	89,822	12,702	3,983	3,685	4,591	8,920	3,019	3,059	129,781
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Broadband - City Light**

Project Type:	Ongoing	Project No.:	8465
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	New Facility	BCL/Program Name:	C3 Distribution - Radial
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing project funds utility crews and engineers to prepare City Light poles for the attachment of other communication infrastructure. This project is merged with project 8452 Pole Attachments.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5,866	7,551	35	0	0	0	0	0	13,452
Total:	5,866	7,551	35	0	0	0	0	0	13,452
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5,866	7,551	35	0	0	0	0	0	13,452
Total:	5,866	7,551	35	0	0	0	0	0	13,452
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	5,866	7,551	35	0	0	0	0	0	13,452
Total:	5,866	7,551	35	0	0	0	0	0	13,452
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Building Envelope Upgrades**

Project Type:	Ongoing	Project No.:	9072
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	500 Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	8,697	2,247	1,619	1,259	1,271	1,301	1,332	7	17,733
Total:	8,697	2,247	1,619	1,259	1,271	1,301	1,332	7	17,733
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	8,697	2,247	1,619	1,259	1,271	1,301	1,332	7	17,733
Total:	8,697	2,247	1,619	1,259	1,271	1,301	1,332	7	17,733
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	8,697	2,247	1,619	1,259	1,271	1,301	1,332	7	17,733
Total:	8,697	2,247	1,619	1,259	1,271	1,301	1,332	7	17,733
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Call Center Improvements - City Light**

Project Type:	Ongoing	Project No.:	9972
Start/End Date:	N/A	BCL/Program Code:	SCL370-E1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E1 Central Utility Projects - Customer and Billing
		Location:	University District / Roosevelt / Northgate
Neighborhood District:	Northwest	Council District:	5
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	501	503	53	215	110	226	58	1,666
Total:	0	501	503	53	215	110	226	58	1,666
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	501	503	53	215	110	226	58	1,666
Total:	0	501	503	53	215	110	226	58	1,666
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	501	503	53	215	110	226	58	1,666
Total:	0	501	503	53	215	110	226	58	1,666
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### <u>Cedar Falls/South Fork Tolt - Minor Improvements Program</u>

Project Type:	Ongoing	Project No.:	6406
Start/End Date:	N/A	BCL/Program Code:	SCL250-A3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A3 Power Supply - Cedar Falls - Tolt
		Location:	19901 Cedar Falls Rd SE, North Bend, WA 98045
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	8,044	2,513	1,890	1,195	2,276	2,874	2,935	0	21,727
Total:	8,044	2,513	1,890	1,195	2,276	2,874	2,935	0	21,727
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	8,044	2,513	1,890	1,195	2,276	2,874	2,935	0	21,727
Total:	8,044	2,513	1,890	1,195	2,276	2,874	2,935	0	21,727
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	8,044	2,513	1,890	1,195	2,276	2,874	2,935	0	21,727
Total:	8,044	2,513	1,890	1,195	2,276	2,874	2,935	0	21,727
O.S.M.Costa (Souinga)			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)			0	0	0	0	0	0	0
Total:			0	0	U	0	0	0	0

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

Project Type:	Ongoing	Project No.:	8403
Start/End Date:	N/A	BCL/Program Code:	SCL370-D1
Project Category:	New Facility	BCL/Program Name:	D1 External Projects - Local Jurisdictions
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	3	10	10	11	11	11	12	12	80
Total:	3	10	10	11	11	11	12	12	80
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	3	10	10	11	11	11	12	12	80
Total:	3	10	10	11	11	11	12	12	80
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	3	10	10	11	11	11	12	12	80
Total:	3	10	10	11	11	11	12	12	80
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Communications Improvements**

Project Type:	Ongoing	Project No.:	9009
Start/End Date:	N/A	BCL/Program Code:	SCL360-C5
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C5 Distribution - Distribution Other
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	12,860	1,665	948	899	901	962	842	1,085	20,162
Total:	12,860	1,665	948	899	901	962	842	1,085	20,162
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	12,860	1,665	948	899	901	962	842	1,085	20,162
Total:	12,860	1,665	948	899	901	962	842	1,085	20,162
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	12,860	1,665	948	899	901	962	842	1,085	20,162
Total:	12,860	1,665	948	899	901	962	842	1,085	20,162
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Dam Safety Part 12 Improvements**

Project Type:	Ongoing	Project No.:	6626
Start/End Date:	N/A	BCL/Program Code:	SCL250-A4
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A4 Power Supply - Power Supply Other
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

This ongoing 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	451	256	263	215	220	226	0	1,631
Total:	0	451	256	263	215	220	226	0	1,631
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	451	256	263	215	220	226	0	1,631
Total:	0	451	256	263	215	220	226	0	1,631
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	451	256	263	215	220	226	0	1,631
Total:	0	451	256	263	215	220	226	0	1,631
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Denny Substation - Network**

Project Type:	Ongoing	Project No.:	8404
Start/End Date:	N/A	BCL/Program Code:	SCL360-C2
Project Category:	New Facility	BCL/Program Name:	C2 Distribution - Network
		Location:	Valley Street/Denny Ave
Neighborhood District:	Lake Union	Council District:	Multiple
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	13,414	38,949	5,896	3,549	10,724	12,204	11,011	11,246	106,993
Total:	13,414	38,949	5,896	3,549	10,724	12,204	11,011	11,246	106,993
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	13,414	38,949	5,896	3,549	10,724	12,204	11,011	11,246	106,993
Total:	13,414	38,949	5,896	3,549	10,724	12,204	11,011	11,246	106,993
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	13,414	38,949	5,896	3,549	10,724	12,204	11,011	11,246	106,993
Total:	13,414	38,949	5,896	3,549	10,724	12,204	11,011	11,246	106,993
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Denny Substation Tenant Improvements

Project Type:	Ongoing	Project No.:	9235
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	Valley Street
Neighborhood District:	Lake Union	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	South Lake Union

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	20	5,254	1,362	24	0	0	0	0	6,660
Total:	20	5,254	1,362	24	0	0	0	0	6,660
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	20	5,254	1,362	24	0	0	0	0	6,660
Total:	20	5,254	1,362	24	0	0	0	0	6,660
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	20	5,254	1,362	24	0	0	0	0	6,660
Total:	20	5,254	1,362	24	0	0	0	0	6,660

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

Project Type:	Ongoing	Project No.:	9307
Start/End Date:	N/A	BCL/Program Code:	SCL360-C5
Project Category:	New Facility	BCL/Program Name:	C5 Distribution - Distribution Other
		Location:	Citywide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	22,626	1,340	2,681	2,581	2,909	2,807	2,028	2,057	39,029
Total:	22,626	1,340	2,681	2,581	2,909	2,807	2,028	2,057	39,029
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	22,626	1,340	2,681	2,581	2,909	2,807	2,028	2,057	39,029
Total:	22,626	1,340	2,681	2,581	2,909	2,807	2,028	2,057	39,029
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	22,626	1,340	2,681	2,581	2,909	2,807	2,028	2,057	39,029
Total:	22,626	1,340	2,681	2,581	2,909	2,807	2,028	2,057	39,029
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

CIP Project Page

## **Seattle City Light**

### **Distribution Automation**

Project Type:	Ongoing	Project No.:	8425
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
		Location:	Citywide
Neighborhood District:	Not in a Neighborhood District	Location: Council District:	Citywide Citywide

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 provides the ability to automatically perform outage restoration, shift blocks of load to maximize efficiencies of feeders, and reconfigure the feeder grid. Typical operation involves remotely detecting that a feeder fault has occurred, locating the damaged portion of the feeder between two remote controlled line switches, isolating the damaged portion of the feeder by opening appropriate remote controlled line switches, and re-energizing undamaged portions of the feeder via the primary feeder source and one or more backup sources using automatically controlled tie switches.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5,016	4,059	2,276	2,848	2,943	2,975	1,505	3,222	24,844
Total:	5,016	4,059	2,276	2,848	2,943	2,975	1,505	3,222	24,844
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5,016	4,059	2,276	2,848	2,943	2,975	1,505	3,222	24,844
Total:	5,016	4,059	2,276	2,848	2,943	2,975	1,505	3,222	24,844
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	5,016	4,059	2,276	2,848	2,943	2,975	1,505	3,222	24,844
Total:	5,016	4,059	2,276	2,848	2,943	2,975	1,505	3,222	24,844
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Electric Vehicle Infrastructure**

Project Type:	Ongoing	Project No.:	9237
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	New Investment	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	City Wide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing project funds the implementation of two charging infrastructure pilot programs in 2017: one focuses on public DC fast chargers and one focuses on residential charging. This project rolls 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 owns and installs the public charging infrastructure. Through the residential pilot, City Light installs 200-300 stations in customers' homes that create a service that lowers the initial cost and uncertainty of installing at-home charging. This program model offers customers a manageable monthly cost, while allowing the utility to better understand load managment options like demand response. These programs 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	1,753	1,077	53	11	0	0	0	2,894
Total:	0	1,753	1,077	53	11	0	0	0	2,894
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	1,753	1,077	53	11	0	0	0	2,894
Total:	0	1,753	1,077	53	11	0	0	0	2,894
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	1,753	1,077	53	11	0	0	0	2,894
Total:	0	1,753	1,077	53	11	0	0	0	2,894
O. R. M. Conto (Continge)			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Endangered Species Act Mitigation**

Project Type:	Ongoing	Project No.:	6990
Start/End Date:	N/A	BCL/Program Code:	SCL250-A4
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A4 Power Supply - Power Supply Other
		Location:	Outside the City of Seattle
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	15,996	1,721	1,108	1,130	1,152	1,175	1,198	1,219	24,699
Total:	15,996	1,721	1,108	1,130	1,152	1,175	1,198	1,219	24,699
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	15,996	1,721	1,108	1,130	1,152	1,175	1,198	1,219	24,699
Total:	15,996	1,721	1,108	1,130	1,152	1,175	1,198	1,219	24,699
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	15,996	1,721	1,108	1,130	1,152	1,175	1,198	1,219	24,699
Total:	15,996	1,721	1,108	1,130	1,152	1,175	1,198	1,219	24,699
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Energy Conservation**

Project Type:	Ongoing	Project No.:	9320
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	3,289	703	325	115	114	116	119	2	4,783
Total:	3,289	703	325	115	114	116	119	2	4,783
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	3,289	703	325	115	114	116	119	2	4,783
Total:	3,289	703	325	115	114	116	119	2	4,783
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	3,289	703	325	115	114	116	119	2	4,783
Total:	3,289	703	325	115	114	116	119	2	4,783
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Ongoing	Project No.:	9152
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	Outside the City of Seattle
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	1,329	92	96	57	58	59	60	0	1,751
Total:	1,329	92	96	57	58	59	60	0	1,751
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	1,329	92	96	57	58	59	60	0	1,751
Total:	1,329	92	96	57	58	59	60	0	1,751
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	1,329	92	96	57	58	59	60	0	1,751
Total:	1,329	92	96	57	58	59	60	0	1,751
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Equipment Fleet Replacement**

Project Type:	Ongoing	Project No.:	9101
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	New Facility	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	95,021	11,875	7,639	7,178	7,182	7,185	10,037	8,867	154,984
Total:	95,021	11,875	7,639	7,178	7,182	7,185	10,037	8,867	154,984
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	95,021	11,875	7,639	7,178	7,182	7,185	10,037	8,867	154,984
Total:	95,021	11,875	7,639	7,178	7,182	7,185	10,037	8,867	154,984
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	95,021	11,875	7,639	7,178	7,182	7,185	10,037	8,867	154,984
Total:	95,021	11,875	7,639	7,178	7,182	7,185	10,037	8,867	154,984
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Facilities Infrastructure Improvements**

Project Type:	Ongoing	Project No.:	9156
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,389	655	453	64	63	64	66	0	5,754
Total:	4,389	655	453	64	63	64	66	0	5,754
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,389	655	453	64	63	64	66	0	5,754
Total:	4,389	655	453	64	63	64	66	0	5,754
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,389	655	453	64	63	64	66	0	5,754
Total:	4,389	655	453	64	63	64	66	0	5,754
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Facilities Regulatory Compliance**

Project Type:	Ongoing	Project No.:	9151
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	500 Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	1,629	482	334	342	350	359	367	0	3,863
Total:	1,629	482	334	342	350	359	367	0	3,863
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	1,629	482	334	342	350	359	367	0	3,863
Total:	1,629	482	334	342	350	359	367	0	3,863
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	1,629	482	334	342	350	359	367	0	3,863
Total:	1,629	482	334	342	350	359	367	0	3,863
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### First Hill - Network

Project Type:	Ongoing	Project No.:	8301
Start/End Date:	N/A	BCL/Program Code:	SCL360-C2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C2 Distribution - Network
		Location:	1100 Madison St
Neighborhood District:	East District	Council District:	3
Total Project Cost:	N/A	Urban Village:	First Hill/Capitol Hill

This ongoing 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	16,251	3,267	1,087	2,698	2,730	2,022	5,034	5,150	38,239
Total:	16,251	3,267	1,087	2,698	2,730	2,022	5,034	5,150	38,239
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	16,251	3,267	1,087	2,698	2,730	2,022	5,034	5,150	38,239
Total:	16,251	3,267	1,087	2,698	2,730	2,022	5,034	5,150	38,239
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	16,251	3,267	1,087	2,698	2,730	2,022	5,034	5,150	38,239
Total:	16,251	3,267	1,087	2,698	2,730	2,022	5,034	5,150	38,239
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### Hydro Project Spill Containment

Project Type:	Ongoing	Project No.:	6530
Start/End Date:	N/A	BCL/Program Code:	SCL250-A4
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A4 Power Supply - Power Supply Other
		Location:	Outside City of Seattle
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Outside Seattle City

This ongoing 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	2,044	885	364	848	817	0	0	0	4,958
Total:	2,044	885	364	848	817	0	0	0	4,958
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	2,044	885	364	848	817	0	0	0	4,958
Total:	2,044	885	364	848	817	0	0	0	4,958
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	2,044	885	364	848	817	0	0	0	4,958
Total:	2,044	885	364	848	817	0	0	0	4,958
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### Information Technology Infrastructure

Project Type:	Ongoing	Project No.:	9915
Start/End Date:	N/A	BCL/Program Code:	SCL550-E2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	49,931	2,901	513	504	502	501	501	501	55 <i>,</i> 854
Total:	49,931	2,901	513	504	502	501	501	501	55,854
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	49,931	2,901	513	504	502	501	501	501	55,854
Total:	49,931	2,901	513	504	502	501	501	501	55,854
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	49,931	2,901	513	504	502	501	501	501	55,854
Total:	49,931	2,901	513	504	502	501	501	501	55,854
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

CIP Project Page

## **Seattle City Light**

### **IT Security Upgrades**

Project Type:	Ongoing	Project No.:	9960
Start/End Date:	N/A	BCL/Program Code:	SCL550-E2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E2 Central Utility Projects - Finance and IT Systems
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	3,793	569	1,119	1,146	1,174	918	689	705	10,113
Total:	3,793	569	1,119	1,146	1,174	918	689	705	10,113
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	3,793	569	1,119	1,146	1,174	918	689	705	10,113
Total:	3,793	569	1,119	1,146	1,174	918	689	705	10,113
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	3,793	569	1,119	1,146	1,174	918	689	705	10,113
Total:	3,793	569	1,119	1,146	1,174	918	689	705	10,113
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Large Overhead and Underground Services

Project Type:	Ongoing	Project No.:	8365
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	New Facility	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	22,108	3,083	3,065	4,194	3,284	5,079	6,442	6,589	53,844
Total:	22,108	3,083	3,065	4,194	3,284	5,079	6,442	6,589	53,844
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	22,108	3,083	3,065	4,194	3,284	5,079	6,442	6,589	53,844
Total:	22,108	3,083	3,065	4,194	3,284	5,079	6,442	6,589	53,844
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	22,108	3,083	3,065	4,194	3,284	5,079	6,442	6,589	53,844
Total:	22,108	3,083	3,065	4,194	3,284	5,079	6,442	6,589	53,844
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Major Emergency**

Project Type:	Ongoing	Project No.:	8380
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	3,130	262	264	792	809	1,401	1,432	529	8,619
Total:	3,130	262	264	792	809	1,401	1,432	529	8,619
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	3,130	262	264	792	809	1,401	1,432	529	8,619
Total:	3,130	262	264	792	809	1,401	1,432	529	8,619
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	3,130	262	264	792	809	1,401	1,432	529	8,619
Total:	3,130	262	264	792	809	1,401	1,432	529	8,619
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Massachusetts Street Substation - Networks**

Project Type:	Ongoing	Project No.:	8202
Start/End Date:	N/A	BCL/Program Code:	SCL360-C2
Project Category:	New Facility	BCL/Program Name:	C2 Distribution - Network
		Location:	1555 Utah Ave S
Neighborhood District:	Greater Duwamish	Council District:	2
Total Project Cost:	N/A	Urban Village:	Greater 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	36,933	4,150	4,206	4,108	4,436	3,194	4,805	5,090	66,922
Total:	36,933	4,150	4,206	4,108	4,436	3,194	4,805	5,090	66,922
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	36,933	4,150	4,206	4,108	4,436	3,194	4,805	5 <i>,</i> 090	66,922
Total:	36,933	4,150	4,206	4,108	4,436	3,194	4,805	5,090	66,922
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	36,933	4,150	4,206	4,108	4,436	3,194	4,805	5,090	66,922
Total:	36,933	4,150	4,206	4,108	4,436	3,194	4,805	5,090	66,922
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Ongoing	Project No.:	8366
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	New Facility	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	112,434	15,845	14,388	11,567	11,780	12,288	15,683	14,518	208,503
Total:	112,434	15,845	14,388	11,567	11,780	12,288	15,683	14,518	208,503
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	112,434	15,845	14,388	11,567	11,780	12,288	15,683	14,518	208,503
Total:	112,434	15,845	14,388	11,567	11,780	12,288	15,683	14,518	208,503
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	112,434	15,845	14,388	11,567	11,780	12,288	15,683	14,518	208,503
Total:	112,434	15,845	14,388	11,567	11,780	12,288	15,683	14,518	208,503
O & M Costs (Savings)			2018	2019	2020	2021	2022	2023	Total
Total:			0	0	0	0	0	0	0

### **Meter Additions**

Project Type:	Ongoing	Project No.:	8054
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	New Facility	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	69,988	2,282	2,351	2,792	2,840	3,013	3,065	2,800	89,131
Total:	69,988	2,282	2,351	2,792	2,840	3,013	3,065	2,800	89,131
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	69,988	2,282	2,351	2,792	2,840	3,013	3,065	2,800	89,131
Total:	69,988	2,282	2,351	2,792	2,840	3,013	3,065	2,800	89,131
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	69,988	2,282	2,351	2,792	2,840	3,013	3,065	2,800	89,131
Total:	69,988	2,282	2,351	2,792	2,840	3,013	3,065	2,800	89,131
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Miscellaneous Building Improvements**

Project Type:	Ongoing	Project No.:	9007
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	Citywide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	13,201	1,918	2,212	2,305	3,749	3,828	3,901	2,543	33,657
Total:	13,201	1,918	2,212	2,305	3,749	3,828	3,901	2,543	33,657
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	13,201	1,918	2,212	2,305	3,749	3,828	3,901	2,543	33,657
Total:	13,201	1,918	2,212	2,305	3,749	3,828	3,901	2,543	33,657
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	13,201	1,918	2,212	2,305	3,749	3,828	3,901	2,543	33,657
Total:	13,201	1,918	2,212	2,305	3,749	3,828	3,901	2,543	33,657
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Neighborhood Voluntary Undergrounding Program**

Project Type:	Ongoing	Project No.:	8383
Start/End Date:	N/A	BCL/Program Code:	SCL370-D3
Project Category:	New Facility	BCL/Program Name:	D3 External Projects - Customer Other
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	277	8	15	15	15	15	15	15	375
Total:	277	8	15	15	15	15	15	15	375
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	277	8	15	15	15	15	15	15	375
Total:	277	8	15	15	15	15	15	15	375
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	277	8	15	15	15	15	15	15	375
Total:	277	8	15	15	15	15	15	15	375
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Ongoing	Project No.:	8405
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	New Facility	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	Valley Street/Denny Ave
Neighborhood District:	Lake Union	Council District:	TBD
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,676	3,311	2,836	2,691	2,453	3,086	4,865	5,241	29,159
Total:	4,676	3,311	2,836	2,691	2,453	3,086	4,865	5,241	29,159
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,676	3,311	2,836	2,691	2,453	3,086	4,865	5,241	29,159
Total:	4,676	3,311	2,836	2,691	2,453	3,086	4,865	5,241	29,159
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,676	3,311	2,836	2,691	2,453	3,086	4,865	5,241	29,159
Total:	4,676	3,311	2,836	2,691	2,453	3,086	4,865	5,241	29,159
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Ongoing	Project No.:	8363
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	New Facility	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	319 6th AV N
Neighborhood District:	Multiple	Council District:	7
Total Project Cost:	N/A	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
61,489	11,612	7,200	7,144	7,279	7,537	7,423	7,979	117,663
61,489	11,612	7,200	7,144	7,279	7,537	7,423	7,979	117,663
LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
61,489	11,612	7,200	7,144	7,279	7,537	7,423	7,979	117,663
61,489	11,612	7,200	7,144	7,279	7,537	7,423	7,979	117,663
LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
61,489	11,612	7,200	7,144	7,279	7,537	7,423	7,979	117,663
61,489	11,612	7,200	7,144	7,279	7,537	7,423	7,979	117,663
		2018	2019	2020	2021	2022	2023	Total
		0	0	0	0	0	0	0
	61,489 61,489 LTD Actuals 61,489 61,489 LTD Actuals 61,489	61,489       11,612         61,489       11,612         LTD       2017         Actuals       REV         61,489       11,612         61,489       11,612         61,489       11,612         61,489       11,612         LTD       2017         Actuals       REV         61,489       11,612         LTD       2017         Actuals       11,612         61,489       11,612	61,489       11,612       7,200         61,489       11,612       7,200         LTD       2017       2018         Actuals       REV       2017         61,489       11,612       7,200         61,489       11,612       7,200         61,489       11,612       7,200         LTD       2017       2018         Actuals       REV       2017         61,489       11,612       7,200         61,489       11,612       7,200         61,489       11,612       7,200         61,489       11,612       7,200	61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         LTD       2017       2018       2019         Actuals       REV       2018       2019         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144         61,489       11,612       7,200       7,144	61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         LTD       2017       2018       2019       2020         Actuals       REV       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         61,489       11,612       7,200       7,144       7,279         2018       2019       2020       2020       2018	61,48911,6127,2007,1447,2797,53761,48911,6127,2007,1447,2797,537LTD Actuals2017 REV201820192020202161,48911,6127,2007,1447,2797,53761,48911,6127,2007,1447,2797,537LTD Actuals2017 REV201820192020202161,48911,6127,2007,1447,2797,53761,48911,6127,2007,1447,2797,53761,48911,6127,2007,1447,2797,53761,48911,6127,2007,1447,2797,53761,48911,6127,2007,1447,2797,53761,48911,6127,2007,1447,2797,53761,4892018201920202021	61,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,423LTD Actuals2017 REV20182019 202020202021202261,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,42361,48911,6127,2007,1447,2797,5377,4232018201920202021202220182019202020212022	61,489       11,612       7,200       7,144       7,279       7,537       7,423       7,979         61,489       11,612       7,200       7,144       7,279       7,537       7,423       7,979         LTD       2017       2018       2019       2020       2021       2022       2023         Actuals       REV       2018       2019       2020       2021       2022       2023         61,489       11,612       7,200       7,144       7,279       7,537       7,423       7,979         61,489       11,612       7,200       7,144       7,279       7,537       7,423       7,979         61,489       11,612       7,200       7,144       7,279       7,537       7,423       7,979         Actuals       REV       2018       2019       2020       2021       2022       2023         Actuals       11,612       7,200       7,144       7,279       7,537       7,423       7,979         61,489       11,612       7,200       7,144       7,279       7,537       7,423       7,979         61,489       11,612       7,200       7,144       7,279       7,537       7,423       7,

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

Project Type:	Ongoing	Project No.:	8364
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	New Facility	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	1555 Utah AV S
Neighborhood District:	Multiple	Council District:	2
Total Project Cost:	N/A	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	40,306	5,437	3,270	3,367	3,407	3,917	3,970	4,249	67,923
Total:	40,306	5,437	3,270	3,367	3,407	3,917	3,970	4,249	67,923
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	40,306	5,437	3,270	3,367	3,407	3,917	3,970	4,249	67,923
Total:	40,306	5,437	3,270	3,367	3,407	3,917	3,970	4,249	67,923
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	40,306	5,437	3,270	3,367	3,407	3,917	3,970	4,249	67,923
Total:	40,306	5,437	3,270	3,367	3,407	3,917	3,970	4,249	67,923
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Network Hazeltine Upgrade**

Project Type:	Ongoing	Project No.:	8129
Start/End Date:	N/A	BCL/Program Code:	SCL360-C2
Project Category:	New Facility	BCL/Program Name:	C2 Distribution - Network
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	7,144	545	572	552	778	740	742	743	11,816
Total:	7,144	545	572	552	778	740	742	743	11,816
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	7,144	545	572	552	778	740	742	743	11,816
Total:	7,144	545	572	552	778	740	742	743	11,816
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	7,144	545	572	552	778	740	742	743	11,816
Total:	7,144	545	572	552	778	740	742	743	11,816
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Ongoing	Project No.:	8130
Start/End Date:	N/A	BCL/Program Code:	SCL360-C2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C2 Distribution - Network
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	56,762	3,518	3,439	3,557	3,535	3,674	2,612	2,589	79,686
Total:	56,762	3,518	3,439	3,557	3,535	3,674	2,612	2,589	79,686
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	56,762	3,518	3,439	3,557	3,535	3,674	2,612	2,589	79,686
Total:	56,762	3,518	3,439	3,557	3,535	3,674	2,612	2,589	79,686
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	56,762	3,518	3,439	3,557	3,535	3,674	2,612	2,589	79,686
Total:	56,762	3,518	3,439	3,557	3,535	3,674	2,612	2,589	79,686
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

CIP Project Page

## Seattle City Light

### **Normal Emergency**

Project Type:	Ongoing	Project No.:	8379
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

This ongoing 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	12,875	569	573	582	590	1,726	1,762	1,999	20,676
Total:	12,875	569	573	582	590	1,726	1,762	1,999	20,676
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	12,875	569	573	582	590	1,726	1,762	1,999	20,676
Total:	12,875	569	573	582	590	1,726	1,762	1,999	20,676
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	12,875	569	573	582	590	1,726	1,762	1,999	20,676
Total:	12,875	569	573	582	590	1,726	1,762	1,999	20,676
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### North and South Service Center Improvements

Project Type:	Ongoing	Project No.:	9107
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	Outside City of Seattle
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	35,110	437	350	818	3,953	5,369	5,481	186	51,704
Total:	35,110	437	350	818	3,953	5,369	5,481	186	51,704
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	35,110	437	350	818	3,953	5,369	5,481	186	51,704
Total:	35,110	437	350	818	3,953	5,369	5,481	186	51,704
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	35,110	437	350	818	3,953	5,369	5,481	186	51,704
Total:	35,110	437	350	818	3,953	5,369	5,481	186	51,704
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Office Furniture and Equipment Purchase

Project Type:	Ongoing	Project No.:	9103
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	New Facility	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	19,543	1,022	693	1,096	1,123	1,150	1,177	0	25,804
Total:	19,543	1,022	693	1,096	1,123	1,150	1,177	0	25,804
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	19,543	1,022	693	1,096	1,123	1,150	1,177	0	25,804
Total:	19,543	1,022	693	1,096	1,123	1,150	1,177	0	25,804
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	19,543	1,022	693	1,096	1,123	1,150	1,177	0	25,804
Total:	19,543	1,022	693	1,096	1,123	1,150	1,177	0	25,804
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Overhead 26kV Conversion**

Project Type:	Ongoing	Project No.:	8358
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	16,709	2,750	1,764	1,750	1,771	1,802	1,629	1,566	29,741
Total:	16,709	2,750	1,764	1,750	1,771	1,802	1,629	1,566	29,741
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	16,709	2,750	1,764	1,750	1,771	1,802	1,629	1,566	29,741
Total:	16,709	2,750	1,764	1,750	1,771	1,802	1,629	1,566	29,741
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	16,709	2,750	1,764	1,750	1,771	1,802	1,629	1,566	29,741
Total:	16,709	2,750	1,764	1,750	1,771	1,802	1,629	1,566	29,741
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Overhead and Underground Relocations**

Project Type:	Ongoing	Project No.:	8369
Start/End Date:	N/A	BCL/Program Code:	SCL370-D2
Project Category:	New Facility	BCL/Program Name:	D2 External Projects - Transportation Relocations
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	14,597	3,127	5,167	3,876	3,912	3,837	3,910	3,545	41,971
Total:	14,597	3,127	5,167	3,876	3,912	3,837	3,910	3,545	41,971
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	14,597	3,127	5,167	3,876	3,912	3,837	3,910	3,545	41,971
Total:	14,597	3,127	5,167	3,876	3,912	3,837	3,910	3,545	41,971
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	14,597	3,127	5,167	3,876	3,912	3,837	3,910	3,545	41,971
Total:	14,597	3,127	5,167	3,876	3,912	3,837	3,910	3,545	41,971
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Ongoing	Project No.:	8355
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	New Facility	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	37,422	3,901	4,334	4,980	5,618	4,042	6,008	6,092	72,397
Total:	37,422	3,901	4,334	4,980	5,618	4,042	6,008	6,092	72,397
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	37,422	3,901	4,334	4,980	5,618	4,042	6,008	6,092	72,397
Total:	37,422	3,901	4,334	4,980	5,618	4,042	6,008	6,092	72,397
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	37,422	3,901	4,334	4,980	5,618	4,042	6,008	6,092	72,397
Total:	37,422	3,901	4,334	4,980	5,618	4,042	6,008	6,092	72,397
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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### **Overhead Equipment Replacements**

Project Type:	Ongoing	Project No.:	8351
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	100,805	9,740	12,384	18,028	21,068	22,184	24,970	26,917	236,096
Total:	100,805	9,740	12,384	18,028	21,068	22,184	24,970	26,917	236,096
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	100,805	9,740	12,384	18,028	21,068	22,184	24,970	26,917	236,096
Total:	100,805	9,740	12,384	18,028	21,068	22,184	24,970	26,917	236,096
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	100,805	9,740	12,384	18,028	21,068	22,184	24,970	26,917	236,096
Total:	100,805	9,740	12,384	18,028	21,068	22,184	24,970	26,917	236,096
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Overhead Outage Replacements**

Project Type:	Ongoing	Project No.:	8350
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	3,300	310	314	449	937	951	1,098	1,119	8,478
Total:	3,300	310	314	449	937	951	1,098	1,119	8,478
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	3,300	310	314	449	937	951	1,098	1,119	8,478
Total:	3,300	310	314	449	937	951	1,098	1,119	8,478
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	3,300	310	314	449	937	951	1,098	1,119	8,478
Total:	3,300	310	314	449	937	951	1,098	1,119	8,478
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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### **Overhead System Capacity Additions**

Project Type:	Ongoing	Project No.:	8356
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	New Facility	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	32,030	2,755	2,631	2,543	2,670	3,398	3,448	3,497	52,972
Total:	32,030	2,755	2,631	2,543	2,670	3,398	3,448	3,497	52,972
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	32,030	2,755	2,631	2,543	2,670	3,398	3,448	3,497	52,972
Total:	32,030	2,755	2,631	2,543	2,670	3,398	3,448	3,497	52,972
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	32,030	2,755	2,631	2,543	2,670	3,398	3,448	3,497	52,972
Total:	32,030	2,755	2,631	2,543	2,670	3,398	3,448	3,497	52,972
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Pole Attachments**

Project Type:	Ongoing	Project No.:	8452
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	New Facility	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	12,502	13,467	18,351	6,528	7,298	7,829	7,957	7,320	81,252
Total:	12,502	13,467	18,351	6,528	7,298	7,829	7,957	7,320	81,252
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	12,502	13,467	18,351	6,528	7,298	7,829	7,957	7,320	81,252
Total:	12,502	13,467	18,351	6,528	7,298	7,829	7,957	7,320	81,252
	LTD	2017	2018	2019	2020	2021	2022	2023	Total
	Actuals	REV							
Spending Plan									
City Light Fund	12,502	13,467	18,351	6,528	7,298	7,829	7,957	7,320	81,252
Total:	12,502	13,467	18,351	6,528	7,298	7,829	7,957	7,320	81,252
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Relaying Improvements**

Project Type:	Ongoing	Project No.:	7753
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C1 Distribution - Substations
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	34,345	4,191	4,614	5,578	4,535	4,937	5,033	5,166	68,399
Total:	34,345	4,191	4,614	5,578	4,535	4,937	5,033	5,166	68,399
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	34,345	4,191	4,614	5,578	4,535	4,937	5,033	5,166	68,399
Total:	34,345	4,191	4,614	5,578	4,535	4,937	5,033	5,166	68,399
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	34,345	4,191	4,614	5,578	4,535	4,937	5,033	5,166	68,399
Total:	34,345	4,191	4,614	5,578	4,535	4,937	5,033	5,166	68,399
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Ongoing	Project No.:	7121
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C1 Distribution - Substations
		Location:	Kent
Neighborhood District:	Not in a Neighborhood District	Council District:	TBD
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

This ongoing 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	546	11	11	11	11	12	12	12	626
Total:	546	11	11	11	11	12	12	12	626
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	546	11	11	11	11	12	12	12	626
Total:	546	11	11	11	11	12	12	12	626
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	546	11	11	11	11	12	12	12	626
Total:	546	11	11	11	11	12	12	12	626
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Safety Modifications**

Project Type:	Ongoing	Project No.:	9006
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	Citywide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5,302	1,640	1,344	1,374	1,364	1,396	1,428	71	13,919
Total:	5,302	1,640	1,344	1,374	1,364	1,396	1,428	71	13,919
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5,302	1,640	1,344	1,374	1,364	1,396	1,428	71	13,919
Total:	5,302	1,640	1,344	1,374	1,364	1,396	1,428	71	13,919
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	5,302	1,640	1,344	1,374	1,364	1,396	1,428	71	13,919
Total:	5,302	1,640	1,344	1,374	1,364	1,396	1,428	71	13,919
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

CIP Project Page

## **Seattle City Light**

### **Security Improvements**

Project Type:	Ongoing	Project No.:	9202
Start/End Date:	N/A	BCL/Program Code:	SCL360-C5
Project Category:	New Facility	BCL/Program Name:	C5 Distribution - Distribution Other
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	23,604	11,175	2,344	2,243	2,288	2,343	2,322	2,320	48,639
Total:	23,604	11,175	2,344	2,243	2,288	2,343	2,322	2,320	48,639
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	23,604	11,175	2,344	2,243	2,288	2,343	2,322	2,320	48,639
Total:	23,604	11,175	2,344	2,243	2,288	2,343	2,322	2,320	48,639
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	23,604	11,175	2,344	2,243	2,288	2,343	2,322	2,320	48,639
Total:	23,604	11,175	2,344	2,243	2,288	2,343	2,322	2,320	48,639
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Seismic Mitigation**

Project Type:	Ongoing	Project No.:	9134
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	Outside the City of Seattle
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5,687	136	86	94	602	604	606	3	7,818
Total:	5,687	136	86	94	602	604	606	3	7,818
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5,687	136	86	94	602	604	606	3	7,818
Total:	5,687	136	86	94	602	604	606	3	7,818
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	5,687	136	86	94	602	604	606	3	7,818
Total:	5,687	136	86	94	602	604	606	3	7,818
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Skagit - Relicensing**

Project Type:	Ongoing	Project No.:	6986
Start/End Date:	N/A	BCL/Program Code:	SCL250-A2
Project Category:	New Investment	BCL/Program Name:	A2 Power Supply - Skagit
		Location:	Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Outside City of Seattle	Council District:	Outside City of Seattle
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	528	1,039	6,448	6,057	13,858	26,723	4,207	58,860
Total:	0	528	1,039	6,448	6,057	13,858	26,723	4,207	58,860
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	528	1,039	6,448	6,057	13,858	26,723	4,207	58,860
Total:	0	528	1,039	6,448	6,057	13,858	26,723	4,207	58,860
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	528	1,039	6,448	6,057	13,858	26,723	4,207	58,860
Total:	0	528	1,039	6,448	6,057	13,858	26,723	4,207	58,860

#### Skagit Facility - Minor Improvements Program

Project Type:	Ongoing	Project No.:	6405
Start/End Date:	N/A	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
		Location:	500 Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	22,878	3,761	3,491	1,146	5,162	9,726	10,127	1,541	57,832
Total:	22,878	3,761	3,491	1,146	5,162	9,726	10,127	1,541	57,832
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	22,878	3,761	3,491	1,146	5,162	9,726	10,127	1,541	57,832
Total:	22,878	3,761	3,491	1,146	5,162	9,726	10,127	1,541	57,832
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	22,878	3,761	3,491	1,146	5,162	9,726	10,127	1,541	57,832
Total:	22,878	3,761	3,491	1,146	5,162	9,726	10,127	1,541	57,832
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Skagit Licensing Mitigation**

Project Type:	Ongoing	Project No.:	6991
Start/End Date:	N/A	BCL/Program Code:	SCL250-A2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A2 Power Supply - Skagit
		Location:	500 Newhalem Creek Rd, Marblemount, WA 98267
Neighborhood District:	Not in a Neighborhood District	Council District:	TBD
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	36,862	821	74	132	121	137	134	0	38,281
Total:	36,862	821	74	132	121	137	134	0	38,281
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	36,862	821	74	132	121	137	134	0	38,281
Total:	36,862	821	74	132	121	137	134	0	38,281
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	36,862	821	74	132	121	137	134	0	38,281
Total:	36,862	821	74	132	121	137	134	0	38,281
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### Small Overhead and Underground Services

Project Type:	Ongoing	Project No.:	8367
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	New Facility	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	60,751	6,205	6,267	5,461	5,289	5,274	6,654	7,047	102,948
Total:	60,751	6,205	6,267	5,461	5,289	5,274	6,654	7,047	102,948
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	60,751	6,205	6,267	5,461	5,289	5,274	6,654	7,047	102,948
Total:	60,751	6,205	6,267	5,461	5,289	5,274	6,654	7,047	102,948
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	60,751	6,205	6,267	5,461	5,289	5,274	6,654	7,047	102,948
Total:	60,751	6,205	6,267	5,461	5,289	5,274	6,654	7,047	102,948
O. 8. M. Conta (Continge)			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

Project Type:	Ongoing	Project No.:	6102
Start/End Date:	N/A	BCL/Program Code:	SCL250-A4
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	A4 Power Supply - Power Supply Other
		Location:	Outside the City of Seattle
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	13,555	1,580	929	1,396	1,429	1,013	1,038	0	20,940
Total:	13,555	1,580	929	1,396	1,429	1,013	1,038	0	20,940
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	13,555	1,580	929	1,396	1,429	1,013	1,038	0	20,940
Total:	13,555	1,580	929	1,396	1,429	1,013	1,038	0	20,940
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	13,555	1,580	929	1,396	1,429	1,013	1,038	0	20,940
Total:	13,555	1,580	929	1,396	1,429	1,013	1,038	0	20,940
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

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

Project Type:	Ongoing	Project No.:	9102
Start/End Date:	N/A	BCL/Program Code:	SCL360-C5
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C5 Distribution - Distribution Other
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	21,258	1,823	1,077	1,102	1,129	1,156	1,184	1,212	29,941
Total:	21,258	1,823	1,077	1,102	1,129	1,156	1,184	1,212	29,941
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	21,258	1,823	1,077	1,102	1,129	1,156	1,184	1,212	29,941
Total:	21,258	1,823	1,077	1,102	1,129	1,156	1,184	1,212	29,941
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	21,258	1,823	1,077	1,102	1,129	1,156	1,184	1,212	29,941
Total:	21,258	1,823	1,077	1,102	1,129	1,156	1,184	1,212	29,941
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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### **Special Work Equipment - Shops**

Project Type:	Ongoing	Project No.:	8389
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	1,322	357	300	307	314	322	330	0	3,252
Total:	1,322	357	300	307	314	322	330	0	3,252
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	1,322	357	300	307	314	322	330	0	3,252
Total:	1,322	357	300	307	314	322	330	0	3,252
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	1,322	357	300	307	314	322	330	0	3,252
Total:	1,322	357	300	307	314	322	330	0	3,252
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Special Work Equipment - Tech Metering**

Project Type:	Ongoing	Project No.:	8485
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Not in an 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	205	102	105	215	110	113	233	1,083
Total:	0	205	102	105	215	110	113	233	1,083
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	205	102	105	215	110	113	233	1,083
Total:	0	205	102	105	215	110	113	233	1,083
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	205	102	105	215	110	113	233	1,083
Total:	0	205	102	105	215	110	113	233	1,083

#### **Stormwater Compliance**

Project Type:	Ongoing	Project No.:	9236
Start/End Date:	N/A	BCL/Program Code:	SCL360-C5
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C5 Distribution - Distribution Other
		Location:	City Wide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing project funds the installation of lighted canopies and the associated drainage improvements that are 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	501	514	0	0	0	0	0	1,015
Total:	0	501	514	0	0	0	0	0	1,015
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	501	514	0	0	0	0	0	1,015
Total:	0	501	514	0	0	0	0	0	1,015
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	501	514	0	0	0	0	0	1,015
Total:	0	501	514	0	0	0	0	0	1,015
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Streetlight Infrastructure Replacement

Project Type:	Ongoing	Project No.:	8460
Start/End Date:	N/A	BCL/Program Code:	SCL370-D1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	D1 External Projects - Local Jurisdictions
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	8,110	5,429	3,170	3,296	3,966	4,360	4,184	4,491	37,006
Total:	8,110	5,429	3,170	3,296	3,966	4,360	4,184	4,491	37,006
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	8,110	5,429	3,170	3,296	3,966	4,360	4,184	4,491	37,006
Total:	8,110	5,429	3,170	3,296	3,966	4,360	4,184	4,491	37,006
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	8,110	5,429	3,170	3,296	3,966	4,360	4,184	4,491	37,006
Total:	8,110	5,429	3,170	3,296	3,966	4,360	4,184	4,491	37,006
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Streetlight LED Conversion Program**

Project Type:	Ongoing	Project No.:	8441
Start/End Date:	N/A	BCL/Program Code:	SCL370-D1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	D1 External Projects - Local Jurisdictions
		Location:	Citywide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	31,460	7,099	5,434	6,089	6,993	6,773	6,932	4,887	75,667
Total:	31,460	7,099	5,434	6,089	6,993	6,773	6,932	4,887	75,667
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	31,460	7,099	5,434	6,089	6,993	6,773	6,932	4,887	75,667
Total:	31,460	7,099	5,434	6,089	6,993	6,773	6,932	4,887	75,667
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	31,460	7,099	5,434	6,089	6,993	6,773	6,932	4,887	75,667
Total:	31,460	7,099	5,434	6,089	6,993	6,773	6,932	4,887	75,667
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Streetlights: Arterial, Residential and Floodlights**

Project Type:	Ongoing	Project No.:	8378
Start/End Date:	N/A	BCL/Program Code:	SCL370-D1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	D1 External Projects - Local Jurisdictions
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	25,885	3,718	3,492	3,753	4,255	4,943	5,064	4,222	55,332
Total:	25,885	3,718	3,492	3,753	4,255	4,943	5,064	4,222	55,332
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	25,885	3,718	3,492	3,753	4,255	4,943	5,064	4,222	55,332
Total:	25,885	3,718	3,492	3,753	4,255	4,943	5,064	4,222	55,332
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	25,885	3,718	3,492	3,753	4,255	4,943	5,064	4,222	55,332
Total:	25,885	3,718	3,492	3,753	4,255	4,943	5,064	4,222	55,332
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

CIP Project Page

## **Seattle City Light**

#### **Substation Automation**

Project Type:	Ongoing	Project No.:	8424
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C1 Distribution - Substations
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	6,566	1,396	1,522	1,562	1,583	1,381	1,337	997	16,344
Total:	6,566	1,396	1,522	1,562	1,583	1,381	1,337	997	16,344
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	6,566	1,396	1,522	1,562	1,583	1,381	1,337	997	16,344
Total:	6,566	1,396	1,522	1,562	1,583	1,381	1,337	997	16,344
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	6,566	1,396	1,522	1,562	1,583	1,381	1,337	997	16,344
Total:	6,566	1,396	1,522	1,562	1,583	1,381	1,337	997	16,344
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### Substation Breaker Replacements and Reliability Additions

Project Type:	Ongoing	Project No.:	7779
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C1 Distribution - Substations
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	32,611	6,168	4,836	5,656	5,217	5,900	5,647	6,699	72,734
Total:	32,611	6,168	4,836	5,656	5,217	5,900	5,647	6,699	72,734
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	32,611	6,168	4,836	5,656	5,217	5,900	5,647	6,699	72,734
Total:	32,611	6,168	4,836	5,656	5,217	5,900	5,647	6,699	72,734
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	32,611	6,168	4,836	5,656	5,217	5,900	5,647	6,699	72,734
Total:	32,611	6,168	4,836	5,656	5,217	5,900	5,647	6,699	72,734
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Substation Capacity Additions**

Project Type:	Ongoing	Project No.:	7751
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	New Facility	BCL/Program Name:	C1 Distribution - Substations
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	13,464	1,904	2,038	2,170	2,575	2,123	2,192	3,119	29,585
Total:	13,464	1,904	2,038	2,170	2,575	2,123	2,192	3,119	29,585
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	13,464	1,904	2,038	2,170	2,575	2,123	2,192	3,119	29,585
Total:	13,464	1,904	2,038	2,170	2,575	2,123	2,192	3,119	29,585
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	13,464	1,904	2,038	2,170	2,575	2,123	2,192	3,119	29,585
Total:	13,464	1,904	2,038	2,170	2,575	2,123	2,192	3,119	29,585
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Substation Comprehensive Improvements

Project Type:	Ongoing	Project No.:	9161
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	New Facility	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	4,210	273	279	275	279	284	13	7	5,620
Total:	4,210	273	279	275	279	284	13	7	5,620
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	4,210	273	279	275	279	284	13	7	5,620
Total:	4,210	273	279	275	279	284	13	7	5,620
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	4,210	273	279	275	279	284	13	7	5,620
Total:	4,210	273	279	275	279	284	13	7	5,620
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Substation Equipment Improvements**

Project Type:	Ongoing	Project No.:	7752
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C1 Distribution - Substations
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	64,261	5,810	6,060	6,878	6,882	6,606	6,261	6,161	108,919
Total:	64,261	5,810	6,060	6,878	6,882	6,606	6,261	6,161	108,919
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	64,261	5,810	6,060	6,878	6,882	6,606	6,261	6,161	108,919
Total:	64,261	5,810	6,060	6,878	6,882	6,606	6,261	6,161	108,919
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	64,261	5,810	6,060	6,878	6,882	6,606	6,261	6,161	108,919
Total:	64,261	5,810	6,060	6,878	6,882	6,606	6,261	6,161	108,919
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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#### **Substation Plant Improvements**

Project Type:	Ongoing	Project No.:	7750
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C1 Distribution - Substations
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	9,655	1,406	1,365	1,123	1,024	1,200	1,522	1,262	18,557
Total:	9,655	1,406	1,365	1,123	1,024	1,200	1,522	1,262	18,557
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	9,655	1,406	1,365	1,123	1,024	1,200	1,522	1,262	18,557
Total:	9,655	1,406	1,365	1,123	1,024	1,200	1,522	1,262	18,557
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	9,655	1,406	1,365	1,123	1,024	1,200	1,522	1,262	18,557
Total:	9,655	1,406	1,365	1,123	1,024	1,200	1,522	1,262	18,557
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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#### **Substation Transformer Replacements**

Project Type:	Ongoing	Project No.:	7776
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C1 Distribution - Substations
		Location:	2136 N 163rd St, Shoreline
Neighborhood District:	Not in a Neighborhood District	Council District:	Outside City of Seattle
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

This ongoing 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.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	8,265	2,367	2,641	5,005	4,597	4,966	5,058	2,075	34,974
Total:	8,265	2,367	2,641	5,005	4,597	4,966	5,058	2,075	34,974
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	8,265	2,367	2,641	5,005	4,597	4,966	5,058	2,075	34,974
Total:	8,265	2,367	2,641	5,005	4,597	4,966	5,058	2,075	34,974
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	8,265	2,367	2,641	5,005	4,597	4,966	5,058	2,075	34,974
Total:	8,265	2,367	2,641	5,005	4,597	4,966	5,058	2,075	34,974
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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#### Substations Demand Driven Improvements

Project Type:	Ongoing	Project No.:	7755
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	New Facility	BCL/Program Name:	C1 Distribution - Substations
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	5,811	6	5	6	6	6	6	6	5,852
Total:	5,811	6	5	6	6	6	6	6	5,852
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	5,811	6	5	6	6	6	6	6	5,852
Total:	5,811	6	5	6	6	6	6	6	5,852
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	5,811	6	5	6	6	6	6	6	5,852
Total:	5,811	6	5	6	6	6	6	6	5,852
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Substations Oil Containment**

Project Type:	Ongoing	Project No.:	7783
Start/End Date:	N/A	BCL/Program Code:	SCL360-C1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C1 Distribution - Substations
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	Urban Village:	Not in an Urban Village

This ongoing project brings 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	15	337	340	335	341	224	590	397	2,579
Total:	15	337	340	335	341	224	590	397	2,579
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	15	337	340	335	341	224	590	397	2,579
Total:	15	337	340	335	341	224	590	397	2,579
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	15	337	340	335	341	224	590	397	2,579
Total:	15	337	340	335	341	224	590	397	2,579
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Transmission & Generation Radio Systems

Project Type:	Ongoing	Project No.:	9108
Start/End Date:	N/A	BCL/Program Code:	SCL360-C5
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C5 Distribution - Distribution Other
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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 anc 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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	15,342	1,223	1,328	750	936	980	995	1,222	22,776
Total:	15,342	1,223	1,328	750	936	980	995	1,222	22,776
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	15,342	1,223	1,328	750	936	980	995	1,222	22,776
Total:	15,342	1,223	1,328	750	936	980	995	1,222	22,776
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	15,342	1,223	1,328	750	936	980	995	1,222	22,776
Total:	15,342	1,223	1,328	750	936	980	995	1,222	22,776
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Transmission Capacity**

Project Type:	Ongoing	Project No.:	7011
Start/End Date:	N/A	BCL/Program Code:	SCL360-B1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	B1 Transmission - Transmission
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	10,895	1,237	24	25	25	11	21	28	12,266
Total:	10,895	1,237	24	25	25	11	21	28	12,266
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	10,895	1,237	24	25	25	11	21	28	12,266
Total:	10,895	1,237	24	25	25	11	21	28	12,266
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	10,895	1,237	24	25	25	11	21	28	12,266
Total:	10,895	1,237	24	25	25	11	21	28	12,266
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Transmission Inter-Agency**

Project Type:	Ongoing	Project No.:	7105
Start/End Date:	N/A	BCL/Program Code:	SCL360-B1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	B1 Transmission - Transmission
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	2,548	606	589	603	613	623	591	623	6,796
Total:	2,548	606	589	603	613	623	591	623	6,796
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	2,548	606	589	603	613	623	591	623	6,796
Total:	2,548	606	589	603	613	623	591	623	6,796
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	2,548	606	589	603	613	623	591	623	6,796
Total:	2,548	606	589	603	613	623	591	623	6,796
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

### **Transmission Reliability**

Project Type:	Ongoing	Project No.:	7104	
Start/End Date:	N/A	BCL/Program Code:	SCL360-B1	
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	B1 Transmission - Transmission	
		Location:	System Wide	
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide	
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	24,471	3,686	4,257	3,729	3,064	2,654	3,681	5,359	50,901
Total:	24,471	3,686	4,257	3,729	3,064	2,654	3,681	5,359	50,901
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	24,471	3,686	4,257	3,729	3,064	2,654	3,681	5,359	50,901
Total:	24,471	3,686	4,257	3,729	3,064	2,654	3,681	5,359	50,901
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	24,471	3,686	4,257	3,729	3,064	2,654	3,681	5,359	50,901
Total:	24,471	3,686	4,257	3,729	3,064	2,654	3,681	5,359	50,901
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

### **Transportation Streetlights**

Project Type:	Ongoing	Project No.:	8377
Start/End Date:	N/A	BCL/Program Code:	SCL370-D1
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	D1 External Projects - Local Jurisdictions
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	11,966	5,407	4,224	3,998	4,010	851	7,104	3,705	41,265
Total:	11,966	5,407	4,224	3,998	4,010	851	7,104	3,705	41,265
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	11,966	5,407	4,224	3,998	4,010	851	7,104	3,705	41,265
Total:	11,966	5,407	4,224	3,998	4,010	851	7,104	3,705	41,265
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	11,966	5,407	4,224	3,998	4,010	851	7,104	3,705	41,265
Total:	11,966	5,407	4,224	3,998	4,010	851	7,104	3,705	41,265
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Underground 26kV Conversion**

Project Type:	Ongoing	Project No.:	8362
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	6,625	2,200	3,476	5,022	2,510	2,722	4,074	2,841	29,470
Total:	6,625	2,200	3,476	5,022	2,510	2,722	4,074	2,841	29,470
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	6,625	2,200	3,476	5,022	2,510	2,722	4,074	2,841	29,470
Total:	6,625	2,200	3,476	5,022	2,510	2,722	4,074	2,841	29,470
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	6,625	2,200	3,476	5,022	2,510	2,722	4,074	2,841	29,470
Total:	6,625	2,200	3,476	5,022	2,510	2,722	4,074	2,841	29,470
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Underground Customer Driven Capacity Additions**

Project Type:	Ongoing	Project No.:	8360
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	New Facility	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	34,081	5,205	2,983	2,983	5,498	4,593	7,028	3,165	65,536
Total:	34,081	5,205	2,983	2,983	5,498	4,593	7,028	3,165	65,536
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	34,081	5,205	2,983	2,983	5,498	4,593	7,028	3,165	65,536
Total:	34,081	5,205	2,983	2,983	5,498	4,593	7,028	3,165	65,536
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	34,081	5,205	2,983	2,983	5,498	4,593	7,028	3,165	65,536
Total:	34,081	5,205	2,983	2,983	5,498	4,593	7,028	3,165	65,536
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Underground Equipment Replacements**

Project Type:	Ongoing	Project No.:	8353
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Location: Council District:	System Wide Citywide

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	40,795	14,093	11,452	11,647	11,860	15,428	16,408	10,790	132,473
Total:	40,795	14,093	11,452	11,647	11,860	15,428	16,408	10,790	132,473
	LTD	2017	2018	2019	2020	2021	2022	2023	Total
	Actuals	REV							
Fund Appropriations/ Allocations*									
City Light Fund	40,795	14,093	11,452	11,647	11,860	15,428	16,408	10,790	132,473
Total:	40,795	14,093	11,452	11,647	11,860	15,428	16,408	10,790	132,473
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	40,795	14,093	11,452	11,647	11,860	15,428	16,408	10,790	132,473
Total:	40,795	14,093	11,452	11,647	11,860	15,428	16,408	10,790	132,473
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Underground Outage Replacements**

Project Type:	Ongoing	Project No.:	8352
Start/End Date:	N/A	BCL/Program Code:	SCL370-C4
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C4 Distribution - Service Connections
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	18,714	287	185	346	1,949	1,983	1,650	1,676	26,790
Total:	18,714	287	185	346	1,949	1,983	1,650	1,676	26,790
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	18,714	287	185	346	1,949	1,983	1,650	1,676	26,790
Total:	18,714	287	185	346	1,949	1,983	1,650	1,676	26,790
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	18,714	287	185	346	1,949	1,983	1,650	1,676	26,790
Total:	18,714	287	185	346	1,949	1,983	1,650	1,676	26,790
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Underground System Capacity Additions

Project Type:	Ongoing	Project No.:	8361
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Location: Council District:	System Wide Citywide

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	33,839	7,577	2,936	2,994	2,971	5,101	4,306	3,287	63,011
Total:	33,839	7,577	2,936	2,994	2,971	5,101	4,306	3,287	63,011
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	33,839	7,577	2,936	2,994	2,971	5,101	4,306	3,287	63,011
Total:	33,839	7,577	2,936	2,994	2,971	5,101	4,306	3,287	63,011
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	33,839	7,577	2,936	2,994	2,971	5,101	4,306	3,287	63,011
Total:	33,839	7,577	2,936	2,994	2,971	5,101	4,306	3,287	63,011
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **Union Street Substation Networks**

Project Type:	Ongoing	Project No.:	8201
Start/End Date:	N/A	BCL/Program Code:	SCL360-C2
Project Category:	New Facility	BCL/Program Name:	C2 Distribution - Network
		Location:	1312 Western AV
Neighborhood District:	Downtown	Council District:	7
Total Project Cost:	N/A	Urban Village:	Downtown

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	29,689	2,562	2,202	2,595	2,711	2,940	2,994	3,015	48,708
Total:	29,689	2,562	2,202	2,595	2,711	2,940	2,994	3,015	48,708
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	29,689	2,562	2,202	2,595	2,711	2,940	2,994	3,015	48,708
Total:	29,689	2,562	2,202	2,595	2,711	2,940	2,994	3,015	48,708
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	29,689	2,562	2,202	2,595	2,711	2,940	2,994	3,015	48,708
Total:	29,689	2,562	2,202	2,595	2,711	2,940	2,994	3,015	48,708
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### **University Substation - Network**

Project Type:	Ongoing	Project No.:	8464
Start/End Date:	N/A	BCL/Program Code:	SCL360-C2
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C2 Distribution - Network
		Location:	645 NW 45Th
Neighborhood District:	Northeast	Council District:	4
Total Project Cost:	N/A	Urban Village:	University District

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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	3,062	388	430	392	476	491	499	501	6,239
Total:	3,062	388	430	392	476	491	499	501	6,239
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	3,062	388	430	392	476	491	499	501	6,239
Total:	3,062	388	430	392	476	491	499	501	6,239
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	3,062	388	430	392	476	491	499	501	6,239
Total:	3,062	388	430	392	476	491	499	501	6,239
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

#### Vista Switch Automation

Project Type:	Ongoing	Project No.:	8483
Start/End Date:	N/A	BCL/Program Code:	SCL360-C3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	C3 Distribution - Radial
		Location:	System Wide
Neighborhood District:	Multiple	Council District:	Multiple
Total Project Cost:	N/A	Urban Village:	Multiple

This ongoing 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 distribution automation will allow operating switches remotely and eliminate the cost of dispatching a crew to perform work.

	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	0	0	401	401	401	401	401	401	2,406
Total:	0	0	401	401	401	401	401	401	2,406
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	0	0	401	401	401	401	401	401	2,406
Total:	0	0	401	401	401	401	401	401	2,406
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	0	0	401	401	401	401	401	401	2,406
Total:	0	0	401	401	401	401	401	401	2,406
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0

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

#### **Workplace and Process Improvement**

Project Type:	Ongoing	Project No.:	9159
Start/End Date:	N/A	BCL/Program Code:	SCL250-E3
Project Category:	Rehabilitation or Restoration	BCL/Program Name:	E3 Central Utility Projects - Fleets and Facilities
		Location:	System Wide
Neighborhood District:	Not in a Neighborhood District	Council District:	Citywide
Total Project Cost:	N/A	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	2017 REV	2018	2019	2020	2021	2022	2023	Total
Resources									
City Light Fund Revenues	6,089	2,740	1,339	2,074	1,951	2,308	2,340	12	18,853
Total:	6,089	2,740	1,339	2,074	1,951	2,308	2,340	12	18,853
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Fund Appropriations/ Allocations*									
City Light Fund	6,089	2,740	1,339	2,074	1,951	2,308	2,340	12	18,853
Total:	6,089	2,740	1,339	2,074	1,951	2,308	2,340	12	18,853
	LTD Actuals	2017 REV	2018	2019	2020	2021	2022	2023	Total
Spending Plan									
City Light Fund	6,089	2,740	1,339	2,074	1,951	2,308	2,340	12	18,853
Total:	6,089	2,740	1,339	2,074	1,951	2,308	2,340	12	18,853
			2018	2019	2020	2021	2022	2023	Total
O & M Costs (Savings)									
Total:			0	0	0	0	0	0	0