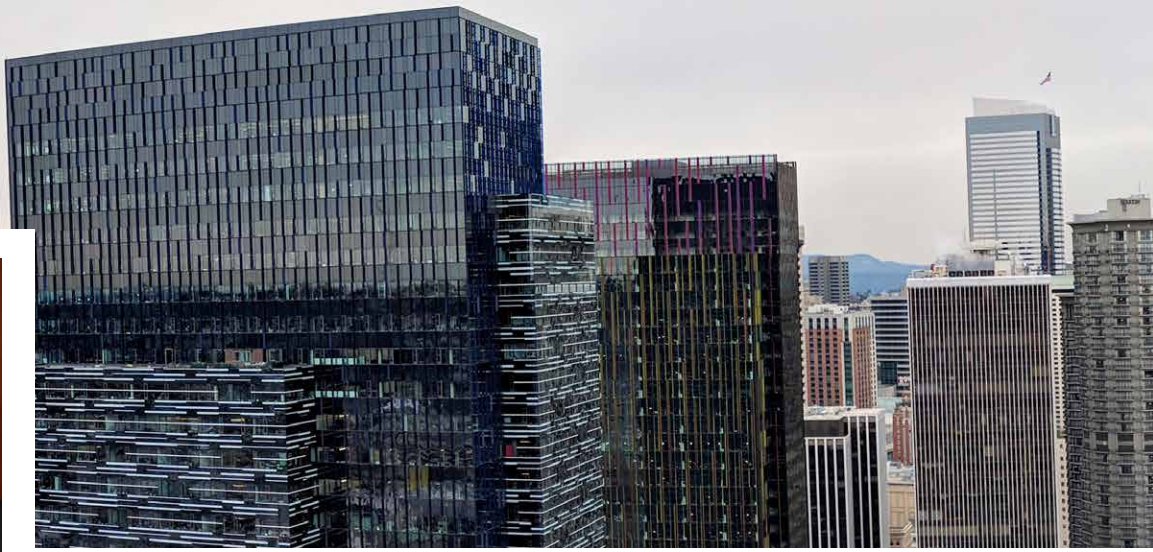


# WE POWER *Seattle*



Seattle City Light

Strategic Plan  
**2019–2024**



## Letter from the General Manager

Visitors flying into the Seattle-Tacoma International Airport see a skyline dotted with cranes and new skyscrapers, lofty signals of the boom underway in the Seattle metropolitan area. New office space is being leased before construction is completed, and the proliferation of new dwellings can't keep up with housing demand. The greater Seattle area is experiencing unprecedented growth, and it is being driven largely by technological innovation.

Seattle City Light has a long history of providing energy to technological innovation. In 1905, we powered the first electric streetlights to illuminate the streets of Seattle. As technology evolved, we powered the first electric radios in Seattle, the first electric refrigerators and the first televisions. The course of human history has seen many technological innovations that made our lives better, and for more than a century City Light's power has made that technology run in the Seattle area.

City Light has proven its reliability, financial stability and ability to power progress for the region. In the next six years, we will redouble our efforts. Improvements to our infrastructure will make sure our system is reliable and ready to meet the needs of the community. A new rate path will keep the utility financially stable while still providing affordable electricity to our customers.

We will continue to lead the way as an innovator in conservation while implementing energy-efficient measures across our system that will greatly benefit our diverse customer base. We'll complete advanced metering installations and are near

completion of our streetlight conversions to energy-efficient LEDs. And this year, we'll energize a new substation—our first in thirty years—which will power the businesses and residences in Seattle's bustling urban core.

These projects are only made possible with the support and tireless efforts of our workforce. I'm committed to fostering a positive workplace culture, one where all employees feel valued and respected for their contributions. Without this we cannot deliver the level of service that our customers deserve.

The Seattle area is growing and evolving, and so is City Light. As you read this Strategic Plan, you'll learn about our initiatives and our challenges. As part of an ongoing commitment to affordability, cost control, and fiscal accountability, this Strategic Plan includes reductions to our capital and operating budgets. Budget reductions will be carefully managed to minimize any future service impacts to customers and financial risk to the utility.

Given our long history of innovation and visionary action, we are confident we will successfully navigate not only the challenges we face today, but the challenges of the future. Like the greater Seattle area, we are reaching new heights. We power Seattle, and we're proud of it.

Jim Baggs  
Interim General Manager and CEO



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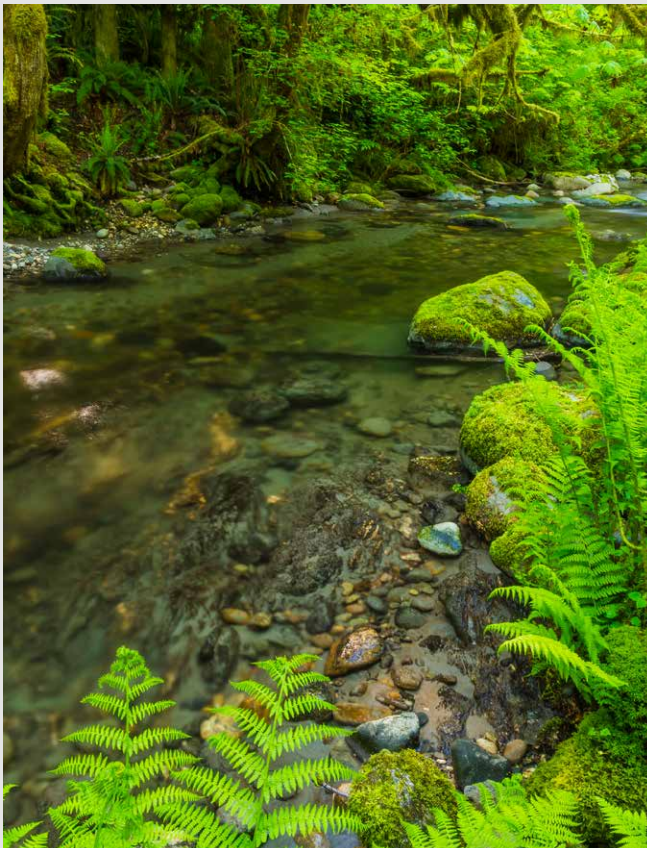
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## Executive Summary

The Seattle City Light 2019-2024 Strategic Plan establishes a path forward for making informed decisions to meet the current and future needs of Seattle City Light and its customers. The Strategic Plan identifies specific initiatives and the revenue needed to efficiently accomplish them.

As the first six-year planning cycle nears completion this year, City Light has the opportunity to take a fresh look at the landscape in which we operate. The City Light executive team led the utility's planning effort with input from the City Light Review Panel, City of Seattle leaders, community members, business leaders, customers, employees, and other key stakeholders. We see several challenges that will transform our business over the next decade.



### **New technologies are transforming how people use electricity.**

Commercialization of energy technologies poses a potential risk to City Light. New options and products for controlling consumption, generating, and storing electricity will impact how customers interact with their local utility.

### **Retail energy consumption is declining.**

Advances in energy efficiency have reduced consumer energy demand. Due in part to energy-efficient building codes and new technologies, today's multifamily units consume approximately half as much energy as older single-family homes.

### **Power supply assumptions are changing.**

Low wholesale market prices coupled with rising costs of hydro operations are quickly eroding the market advantage afforded by City Light's hydroelectric resources.

### **Impact of retirements and legacy practices.**

As more employees become eligible for retirement and workflows are not documented or digitized, City Light risks the loss of institutional memory, costly service interruptions and a potential impact to service delivery.

### **Climate change continues and clean energy is more valuable than ever.**

Weather pattern changes affect reservoir levels and seasonal energy consumption, leading to increasing volatility of energy supply and demand. Clean, renewable energy sources and uses protect our environment.

This plan lays the foundation for addressing the above challenges by undertaking a series of strategic and operational initiatives.

This Strategic Plan identifies four strategic priorities: customer service, affordability, clean energy and core utility business. The first three priorities are areas of strategic focus where City Light must make changes to respond to the industry challenges described earlier. The initiatives that support each of these priorities are new efforts but will be funded within existing budget and staffing levels. As we drive for change, we will not lose sight of our values and mission, which is why City Light’s fourth priority is to continue to maintain and improve our core business.



**PRIORITY 1: CUSTOMER SERVICE**

Upgrade customer service practices to meet evolving customer needs and expectations.

- Modernize customer service



**PRIORITY 2: AFFORDABILITY**

Keep customers’ bills affordable and stable by implementing strategies to control costs, capture new revenues, and restructure rates.

- Business Process Improvement
- Revenue Recovery and Rates
- Managing the Cost of Growth
- Evolving Energy Market



**PRIORITY 3: CLEAN ENERGY**

Deliver robust and innovative programs to promote the efficient use of clean energy and protect the shared ecosystem.

- Environmental Stewardship
- Clean, Renewable-Powered City



**PRIORITY 4: CONTINUING PROGRESS ON OUR CORE BUSINESS**

Invest in our infrastructure and workforce to provide a consistent level of service, reliability, and response.

Even though the Seattle area is growing rapidly, electricity consumption is not following suit. Downward-trending electricity consumption represents a tremendous victory for Seattle’s energy conservation efforts. However, maintaining City Light’s hydroelectric dams, wires, poles, and other infrastructure is very capital-intensive. These costs do not shrink when customers conserve energy. This Strategic Plan calls for rate increases to produce enough revenue to cover these rising costs, as well as compensate for customers’ declining electricity use. The strategic plan proposes a six-year rate path that increases 4.5 percent annually on average for 2019-2024. Decreasing retail sales account for about one-third of the 2019 rate increase, and one percent of the 4.5 percent six-year average.

Annual Increase	2019	2020	2021	2022	2023	2024	Average
	5.8%	5.4%	3.6%	3.9%	4.0%	4.2%	4.5%

This plan affirms City Light’s mission and values, explores the current environment and industry challenges, and recommends strategies for success. Given City Light’s long history of innovation and visionary actions, we are confident we will successfully navigate the challenges as we create a utility of the future. As the Seattle area continues to grow, we stand ready to power our community for years to come.



## Introduction

City Light's Strategic Plan was first approved by the City Council in 2012. The Strategic Plan covers six years but is updated every two years as new information becomes available. More than 30 programs were implemented as part of the 2013–2018 Strategic Plan. Highlights include upgrading generator equipment to add more clean, hydroelectric generating capacity to our system; installing new advanced meters that can communicate wirelessly; and identifying potential risks to City Light assets and operations associated with climate change.

This six-year plan provides a framework for making informed decisions about the future. It answers a fundamental question: How can Seattle City Light best meet and exceed customers' expectations in producing and delivering affordable, reliable, and environmentally responsible electricity services not only for the next six years, but for many years to come?

This plan affirms Seattle City Light's mission and values, takes stock of the current situation, analyzes future demand, outlines challenges, recommends a strategy for success, and explains the rate impacts.

### Commitment to Equity

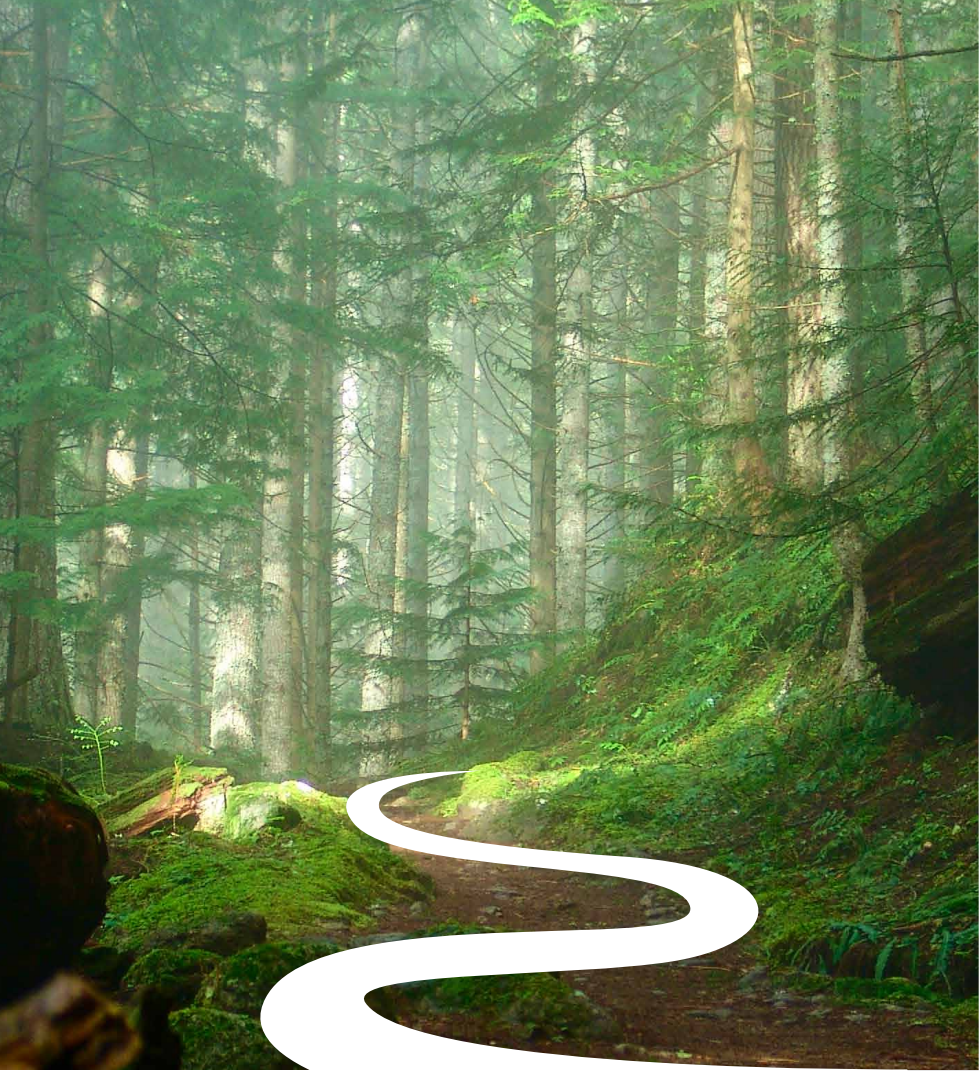
City Light is committed to building equity within our workforce, our communities, and our environment. Our work towards racial, economic and environmental justice is a demonstration of our core values. Accordingly, the programs and initiatives described in this plan intentionally align with this commitment. Examining our work, including the Strategic Plan, through an equity lens increases the utility's capacity to better serve all communities throughout our service territory.

## The Path to the Plan

Since City Light's Strategic Plan was first approved by the City Council in 2012, the utility has continued to ensure its customers receive the highest possible level of service. The Strategic Plan, which is updated every two years, has proven to be beneficial towards creating organizational efficiencies and improving our delivery of electric services. As the first planning cycle nears completion this year, 2018 offers us the opportunity to take a fresh look at the landscape in which City Light operates.

This strategic planning process included five stages:

- 1 Developed a Strategic Framework (Jan. – Dec. 2017)**
  - Formed a cross-departmental Strategic Planning Team.
  - Conducted a strengths, weaknesses, opportunities and threats (SWOT) exercise with the City Light Executive Team, Review Panel and the internal Strategic Planning Team.
  - Developed priorities and strategic objectives.
  - Forecasted costs and rates.
  - Collaborated with the Strategic Planning Team.
  - Shared proposed initiatives with the Review Panel and Executive Team.
- 2 Conducted Stakeholder Outreach (Sept. 2017–Apr. 2018)**
  - Spearheaded an extensive market research survey: more than 1,600 responses were received.
  - Met with 330 stakeholders.
  - Included results from 2016 Current Culture employee survey in stakeholder input.



## City Light Review Panel

Created in 2010 by City of Seattle Ordinance 123256, the City Light Review Panel is tasked with reviewing City Light's Strategic Plan and providing an opinion on its merits to the Mayor and City Council. The panel includes representatives from private, public and nonprofit sectors, utility experts, business leaders, and community representatives. For this Strategic Plan, the panel, along with representatives from the City Budget Office and City Council staff, met regularly to hear from City Light leaders about the plan and provided valuable input that helped shape this effort. A special thanks to our current panel members:

**David Allen**

*Commercial Customer Representative*

**Thomas Buchanan**

*Residential Customer Representative*

**Leon Garnett**

*Low-Income Customer Representative*

**Patrick Jablonski P.E. (Vice Chair)**

*Industrial Customer Representative*

**Gail Labanara (Chair)**

*Suburban Franchise Representative*

**Sara Patton**

*Non-Profit Energy Efficiency Representative*

**John Putz**

*At-Large Customer Representative*

**Cal E. Shirley**

*Financial Analyst*

**Nina Sidneva**

*Economist*

**3 Developed a Strategy (Dec. 2017–March 2018)**

- Refined initiatives based on outreach and financial baseline.

**4 Shared Draft Plan and Sought Input (March 2018)**

- Identified core themes: Customer Service, Affordability, Clean Energy and Continuing Progress on our Core Business.

**5 Mayoral and City Council Approval (May–June 2018)**

- Informed stakeholders of the Strategic Plan website.
- Translated materials into six languages for limited English proficiency (LEP) stakeholders.
- Delivered the Strategic Plan to the Office of the Mayor.
- Worked with the Review Panel as they continued to review and provide input on the Strategic Plan.



## WE POWER Progress

### *Accomplishments of the 2013–2018 Strategic Plan*

This plan marks the end of City Light’s first six-year strategic planning cycle. More than 30 programs were implemented as part of the 2013-2018 Strategic Plan. The following are some of our key accomplishments.

#### **Fewer Outages**

Centralizing asset catalogs and workflows now makes maintenance more efficient. Combined with increased tree trimming and systematic pole replacement, we have reduced the risk of failures. When the power does go out, new automated switching technology helps our crews quickly locate the cause of outages, and web-based outage maps keep customers informed. These efforts have translated to customers experiencing 50 percent fewer power outages, and faster outage response.

#### **Better Streetlights**

Six years ago, streetlight outages were a major issue. The streetlight infrastructure replacement project replaced 867 aging, dysfunctional and/or damaged streetlight poles. This proactive replacement plan has improved safety, and reduced cost by eliminating the need for costly stop-gap repairs. All residential neighborhoods and most arterial roads are now illuminated by LED streetlights, improving light quality, minimizing outages, and saving millions of dollars in electricity and maintenance costs.



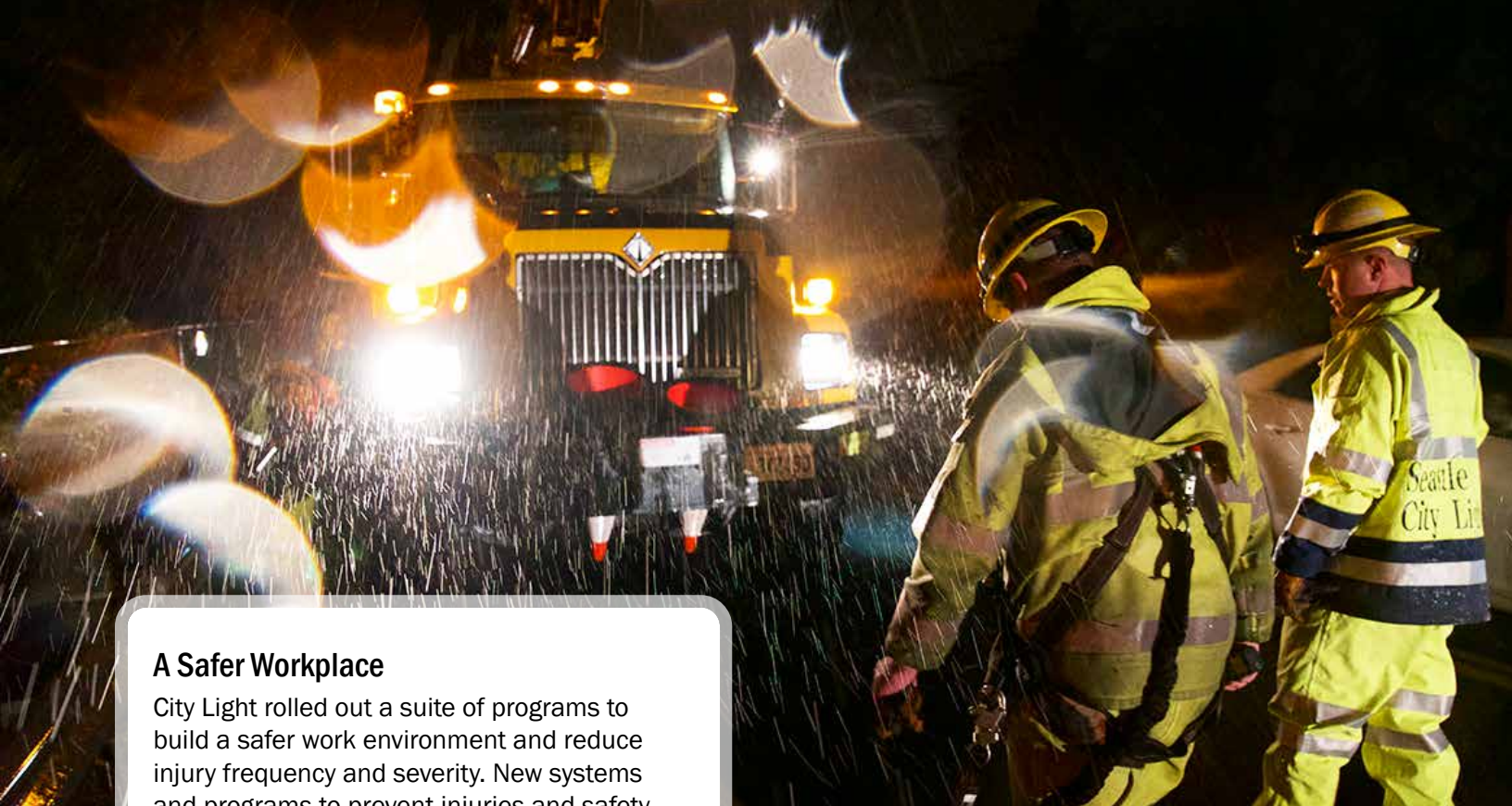
#### **More Hydroelectric Power**

Replacements and upgrades of generator equipment at the Boundary and Skagit Hydroelectric Projects added more than 100 megawatts (MW) of clean, hydroelectric generating capacity to our system. Our dams are unique and irreplaceable, and maintaining and modernizing the equipment inside keeps them in top shape to optimize their performance.

#### **New Substation**

The first substation City Light has built in 30 years, the new Denny Substation provides much-needed capacity to meet growth in the north downtown and surrounding neighborhoods. The benefits of this addition will cascade across the distribution system, improving the reliability of City Light’s 15 other substations as well as the regional transmission grid. The substation will be energized in late 2018.





### A Safer Workplace

City Light rolled out a suite of programs to build a safer work environment and reduce injury frequency and severity. New systems and programs to prevent injuries and safety campaigns to engage employees have shifted our corporate culture to one that is rooted in safety awareness. In the 10 years prior to the implementation of the safe work environment strategic initiative, the average number of recordable injuries was 145. Since 2013, the average number of recordable injuries dropped to 102, a 30 percent decrease.

### Smarter Meters

We are installing new meters that can communicate wirelessly, meaning accurate meter reading, reduced operating costs and environmental footprint, as well as improved customer service. Also, the new metering technology will be a platform to support energy management tools that our technology-savvy customers are pursuing, like customer generation, electric vehicle charging, and home energy-management protocols. Implementation of advanced metering infrastructure began in 2014. As of December 2017, a total of 75,000 new meters were exchanged, and full deployment is targeted for the end of 2018.

### Our First Climate Adaptation Plan

City Light's 2017 Climate Change Adaptation Plan identifies potential risks associated with climate change, assesses impacts on assets and operations, and charts a plan to mitigate those that are most critical. The plan addresses the potential effects of flooding, lower snowpack, higher temperatures, and increased wildfires and landslides. The plan looks at the impacts on infrastructure, hydroelectric operations, fisheries and habitat, and consumption patterns, and calls for proactive action such as adopting new land restoration practices, increased fire protection, and upgrades to infrastructure.



*Seattle City Light has been greenhouse gas neutral since 2005.*

## Habitat Protection

The two main objectives of the Environmental Leadership Initiative are to promote long-term transmission reliability and improve habitat values on transmission line rights-of-way (ROW). Recent efforts focused on weed control and restoration of the Creston-Duwamish Transmission Line ROW. Participating community groups include Duwamish Alive, The Common Acre, EarthCorps, ECOSS, Forterra, Friends of Duwamish Hill, Alley-Cat Acres, and the Veterans Conservation Corps.

## Innovative Conservation

Working with three commercial office buildings, City Light launched a new pilot program offering financial incentives for energy savings through ongoing payments, rather than a typical up-front incentive payout. In 2016, participants saved a total of approximately 3.1 million kilowatt hours, enough energy to power 420 Seattle residences for one year. These savings contributed to City Light's goals under the Energy Independence Act, which requires the utility to pursue all energy efficiency that is cost-effective, reliable and feasible.

## Compliance Program Standardization

Security of the electric grid is a serious issue that continues to grow in complexity. National and regional organizations require City Light to meet more than 900 critical infrastructure protection and reliability standards requirements, with significant fines for non-compliance. Online systems that are being implemented now will manage workflows and automatically track compliance with these regulatory standards, saving time and money, and helping to ensure that City Light's grid remains secure and reliable.

## A Better Prepared Workforce

City Light actively addressed the pending talent shortage due to retirements by enhancing our training opportunities and preparing employees to take advantage of promotional opportunities. All leaders participate in annual leadership training and the launch of a Learning Management System introduced online courses, which vastly increased the scope of the professional, technical and safety training offered to our employees. Our college and high school internship programs have grown and continue to provide a reliable pipeline for regular and temporary position recruiting.

## POWERING EQUITY City Light's Commitment to Race & Social Justice

Seattle City Light takes its lead from the City-wide Race and Social Justice Initiative (RSJI) to end institutionalized racism in City government. Reaffirmed by Mayor Durkan's Executive Order 2017-13, and in partnership with the community, the Initiative works to change the underlying system that creates race-based disparities in our community and to achieve racial equity in City operations, public engagement and service. As a part of a municipality committed to inclusive public service, we consider race and social justice in all utility programs. Specifically, City Light focuses on understanding the unique needs of communities of color through research, data collection, and equity analysis; expanding opportunity through pipeline and workforce development; and broadening access through partnerships, contracts, outreach and engagement.

## Workforce Development

Developing the next generation of utility employees.



2012		2017
55	Interns	103
30	Apprentices	57
29%	Internal Promotions	67%

## Metrics

The Strategic Plan is results-focused and provides tangible benefits for customers and the community. The performance metrics that were developed to track our progress provide clear, quantifiable proof of the strides we have made and show investing the time and money needed has paid off. Here are a few examples of our successes.

<b>Reliability</b>	<b>TARGET 2012</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Outage Duration: SAIDI<sup>1</sup></b>	65.1	69.0	68.7	69.7	62.3	61.0	64.5
<b>Outage Frequency: SAIFI<sup>2</sup></b>	0.9	1.0	0.9	0.9	0.5	0.5	0.4
<b>Streetlights Converted to LED</b>	100%	41%	49%	56%	64%	72%	81%
<b>Social Justice</b>	<b>TARGET 2012</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Utility Discount Program Participants</b>	16,000 by 2014	13,415	14,000	16,941	20,229	28,000	33,000
<b>Purchases from Women &amp; Minority Business Enterprise</b>	\$9.6m	\$11.5m	\$18.3m	\$14.6m	\$17.7m	\$15.2m	\$14.0m
<b>Finance</b>	<b>TARGET 2012</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Debt Service Coverage<sup>3</sup></b>	1.80	1.81	1.85	1.86	1.62	1.69	1.85
<b>Clean Energy &amp; Environmental Leadership</b>	<b>TARGET 2012</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<b>Energy Efficiency</b> Incremental Average Megawatts (aMW)	14.0	13.0	14.7	16.0	15.8	14.0	15.4
<b>Solar Installations</b> Cumulative Megawatts	N/A	4.0	6.0	8.0	13.0	16.3	20.0
<b>Fish &amp; Wildlife Habitat</b> Total Acres Acquired Each Year	N/A	118.3	250.6	251.8	248.2	90.0	168.6

<sup>1</sup>System Average Interruption Duration Index, the sum of all interruption durations divided by number of customers served.

<sup>2</sup>System Average Interruption Frequency Index, the total number of customer interruptions divided by number of customers served.

<sup>3</sup>A measure of financial health – extent to which cash generated by operations is available to pay principal and interest on debt.



# WE POWER the Future

## *Our Strategic Priorities and Initiatives*

City Light began planning for the 2019-2024 strategic planning cycle by researching industry trends, gathering data from our employees, stakeholders, and customers, and then analyzing the results to understand the themes that emerged.

What emerged is that many aspects of our operations are longstanding, and some past areas of strategic focus still need attention. At the same time, there are new factors that are changing Seattle and transforming the utility landscape. These changes bring challenges, as well as opportunities.

First, new technologies are transforming how people use electricity. More efficient buildings, appliances and lighting mean households and businesses use less electricity. Even with Seattle's recent growth, City Light's sales of electricity have been flat to downward-trending. City Light's electric rates depend on electricity consumption to generate revenues, and so lower customer usage translates to revenue shortages. Declining electricity consumption, revenue recovery, and rate reform are pressing issues for utilities across the country.

At the same time, the revenues from surplus energy sales that have long helped keep our customer rates low are dwindling. Low wholesale market prices coupled with rising costs of hydro operations are quickly eroding the market advantage afforded by City Light's hydroelectric resources.

Our stakeholder outreach showed that even though cost is a concern, customers still want cleaner, greener energy solutions. Seattle area residents expect City Light to lead the charge to source renewable energy, reduce carbon

emissions, and remove contaminants from our system.

Technology is also impacting the service side of our business. Customer expectations and our service delivery model are evolving. For example, meter readers and customer hotline phone banks are quickly becoming obsolete, replaced by wireless networks and the internet of things.

Around us, new energy-related businesses are cropping up: "smart energy" start-ups, energy data management services, alternative energy providers, and others. We know that if City Light cannot deliver the kind of value and services customers expect, they will look elsewhere. To ensure affordable and equitable access to electric service, City Light needs to update our business model, build partnerships, and develop future-minded policies and programs so that we can remain relevant to diverse and evolving customer interests.

To respond to these challenges, City Light has identified three strategic priorities: customer service, affordability and clean energy. The initiatives that support each of these priorities are new efforts but will be funded within existing budget and staffing levels.

As we drive for change, we will not lose sight of our values and mission, which is why the fourth strategic priority is to continue maintaining and improving our core business. We must continue to make investments in our people and our infrastructure. As we have in past years, we will nurture a culture of safety first, develop our workforce, enhance grid security, maintain our legacy generation assets, and advance social justice.



## Priority 1: Customer Service

**Challenge:** Customer service has evolved beyond the 9-to-5 business hours customer hotline. Customers today expect web, social media, mobile technology, and other 24/7 options. Great customer service also means recognizing that not all customers want the same thing—some want a highly digital customer interaction, while others prefer to speak to a real person. City Light needs systems and services in place to stay on pace with trends and customer expectations, and to provide service equitably to all our customers.

Providing busy customers great service, at any time, by the method they want, is at the forefront of the new customer service strategy. Based on best practice research from well-respected industry leaders like J.D. Power and Associates and the Electric Power Research Institute, City Light has a plan to transform its transactional-focused customer service model to one that cultivates relationships supported by digital technology.

**Objective:** Meet evolving customer needs and expectations and make significant improvements to customer service.

### Initiative: Modernize Customer Service

*Upgrade customer service practices to meet evolving customer needs and expectations.*

This initiative comprises a set of programs that will provide multi-channel opportunities for customer connections, as well as full access to information and support from City Light. Components of the initiative include:

- Expansion of customer communication to social media, web chat, and mobile technology.
- A full-service after-hours and weekend customer service team.
- Increasing options for customer self-service with an enhanced digital customer experience platform.
- Setting up a Commercial Customer Service Center to better serve small to mid-size businesses.

These programs will allow City Light to improve the customer experience by approaching customer service from their perspective – providing personalized and convenient access to their accounts, data and status updates on projects, and expanded customer service options available to all customer groups.



*Lineworkers prepare to install an automated switch in Shoreline.*



## **Priority 2: Affordability**

**Challenge:** The cost of electric service is rising with inflation, tightening regulatory requirements, and capital expenditures to maintain and upgrade infrastructure. Retail consumption is declining as customers become more efficient, and revenues are shrinking. The net result of these factors is persistent pressure to raise customer rates.

To continue to deliver good value, we must work to provide our customers with affordable rates and stable bills. We will achieve this through a combination of controlling costs, innovating to capture new sources of revenue, and updating the way we charge for services in general and for customer connections in particular, including exploring the possibility of system development fees.

**Objective:** Keep customers' bills affordable and stable by implementing strategies to control costs, capture new revenues and restructure rates.

The key activities to meet this objective are:

### **Initiative: Business Process Improvement**

*Cultivate a sustainable, enterprise-wide process improvement program.*

Many of the utility's operational processes are individually knowledge-based and are not standardized or documented. This makes it difficult to verify that procedures are uniform and that the service delivered to customers is

consistent and high quality. This lack of consistency and documentation is especially problematic if experienced workers retire and their knowledge is not properly documented or transferred to the employees taking their place. About half of our staff is eligible for retirement, making it imperative that City Light address this issue now to avoid costly service interruptions in the future.

This initiative proposes that City Light cultivate a sustainable, enterprise-wide process improvement program. City Light will use best practice, data-driven methods such as "Lean" and "Kaizen" to improve business process capabilities. The expected benefits from this program include enhanced service delivery, increased value to our customers, reduced operational costs, and optimization of internal resources.

As part of an ongoing commitment to cost control and fiscal accountability, this Strategic Plan also includes substantial, permanent reductions to both capital (CIP) and operating (O&M) budgets. Capital spending reductions will total \$240 million over the six-year plan—a nine percent reduction. The O&M budget will be reduced by six percent beginning with \$18 million in 2019 and increasing with inflation to over \$20 million in 2024. Budget reductions will be carefully managed to minimize future service impacts and financial risk through a rigorous capital prioritization framework, budget review, and monitoring of performance metrics.

## **Initiative: Revenue Recovery & Rates**

*Create new rate policies and structures that progressively respond to industry changes and challenges.*

Energy consumption is declining, contributing to under-collection of revenue and persistent rate pressure. One contributing issue is that City Light's rate structure does not match our cost structure: current rates mainly charge per unit of energy consumed, but most of our costs are fixed and do not decline when customers consume less electricity.

Rates are updated every year, but City Light's fundamental rate structures have not changed in decades. The goals of the initiative are to develop new rate policies and revise the structure of customer electric rates. New rate structures would separate energy charges from delivery and other fees for service. Having rates that reflect our costs will make customer utility bills more informative, will improve utility revenue recovery, and position City Light to better support evolving customer expectations.

Updated rate policies could improve revenue stability, create new service options, and better target cost recovery, which would reduce the rate burden for some or all customers. City Light will study customer classification, special rates for premium services and metering options, and identify policy improvement opportunities.

## **Initiative: Managing the Cost of Growth**

*Audit current fees and charges for customer-initiated construction services and amend policies and charges.*

City Light's service territory is growing rapidly, adding thousands of service connections each year. Customer-driven requests and system expansion represent a significant capital cost. This initiative will look at system expansion, customer connections and other capital expenditures driven by regional growth and customer needs for new capacity. A comparison of these costs with the revenues from

fees for these services will inform any needed changes in policy, procedures, and charges. This work will also examine what City Light can do to minimize costs of urban growth and ensure developers are reimbursing the utility appropriately.

## **Initiative: Evolving Energy Market**

*Pursue new opportunities for cost savings or incremental revenue in wholesale market operations.*

Rapid growth in renewable wind and solar generation coupled with an unprecedented surplus in natural gas inventory has plunged energy prices to historic lows. City Light's hydroelectric and other resources typically produce a surplus of electricity and, historically, revenues from these excess energy sales have helped keep our customer rates low. However, low wholesale energy prices have reduced this benefit.

New renewable resources are also intermittent and unpredictable, which means fundamental changes and new opportunities in wholesale power markets. This initiative aims to revise power marketing and risk management practices to capture opportunities presented by evolving power markets and deliver additional value from City Light's existing resource portfolio.

As part of this initiative, City Light will move ahead with joining the Western Energy Imbalance Market (WEIM). The WEIM allows buying and selling energy in shorter-term increments and uses pricing models to match loads and resources across more buyers and sellers than existing markets currently permit. This will allow City Light to more efficiently use our generation and transmission assets and monetize their intrinsic flexibility and environmental quality. Also, power trading policies and procedures will be evaluated to identify opportunities for prudent flexibility that may increase wholesale revenue opportunities. In addition to pursuing incremental market revenues, this initiative also aims to equip City Light's wholesale operations team with new tools and expertise to successfully navigate anticipated changes in regional energy markets.



## Priority 3: Clean Energy

**Challenge:** People are not only using less electricity, they are using it differently. New lighting (LEDs), appliance efficiency, heating and ventilation systems, industrial processes and other similar innovations are allowing customers to reduce their electricity use. Electric-powered transportation is on the rise. With solar panels and battery technology, there is growing interest in customers generating and even storing their own electricity. Entrepreneurs see opportunity in the energy industry, and new companies are offering various energy services.

As Seattle’s not-for-profit electricity supplier and steward of the local electric grid, City Light must determine our role in helping our customers navigate these new options. We will find ways to leverage our expertise to encourage action that will reduce carbon emissions and combat climate change. And as we push for adoption of green technology, we must ensure that our policies and programs are equitable and do not inadvertently burden customers who cannot afford to take advantage of them.

**Objective:** Deliver robust and innovative programs to promote the efficient use of clean energy and protect the shared ecosystem.

The key activities to meet this objective are:

### Initiative: Environmental Stewardship

*Continue our industry leadership in improving the protection of the ecosystems in which we operate.*

City Light will implement our Climate Change Adaptation Plan, emphasizing distribution grid resilience. Our climate resiliency work also extends to protecting our habitat lands from the effects of climate change. In partnership with the Mountains to Sound Greenway Trust, we will continue implementation of a pilot program to reforest areas in the Tolt River Watershed to be more resilient to climate change. Instead of only using native varieties, this pilot will plant trees sourced from southwestern Oregon that are better adapted to warmer temperatures and drier climates. The long-term goal of the reforestation effort is to establish a diverse forest that will be adapted to the climate of the mid to late 21st century. City Light will also continue the elimination of polychlorinated biphenyls (PCBs) from our system. Finally, this initiative continues our Environmental Equity Program, which proactively manages the external impacts of City Light’s construction and environmental processes on people of color and underserved communities.

## POWERING EQUITY

### City Light’s Commitment to Environmental Equity

City Light’s Environmental Equity Program advances social equity, environmental justice, and action on behalf of those most affected by environmental issues. The program supports the City’s larger Equity and Environment Initiative, which is managed by the Seattle Office of Sustainability and Environment. City of Seattle Resolution 31447, which adopted the 2013 Seattle Climate Action Plan, calls for carbon neutrality and equity in environmental programs.

A key principle underpinning the Environmental Equity Program is the recognition that people of color, immigrants and refugees, people with low income and individuals with limited English proficiency tend to be overburdened by health impacts from pollution and environmental issues. The Environmental Equity Program addresses this disparity by inviting communities most affected by environmental inequities to participate in City Light’s environmental decision making and program design. Together with community partners, the City is creating environmental progress that is inclusive of the broad diversity of residents and cultures in Seattle and neighboring communities.



## Initiative: Clean, Renewable-Powered City

*Deliver innovative and forward-thinking programs that promote clean energy solutions.*

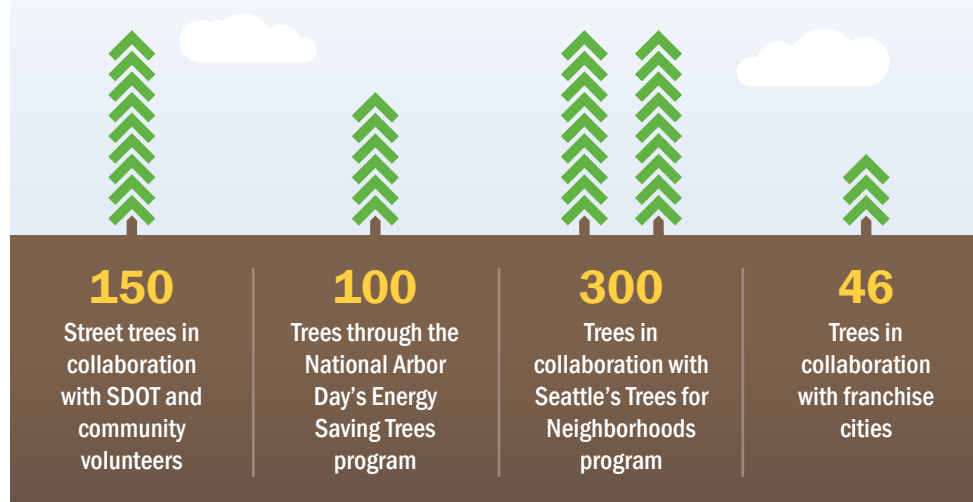
City Light strives to be our customers' most valued and trusted energy management partner. We will work with our customers and community partners to increase the energy productivity of buildings, equipment and transportation, preserving and extending the benefits of our low-cost, carbon-neutral electricity system.

Components of this initiative reflect a goal to expand into new markets while ensuring that our core energy efficiency business is successful beyond a reliance on lighting projects. Programs include:

- Expansion of whole building energy efficiency programs such as Pay for Performance and Energy Efficiency as a Service (EEaS) to increase energy savings in commercial buildings.
- Install and operate electric vehicle charging stations and build partnerships to provide customers with electric vehicles increased access to carbon-neutral electricity.
- Expand City Light's Lighting Design Lab to provide a broader offering of education, technical support and technology validation services to designers, building operators and contractors.
- Participate in the Office of Sustainability and Environment's 100% Equitable and Renewable Energy program. This is a platform to test new approaches and strategies to narrow the gap between communities that have benefited from our programs and those who have not, while making progress on the Seattle Climate Action Plan.

### Planting Trees Throughout Our Service Area

In 2017, Seattle City Light planted:





## Priority 4: Continuing Progress on Our Core Business

As we drive for change, we will not lose sight of our core values and mission to provide affordable, reliable, environmentally-responsible electricity. To provide today's level of programs, reliability and response, City Light must make ongoing business improvements and investments. Many of the efforts in this section were major areas of focus in previous strategic plans, and while we have made significant progress in these areas over the last six years, the work must continue.

### A Workplace Culture of Mutual Respect

City Light will actively promote a work environment free of discrimination and harassment. Fostering a positive workplace culture, one where all employees feel valued and respected for their contributions, is central to Seattle City Light's management expectations of mutual respect. Delivering the world-class customer service that our customers deserve requires a positive workplace culture. City Light is committed to updating policies, enhancing trainings, and having an ongoing dialogue within the utility, that any inappropriate behavior, whatever its form, will be dealt with appropriately. We will reiterate our commitment to treating each other with dignity, respecting the diversity among us, and recognizing the value each of us brings to our professional relationships.

### High-Performance Workforce

Attract, train and retain a workforce with the skills and knowledge needed for hydro-powered electric utility operations. Continue building a comprehensive succession planning program that includes knowledge transfer strategies. Create skilled trades and highly specialized employee pipelines, in partnership with diverse community organizations and educational institutions.

### Strong Safety Culture

Safety continues to be paramount in every facet of City Light's work. The Safe Work Environment program will continue, and other industry best practices will be implemented, such as a safety, health and wellness roadmap, grassroots safety teams, and a robust safety recognition program.

### Secure, Resilient Work Environment

Implement best practices to enhance security, emergency preparedness and disaster recovery programs while improving the resiliency of facilities and services.



## POWERING EQUITY

### City Light's Commitment to Building a Diverse Workforce

City Light is committed to employing a workforce that is reflective of the diverse communities it serves. To achieve this result, City Light invests in pipeline building workforce initiatives including our high school and college internship program and the City Light Apprenticeship Program. City Light employs approximately 100 interns per year and utilizes the apprenticeship program to maintain a constant pipeline of journey-level workers across all trades. Each of these programs actively recruits communities of color and women.

## Preserve Hydroelectric Generation Assets

Maintain our hydroelectric generation assets through prudent and systematic investment and maintenance. Planned enhancements include dam safety, outage management processes, and long-term planning. Specific efforts include:

- Long-term planning for small legacy hydroelectric projects such as Cedar Falls.
- Improve ancillary systems and facilities including powerhouse systems.
- Boundary Master Plan and Skagit Master Plan facilities improvement plans.

## Relicensing

Acquire new federal licenses to continue to operate three City Light hydroelectric projects: Skagit, Newhalem, and South Fork Tolt. License renewal applications for these projects will be filed in 2023, 2025, and 2027, respectively.

## Enhanced Grid Performance & Cybersecurity

As the criticality of the grid has increased and as customers have added new distributed resources, utilities have been improving their operational technology (OT) infrastructure. Also, protection of the electrical grid from cyber threats continues to be a challenging problem. City Light is responding by continuing to upgrade our OT infrastructure and energy grid to protect against cybersecurity risks and improve power grid operations.

## Preserve Transmission & Distribution Infrastructure

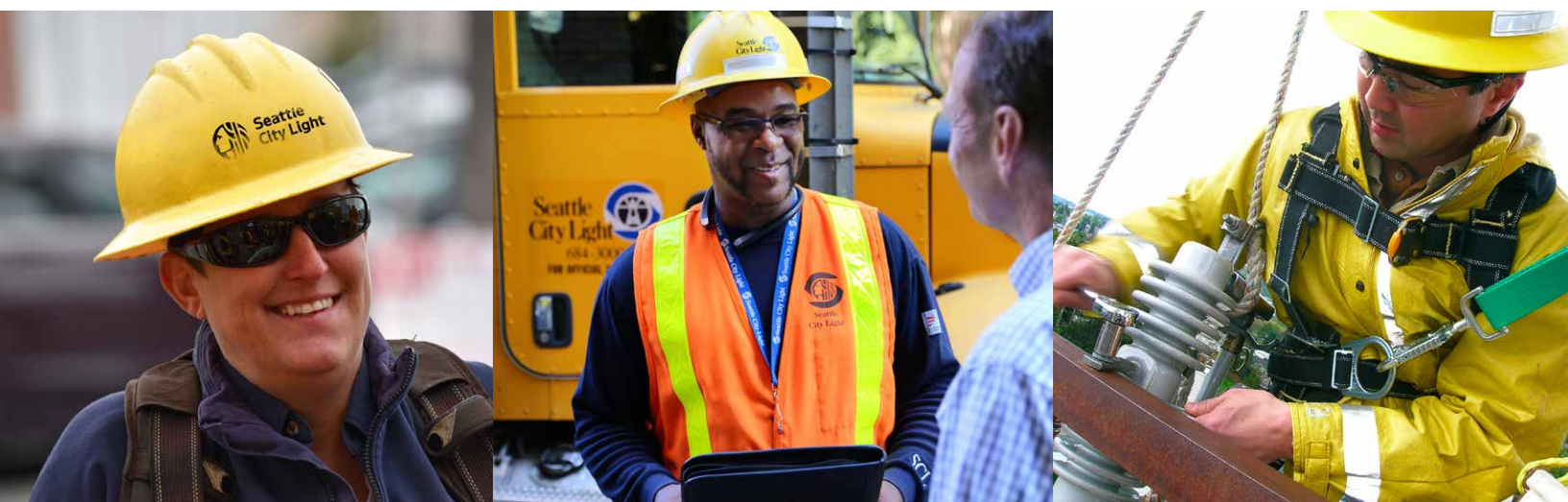
Implement industry best practice system improvements through prudent investment and maintenance. Planned enhancements to improve reliability include new technologies such as smart grid and advanced grid analytics, as well as a focus on long-term planning. Specific efforts include:

- Implement metric driven, cost-benefit analysis supported planning for transmission, substation and distribution projects.
- Develop corporate asset data management procedures and maximize benefits derived from our asset management capabilities.

## Reliability for a Growing City

Various investments to maintain and upgrade the transmission and distribution systems will improve reliability and ensure City Light has enough capacity to serve our growing city. Specific efforts include:

- Relocate wires and other facilities underground to accommodate massive changes along the downtown waterfront.
- Add capacity for the expanding University of Washington and new Sound Transit light rail.
- Adjust electrical grid operations to realize system-wide benefits from the new Denny substation.
- Replace failing underground wires to bring them up to modern standards.



# WE POWER Financial Stability

Keeping Customer Bills Affordable and Stable

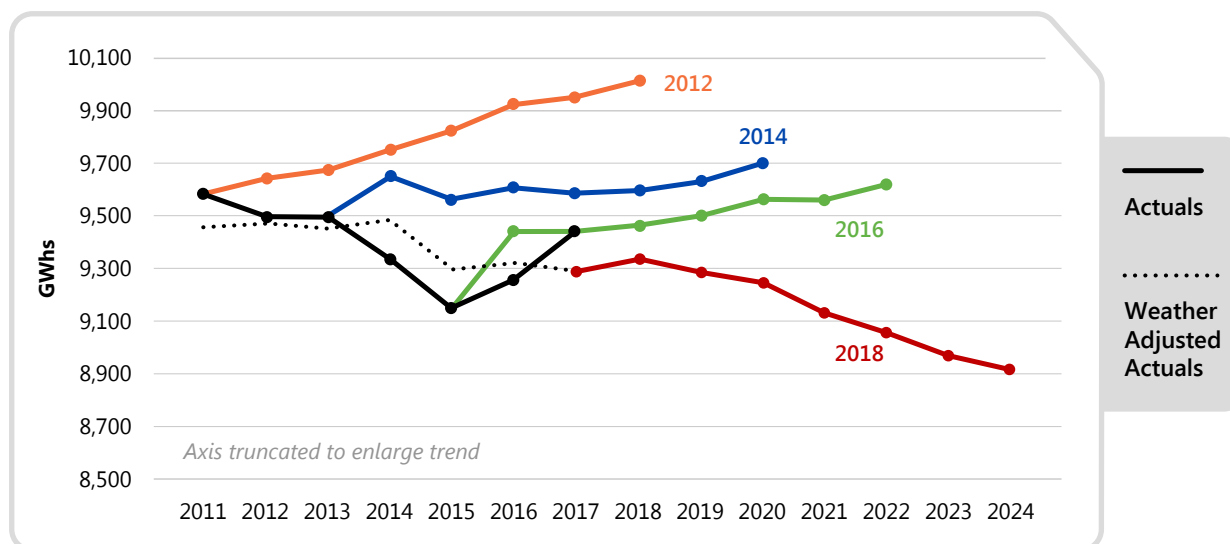
Even though the Seattle area is experiencing a construction and population boom, customer electricity consumption is not following suit. Instead, due to energy efficiency programs and policy successes, consumption continues to decline, creating revenue challenges for City Light.

## Revenue Challenges

City Light recommends electric rates designed to collect the amount of revenue needed to implement the Strategic Plan programs and investments and maintain existing and planned operations. Our rates are primarily volumetric per-kilowatt-hour charges. Therefore, if customers use less electricity the utility collects less revenue. In four of the last five years, City Light over-forecasted customer electricity use, resulting in over \$100 million in approved costs not being recovered from our customers.

As recommended in the last Strategic Plan update, we studied this emerging issue, engaging outside consultants and looking closely at customer data and trends. What the utility learned is that while weather—warm winters in 2015 and 2016, and a very cold winter in 2017—was a contributing factor, the main drivers of low electricity consumption were major advancements in energy technology. LED lighting, new efficient appliances, better insulation, less expensive solar panels and other opportunities to invest in conservation—all of which are incentivized by City Light policies and programs—are contributing to customers saving energy and reducing their utility bills at a faster rate than planned.

## Strategic Plan Retail Sales Forecast



## New Forecast

In 2017, City Light built a new retail sales forecast model that incorporates new codes and standards, new technologies like LEDs, solar panels, and electric vehicles and other relevant factors such as climate change. The new forecast projects that Seattle's electricity use will continue to decrease in the coming years.

Downward-trending electricity consumption represents a tremendous victory for Seattle's conservation efforts. Since the 1970s, City leaders have pushed towards this goal, and for the past 50 years, City Light has aggressively pursued conservation instead of acquisition of new energy resources.

A financial side effect of Seattle’s conservation success is rate pressure. Maintaining City Light’s hydroelectric dams, wires, poles and other infrastructure is very capital intensive. These costs do not shrink when customers conserve energy. Instead, a growing metropolitan area, new safety and security requirements, state mandates like I-937 (renewable portfolio standard), as well as inflation of costs like labor, raw materials, and construction services, contribute to increasing City Light’s costs of operation each year.

To limit cost increases to our customers, City Light will reduce capital spending by \$240 million over the six-year strategic planning horizon—a nine percent reduction. The O&M budget will be reduced by six percent beginning with \$18 million in 2019 and increasing with inflation to over \$20 million in 2024. This will result in lower retail rates than would otherwise occur.

This Strategic Plan calls for rate increases to produce enough revenue to cover rising costs, as well as compensate for customers’ declining electricity use. It is worth noting that even though revenue needs are rising, the rate of increase in this new plan is less than the level of the current plan.

### Retail Revenue Authorized by Strategic Plan (Actual & Forecast)



## POWERING EQUITY City Light’s Commitment to Customer Assistance

### Utility Discount Program Expansion

City Light’s Utility Discount Program (UDP) is one of the most substantial income-qualified assistance programs in the country, with a 60 percent discount on electric bills. City Light continues its efforts to assist customers who have difficulty paying their bills by increasing enrollment in this program. At the end of 2017, there were approximately 33,000 customers enrolled in UDP.

### Emergency Low Income Assistance Program

City Light offers its own program for customers who have received an “Urgent” or “Shut-Off” notice on balances that equal \$250 or more. The Emergency Low-Income Assistance Program (ELIA) offers up to \$200 every 12 months for customers who make the minimum payment to avoid disconnection and payment arrangements for the balance. This program is funded with ratepayer dollars.

### Project Share

Project Share’s one-time emergency assistance grants are funded by donations from City Light employees, customers, and other supporters. This tax-deductible donation disburses funds to those in need. Project Share participants can specify an amount to be added to their regular electric bills or make a one-time donation.

## Rate Path

The Strategic Plan proposes a six-year rate path that increases 4.5 percent annually on average for 2019–2024. Decreasing retail sales account for about one-third of the 2019 rate increase, and one percent of the 4.5 percent six-year average. This average annual increase equals \$3.26 per month or \$39.12 per year for a typical residential customer.

Monthly Bill Increases	2019	2020	2021	2022	2023	2024	Average
Annual Increase <sup>1</sup>	5.8%	5.4%	3.6%	3.9%	4.0%	4.2%	4.5%
Typical Residential Bill (\$65)	\$3.77	\$3.72	\$2.63	\$2.93	\$3.12	\$3.42	\$3.26
Typical UDP <sup>2</sup> Residential Bill (60% off)	\$1.51	\$1.49	\$1.05	\$1.17	\$1.25	\$1.37	\$1.31
Small Commercial (Coffee Shop)	\$42	\$41	\$29	\$33	\$35	\$38	\$36
Medium Commercial (Grocery)	\$951	\$938	\$663	\$740	\$787	\$863	\$824
Large Industrial (Metals)	\$92,279	\$91,031	\$64,382	\$71,831	\$76,407	\$83,745	\$79,946
Large Commercial (Education)	\$103,630	\$102,228	\$72,302	\$80,666	\$85,806	\$94,046	\$89,780

<sup>1</sup>The bill impacts shown in this table assume that all customer bills increase by the percentage increase shown here. Actual bill impacts will reflect allocated cost of service and rate design, which may result in different increases.

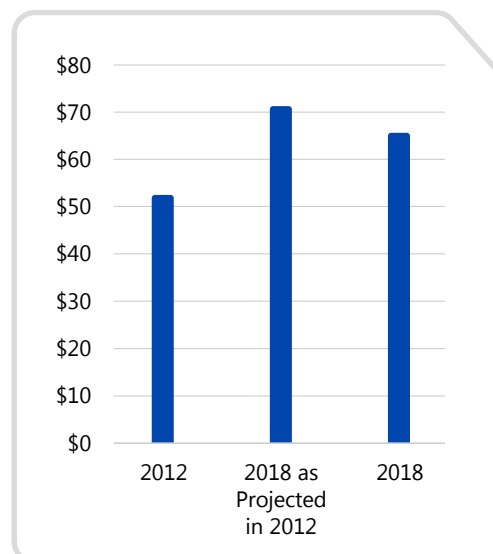
<sup>2</sup>Denotes Utility Discount Program (UDP) participant. The UDP offers eligible customers a 60 percent discount on their City Light bill. UDP is available for income-qualified residential households.

The dollar impacts shown in the table above assume a customer’s electricity use will stay constant over the next six years, which may not be the case. Six years ago, City Light projected that by 2018 an average residential customer’s bill would be \$18 more per month, increasing from \$53 to \$71. However, the average residential customer’s use has declined seven percent over the past six years, so that in 2018 a typical residential bill is about \$65, an increase of about four percent per year.

City Light projects that customers will continue to lower their electricity use and this will soften the impact of rate increases on their electricity bills.

For more detailed information please see the Financial Forecast in the appendix.

### Typical Residential Monthly Bill

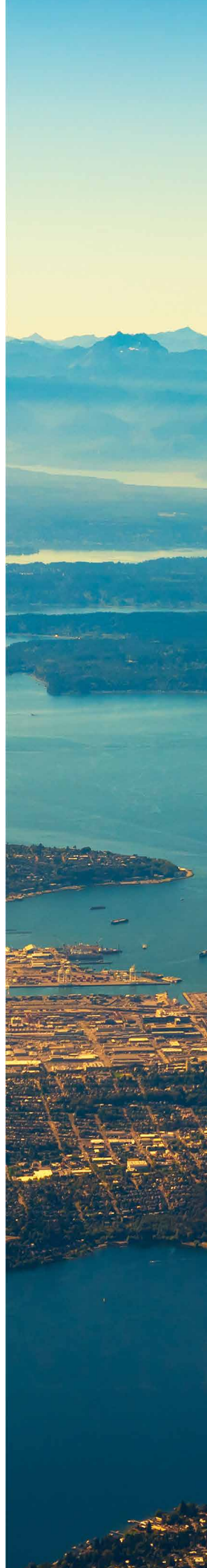




## WE POWER Seattle

This Strategic Plan builds on past innovations and accomplishments, while looking forward to a powerful future. To respond to industry challenges, City Light has identified three strategic priorities: customer service, affordability, and clean energy. In addition, a fourth strategic priority reinforces our commitment to continued progress on our core business. The 2019 – 2024 Strategic Plan positions City Light to fulfill its promise of delivering customers affordable, reliable and environmentally responsible electricity services. We stand ready to power our community for years to come.

**We power the future. We power Seattle.**



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