

Strategic Investments Summary

Budget/Rate Alignment

CR1: Align budgets and rates to strategic plan priorities/Implement new budget system

City Light will streamline its budget development process by purchasing a new integrated budgeting system, enhance capital project prioritization and justification, and align budgets and accompanying customer rates with the strategic plan. In the past, budgets were sometimes increased without the accompanying rate increase that would provide the appropriate level of funding; budgets and rates have not been consistent with a council-approved strategic plan; and City Light used three outdated software systems to produce and monitor its annual budget.

Net Wholesale Revenue Practices

CR2: Reduce rate shocks: conservative net wholesale revenue/analyze financial instruments to reduce volatility

City Light's net wholesale revenue budget needs to align with expected water and prices in order to increase rate predictability for customers. Currently, the target mandated by ordinance is much higher than City Light's forecast. The target will be gradually lowered, to the point where it is likely to be met or exceeded in three out of four years, thus greatly reducing the chance of automatic surcharges due to lower than budgeted wholesale revenue. Reduction of the target will annually increase customer base rates, but should also increase the likelihood of customer refunds in good water/price years. In addition, City Light will investigate the use of financial instruments to reduce its exposure to volume and price volatility on the wholesale market.

Ratepayer Advocacy Initiative

CR3: Strengthen ratepayer advocacy in rate process

City Light will identify and recommend ways to restructure the rate review process to increase opportunities for meaningful ratepayer input prior to the time decisions are made. These will include: discussing ideas on how to achieve these goals with the review panel and policy makers, obtaining best practice information from peer utilities such as members of the Large Public Power Council, making formal changes in the calendar for rate development and adoption in order to add additional opportunities for public input, implementing a public communications plan regarding possible rate changes, clearly documenting cost allocation methodologies proposed, and ensuring that the review panel has the opportunity to bring issues to the attention of the mayor and council in a timely manner.

Cost of Service & Rate Design Policies

CR4: Review and update cost of service and rate design policies for 2013-18

Changes in costs of service and rate design policies can change the amount of rate revenue allocated to customer classes and to customers within classes. However, such changes may also encourage more conservation efforts by customers and improve integration of new technologies into rate design (e.g., rates for electric vehicles). City Light will work with the review panel, mayor and council to establish cost of service and rate design policies that provide customers a smooth transition from current rates to new rates for 2013-2018.

Customer-Focused Website/Services

CR5: Web Redevelopment

City Light is working with Seattle Public Utilities and a team of consultants and vendors to determine the best course of action for improving the City Light website. The areas of focus are: transactional procedures (bill payment, service requests, etc.); content organization (pages related to account practices, construction standards, etc.) and navigation/usability issues. The final goal is to provide an informative, easy-to-use site that offers the customer 24/7 access to a wide range of City Light programs and services.

Customer Service Center Improvements

CR7: Enhance and Improve Customer Contact Management Model

City Light seeks to provide a more efficient and effective way of managing customer contacts within the current system. Customers contact us in different ways including in-person, phone (live and through the Interactive Voice Response system) and the website to resolve basic customer service issues. A significant portion of this service model (the telephone Call Center function) is provided by another department (Seattle Public Utilities) under a memorandum of agreement. The initial plan was for the Call Center to provide more efficient service and reduce barriers to customer service, but a Call Center separated from City Light operations has not provided reliable and efficient response to City Light's customer calls. City Light personnel handle customer calls separately from the Call Center as part of our utility customer accounts processes. This method is inefficient and duplicative.

Under this initiative, City Light will perform a comprehensive review and analysis of all areas where customers come in contact with City Light including accessing account information, reporting concerns, and paying their bills. The review will drive an implementation plan that will include business process improvements, work force consolidation and technology changes to support delivering the best customer service and operate more efficiently.

Enhanced Environmental Leadership

CR8: Environmental Leadership

The Environmental Leadership Initiative includes two efforts to ensure that City Light continues to be an environmental leader among electric utilities. First, it would develop an ecological approach to vegetation management along select portions of City Light's transmission line rights-of-way (ROWs) to reduce long-term maintenance costs while improving habitat values. Second, it would increase customer and stakeholder awareness of City Light's many environmental achievements by updating the environmental report and website; and developing more ways of communicating with internal and external stakeholders.

Environmental Liability Reductions

CR9: Reduce Environmental Liability

This proposal would significantly reduce the risk of an oil spill and the presence and use of toxic material in current operations. It includes the development of a comprehensive environmental management plan to more systematically coordinate risk reduction efforts including: (1) The testing of untested City Light transformers for PCBs and the removal of transformers with a PCB concentration greater than 1ppm. (2) The carrying out of projects to reduce the spill risk at generating plants. (3) The development and implementation of an environmental compliance risk reduction program through utility wide auditing, strategic coordination, and improved planning. These efforts would greatly reduce future costs and liability to City Light as well as reducing risk and harm to the environment and public health.

Safety Culture Promotion/Practices

W1: Safe Work Environment

It is Seattle City Light's responsibility to provide a safe utility work environment for our employees and the public, and maintain compliance with federal, state and local safety regulations. This proposal would implement a comprehensive safety and health program incorporating electric utility best practices to significantly reduce injury frequency and severity rates. In the electric utility industry, the total recordable incident rate (TRR) was established to reflect the level of injuries and illnesses, and is a measure of an organization's safety performance. Seattle City Light's TRR at 2011 year end was 9.1. The electric utility industry (public and private) average is 4.3. Seattle City Light's goal is to reduce the injury and severity rate by 20 percent per year and be in the top quartile (for TRR) compared to other public electric utilities by 2018 year end. In addition to the decrease in employee injury and severity rates, the implementation of this proposal would result in the reduction of motor vehicle accidents, the reduction in cost per injury, and a decrease in workers compensation costs and third party claims.

Skilled Workforce Attraction & Retention

W2: Attract and Retain Workforce

Seattle City Light employs a highly specialized workforce recruited specifically for skills and knowledge of hydro-powered electric utility operations. The average age of employees in the Utility is 50, and 55 percent of the workforce is eligible to retire within the next five years. Electric utilities across the country are experiencing the same challenges in recruiting and retaining talent in roles where utility specific expertise is required. To ensure we continue to have a qualified high performance workforce in place to meet our customers' needs, Seattle City Light must implement a comprehensive workforce strategy that includes: competitive compensation and incentive programs in line with the national market for talent with specific electric utility knowledge and expertise; workforce development with a "grow your own" focus to ensure family wage jobs for the local community; and flexibility to implement programs, align labor agreements and work practices, and broaden some job classifications to provide more cost-effective and efficient service to our customers.

IT Security Upgrades

A3: Implement IT Security Upgrades

IT Security Upgrades will fund two key elements critical to maintaining and operating City Light's IT infrastructure--dedicated IT security staff and funding for infrastructure improvements.

First, funding for three FTEs whose sole purpose is to implement, maintain, upgrade and enforce IT security practices, technologies and policies. Currently, security is managed by staff whose primary responsibilities include managing network traffic, administering servers, supporting enterprise applications, installing PCs, and troubleshooting end user help calls--essentially, IT professionals whose responsibilities include a wide array of the day-to-day basic operations that keep business running.

Second, replacement of outdated network infrastructure with current generation firewalls, switches and routers with built-in intrusion detection and protection capabilities. Current generation equipment not only reduces malware from penetrating our environment, but provides substantial tracking and remediation capabilities when malware does enter the environment.

This will facilitate the creation of a robust IT security program enveloping practices, procedures, latest technologies and policies to assist in managing our expanding IT environment. Further, it provides the resources to replace our outdated network infrastructure with new network security vigilant devices.

Reliability & Cybersecurity Standards Compliance

A4: Compliance Tracking System and Compliance Program Standardization

Under federal law, City Light is required to comply with roughly 900 complex and ever-changing requirements under Critical Infrastructure Protection and Reliability Standards. Utility performance is subject to periodic audits by the Western Electricity Coordinating Council (WECC), the North American Electric Reliability Corporation (NERC) and the Federal Energy Regulatory Commission (FERC). Penalties for any violation can be as high as \$1 million per day per violation.

This initiative would standardize and automate compliance with federal and regional reliability and cyber security standards. It consists of two components. The first component is a capital investment for an online system that manages workflows and tracks compliance with NERC standards and requirements. The investment required is relatively small but the risk reduction will be huge. The second component of the initiative reflects the addition of labor resources to meet the requirement of effectively complying with new regulations affecting reliability, formalize the approach to meeting reliability requirements and documenting compliance, and reduce the risk of a violation by developing a standardized, rigorous approach to critical infrastructure protection and reliability standard requirements with documented procedures and controls, training, and self-monitoring.

Enterprise GIS

A5: Integrated Geospatial Information System (GIS)

Seattle City Light has multiple, incompatible geospatial information systems (GIS) performing redundant functions and complicating integration to other approved utility information technology systems such as the work and asset management system, the outage management system, and the mobile workforce solution. This results in lower functional benefits from these systems, higher labor-intensive system integration costs, and a higher on-going level of internal and external resource requirements. The utility also has a demonstrated need to manage additional asset information in the GIS including transmission, streetlight and joint use infrastructure. Replacing our multiple GIS systems with a single, integrated GIS will eliminate redundant data entry, increase data quality and put information into the hands of the people who need it. This will improve field worker safety, reduce the number of expensive project changes in the field due to inaccurate or incomplete mapping information, ease integration to future utility systems requiring access to GIS data and streamline software maintenance and support requirements.

North Downtown Substation

A6: Denny Substation Program

Provide reliable electrical service to the high-density load centers located in the urban centers that make up the north downtown area (the South Lake Union urban center, the Denny Triangle urban village within the downtown urban center, the Uptown urban center, and the First Hill urban center) with construction of Denny substation and associated South Lake Union network distribution system. The new Denny substation will provide the needed capacity and operational flexibility to manage the reliability & load growth in these economically critical urban centers. The new South Lake Union network will provide the most viable, safe, reliable, and cost effective means to serve the emerging high tech and biotech high-density loads with a high reliability 13.8kV spot network infrastructure. This combined approach allows City Light to incrementally and strategically construct these assets so as to allow the maximum flexibility in assessing the best system/service options in serving each new particular development as they occur.

Transmission System Improvement

A7: Transmission System Improvements in Puget Sound Area

Electric transmission congestion in the Puget Sound area is increasing due to changes in area generation; load growth; transfers of power to Canada required by treaty; and outages needed to maintain the lines. To address these issues, the following projects are proposed to harden the Seattle City Light transmission system.

- Reconductor the Bothell/SnoKing double circuit 230kV lines to increase capacity
- Install one set of 115 kV inductors on the Massachusetts-Union-Broad line to reduce power flow through Seattle area
- Install one set of 115 kV inductors on the Broad-East Pine line to reduce power flow through Seattle area (If Denny substation is built, this would be the Broad-Denny line)
- Reconductor Delridge – Duwamish 230kV line to increase capacity

The cost of these improvements will be reimbursed partially by other utilities in the area.

Underground Cable Replacement

A8: Cable Rehabilitation and Replacement

The cable rehabilitation and replacement program is an ongoing system-wide reliability program that includes existing capital improvement projects; PE8440 - Neighborhood Cable Injection and PE8353 - Underground Equipment Replacement. The cable injection project prolongs the life of existing direct buried cables by testing, and where suitable, injecting cables. The cables not suitable for injection require replacement. Replacement requires conduit be installed before cable installation. City Light currently funds replacement of 25,000 feet of directional boring and 2,000 feet of open trench followed by cable installation. This initiative increases the cable replacement rate by 10,000 feet per year with directional boring. Directional boring is the most cost effective, expeditious, and least disruptive conduit installation method. Contractors will install conduit while City Light crews will install cable.

Streetlight Planning, Design, Construction

A9: Streetlight Infrastructure Replacement

This initiative requests funding to replace aging, non-functional, and damaged underground streetlight infrastructure; as identified in the ten-year streetlight horizon plan. The plan provides prioritization for streetlight system replacement in conjunction with complete streets initiatives and other capital improvement projects. Affected streetlight infrastructure includes poles, fixtures, conduits, hand holes, and wiring. Capital improvement project PE 8378, funded at \$2.248 million for 2012, constitutes repair of streetlights as requested by various taxing jurisdictions and customers. Current practice involves crew and engineering response to individual customer requests as needs emerge rather than planned replacement of aging infrastructure. Replacing failing systems will reduce stop gap repairs by crews and improve customer satisfaction.

This initiative addresses the most critical streetlight district's infrastructure that is significantly beyond their useful life and susceptible to repeated failure.

Mobile Workforce Implementation

A10: Mobile Workforce Implementation

This initiative drives the implementation of mobile workforce management software. This software will interface with both work and asset management system and the new customer care & billing system to enable automated scheduling and dispatch of our field workforce. In addition to improving operational efficiencies, this initiative will enable real-time monitoring of work progress and dispatch of all field work including emergencies and/or outages. It will also significantly improve our ability to meet customer commitments for work performance dates.

Hydro Performance and Generator Availability

A11: Improve Hydro System Optimization and Generator Availability

The goals for 2013-18 are to 1. Increase City Light system generation efficiency (water utilization) from a utility revenue and State Renewable I-937 perspectives using an Excel optimization tool. This tool will better inform power marketing and system control decisions “within next hour” for hydro operations; and 2. Prioritize crew deployment toward preventive maintenance and planning over major CIP in order to improve machine availability by optimizing unit outages. The work and asset management system will be fully implemented to provide the scheduling and planning discipline required for achieving the projected savings. This proposal would increase our operations and maintenance efforts at all of our hydro facilities. It would do so by concentrating more resources and labor on operations and maintenance rather than on capital projects. This would ensure that investments and maintenance actions will improve system performance by operating more efficiently and reducing unit outages.

Regional Power and Transmission Leadership

A12: Regional and Industry Leadership

This initiative would provide two additional employees whose time would be devoted to providing leadership and direction on various regional power supply and transmission matters; which would translate to lower wholesale costs via our Bonneville Power Administration power and transmission rates (more than 40 percent of Seattle City Light’s energy portfolio and most of it is transmission services). The integration of wind energy into the power grid is just one example of the challenges facing the region that result in increased costs to our retail customers. The goal of the initiative is to be an industry leader on transmission and operations issues in the Pacific Northwest, and to protect customer interests regionally and nationally. The additional staffing will allow City Light to be able to take proactive positions, instead of simply reacting to what others do; whether it be new regulations affecting reliability, transmission planning and cost allocation, integration of renewable resources; or relieving regional transmission constraints.

Advanced Metering Infrastructure

A13: Advanced Meter Infrastructure

This is a proposal to implement an Advanced Metering Infrastructure. This initiative shows a substantial net financial benefit to City Light, as well as greatly improved customer service by providing an operating platform that supports emerging consumer technology (customer generation, electric vehicle charging, home energy management protocols, etc). It allows for customer-driven energy efficiency and conservation opportunities, which translates to customer savings, reduced greenhouse gas emissions, and numerous operational efficiencies at the utility.

Electric Vehicle Infrastructure and Rates

A14: Electric Vehicles

The Electric Vehicle program is an educational resource for City Light customers. The program consists of public outreach through the City Light website, printed materials, and public interaction opportunities, with the goal of helping customers become acquainted with the requirements for electric vehicle charging. Additionally, City Light is represented on the State of Washington's Electric Vehicle task force, and the Electric Power Research Institute's Electric Vehicle Advisory Committee.

Engineering and Operations Standards

A15: Standards and Compatible Units

City Light has hundreds of outdated standards and hundreds more that need to be developed. Having no standards or inaccurate and obsolete standards is costing City Light efficiency and productivity in the designing of its work by the engineers and constructing the work by its crews. Furthermore, it creates risk and liability when City Light does not have standard business practices that are current with regulations and best practices in the electric industry. This initiative will support City Light's 2013-2018 Strategic Plan by increasing work productivity and efficiency, establishing standardization and commonality throughout City Light's system, improve response time and quality of our customer service, improve system reliability, reduce the number of materials and products maintained in our inventory, increase cost effectiveness and fiscal responsibility of the utility, and reduce risk and liabilities. This initiative will enable City Light to develop material, design and construction standards that currently do not exist, and update and maintain the existing standards in accordance with new products on the market, new regulatory requirements, and the latest applicable construction means and methods. These standards will then form the building blocks of compatible units for our most frequent and repetitive work.

Climate Research

A17: Environmental Leadership Climate

The proposal would establish a program to carry out climate research to better understand the impacts of climate change on City Light operations and develop a strategy to adapt to these impacts. We currently do not understand the implications of climate change on City Light operations including our hydro generation. Anticipating impacts will allow the utility to plan ahead and minimize long-term impacts on utility operations. It could also increase efficiency of our operations. The proposal would add a Climate program position and a research budget. Research would be conducted in collaboration with a number of external partners including the University of Washington Climate Impacts Group, National Energy Labs and the National Park Service. The work would include downscaling global climate change models to our watersheds; assessing changes in glaciers and flooding; refining hydrology models; and assessing potential impacts on our generating facilities and salmon survival as well as developing strategies to reduce, minimize, or mitigate those impacts. The utility currently has limited capacity to collaborate with others on this issue and has no research budget.

Conservation Enhancement Program

A18: Conservation

Energy conservation is Seattle City Light's most cost-effective, environmentally friendly, and least risky energy resource. Since the late 1970's, energy conservation has been the utility's first priority resource for meeting customers' electricity needs. Investments in energy conservation have multiple benefits: reduces customer electric bills which in turn frees up dollars to spend on other consumer goods and services; provides jobs for those working to retrofit homes and businesses; and assists Seattle City Light in maintaining greenhouse gas neutrality. This proposal supports the continued priority of energy conservation and its benefits for customers and the utility. Energy conservation is the most cost effective resource available to meet future customer needs, and the budgets and level of acquisition within this proposal are designed to ensure compliance with I-937, meet customer expectations, and support City Light's legacy of environmental stewardship.

Communications & Engagement

M1: Effective Communications & Engagement

This initiative would develop options for the mayor, City Council, City Light leadership and the review panel to identify a new paradigm for communications, oversight and engagement for the Utility that better aligns with its unique characteristics and the complexity of the electric utility industry, such as the capital-intensive nature, impact of federal regulations and regional relationships, and its role as a commodity trader. The review panel, which has been empowered

through ordinance with representing City Light customers in development of the Strategic Plan and rate design and cost allocation, provides an important third-party perspective on how to strengthen communications and engagement with the utility's oversight board (the City Council) and customers. This initiative would seek to leverage the outstanding work already under way with the review panel on the Strategic Plan.

Performance Benchmarking & Efficiencies

M2: Benchmarking Performance

City Light has participated in benchmarking surveys and studies in recent years using existing staffing. During this period City Light also spent approximately \$50,000 annually with consultants for survey work. However, this limited spending was not sufficient to perform the in-depth work needed to identify gaps and develop actionable items. As a result City Light hired an outside firm in 2011 to examine transmission, distribution, and generation. As a result of the 2011 study, City Light identified areas of improvement that are now being addressed. This initiative will continue the efforts to identify gaps and put action plans in place to correct existing deficiencies to reduce costs and enhance service.

IT Roadmap

M3: Implement IT Roadmap

There are three projects in this initiative: City Light's contribution to upgrading the City's financial system (which is also City Light's system), establishment of an enterprise document management (EDM) system, and a plan for recovery of City Light's IT assets in the event of a major disaster. The City's financial software dates from 1998, with the last upgrade in 2006; a new system will increase efficiency, produce labor savings and improve financial controls. A comprehensive automated EDM system would replace City Light's mostly manual system for managing documents; it will reduce work time, streamline workflow, enable improved sharing of information, efficiently store and preserve critical content in a centralized system, and provide auditing capabilities that will minimize risks associated with regulatory and legal compliance. City Light's current IT disaster recovery capability is very limited and would not be sufficient to recover key assets after a significant disaster such as an earthquake or major cyber attack. City Light will develop and implement a comprehensive disaster recovery plan in which it will prioritize IT asset recovery requirements and establish cost-effective deployment options that meet the need for geographic diversity, financial integrity and reliability.

Performance-Based Reporting

M4: Performance-Based Reporting

City Light has many legacy systems that contain data that can not provide information and reports needed to make decisions. New systems being installed such as work and asset management system and outage management system provide greater access to information in the form of specific saved operational reports. However, none of the current systems or those City Light expects to install in the future can collect, aggregate and report data from multiple system applications at once with the exception of the enterprise business intelligence system. City Light will use the enterprise business intelligence system to provide metrics, dashboards, and analytic and strategic reports. This initiative ensures that funding will be available for the enterprise business intelligence system to extract information needed to automate performance reporting, including metrics to track progress on the Strategic Plan.

Internal Management Review Unit

M5: Establish Internal Audit/ Management Review Group

This group will provide independent analysis of high risk areas in order to address potential fraud and abuse and to reduce waste. The internal audit group would conduct risk assessments, develop an annual audit plan, and be available for one-off special audits when issues arise throughout the year. The investment in an internal audit/ management review group within City Light would also result in opportunities to reduce costs. The lack of this function within the utility currently means that inefficient processes and procedures can continue, the ability to address potential fraud and abuse is lost, and the opportunity to reduce waste is minimal. This also means that when problem areas are identified, it is often after the fact or reactive when proactive analysis and review could have had a significantly greater impact.

Project Management Quality Improvement

M6: Project Management Quality Improvements

Given the diversity, scope and cost of its projects, City Light needs to build a consistent enterprise project management capability to ensure proper project development, oversight, management, and accountability. Therefore, it will establish a centralized project management office to develop policy, promote sharing, and develop enterprise capabilities, standardize project management tools and methodology, and manage funding for project management training throughout the utility.

Service Agreements/Performance Metrics

M7: Service Agreements with City Departments

This initiative is designed to achieve better service from City of Seattle departments at a competitive cost. It seeks enhanced accountability, improved and measured performance, and cost control through signed service level agreements that contain metrics and performance guarantees.

External Service Contract Procurement

M8: Review & Improve Procurement Processes for External Service Contracts

City Light's procurement process is complex, confusing and difficult to navigate. In order to ensure proper compliance and financial control the process needs to be revised. This initiative will evaluate and implement process improvements to the City Light procurement process and the administration of purchase, consultant and public works contracts while maintaining any necessary financial controls to prevent fraud and abuse. The initiative includes changes to the organizational structure, staff competencies, and staffing to align with customer expectations.

Efficiency Initiatives

M9: Efficiency Projects

City Light has consistently pursued productivity improvements, cost savings and opportunities to increase non-rate revenues. Those savings are already reflected in the baseline of the strategic plan. This efficiency initiative is a multi-year effort to improve performance, enhance value for internal and external customers, and to generate cost savings across the utility. This effort focuses on value added activities that can be quantified to save up to an additional \$18 million annually by 2015.

Financial Policies Initiative

M10: Review and affirm or amend financial policies

City Light will periodically provide information to the City Council to make decisions on financial policies relating to debt service, CIP funding, the rate stabilization account, reserves, and insurance. Utility staff will periodically review these policies and their effect on rates with the review panel, the mayor and City Council. City Light recommends insuring its generating assets, since they are critical to its mission and the estimated cost is reasonable.