#16
Res. 31383

RESOLUTION 31383

A RESOLUTION relating to the City Light Department; adopting a 2013-2018 Strategic Plan for the City Light Department and endorsing a six-year rate path required to support the Strategic Plan.

WHEREAS, the City Light Department ("City Light") is the 10th largest public utility in the nation, serving more than 400,000 customer accounts, and providing safe, affordable and reliable electricity to its customers; and

WHEREAS, City Light faces a number of uncertain challenges that include meeting power resource requirements, maintaining aging infrastructure, addressing an aging workforce, and achieving new operational efficiencies; and is at a pivotal moment to determine which investments are needed to continue to meet the expectations of City Light's current and future customers; and

WHEREAS, City Light seeks to provide rate predictability and stability in future rates, and to avoid the pattern of volatile rate adjustments that has characterized the last decade; and

WHEREAS, in consultation with the Mayor and the City Council, City Light initiated the Strategic Planning process in 2010 to provide more transparency and accountability for decision-making within City Light; and

WHEREAS, the City Light Review Panel, representing City Light ratepayers, was established by Ordinance 123256 and was tasked to review the Strategic Plan during the two-year period of the Strategic Plan's development; and

WHEREAS, the Strategic Planning process included extensive public outreach, including stakeholder meetings, public meetings, non-English speaking outreach, online surveys, advertising, media, and direct mail; and

WHEREAS, the resulting Strategic Plan is a package of investments to achieve additional operational efficiencies, maintain current service levels, improve reliability, strengthen City Light's workforce, and support job growth and economic development in the region; and

WHEREAS, the City Council has reviewed the Strategic Plan, the associated six-year rate path, the recommendation of the Review Panel, and the results of public outreach; NOW, THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE MAYOR CONCURRING, THAT:

Section 1. The City Council adopts City Light's proposed 2013-2018 Strategic Plan (the "Strategic Plan"), a copy of which is attached as Attachment A and incorporated by reference.

Section 2. To achieve the goals of the Strategic Plan, an average system rate increase of 4.7% per year is anticipated over the period of 2013-2018.

Section 3. The City Council requests that City Light prepare the 2013-2014 Proposed Budget in support of the Strategic Plan.

Section 4. The City Council requests that City Light prepare the 2013-2014 Rate Proposal in support of the Strategic Plan.

Section 5. City Light will review and update the Strategic Plan every two years, adding two years to the Strategic Plan and re-evaluating the subsequent six-year rate path. The next review and adjustment of the Strategic Plan will be finalized in 2014 and will encompass the years 2015-2020.

Section 6. By the end of 2012, City Light will propose a reporting framework to the Council to track progress in achieving the goals of the Strategic Plan. The proposal should include milestones and deliverables, and special attention should be given to achievement of the $18 million in efficiencies.

Adopted by the City Council the ____ day of _____, 2012, and signed by me in open session in authentication of its adoption this_____ day of _____, 2012.

_____

President _____of the City Council

THE MAYOR CONCURRING:

_____

Michael McGinn, Mayor

Filed by me this ____ day of _____, 2012.

_____

Monica Martinez Simmons, City Clerk

(Seal)

Attachment A: Seattle City Light 2013-2018 Strategic Plan

Attachment B: Appendix 1 – Financial Baseline

Attachment C: Appendix 2 – Strategic Investments Summary

Attachment D: Appendix 3 – Outreach Summary

Attachment E: Appendix 4 – Review Panel Recommendations Letter

Seattle City Light 2013-2018 Strategic Plan

Your Power Future

May 2012

City Light's customers include a mix of residential, commercial, institutional and industrial users. While City Light's customers' needs may vary, they share a common desire for energy that is environmentally responsible, available, affordable and reliable.

Seattle City Light

Paula Laschober
SCL 2013-2018 Strategic Plan RES Att A
May 8, 2012
Version 1

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Paula Laschober
SCL 2013-2018 Strategic Plan RES Att A
May 8, 2012
Version 1

Letter From the Superintendent

Perhaps there has never been a more important time in the history of City Light than now. The investments made by the public in 1902 to create a hydroelectric utility to serve the power needs of a growing city are not entirely dissimilar to the situation we face today.

Since 2004, a pathway for critical investments in the utility's infrastructure has been carefully plotted. Decisions have been made to conduct regular maintenance on production, transmission and distribution equipment on a routine basis. However, we have seen those plans delayed or postponed due to volatile cycles in the energy market, snow pack, and the national and local economies. Sadly, this has been the case for the utility since 1980.

Today, the Strategic Plan presented to city decision-makers and to our customers is a determination to break that erratic cycle. We listened carefully to our customers – both residential and business – who said that they want reliable power, they want investments in the utility's infrastructure to be made routinely, and they want rate predictability. It is unlikely that any other electric utility in the country is able to offer a six-year rate path. Certainly, this is the first effort of its kind in City Light's history to offer clear metrics and accountability tied to rates.

Rate increases are not popular. We would not be offering a plan to our customers that doesn't come with intense scrutiny. Guided by the mayor and City Council-appointed review panel, who spent countless hours during a two-year period asking tough questions and turning over every rock to find efficiencies and cost savings, I am proud to submit this six-year Strategic Plan to the public.

We will look for ways to help those among us with the least ability to pay to reduce their energy power bills through efficiencies and services. We will continue to look for every efficiency we can find – even above and beyond the commitment to the $18 million annual savings we will achieve by year three of the plan. And, we will report annually to our elected officials and our customers about how well we are doing with our commitments contained in the Strategic Plan.

On behalf of all of the dedicated men and women who are proud to be employees of Seattle City Light, I transmit our six-year Strategic Plan that charts a course to deliver on our promise to provide the best customer service experience of any utility in the country – today and for years to come.

Sincerely,

Jorge Carrasco
Superintendent
Seattle City Light

Executive Summary

The Seattle City Light 2013-2018 Strategic Plan lays a foundation for making informed decisions to meet current and future needs benefiting the public and Seattle City Light customers.

The Strategic Plan represents a huge step forward in accountability and transparency – for the utility as a whole, for business units within the utility, and for individual employees. It identifies specific projects and initiatives to be undertaken, and the revenue needed to efficiently accomplish them. During each year of the plan, the utility will publicly report on the progress that has been made.

The Strategic Plan is based on Seattle City Light's durable and valuable system. Yet City Light also faces crucial challenges:

- The utility's historically solid transmission and distribution system includes obsolete equipment and thus is inadequate for meeting today's needs;
- City Light generates more than half of its own power needs, yet it must acquire more, higher cost, new, renewable power to continue its commitment to the environment and to comply with voter-passed I-937;
- The workforce is highly skilled and experienced, but 50 percent of employees will be eligible to retire within five years;
- Finally, even though, since 2004 Seattle City Light realized savings from efficiencies of about $53 million, costs are projected to increase to maintain the current levels of service, due to capital spending, rising debt service costs, increasing power costs, and inflation.

There is an increasing urgency to address these issues. The cumulative effect of delay will result in a system and level of service that fails to meet customers' needs and expectations. Costs will be higher, reliability less assured, economic development advantages will be lost, and customer satisfaction will be compromised if we stop making incremental progress on the growing backlog of necessary improvements, especially related to transmission and distribution.

In consultation with the mayor and city council, Seattle City Light initiated the strategic planning process nearly two years ago. Led by the City Light executive team, it included involvement by the Seattle City Light review panel, City Council members, other city department personnel, community members, business leaders, customers, and other key stakeholders. Dozens of meetings and forums were held, and surveys and focus groups were conducted. Review panel members spent countless hours studying the issues and giving advice. This plan reflects the input and priorities that Seattle City Light heard.

The 2013-2018 Strategic Plan provides a more predictable course for how to best meet City Light's customers' current and future needs. The strategic approach builds upon the current level of services provided by Seattle City Light; includes policies that enable additional efficiencies; and makes strategic investments to improve reliability, strengthen the workforce, and provide for economic development and job growth.

The strategic investments recommended in this plan are critical to Seattle City Light's future success. These are the investments needed to transition from a "run-to-failure" system to a management practice that extends the life, and then replaces the infrastructure, in a timely and cost-effective manner. The result will be to provide energy in a modern, efficient and reliable way while achieving long-term cost savings. The strategic plan includes investments such as the construction of the first substation to be built in more than 30 years. This critical infrastructure project will improve the entire city grid system by providing needed flexibility and increased reliability. City Light also believes it is time to invest in new technology (Advanced Metering Infrastructure) to allow for almost simultaneous energy and outage management. This technology will provide data that enables reductions in customer bills, real-time energy use management by customers and increased City Light workforce productivity.

The Strategic Plan also makes wise investments in workforce development to address retirement and competitive compensation issues, to reduce injuries, and to improve customer service. Seattle City Light will be able to attract, retain and train workers to design, maintain, and deliver energy services in more cost-effective and timely ways.

Implementation of this plan will require a rate increase that averages 4.7 percent annually. For residential customers, this will result in an average monthly bill increase of $2.90, or an annual increase of $34.86.

Rate estimates are based on several assumptions, among them that demand for electricity will increase only moderately at 0.6 percent per year for the 2013-2018 period, inflation will remain low, and low energy prices will continue affecting the value of surplus power Seattle City Light can sell on the wholesale market.

The past decade, in the wake of the energy crisis, has been a challenging one for Seattle City Light and our customers. The utility has emerged leaner and smarter, and better connected to policy makers and our customers. City Light has excellent generation facilities. The utility has doubled its conservation and environmental effort – on top of what was already a national model. It is time to make gains on the transmission and distribution system. Implementation of the 2013-2018 Strategic Plan ensures that Seattle City Light can efficiently and effectively meet the needs and expectations of Seattle's citizens and all of the utility's customers.

At a Crossroads

Electricity rates are too high and are going up. Consumers don't believe what the utilities are telling them. Policy makers are criticized for their inaction and struggle for answers. The region has the opportunity for tremendous growth, but faces daunting challenges. The year? 2001 after the energy crisis? The present day? No. It was 1901.

Thomas Edison's incandescent light bulbs had been demonstrated in Seattle in 1886 and soon after a number of companies were offering electricity in the city, often at high rates and with little oversight by government. In 1902, Seattle said enough was enough and voters approved a $590,000 bond for the construction of a hydroelectric plant on the Cedar River at Cedar Falls. Seattle City Light was born. James Dalmage "J. D." Ross, a self-educated, spiffily dressed engineer, supervised the construction of a wood-frame power house with two 1,500-kilowatt generators.

In 1902, Seattle faced tough decisions and made the right choice. City Light today is at a similar crossroads, with complicated, far-reaching decisions ahead that will set the course of the utility for years to come.

Why a Strategic Plan?

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 environmentally responsible, safe, affordable, and reliable power not only for the next six years, but for many years to come?

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

The plan is results-focused. It reflects a shared desire to provide tangible benefits to customers and community – enhanced reliability, improved customer service, sustained environmental stewardship, an improved infrastructure that is essential to economic development, a high-performance workforce, and improved accountability over a predictable period of time.

Mission

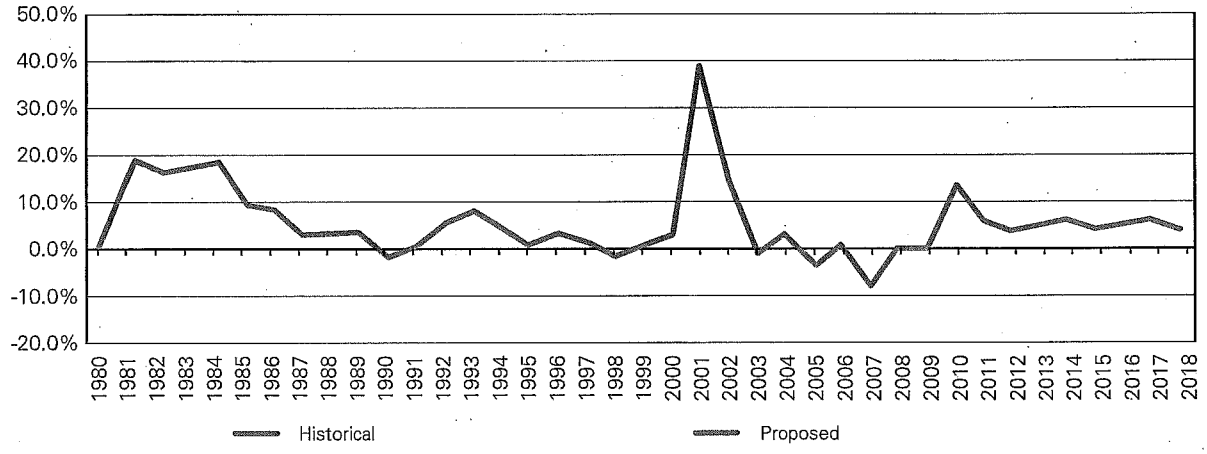
Seattle City Light is a publicly owned utility dedicated to exceeding our customers' expectations in producing and delivering environmentally responsible, safe, low-cost, and reliable power.

Accountability & Updates

The Strategic Plan will be updated by Seattle City Light and adopted by the Seattle City Council every two years. In the first year of each cycle (2013, 2015, 2017), the utility will revisit the plan with the Seattle City Light review panel and changes will be presented to City Council for review. Beginning in 2012, the utility will develop the subsequent biennial budget based on the approved plan.

Historically, Seattle City Light and its customers have been subject to significant volatility and uncertainty in rates (see Figure 1). The 2013-2018 Strategic Plan addresses this problem and proposes highly stable and predictable rates. This addresses strong concerns raised by stakeholders throughout the development of the plan.

Figure 1: Seattle City Light Historical Rate Increases *(not inflation adjusted)*



Process

The Strategic Plan is the culmination of a two-year effort launched by the Seattle City Council and mayor in May 2010 with the appointment of nine individuals to a newly chartered Seattle City Light review panel. This was the most extensive planning process ever undertaken by the agency.

The City Light executive team (the superintendent and officers) led the utility's planning effort with extensive involvement and input from the review panel, City of Seattle leaders, community members, business leaders, customers, employees and other key stakeholders.

Building a Shared Vision

Public and employee feedback was solicited throughout the development of the Strategic Plan. From February through April 2012 feedback was solicited on the draft Strategic Plan and final recommendations.

City Light leaders have actively engaged staff from City Council and the Central Budget office in the process. Panel co-chairs and utility leadership have also presented several briefings to the mayor and the council's Utilities, Technology and Civil Rights Committee. Additional council briefings with the Energy and Environment Committee are planned.

The strategic planning process included six stages:

1. Developed Strategic Framework
[May 2010 to May 2011]

- Completed a thorough operations review, identified key issues facing the utility and briefed the review panel and City Council.
- Reviewed and confirmed the utility's vision, mission and values and identified six- and 20-year priorities.
- Conducted a strengths, weaknesses, opportunities, challenges exercise (SWOC) and refined analysis in collaboration with the review panel.
- Developed 12 strategic objectives in four priority areas (see Figure 2).
- Forecasted costs and rates assuming continuation of current service levels to create the financial baseline.
- Involved all divisions of the utility to develop 36 initiatives to address the 12 strategic objectives (including budgets, timelines and performance metrics) and shared proposed initiatives with the review panel.

Figure 2: Seattle City Light's Priorities and Objectives

Priority	Objectives
Customer Value	• Provide more rate stability and predictability • Anticipate and exceed customer service expectations • Promote environmental stewardship
Workforce Investments	• Ensure a safe work environment • Attract, train and retain a high-performance workforce
Asset Preservation	• Provide reliable, safe, cost-effective electric service to our customers • Maintain stable, cost-effective, environmentally responsible power supply portfolio • Incorporate technology to meet future customer needs
Municipal Enterprise Excellence	• Improve communication about City Light's strategic priorities • Enhance cost competitiveness and accountability in procurement of all services • Implement best practices in business processes and technology across the enterprise • Ensure fiscal strength

2. Conducted Interim Outreach [May to August 2011]

- Conducted public meetings and solicited stakeholder and employee input on SWOC results, proposed priorities and financial baseline results. Outreach included an online customer survey (153 respondents); stakeholder group forums (224 attendees); customer telephone survey (500 respondents); employee online survey (225 respondents); and employee forums.

3. Developed Core Themes, Preferred Strategy and Alternatives
[August to November 2011]

- Refined initiatives based on interim outreach and financial baseline.
- Identified core themes: customer value, workforce investments, asset preservation, and municipal enterprise excellence.
- Developed prioritization scheme, evaluated potential impact of initiatives, presented and refined priorities with executive team and review panel.
- Proposed investment options, including preferred investment and rate path.

The Seattle City Light Review Panel

The Seattle City Light review panel includes representatives from private, public and non-profit sectors, utility experts, business representatives and community representatives. The review panel met 32 times to hear briefings from City Light leaders and provide input into the development priorities included in the plan. The review panel issued a letter with detailed comments following the public outreach.

4. Share Draft Plan and Seek Stakeholder Input
[February to March 2012]

- Circulated draft Strategic Plan to the review panel and key council and budget office staff.
- Conducted broad public and stakeholder outreach on draft plan including outreach to community, business and stakeholder groups, public forums, direct mail and an online survey.

5. Incorporate Stakeholder Input and Further Analyze Efficiencies and Major Strategic Initiatives [March 2012 to May 2012]

- Conducted additional analysis of $18 million per year in efficiencies targeted for the plan.
- Provided further information to City Light review panel on proposal to reduce reliance on net wholesale revenue, Advanced Metering Infrastructure (AMI) business case, and workforce challenges.

6. Mayor Transmits the Final Plan to the City Council for Review and Adoption
[May 2012]

- The Seattle City Light review panel will continue their work as directed in Council Ordinance 123256 to review and provide input to the mayor and council on the Strategic Plan implementation and the biennial revisions or updates to the plan.

Current Situation

Electricity is something many City Light customers take for granted. Each day, individuals and businesses throughout Seattle and seven adjacent communities rely on Seattle City Light to supply affordable and reliable energy. Customers flip light switches, turn on appliances, plug in devices, walk down well-lit streets and expect the power to be on. But City Light's transmission and distribution system is aging and increasingly fragile. Affordable, reliable power can no longer be taken for granted.

City Light's customers include a mix of residential, commercial, governmental and industrial users – from single family homeowners requiring power to keep their families safe and comfortable, to large institutions such as hospitals powering state-of-the art, life-saving equipment and technologies. While City Light's customers are diverse and their specific needs may vary, they share a common desire for electricity that is available, affordable, and reliable.

Energy availability, costs, and reliability are inextricably linked to economic development, public safety, and our quality of life. Companies make location and investment decisions based on energy reliability and predictable costs. Dependable communications and adequate lighting are essential to public safety. And so much of what we do each day – getting a latte at the coffee shop, riding the streetcar or electric bus, conducting vital research on breakthrough medical cures, or even updating a Facebook status – depends on reliable energy. This means electricity that is available when we want it; not prone to failures, outages and disruptions; and able to recover quickly when disruptions occur.

About City Light

Seattle City Light was created by the citizens of Seattle in 1902, when they approved bonds to build a hydroelectric power plant on the Cedar River. The plant delivered its first electricity to customers in 1905. As a municipally-owned public power system, Seattle City Light is governed by elected Seattle officials and primarily supported by customer revenues as well as surplus power sales. Recognized as a national leader in energy efficiency and environmental stewardship, Seattle City Light provides low-cost, reliable and environmentally responsible electric power. Over half of customers' electric needs are met from hydropower dams owned and operated by City Light; most of the remaining power needs are met by hydropower purchased from the Bonneville Power Administration and investments in renewable and conservation resources. Seattle City Light is the 10th largest public power system in the United States on the basis of retail energy sales.

In recent years, Seattle City Light has weathered significant financial challenges. In 2010, the recession, volatile energy prices, and a low snow-pack dealt the utility a triple blow. City Light responded by developing a new business approach to aggressively pursue efficiencies, cut spending, and secure the utility's finances through the creation of a rate stabilization account, as well as rate increases that went into effect in 2011 and 2012. These difficult decisions were necessary to improve essential infrastructure and ensure reliable electrical service to City Light's customers.

Efficiency is a necessary ingredient in all the work of City Light, especially as it relates to its owners – the citizens of Seattle. Efficiency means that City Light is spending the resources provided by ratepayers well. Like any business, City Light can only spend a dollar once, so it must make the best use of it to achieve its mission to be the best public utility in the nation.

Between 2004 and 2011, City Light adopted a stronger business model and took a number of steps to improve performance and increase efficiencies in the areas of transmission and distribution, environment

and conservation, generation and power, human resources and safety, customer service, infrastructure, and financial management. Together, these savings amount to more than $53 million per year.

Specific programs included short- and long-term investments. For example, a more aggressive tree-trimming operation reduced power outages and saved money, and a 17-year power contract with the Bonneville Power Administration is expected to provide more than $230 million in savings over the life of the contract (see Figure 3).

Figure 3: Efficiency and Cost Savings Achievements (2004-2011)

Transmission and Distribution	• Began a work and asset management program to identify, assess and prioritize work. • Inspected and initiated a systematic pole replacement program. • Began an underground cable injection program to treat failure-prone cables. • Increased tree trimming to avoid outages and improve reliability.
Environment and Conservation	• Installed 20,000 light emitting diode (LED) streetlights. • Reduced cost of lamp heads for streetlights. • Implemented a five-year energy conservation strategy that would double the utility's energy savings. • Implemented a renewable energy program that combined resource acquisition and energy credits to achieve cost efficiencies.
Generation and Power	• Carried out a rewind and turbine runner replacement program to improve and extend the life of aging generators. • Reorganized operations at Skagit and Boundary projects for improved efficiency. • Executed a 17-year contract with the Bonneville Power Administration.
Human Resources and Safety	• Improved safety performance. • Reduced workers' compensation costs. • Developed and implemented a critical needs staffing plan and reduced hiring cycle time. • Hired 152 apprentices (since 2004) to fill skilled trade vacancies and anticipated retirements.
Customer Service	• Revamped streetlight re-lamping cycle to improve service and reduce costs. • Reduced streetlight repair cycle time. • Enhanced outage management system to restore service faster, provide more accurate restoration time information to customers, and improve reliability. • Improved customer service processes to significantly reduce hookup time. • Upgraded customer communications tools including the City Light website, electronic billing and mobile applications.
Infrastructure	• Introduced new security and emergency preparedness programs reducing risk to assets and personnel. • Established North American Electric Reliability Corporation (NERC) compliance office to avoid compliance problems and costly fines. • Enhanced current diversion enforcement program to reduces theft and loss of power.
Financial Management	• Established a $100 million rate stabilization account (RSA) to mitigate rate changes and provide continuity of customer service in years with poor net wholesale revenue. • Refinanced $672 million of debt, saving $52 million in interest costs. • Generated revenue through sales including renewable energy credits, surplus property and excess long-term transmission capacity. • Maximized value of contracted energy resources by re-negotiating contracts to reduce future energy costs. • Reduced debt-to-capitalization ratio, resulting in credit rating improvements that lowers future interest cost. • Eliminated energy billings based on standard amount of consumption; replaced with a bill for actual energy used. • Improved risk policies, allowing utility to maximize revenue from surplus energy sales while minimizing wholesale purchases. • Implemented Energy Trading & Risk Management system. • Revised rental property leases.

Strengths

Seattle City Light's many strengths position the utility well for the future. These strengths have helped the utility achieve high marks for improved business processes, high levels of customer satisfaction and aggressive environmental practices. This foundation provides the legacy on which the Strategic Plan builds.

Publicly Owned and Community Minded

First and foremost is strength that customers bring to the utility. Strong public support for and interest in public power has helped drive ongoing customer service improvements and strong environmental programming, and has created a favorable rate structure that supports local economic activity.

Assets

The organization's core assets and infrastructure have an original value of $3.4 billion and possess significant strengths. City Light owns seven hydropower facilities and controls 50 percent of its supply, in addition to having long-term rights to low-cost federal system generation through the Bonneville Power Administration. City Light also owns 656 miles of transmission; 2,300 miles of distribution (including the downtown network); 108,000 poles; and 14 substations.

Financial Management

On the financial front, City Light benefits from access to low-cost capital, the City of Seattle's AAA bond rating and overall financial stability. Other strengths include the rate stabilization account (RSA), the utility's own high bond rating, and low rates when compared both nationally and regionally to other utilities. The RSA allows the utility to absorb fluctuations in net surplus energy sales revenue without cutting approved program budgets or resorting to general rate increases to keep programs afloat.

People

City Light's workforce adds additional strength. The utility's knowledgeable, experienced, and diverse workforce is committed to the organization's mission and over the years has provided for continual improvement. Management has brought a new sense of accountability to the work of the utility, making sure that it follows through on key initiatives.

Environmental Commitment

The utility was the first in the nation to become carbon neutral and continues a strong leadership role in conservation and environmental stewardship. The utility can meet its energy needs through 2020 without acquiring new, year-round generating resources, through a combination of conservation, efficiency improvements, flexibility of current power contracts, and market purchases.

Challenges

Many challenges must be overcome to keep up with municipal utility best practices and to meet evolving customer requirements and community expectations. These challenges underscore the importance of developing a strategic approach.

Aging Infrastructure

Capital funds for updating the aging generation, transmission and distribution infrastructure have averaged $224 million per year from 2006-2011 (2012 dollars), but this has not been sufficient to address the maintenance backlog. As a result, investments in advanced technology have been lagging. For example, deferred investments are delaying completion of a smart grid, implementation of an automated outage sensor system, relief of regional transmission system bottlenecks, and cyber security enhancements.

Customer Service

Customers want more from their electric utility. They want more reliable power, faster outage responses, improved customer service interactions, the ability to manage their own electrical use in real time, advanced technology, enhanced rate stability, and continued environmental leadership. They also want lower operational costs and predictable, affordable rates.

Workforce Challenges

Challenges attracting, training and retaining talent are a significant issue for the utility that must compete with other publicly owned and investor owned utilities for skilled workers. Shortages are occurring or expected in several job categories including engineers and skilled trade personnel. These shortages could worsen as the aging workforce retires (50 percent are eligible to retire within five years). Current budgets and processes fail to adequately fund training to ensure workforce continuity. Without a plan to document and transfer knowledge, and address competitive compensation, the utility faces a serious threat to its ability to provide satisfactory customer service and implement an aggressive capital investment plan. Additionally, despite some significant improvement in workplace safety, the utility's employee injury rate is nearly twice the national average. Finally, outdated workforce rules and personnel classification systems threaten to reduce efficiency and inhibit employee development.

Increased Cost for Compliance

City Light is required to procure additional renewable resources to comply with Washington State Initiative 937 (I-937). The cost of this renewable power exceeds the cost of the utility's current hydro-focused portfolio, putting pressure on rates. Additionally, mandatory reliability standard requirements continue to add costs to the utility.

Washington State Initiative (I-937)

Passed by Washington voters in November 2006, I-937 requires the state's major utilities to increase the amount of new renewable resources (such as geothermal and wind) in their electricity supply to three percent in 2012, nine percent in 2016 and 15 percent in 2020. A utility may comply by purchasing eligible renewable resource credits (REC's). Hydropower is not considered a renewable power source as defined by I-937. Major utilities are also required to undertake cost-effective energy conservation programs.

Low Load Growth

Utilities face a Catch-22 situation in which they are asked to satisfy increasing demands to spend more money on basic infrastructure, energy efficiency, smart grid and cyber security at the same time that their sales may be flat, declining or – like City Light – only increasing at modest annual rates. City Light's load is fairly stable since its service territory is well established. However, the financial impact of forces, such as the recent economic downturn, more natural gas availability, and more energy conservation, will affect City Light customers. The slow economic recovery and natural gas availability will suppress prices City Light can realize from surplus electricity sales, leading to less revenue. At the same time, lower energy consumption by customers, due to the economy and to conservation efforts, also keeps revenue from growing at a pace that might keep up with increasing demands.

Changing Times, Challenging Landscape

- **The environment:** Seattle City Light has been a leader in environmental initiatives, becoming one of the first carbon neutral utilities in the nation. Yet new legislation requires the use of renewable resources when adding new sources of power.
- **The industry:** Unlike other city departments, City Light functions in a regional and national market place. It buys and sells electricity on the open market every day. It is tied into the national grid for all electrical power. It is both a consumer of electricity and a wholesale supplier of energy.
- **The economy:** Seattle, like the rest of the nation, is just beginning to emerge from one of the longest and steepest economic downturns since the Great Depression. The downturn has affected demand for electricity, capital markets and access to capital, and has placed extraordinary financial pressures on home owners.

Falling Energy Prices

Gas prices are a major determinant of wholesale energy prices. Natural gas prices rose 300 percent between 2004 and 2008 then dropped by half in 2008 as shale gas and other factors came into play. Because City Light sells surplus electricity on the wholesale power market, low energy prices mean less revenue for City Light. If economic conditions remain stagnant and natural gas production levels stay high, prices could remain low for years to come. The rate stabilization account (RSA), which is set at the target level of $100 million, helps reduce, but does not eliminate, the impact of energy price volatility on the utility's finances.

The utility draws down the RSA when it receives less net wholesale revenue than it planned for in its approved budget. That planned amount is determined by City law to equal the average calculated from 2002 to the most recent year. When the RSA is drawn down to $90 million or less, rate surcharges automatically begin to take effect in order to replenish it. Because energy prices are forecasted to remain low for the next several years, surcharges are likely unless steps are taken to reduce the planned amount.

Growing Debt Service

City Light's debt service is expected to rise significantly in the future. While some of this debt service is due to increased capital spending, there are several additional drivers including increased borrowing to offset low wholesale revenues in prior years, a City Council policy change requiring the utility to finance a larger portion of the Capital Improvement Program with debt, and the front-loading of refinancing savings to keep rates lower in the short term. Debt service and coverage needs are a major driver of rate increases in the coming years and will account for 52 percent of the rate increase for 2013-2018.

Efficiency and Accountability Requirements

With billions of dollars in publically owned assets and infrastructure, Seattle City Light must continue to operate these assets with the utmost efficiency. Becoming a more accountable organization will require new approaches, better technology, and additional training.

Developing the Strategy

Working with stakeholders, businesses, citizens and employees, a Strategic Plan has emerged that raises the utility's performance to be more accountable to its customers, more strategic in its capital expenditures, and have better business practices in place to successfully manage the power and smart grid systems.

The planning process explored five policy paths that were developed through discussions and outreach efforts with the community and the City Light review panel. The policy paths are presented in an intentional order – each builds on the previous path. This is meant to help the reader understand the underlying assumptions of the Strategic Plan. The policy paths explored were:

1. **Baseline.** The baseline defined the investments and practices required to continue the current level of service. The baseline assumed that some new investments and better business practices are required to carry out the current level of service. *The assumptions of the baseline are included in the Strategic Plan.*

2. **New Efficiencies.** City Light has made a number of changes that have improved efficiencies over the past six years. The new efficiencies path included additional efficiencies that are contemplated for the next six years. *The assumptions of the new efficiencies path are included in the Strategic Plan.*

3. **Strategic Investments (recommended approach).** This approach included the baseline investments and expected improvements included in new efficiencies. In addition, it addressed the strategic needs of Seattle City Light around four core themes that will position the utility for the future in terms of power reliability, workforce needs, organizational improvements, and continued leadership in conservation and environmental stewardship. *The strategic investments path is the recommended approach outlined in this Strategic Plan.*

4. **More Aggressive Reliability Investments**. This path addresses the implications of a fast-track program to invest in aging transmission and distribution infrastructure to improve reliability. *The Strategic Plan includes many reliability investments, but not at the level outlined in this policy path.*

5. **Bolder Environmental Initiatives.** City Light is already a proven environmental leader – this path stretched the organization to new levels of environmental commitment. *The Strategic Plan includes a very strong commitment to conservation and environmental initiatives, but not at the level envisioned in this policy path.*

Strategic Investments: A Shared Plan for the Future

The Strategic Plan builds on current levels of service, adopts new efficiencies, and makes strategic investments to meet the future needs of City Light customers and the community.

Ensuring Current Levels of Service

Seattle City Light has been providing basic electrical service for businesses and residents of Seattle and in the Puget Sound region for more than a century, from the needs of a new growing city, through the rapid changes created by World War II, to the emergence of Seattle as a major world-class metropolitan area. Day in and day out, customers flick a switch and the power is there.

In developing the Strategic Plan, Seattle City Light defined a service baseline. The baseline defines the assumptions necessary to provide current levels of service and outlines the minimum level of investments necessary to maintain operations and meet customer demand without significantly increasing operating risk. This analysis enables City Light to better understand the factors that have contributed to the current condition and prepare for the future. (See Figure 4.)

Figure 4: Baseline Assumptions

Power Supply and Environment

- Produce and purchase 10 billion kilowatt-hours of clean electricity each year to power all the homes and businesses (nearly 400,000 customers) in Seattle, Shoreline, Lake Forest Park, Burien, SeaTac, Tukwila and other small parts of King County.
- Operate and conduct maintenance on Boundary, Skagit, Cedar Falls and Tolt Dams.
- Incorporate environmental and wildlife habitat mitigation as part of the new Boundary plant license.
- Meet load growth with conservation and renewable power resources, including compliance with I-937 requirements to acquire renewable power resources.
- Continue strong conservation program and achieve I-937 mandated targets.
- Uphold greenhouse-gas neutrality status.
- Continue hazardous waste/Superfund cleanup, water quality testing, and the restoration of hundreds of acres of land that includes fish and wildlife habitats.

Reliability

- Provide reliability equal to no more than one outage per year per customer lasting no more than 70 minutes per customer.
- Support operation and maintenance of 14 large substations and almost 3,000 miles of transmission and distribution lines.
- Conduct maintenance on highly reliable network system that serves customers in downtown Seattle.
- Manage 500-plus miles of annual tree trimming along power lines – a major contributor to keeping reliability at a high level.
- Inspect and treat City Light's 108,000 poles and annual replacement of 2,000 poles.
- Direct streetlight repair response within 10 working days of a reported outage, as well as replacement of about 15,000 streetlight lamps per year with energy-efficient LEDs until all residential streets have LEDs.
- Implement a new work and asset management program to assess and prioritize work on City Light's most critical assets.
- Conduct an apprenticeship program that hires and trains 10-20 new apprentices per year.
- Maintain an outage management system that provides customers critical information during outage events.

Customer Service

- Manage a customer metering and billing system, including an e-billing option, that provides monthly or bi-monthly bills to all customers.
- Ensure new service connections are completed within 40-60 days.

Infrastructure and Support

- Continue and complete a wide variety of capital projects that maintain and upgrade City Light's power production, transmission and distribution systems.
- Maintain the utility-wide information technology infrastructure and about 125 software applications including website, customer care, billing, energy management, inventory management and budgeting enhancements.
- Hold staffing to 1,811 authorized positions to perform necessary work in distribution, transmission, generation, conservation, customer service, and administration.
- Maintain compliance with federal regulatory requirements regarding system reliability and critical asset protection.

The baseline is not the same as status quo. To provide today's level of programs, reliability and response, Seattle City Light must make ongoing business improvements and investments and continue efficiencies achieved by the utility over the last six years. For these reasons, the baseline includes several industry best practices, such as asset management, outage management, and vegetation management programs.

Incorporating New Efficiencies

While the financial baseline represents a projection of costs for maintaining the current level of service, this should not be taken as an indication that no improvement opportunities exist. The results of the baseline rate projection compel City Light to look for opportunities to reduce costs.

The 2013-2018 Strategic Plan includes efficiencies that have already been undertaken and new initiatives, yet to be implemented. Existing efficiency initiatives have resulted in savings of $53 million per year – these savings are reflected in the baseline. Additionally, City Light has identified new efforts that are projected to save $18 million per year within the next six years. (See Figure 5.)

Figure 5: New Efficiencies

Type of Efficiency	Annual Savings
Revised transmission, distribution, and generation practices	**$15 million**
Improved project management on capital projects	**$985,000**
Modified cost allocation and service level agreements	**$360,000**
IT application enhancements (security and internal controls)	***(avoided loss of $100,000 per incident)***
Improved work processes (billing, credit/collection, procurement, fleet management, street-use permitting, online security)	**$1,655,000**
Total	**$18 million**

New Efficiencies Assumptions

Operations

Informed by a benchmarking report from a third-party energy consulting firm, Seattle City Light has highlighted opportunities that can save a total of $15 million in the next six years from revising practices in transmission, distribution, and generation. Thirty-six potential operational changes were explored to see if they could produce additional efficiencies. Seventeen of the changes produced little or no savings to City Light and are not being pursued at this time. Seven may produce savings but require re-negotiation of existing labor contracts. And 12 may produce savings and can be implemented without changes to existing labor contracts. All 19 savings opportunities have been prioritized for implementation, recognizing that some are more complex, long-term strategies. The targeted efficiency opportunities fall into the following categories:

- **Work process changes** – For example, having one crew set a new pole and transfer wires in one site visit.
- **Broader job descriptions** – For example, less specialization of crew types, allowing more flexibility for crew configuration and work assignments.
- **Crew sizing** – For example, the flexibility to match the right size crew to the work.

Capital projects

Improved project management on capital projects could produce savings of about 0.5 percent in the Capital Improvement Program annually. That may not seem like much, but it could total nearly $1 million in savings annually.

City departments

Some services expected by City Light customers are provided by employees in other city departments. City Light negotiates agreements with city departments to provide these services. By revising these service level agreements to include performance measures and improved cost allocation formulas, City Light could save as much as $360,000 per year.

Other enhancements

A range of other initiatives including improved billing processes, revised credit/collection processes, reduced City Light vehicle fleet needs, improved street-use permits, and an online system to track security incidents could save as much as $1.65 million per year.

Paula Laschober
SCL 2013-2018 Strategic Plan RES Att A
May 8, 2012
Version 1

Making Strategic Investments

The Strategic Plan looks at both the strengths and challenges faced by Seattle City Light and responds with a call for prudent strategic investments in the 2013-2018 period, organized around four key objectives.

Objective 1	Objective 2	Objective 3	Objective 4
Improve customer experience and rate predictability	Increase workforce performance and safety practices	Enhance organizational performance	Continue conservation and environmental leadership

Figure 6: Strategic Investments Summary

Strategic Initiatives	Additional Funding[2] (Proposed 6-yr total, millions)		Objectives
	Operating ($)[3]	Capital ($)	
Budget/rate alignment	0.3		◆
Net wholesale revenue practices[1]	126.3		◆
Ratepayer advocacy initiative			◆
Cost of service & rate design policies			◆
Customer-focused website/services	0.7	1.4	◆
Customer Service Center improvements			◆
Enhanced environmental leadership	0.1		◆●
Environmental liability reductions	1.4	9.1	◆●
Safety culture promotion/practices	(4.6)		▲
Skilled workforce attraction & retention	27.2	6.2	▲
IT security upgrades	1.2	4.2	◆■
Reliability and cybersecurity standards compliance	3.5	0.8	◆■
Enterprise GIS	4.1	6.4	◆
North downtown substation	1.5	117.4	◆
Transmission system improvement		18.2	◆
Underground cable replacement	1.2	5.3	◆
Streetlight planning, design, construction		29.9	◆
Mobile workforce implementation	0.8	0.8	◆■
Hydro performance & generator availability	1.4		◆
Regional power & transmission leadership	(10.2)		◆■
Advanced metering infrastructure	(6.4)	80.5	◆■
Electric vehicle infrastructure & rates			◆■●
Engineering and operations standards	3.0		◆■
Climate research	1.3		●
Conservation enhancement program			◆●
Communications and engagement			■
Performance benchmarking & efficiencies	1.7		■
IT roadmap	5.7	12.5	■
Performance-based reporting	5.4	3.1	■
Internal management review unit	4.1		■
Project management quality improvement	2.8		■
Service agreements/performance metrics	0.8		■
External service contract procurement			■
Efficiencies initiatives	(55.9)	(37.5)	◆■
Financial policies initiative	3.0		■

◆ Improve customer experience and rate predictability
▲ Increase workforce performance and safety practices
● Continue conservation and environmental stewardship
■ Enhance organizational performance

[1] Gradual reduction in net wholesale revenue target over six years. [2] In constant 2012 dollars (without inflation).
[3] Reflects increased and decreased O&M but not revenue enhancements.

Objective 1: Improve the Customer Experience and Rate Predictability

Seattle's technology-savvy population expects Seattle City Light to meet the customers' rapidly evolving electricity needs, efficiently manage the energy system, and respond quickly to customer concerns. Currently, City Light lacks many of the customer-supporting technology systems that are the standard, such as an automated outage sensor system, automated switching of lines to route power around out- of-service equipment, and the ability to proactively notify customers of outages.

Another important aspect of the customer experience is rate predictability. While Seattle's rates are low, the possibility of automatic surcharges , implemented in 2010, introduces an element of unpredictability in rates. When and why are surcharges triggered? City Light sells energy both to retail customers and to the West Coast wholesale market. Retail sales are quite stable and predictable, but wholesale sales are not - they are highly variable depending on price, demand, and the amount of water available to produce surplus energy to sell. By current City ordinance, Seattle City Light must budget its expected net wholesale revenue in any year as the average of such revenues from 2002 to the present (the target), and keep at least $100 million in the RSA to make up for any shortfalls. When the wholesale revenue target is not met, City Light draws down the RSA to make up the difference. If the amount in the RSA falls to $90 million or less, automatic rate surcharges to replenish it are triggered. The future for wholesale revenue looks much worse than it did in the past. Therefore, the wholesale revenue target set by the current method is too high and surcharges are likely unless steps are taken to reduce that target.

Key activities to meet this objective include:

Improving and ensuring continued system reliability.

- Building a new north downtown substation will create a stronger and better-integrated distribution system throughout the city and provide highly reliable power to serve the city's growing biotechnology research and information technology sectors.
- Collaborating with neighboring Puget Sound utilities to improve the regional transmission system.
- Replacing failing underground cable in several Seattle neighborhoods.
- Implementing power dispatching software to improve operation of the distribution system and reduce outages.
- Replacing 350 miles of failing underground wiring that supports the streetlight system, and updating other street-lighting infrastructure.

Improving customer interface and information exchange capacity.

- Replacing City Light's nearly 400,000 manually read meters with technologically up-to-date digital meters (Advanced Metering Infrastructure/AMI) to allow customers flexible billing and quicker outage notices, and providing more user-friendly access to the information, quickly and cheaply, on the City Light website, and through improved responsiveness at the Call Center.

Improving the efficiency of our legacy hydroelectric generation assets.

- Including dedicating more labor and materials to maintenance of the Skagit, Cedar, Tolt and Pend Oreille River dams. These efforts would provide for lower rates in the future.

Providing greater rate predictability and transparency.

- Implementing a new internal budgeting process and system, and making sure rates are synchronized with approved budget and consistent with the rate guidance provided in the Strategic Plan.
- Improving the way costs are spread among customers to make sure they are as equitable as possible.
- Providing more ways to gather input from customers before rate changes are implemented.
- Reducing the chance of rate surcharges by gradually reducing dependence on the highly volatile wholesale energy market to cover City Light costs.

Objective 2: Increase Workforce Performance and Safety Practices

Addressing the utility's workforce challenges is imperative. Seattle City Light faces business risks if the utility fails to improve its safety record. Based on the annual number of safety incidents divided by the number of labor hours per 100 employees, City Light's reported injury record of 8.5 incidents compared to a national average of 4.3, must be improved. The utility plans to accomplish this by tracking and reporting problem areas, and investing in training and equipment.

City Light must also affirmatively manage the impending wave of retirements and improve its track record of retaining highly skilled workers. There is a national, growing shortage of skilled electrical utility employees as a result of retirements. City Light has far more job classifications than peer utilities, which limits opportunities for efficiency. In terms of attracting and retaining talent, the utility operates within a competitive national labor market. While most City Light employees are compensated at market levels, for some of the most critical expert positions, City Light is 10 to 40 percent below the national market for salary.

Key activities to meet this objective include:

Improving workforce safety.

- Reducing Seattle City Light's injury rate by improving and documenting safety standards and work practices, providing additional worker safety training, and rewarding employees for safe work behavior.

Attracting and retaining workers with expertise specific to electric utilities.

- Improving compensation to a competitive level for certain positions, and developing partnerships with educational institutions to obtain trained workers for entry level positions.

Investing more in employee training.

- Expanding the apprenticeship program, building a technical training center, providing more on-the-job training, and smoothing out staff succession.
- Developing a leadership training program, increasing training funding and working to establish trainee positions for non-field jobs that require a high level of utility-specific expertise.

Increasing workforce flexibility and efficiency.

- Securing city approval to structure labor negotiations and work rules to achieve more efficient workforce performance. Goals would include a gain-sharing program to provide incentives to employees for productivity improvements, as well as reducing the number and broadening job classifications to provide flexibility in assignments along with higher job satisfaction.

Objective 3: Enhance Organizational Performance

City Light already has made investments to upgrade the utility's efficiency and adopt industry best practices. Before 2018, City Light's goal is to be in the top 10 percent of peer utilities on measures of efficiency and effectiveness and to reduce baseline costs by an ongoing $18 million per year at a minimum. The mayor and City Council will be engaged with City Light to confront challenges and meet this ambitious goal. Accountability measures will be used to evaluate City Light's progress and hold the utility responsible.

Key activities to meet this objective include:

Using the Strategic Plan and periodic reporting on progress as a basis to engage the mayor and City Council. This additional oversight process is separate from, but clearly linked to, the regular budget and rate setting processes.

Improving the effectiveness and efficiency of business practices across City Light through benchmarking and process improvements. City Light will continue to benchmark its performance against peers and use that information to drive improvements in business processes. Some examples include:

- Implementing efficiencies in transmission, distribution and generation operations to reduce ongoing operating and capital costs by $15 million per year by 2015 (ramped up gradually in 2013-2014), and identifying other utility-wide process improvements to save $3 million annually.
- Implementing performance-based reporting to track cost and performance metrics of key business processes.
- Using an internal management review unit to identify process improvement opportunities.
- Improving project management to ensure projects are completed on time, on budget, and within defined scope and quality.
- Implementing service level agreements for key services obtained from other city departments.

Improving City Light's external procurement process and supplier performance. City Light will improve procurement of external services and products and increase engagement in regional power supply and transmission matters to address the utility's and customers' interests.

Replacing outdated technology systems and filling major technology gaps. City Light will implement mobile workforce management software to automate scheduling and dispatch of field workers to reduce costs and improve service responsiveness. Additional activities include:

- Implementation of standards and compatible units for engineering and field crews to reduce costs and complexity;

- Integration of existing non-compatible GIS systems into a single system that can support transmission, distribution, and streetlight system management;
- Completion of currently unfunded portions of the Information Technology Roadmap (a citywide initiative to update accounting systems, improve IT strategic planning and disaster-recovery capabilities, inventory management, and an enterprise document management system).;
- Improvements in cyber security to meet evolving threats and new regulations.

Monitoring and revising fiscal policies as appropriate to ensure continued fiscal strength. City Light will carry out financial policies including debt service coverage and capital project funding practices to ensure a suitable balance between current and future ratepayers. Additional options to reduce financial risk will be considered, including increased use of insurance and reserves.

Objective 4: Continue Conservation and Environmental Stewardship Leadership

Reflecting the values of its community and customer-owners, Seattle City Light has a rich tradition of environmental stewardship, including fish-friendly operation of its hydroelectric projects and achieving climate neutrality since 2006.

Since the late 1970's energy conservation has been the utility's first-priority resource for meeting customers' electricity needs. Current power demand forecasts show City Light can meet expected demand through at least 2020 without purchasing new year-round generating resources through a combination of conservation, efficiency improvements, flexibility of current power contracts, and market purchases. Conservation levels assumed in the Strategic Plan are designed to ensure compliance with I-937, meet customer expectations, and support City Light's legacy of environmental stewardship.

Because of prior investments and strong environmental leadership, meeting objectives in this area does not require a substantial change from baseline investments. Key activities to meet this objective include:

Improving effectiveness in deploying conservation program dollars. Establishing a measurement and verification function to plan and validate future conservation acquisitions is assumed. There also will be expanded conservation program offerings and partnership opportunities with customers.

Investing in capacity to assess and address long-term resource risks associated with climate change. Determine impacts on watersheds and generating facilities that may result from climate change, then develop strategies to reduce, minimize or mitigate those impacts.

Identifying and implementing changes in rate policy and infrastructure necessary to cost-effectively support customer adoption of electric vehicles. Ensure future needs of customers who will acquire electric vehicles are met, including researching and addressing the future infrastructure investments and rate structure necessary to encourage charging vehicles at non-peak times.

Enhancing environmental leadership. Implement changes to vegetation and landscape management operations that are environmentally friendly, with more focus on preserving the tree canopy. Continue significant investments included in Skagit and Boundary Dams relicensing agreements such as enhancing recreational opportunities, fish passage, fish and wildlife habitat acquisition, and restoration and support for environmental education.

Installing and using better systems to track, respond to and reduce environmental liability associated with our activities. Reduce our environmental liability and the risk of pollution by reducing historical contamination and the presence and use of toxic material in current operations. Develop a comprehensive environmental management plan including testing (20,000-plus) transformers, auditing specific sites to ensure compliance with environmental requirements, and reducing the risk of oil spills at generating plants.

Analysis and Rate Estimates

Factors Driving Rate Increases

Seattle City Light's revenue requirement and rates for providing today's level of service are projected to increase in the coming years, even prior to consideration of prudent strategic priorities and investments. The power industry is capital intensive and the money for investments comes from only two sources – ratepayer cash flow and borrowing. City Light has worked hard to manage its costs and has tried to reduce its debt responsibly. For example, the overhang of large amounts of debt incurred as a result of the 2000-2001 energy crisis prevented the utility from moving forward earlier with several initiatives. For three years, the utility essentially operated on its cash flow and limited borrowing to pay down debt. As interest rates fell during the economic downturn, the utility was also able to refinance debt to reduce costs and allow for growth. Borrowing is necessary and responsible because it pays large- and long-lived expense obligations, such as relocating utility lines and other equipment to accommodate the Alaskan Way Viaduct project, Boundary Dam upgrade, and other capital improvements that last for decades.

The primary drivers of these increases and their relative contribution to the increase include:

- Debt Service (52 percent) – The costs to repay money borrowed for past, present and future capital programs. Major capital projects include the utility relocation required by the Alaskan Way Viaduct project, improvements at Boundary Dam, and distribution equipment renewal or replacement. Fortunately, Seattle City Light has a strong financial record which results in a high bond rating and lower borrowing costs.

- Operations and Maintenance, Taxes and Other (30 percent) – These are the costs to run the utility and maintain its plants and equipment. Included here are some new investments and better business practices.

- Power Costs (18 percent) – The cost of electricity can vary dramatically over the years and can be affected by other energy costs. In addition, depending on snowpack in the mountains and other climate variables, Seattle City Light can be a supplier on the wholesale market, raising additional revenues. By the same token, a poor water year can reduce those revenues. Finally, a long-term

Bonneville Power Administration contract includes gradual increases.

Adopting new efficiencies will result in significant savings, but these savings are not enough to offset the factors driving rate increases.

Strategic Plan Rate Estimates

The Strategic Plan builds on the baseline analysis, incorporates new efficiencies and includes key strategic investments to put City Light on a realistic path to deliver an optimal level of customer service, significantly enhance energy reliability, and improve rate predictability and stability at a minimal incremental cost to the existing rate path.

Implementation of the Strategic Plan will require a rate increase that averages 4.7 percent annually. The proposed annual percentage rate increases, average monthly residential bill increases, and average annual residential bill increases are shown below.

Figure 7: 2013-2018 Strategic Plan Rate Estimates*

	2013	2014	2015	2016	2017	2018	Average
Annual Rate Increase	4.4%	5.6%	4.1%	4.8%	5.3%	3.9%	4.7%
Change in Residential Monthly Bill	$2.42	$3.20	$2.50	$3.04	$3.54	$2.72	$2.90
Change in Residential Annual Bill	$29.07	$38.43	$30.03	$36.53	$42.45	$32.64	$34.86

*Average change in monthly residential bill. For rate impacts on other customer classes, City Light will post additional information online at: www.seattle.gov/light/strategic-plan.

The rate trajectory is based on several assumptions, among them, that demand for electricity will increase only moderately at 0.6 percent per year for the 2013-2018 period, inflation will remain low, and low energy prices will continue affecting the value of surplus power Seattle City Light can sell on the wholesale market. Furthermore, while the average annual percentage increase is expected to be 4.7 percent, the percentages from year to year may change slightly as new information becomes available.

Seattle City Light recognizes that increased revenue requirements in the Strategic Plan will affect rates and those customers who are least able to pay. There are several ways City Light intends to proactively mitigate the impact of the rate increases:

1) For income-eligible customers, there is currently a low income rate. However, it is not being fully utilized by those who qualify. City Light will work with other city departments and community-based organizations to identify and enroll eligible low income customers.

2) Low income customers will be directed to programs to help customers reduce their energy use. Conservation and weatherization tools available through City Light and the city's Office of Housing can provide specific measures that reduce power bills. For instance, installing compact fluorescent light bulbs (CFLs), lo-flow showerheads, insulation or other measures can help many residents lower their bills.

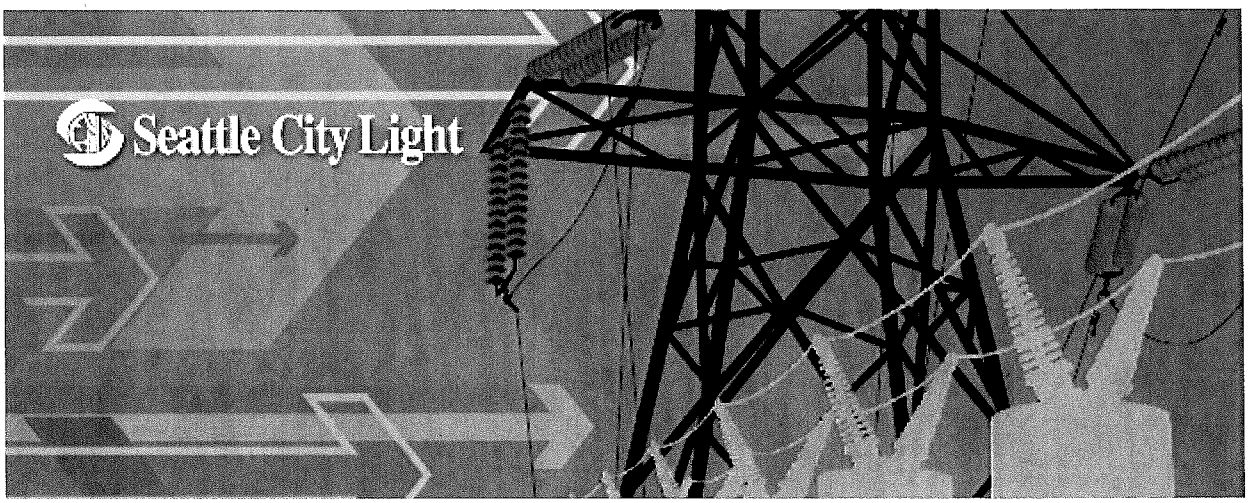
3) City Light will assist customers with payment plans to provide better management of energy costs. A barrier to program access for some customers may be language. City Light and the Department of Neighborhoods are actively working in non-English speaking communities to provide information and enrollment for the programs that are available.

Conclusion

There is an increasing urgency to address the challenges facing Seattle City Light. The cumulative effect of delay will result in a system and level of service that fails to meet customers' needs and expectations. Costs will be higher, reliability less assured, economic development advantages will be lost, and customer satisfaction will be compromised if we stop making incremental progress on the growing backlog of necessary improvements. The 2013-2018 Strategic Plan positions Seattle City Light to address these challenges and fulfill its promise of delivering the best customer service experience of any utility in the nation.

Appendices

1. Financial Baseline Report
2. Strategic Investments Summary
3. Outreach Summary
4. Review Panel Recommendations Letter



Financial Forecast Overview & Financial Baseline

Costs Required to Continue
Providing the Current Level of Service

Prepared for the City Light Review Panel
Originally issued January 2011
Updated January 2012

Seattle City Light
Financial Forecast Overview & Financial Baseline
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Introduction and Executive Summary

This document was prepared as a part of the 2010-12 strategic planning efforts. The paper describes a baseline cost projection for maintaining status quo City Light operations for 2013-2018. It is not a worst case, or a best case, scenario. The baseline represents the minimum level of near term responsible investments necessary to maintain operations and meet customer demand over the six year forecast period without significantly increasing operating risk. This projection is used as the reference case for the strategic plan.

The strengths, weaknesses, opportunities and challenges (SWOC) exercise[1] conducted as part of the strategic planning process recognizes that City Light is well-positioned in certain areas, and has issues to address in others. As an example, with respect to overall cost control, City Light has closely reviewed and controlled spending in the past three years, and Management believes that the baseline spending contemplated in this plan is that which is prudent and necessary to serve customers. However, benchmarking survey results have indicated that opportunities for improvement exist in certain areas. The successes of past and current process improvement efforts remind us that we will always have continued work to do. The benefits from efficiency improvement programs and other significant program changes are not included in this forecast, but the opportunities available from such changes will be addressed through initiatives in the strategic plan.

The key finding of this paper is that to maintain our current level of service and programs, rate increases averaging about 4% per year will be required for years 2013-2018. The primary drivers of these increases are:

Rate Driver	**% of total change in revenue requirement in 2018 vs. 2012**
(a) Debt Service (Costs from Funding Capital Program)	52%
(b) Non-Power O&M, Taxes and Other	30%
(c) Power Costs and Change in Wholesale Revenue	18%
Total	100%

Several points are important to consider regarding this baseline financial forecast:

- It should not be considered a target of where the utility needs to be positioned to best serve customers over this period. In the strategic planning process, we discuss with the Review Panel and City Policymakers numerous strategic initiatives to address the challenges and opportunities the Utility faces in the coming years.

- The financial baseline should also not be taken as an indication that no improvement opportunities exist. The results of the baseline rate projection *compel* us to look for opportunities to reduce costs. Management is confident that there are opportunities to improve efficiency and effectiveness

[1] The full SWOC assessment can be found at www.seattle.gov/light/strategic-plan/docs/challenges.pdf

through programs that may require changes in policies and practice. The draft strategic plan contains proposed initiatives to address such opportunities.

- Actual rate changes for years 2013-2018 may vary to some degree from the figures shown in this document due to:

  (1) Inherent uncertainty in cost projections several years out. For example, the baseline provides funding to meet currently known legal and regulatory requirements, but such requirements are subject to change.

  (2) The inclusion of strategic initiatives (that may affect costs up or down) as part of the adopted strategic plan for this period.

  (3) Financial policy action that may be taken regarding the level of net wholesale revenue to assume when base rates are set, and the extent to which the Rate Stabilization Account (RSA) and rate surcharges will be used to make up shortfalls.

The paper contains five sections:

- Section 1 provides an overview of industry cost pressures and trends. City Light's costs over the past decade for major electric utility spending categories such as production, distribution, transmission and administrative/general expenses have increased at rates comparable to the electric utility industry as a whole. Costs in the future are likely to be impacted by many of the same drivers, such as needed maintenance for reliability and to modernize the grid, environmental regulations, energy price volatility, slackened demand for power due to the sluggish economy and increased conservation, and the need to address an aging workforce.

- Section 2 introduces our current key financial modeling elements and their assumptions. To develop this financial baseline, City Light examined historical expenditures, the 2011-2012 budget, the Adopted 2012-2017 CIP, the load forecast, power market forecast, and the underlying drivers and assumptions in all these. The controllable versus non-controllable nature of various expenses, and the volatility and uncertainty around several elements of the utility's revenue requirement (such as net wholesale revenue) are key issues confronted in this section. In compiling the projection, we revisited assumptions made previously, and made changes where appropriate.

- Section 3 provides further detail about the key Operation & Maintenance (O&M) assumptions by expense type. The O&M forecast for 2013-2018 is based on the 2011-2012 Adopted Budget and refined assumptions of growth rates for major components of O&M spending that range from CPI to 8%.

- Section 4 provides the results of the baseline projection, and discusses rate drivers.

- Section 5 discusses the overall conclusion of the financial baseline exercise.

1 Industry Context, Cost Drivers & Uncertainty

Before discussing the specifics of City Light's cost drivers, we believe it is worthwhile to provide some background information on key electric utility industry concerns and their relevance to City Light.

Several studies are available that discuss electric utility rate pressures in recent years and the top concerns of industry leaders at present. Many of the articles are 4-5 years old and were written to explain a significant increase in rates in 2006-2007. These studies stressed increasing fuel costs (natural gas, oil) and investments to comply with environmental regulation as the main drivers for the rising expenditures among the utilities analyzed. The intervening financial crisis and recession have markedly changed the industry landscape. Post-crisis literature lists green power investments (conservation, energy-efficiency, renewable energy) and Smart Grid costs as the main expenditures that will drive electric utility costs up, along with the additional stress of stagnant or declining demand.

Industry Concerns Pre-Financial Crisis[2]

- Demand for more power and greater reliability will require additional generation, transmission, and distribution investments.
- Substantial increases in the costs of building utility infrastructure projects (raw material costs, etc.).
- Investment and operating costs to comply with known and still uncertain regulatory and environmental mandates.
- O&M cost increases (non-fuel) as opportunities for efficiency (e.g., administrative) are exhausted.
- Swiftly rising fuel and purchased power costs.

Industry Concerns Post-Financial Crisis[3] *(discussed further below)*

A. Financial consequences of implementation of improvements/maintenance for reliability, Smart Grid and cyber security initiatives.
B. Cost increases driven by new environmental regulations affecting air, water and hazardous waste.
C. Energy price volatility.
D. Slackened demand for power due to the sluggish economy and increased conservation.
E. Aging workforce.

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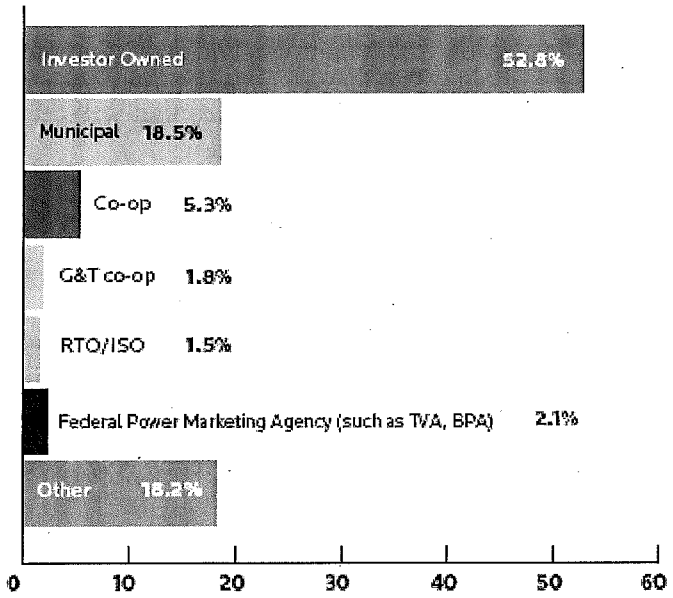
[1] Compiled from the following: *Rising Utility Construction Costs: Sources and Impacts, 2007* http://www.edisonfoundation.net/Rising_Utility_Construction_Costs.pdf; *Financial Challenges of Rising Utility Costs and Capital Investment Needs, 2006* http://www.brattle.com/_documents/UploadLibrary/Upload398.pdf ; *Why Are Electricity Prices Increasing? An Industry-Wide Perspective 2006* http://www.brattle.com/_documents/UploadLibrary/ArticleReport2414.pdf http://www.bv.com/energysurvey/

[3] Compiled from the following: *Utility Financial Performance: Warning Signs Ahead , 2009* http://www.elp.com/index/display/article-display/9451989687/articles/electric-light-power/volume-87/issue-5/sections/utility-financial.html; *2011 Electric Utility Industry Survey Results*, http://www.bv.com/energysurvey/

Consulting firm Black & Veatch published a 2011 Electric Utility Industry Survey which had 700 utility industry participants that included investor-owned utilities (IOUs), public utilities, state and regional power agencies, federal power marketing agencies, merchant and non-regulated generators, consulting firms and other industry representatives.[4] Figure 1.1 breaks down survey participants by agency type. Almost half of the participants were from IOUs. Municipal utilities accounted for 18.5% of the respondents.

Figure 1.1
Black and Veatch 2011 Survey Participants by Agency Type

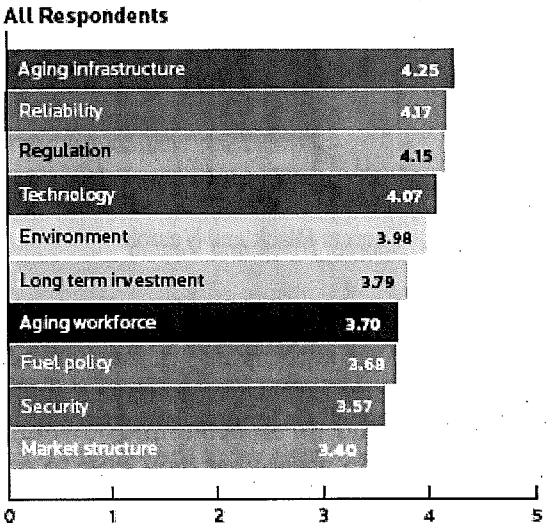


Source: Black and Veatch

Participants rated industry issues on a scale from 1 to 5 where 1 is non-important and 5 is very important. Figure 1.2 shows that the top ten concerns for the energy industry participants are: aging infrastructure, reliability, regulation, technology, and the environment. Figure 1.3 shows top ten concerns by IOUs and public utilities. For public utilities, the top five concerns are: reliability, regulation, aging infrastructure, technology, and aging work force.

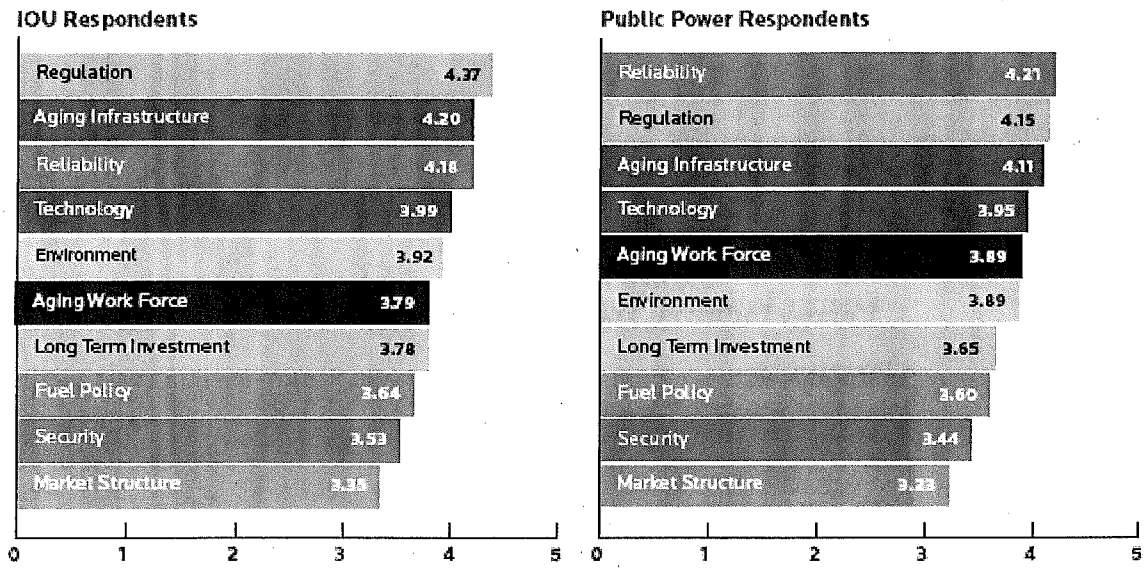
[4] Summary and full survey can be accessed online at http://www.bv.com/energysurvey/

Figure 1.2
Energy Industry Top 10 Concerns



Source: Black and Veatch

Figure 1.3
Top 10 Concerns for IOUs and Public Utilities



Source: Black and Veatch

A. Reliability, Smart Grid and Cyber Security

The number one concern cited by public power participants in the Black & Veatch 2011 Electric Utility Industry Survey is reliability. An electric utility is required to have a supply of power available that is sufficient to exceed the highest point of demand. In an economic downturn, when access to capital is constrained, utilities are focusing on making do with what they have to continue meeting the cyclical demands of their customers as opposed to building new baseload generation.

For City Light, the issue of reliability relates more to the condition of our delivery infrastructure assets. Due to recent shortfalls in revenues, we have deferred maintenance on our aged infrastructure. As technological advancements in generation, transmission, and distribution evolve, it is expected that City Light will phase in "Smart" technology by default over the long run. City Light also is required to ensure that information and communication assets are secure from increased cyber security threats.

B. Cost Increases Driven by New Environmental Regulations: Green Power Investments

Uncertainty surrounding climate legislation hampers utilities' plans to move forward with major capital programs that are intended to meet current or future demand and/or replace generation assets that are beyond their service life. Compounding concerns are escalating prices for all generation fuels and legislative limitations on wider use of certain fuels (natural gas and petroleum). Finally, ambitious, heavily financed capital expansion could pressure inflation in materials, labor and borrowing costs.

City Light is better positioned than most in this area due to our clean generation sources and carbon neutrality. Rates will be pressured by the cost of compliance with I-937 (requiring increasing procurement of renewable power). Strategic considerations include whether to meet the requirements with renewable energy credits (RECs) or acquiring/constructing qualifying generation.

C. Energy Price Volatility

Between 2002 and 2008, natural gas prices rose by over 300 percent. Then, in 2009, the price of natural gas fell to roughly half the 2008 level. In 2009, annual average natural gas wellhead prices reached their lowest level in seven years. Increased supply due to the availability of shale gas, coupled with mild winter temperatures and higher production and storage levels, and significant expansions of pipeline capacity worked to put downward pressure on natural gas prices. Each year, the Energy Information Association ("EIA") produces an annual energy outlook. In an early preview of its domestic energy resources and consumption projections through 2035, the EIA says that "technically recoverable" shale gas resources have doubled in a year's time "reflecting additional information that has become available with more drilling activity in new and existing shale plays."[5] If economic conditions remain stagnant and production levels stay high, prices could remain low for years to come. City Light's wholesale revenues have shrunk in recent years due to falling energy prices, so enduring low gas prices are a concern and a contributor to the rate pressure City Light faces. The Rate Stabilization Account ("RSA") helps reduce the impact of energy price volatility on the Utility's finances, though reduced wholesale revenues ultimately have to be recovered through higher retail rates.

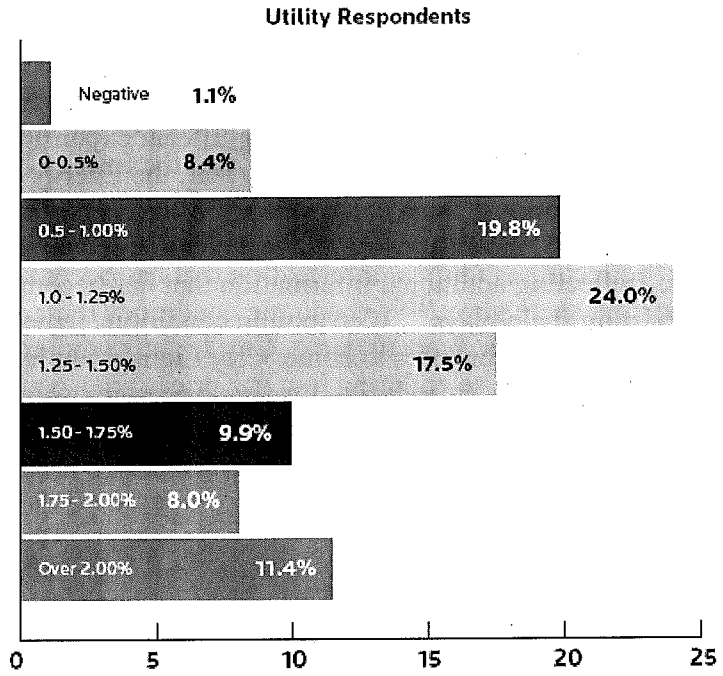
D. Uncertain Demand

Utilities face increasing demands to spend more money on basic infrastructure, energy efficiency, Smart Grid and cyber security. However, their sales – as a result of the very programs they are paying to implement – are declining or flat. This point has also been raised in another paper titled "Return of the Energy Services Model: How Energy Efficiency, Climate Change, and Smart Grid Will Transform American Utilities" written by Peter Fox-Penner from the Brattle Group. Fox-Penner writes that investments in energy-efficiency, to decarbonize power generation, and Smart Grid will require charging current customers more and more for their gradually declining levels of use.

Utilities are worried about the expected ratcheting down of sales growth. About 70% of Black and Veatch 2011 survey respondents expect long-term load growth after recovery from the Great Recession to be less than 1.5 percent per year (see Figure 1.4). This compares with an average of 2.5 percent to 3 percent per year from 2002 through 2008, and even higher growth rates in earlier decades. City Light's load is fairly stable since our service territory is well established. However, the financial impact of conservation and other initiatives will certainly affect City Light customers, given the widening gap between wholesale and retail energy prices. The most recent load forecast predicts that City Light's retail load will grow at an average of 0.8% per year from 2011 to 2030.

Figure 1.4
Over the next five years, what do you expect the average annual energy growth to be for your system?

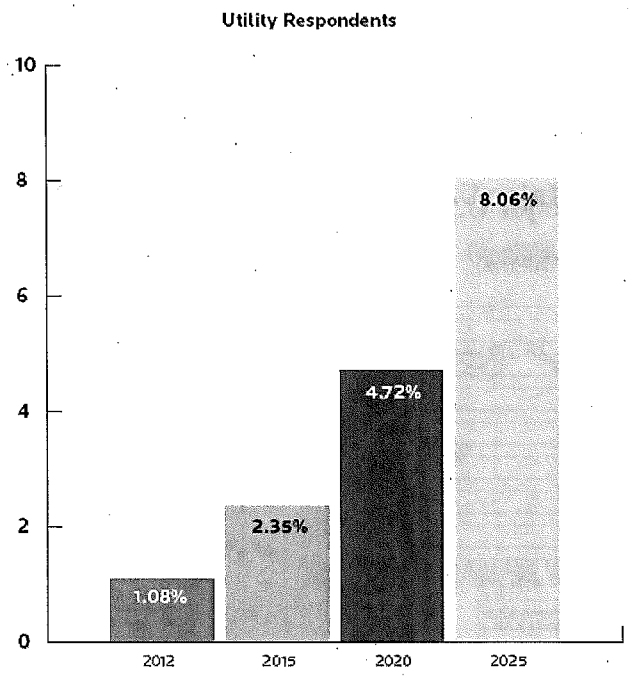
[5] Energy Metro Desk, December 20, 2010, Volume 2, Issue 24



Source: Black and Veatch

Another demand issue that was brought up in the Black and Veatch 2011 survey was the load from electric vehicles. Figure 1.5 shows that the survey participants expect electric vehicle load to account for 8% of total load by 2025.

Figure 1.5
Approximately what proportion of your annual load (energy) do you expect electric vehicles to represent by the end of 2012, 2015, 2020 and 2025?



Source: Black and Veatch

E. Aging Work Force

The aging work force is an important issue that will need to be addressed in the near future as current workers retire and utilities must hire replacements, which in turn will require additional job training and other monetary incentives to attract and retain quality employees. In the Black & Veatch survey, the aging workforce was listed as the #5 concern by public utilities. This is an area of concern for City Light as well; over 50% of the workforce is eligible for retirement within 5 years, and retirements have already increased significantly from past years. The pace of retirements depends on economic conditions. The economic recovery from the most recent recession has been extremely slow, which has had an impact on the number and timing of retirements. Some people who planned to retire are postponing their retirement dates. As the economy picks up, SCL expects the number of retirements to go up.

Discussion of Cost Trends

The Electric Power Annual 2010 Report prepared by the Energy Information Agency (EIA) summarizes electric power industry statistics at the national level. This report includes O&M expense statistics for major U.S. IOUs for the period 1999-2010, shown below in Figure 1.6. The EIA Report only reflects data for IOUs because EIA stopped collecting this type of data from public utilities in 2004. Thus, there is no data for major U.S. public power utilities past 2003.

Figure 1.6 below shows that production, transmission, distribution, and administrative and general expenses (A&G) have been increasing industry-wide over the last decade. Data shown in Figure 1.6 are a sum of expenses for the major U.S. IOUs. City Light's costs are also charted using a smaller but proportional scale on these same charts. As shown in Figure 1.6, expenses by IOUs for production, transmission and distribution took a dip after the 2008 recession but increased during 2010. At the same time A&G expenditures have been consistently increasing over the last decade. The general trend in

expenditures by SCL follows the industry-wide trend. However, Figure 1.6 illustrates that SCL has been spending less in all four categories since 2008 recession. Information about year-by-year changes in SCL costs are discussed in Section 3 of this document.

Figure 1.6
Selected Expenses for Major U.S. Investor-Owned Utilities, 1999-2010 (in $ millions)[6]

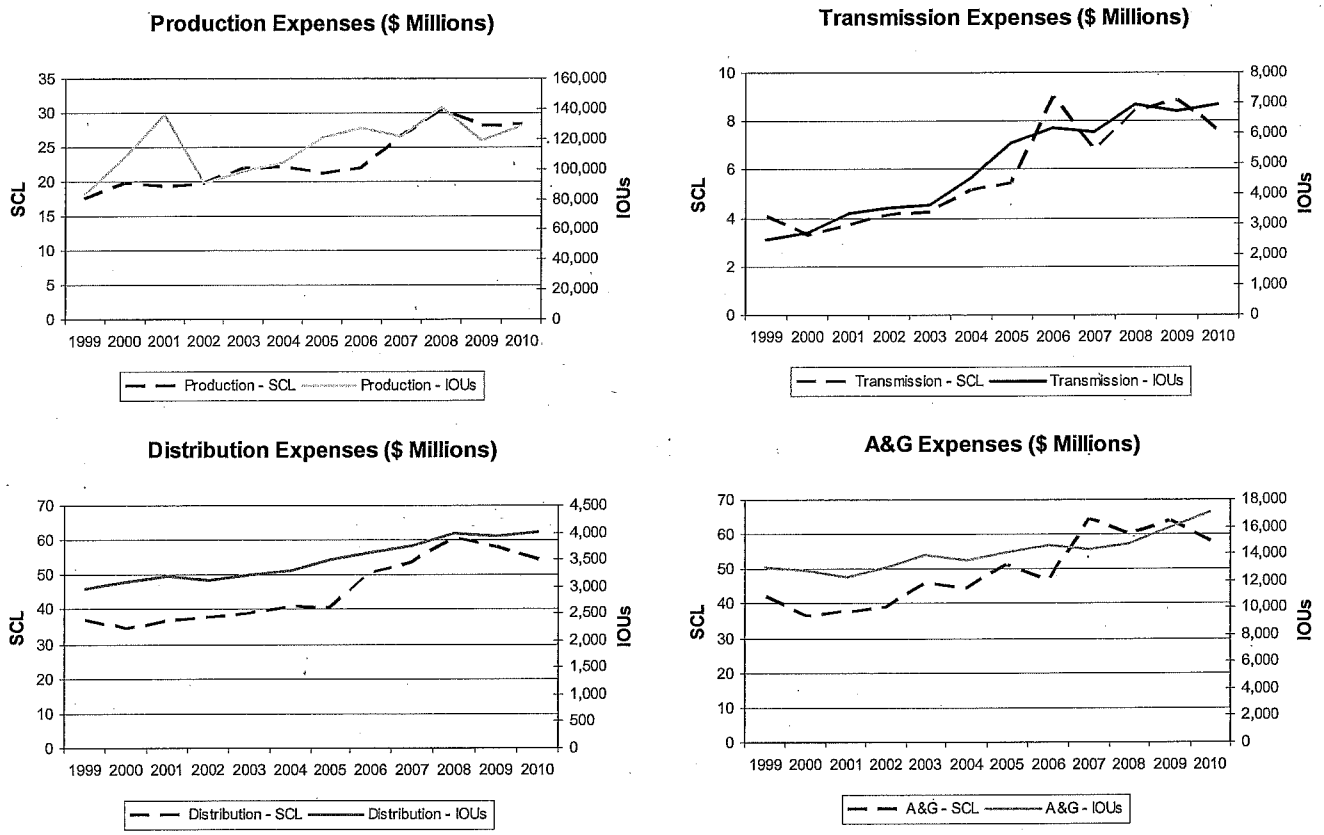
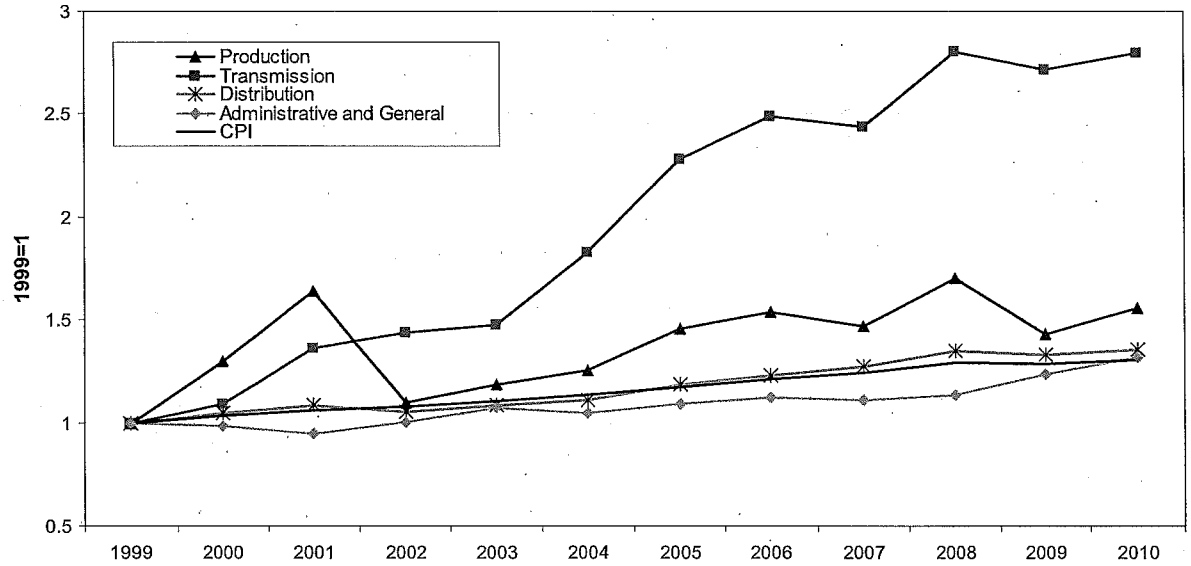


Figure 1.7 shows a composite of all of these major expense categories (from Figure 1.6), compared against inflation. To make comparison of the expenditures easier, we set values for each category at 1 in 1999.

[6] Figure 1.6 shows selected expense statistics for major U.S. Investor-Owned Utilities (IOUs) for the period 1999-2010. The EIA Report only reflects data for IOUs because EIA stopped collecting this type of data from public utilities in 2004. Thus, there are no data for major U.S. public power utilities past 2003. The full report can be accessed at http://www.eia.gov/electricity/annual/.

Figure 1.7
Selected Expenses for Major U.S. Investor-Owned Utilities and CPI, 1999-2010



Nationwide Rate Increases: History and Projections[7]

Pace Global, an energy consulting firm, provides, in the figures below, three comparisons of Seattle City Light's average retail electric rates at the national, regional (WECC) and state level (WA & OR).[8] Each comparison shows the aggregate of investor owned utilities and public utilities, including municipal-owned utilities and utility cooperatives, and separates investor owned utilities from publicly owned.

Figure 1.8 (a) compares Seattle City Light's historical (2006-2011) and projected (2012-2018) rates to the national average and projection. The projection was developed using the EIA November 2011 Short-Term Energy Outlook Forecast, which projects the national average retail rate for electricity to be $0.1004 and $0.1013 per kWh in 2011 and 2012, respectively. Discussions with EIA staff revealed that the EIA 2011 Annual Energy Outlook and the EIA Short-Term Energy Outlook do not include the potential impacts of pending legislation and prospective EPA rules on environmental issues. To determine the potential impact of expected environmental legislation including the final Cross-State Air Pollution Rule (CSAPR), Utility Boiler Maximum Available Control Technology (MACT), the Coal Combustion and Residuals Rule, and the Cooling Water Intake Structure Rule, Pace Global reviewed cost projections developed by private industry coalitions, including U.S. Congressional testimony. These cost projections indicate a range of approximately $20 to $25 billion per year between 2012 and 2015 for capital expenditures and

[7] Information is based on the analysis performed by Pace Global for Seattle City Light.
[8] The American Public Power Association issued a comparison report of 2010 electric retail rates by state and type of utility (public, private, coops). Their report for 2010 provides the same data as the report by the Pace Global.

compliance costs related to the EPA rules for air quality, coal combustion residuals, cooling water intakes, and greenhouse gases. Using this information, Pace Global developed a revised projection for national retail electric rates for 2012 to 2018 by estimating the projected cost impacts on average retail electric rates. It should be noted that the EPA continues to modify the implementation rules and schedule of CSAPR, which can impact the future rates.

Figure 1.8
Seattle City Light Historical (2006-2011) and Projected (2012-2018) Retail Rates Comparison with National Average

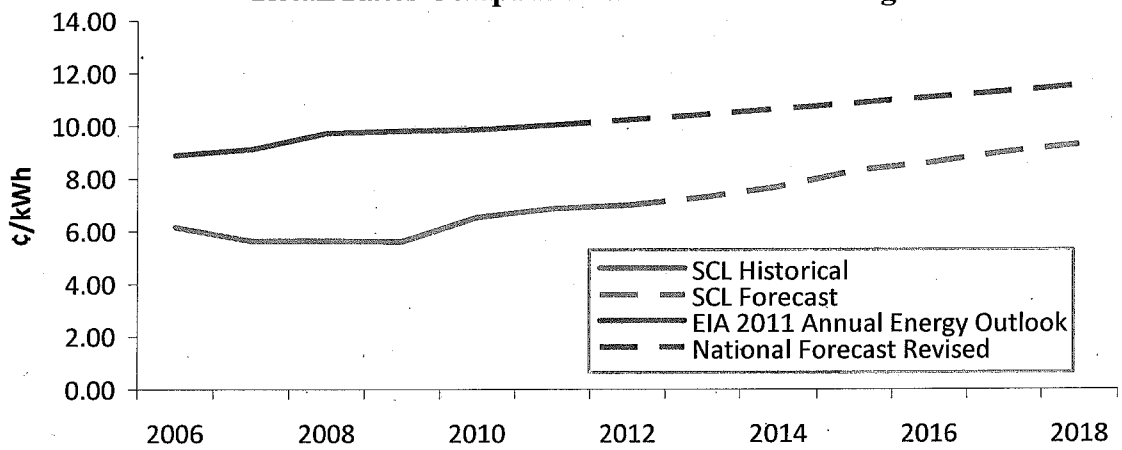


Figure 1.8 demonstrates that Seattle City Light's historical average rates have been significantly lower than the national average. Despite the projected increase from approximately $0.07/kWh in 2012 to $0.09/kWh by 2018 (assuming adoption of the strategic plan with proposed initiatives), Seattle City Light's rates retain a significant cost advantage throughout the 6-year planning horizon compared to the national projection.

Figure 1.9
Average Retail Electric Rate
Seattle City Light vs. WECC

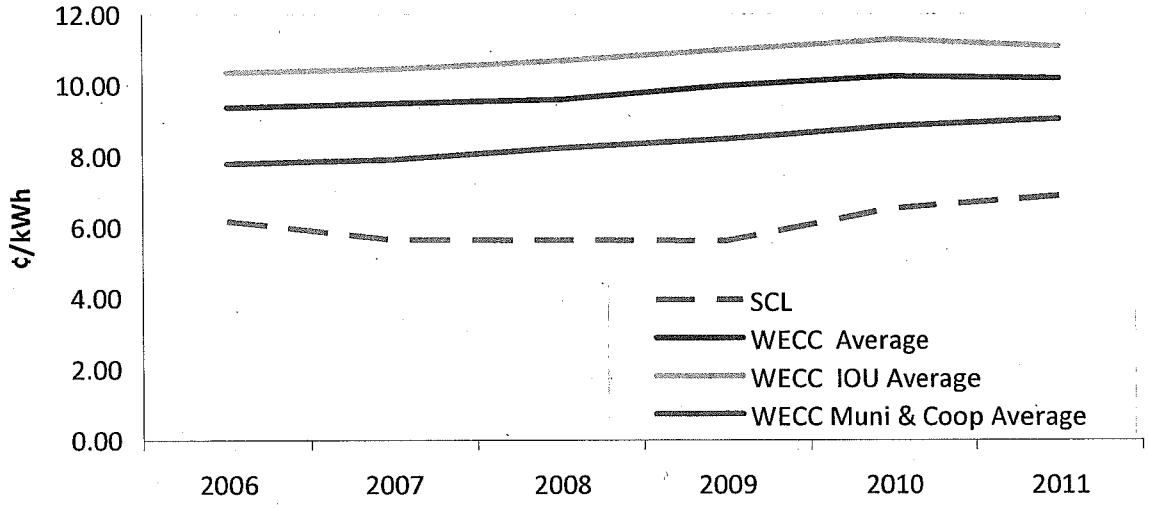
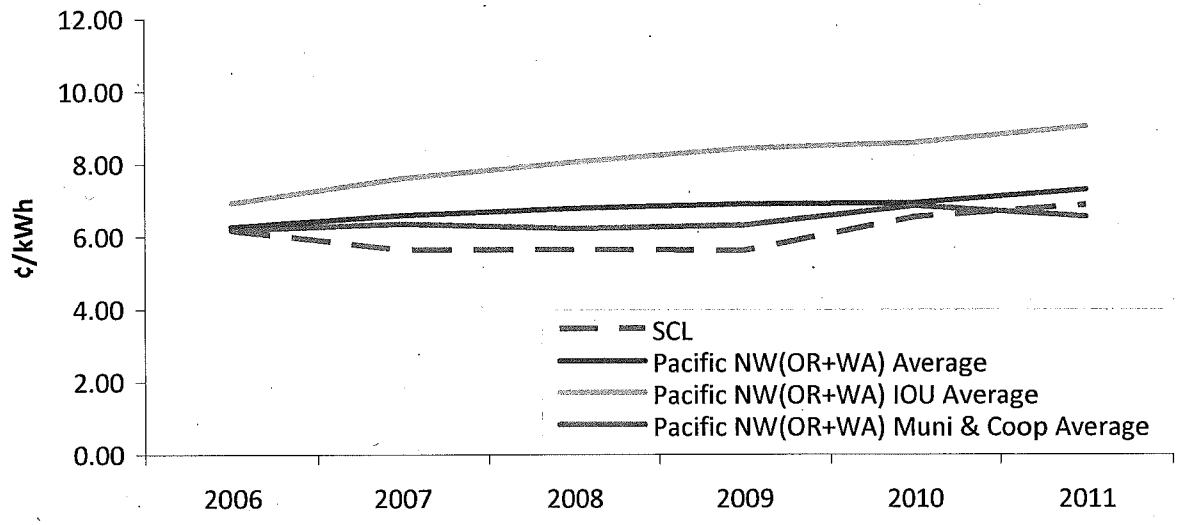


Figure 1.9 compares Seattle City Light's historical rates to the rates in WECC (the Western Electricity Coordinating Council). Similar to the national comparison, the analysis shows that Seattle City Light's historical rates compare favorably to the region.

Figure 1.10 shows Seattle City Light's rates in comparison to the utilities in Washington and Oregon. This analysis shows that Seattle City Light's rates are lower than other utilities in the Pacific Northwest, but the advantage is smaller than that of the WECC or national comparison. This is explained by the similar reliance on low-cost hydropower across the Pacific Northwest.

Figure 1.10
Average Retail Electric Rate
Seattle City Light vs. Pacific Northwest (OR/WA)



A recent article published by SNL Financial, "US utilities risk customer wrath from anticipated electric bill increases," postulates higher electric rate increases in the future due to new environmental regulations (e.g., Cross-State Air Pollution Rule and utility MACT rule), cyber security and grid modernization, together with a possible customer backlash.[9] The prediction is that electric rate increases across the U.S. will double in the future and be around 5.5% per year. Utilities for which coal is the main fuel source will have higher rate increases to cover costs of complying with the existing and new environmental requirements.

Pending rate cases demonstrate that the trend of higher retail electric rates is likely to continue, with increases of up to 27% proposed to regulators. The average request pending before regulators is for a 9.6% increase in retail electric rates. Based on the historical average of rate case results since 2007, utilities may ultimately be granted 92% of their request, which translates to roughly an 8.9% increase.

Customers' dissatisfaction about electric rates depends on how much of their monthly income goes to pay for electricity; the higher the share, the higher the probability of complaints.. The SNL article notes that decisions regarding environmental and other policies made by utilities, regulators and legislators must take customer reaction into account, especially in light of the current sluggish economic growth in the U.S., and seek constructive solutions to keep rates low for consumers, including deferring or modifying rules and regulations that have significant capital requirements.

[9] The article is based on the report published by Oliver Wyman energy consulting firm.

2 Financial Forecast Assumptions

The City Light financial forecast is based on detailed projections of major revenue and expense categories that determine the Utility's annual revenue requirement and the resulting rates. The starting point for the projection is City Light's 2012 budget. The 2012 budget incorporates significant financial discipline that results from significant reductions in the preceding four years. Since 2008, staffing has been reduced by 71 positions, or 4%, from 1,881 to 1,810 (and by 13% since 1991). Controllable O&M has been reduced by $81 million--an average of about $20 million, or 10%, per year. Continuing budget decreases have occurred in areas such as travel, training, consulting, overtime, public outreach, and communication. Budget cuts also include lower cost of living adjustments for staff, no increases in management salaries from 2009 to 2011, and changes in work practices. Employee identification of business improvements in 2010 saved $5.6 million. In the same year, non-represented and Local 17 represented employees volunteered for furloughs resulting in a labor cost reduction of almost 4%.

The financial baseline assumes the same overall of level of services to customers as is provided by the 2012 budget, with the same programs, reliability and response times, including:

Power Supply and Environment

- Production and purchase of 10 billion kilowatt-hours of clean electricity each year to power all the homes and businesses (nearly 400,000 customers) in Seattle, Shoreline, Lake Forest Park, Burien, SeaTac, Tukwila and other small parts of King County.
- Operation and maintenance of Boundary, Skagit, Cedar Falls and Tolt dams.
- Environmental and wildlife habitat mitigation required by the new Boundary plant license.
- Meeting load growth with conservation and renewable power resources, including compliance with state law (I-937) on acquisition of renewable power resources.
- A conservation program that saves 14 aMW per year.
- Greenhouse gas neutrality (entering our 7th year), hazardous waste/Superfund cleanup, water quality testing, and hundreds of acres of land, fish and wildlife habitat restoration.

Reliability

- Reliability equal to no more than one outage per year per customer, with a duration of about 70 minutes per customer.
- Operation and maintenance of 14 large substations and almost 3,000 miles of transmission and distribution lines.
- Maintenance of a highly reliable network system that serves customers in high density areas—downtown, First Hill and University District.
- 500+ miles of annual tree trimming along power lines, a major contributor to keeping reliability at a high level.
- Inspection and treatment of City Light's 108,000 poles and annual replacement of 2,000 poles.

- 90% completion rate for streetlight repair response within 10 working days of a reported outage, as well as replacement of about 15,000 streetlight lamps per year with energy-efficient LEDs.
- A new work and asset management program to assess and prioritize work on City Light's most critical assets.
- An apprenticeship program that hires and trains 10-20 new apprentices per year.
- An outage management system that provides customers critical information during outage events.

Customer Service

- A customer metering and billing system, including an e-billing option, that provides monthly or bi-monthly bills to all customers.
- New service connections completed within 40-60 days.

Infrastructure and Support

- A wide variety of capital projects that maintain and upgrade City Light's power production, transmission, and distribution systems.
- Maintenance of a utility-wide information technology infrastructure and about 125 software applications, including Web site enhancements, with funding for several key system replacement in the areas of: a customer care and billing, energy management, inventory management, and budgeting.
- Staffing of 1,810 authorized positions to perform necessary work in distribution, transmission, generation, conservation, customer service and administration.
- Continued compliance with complex federal regulatory requirements regarding system reliability and critical asset protection.

As stated earlier, the baseline represents the minimum level of near-term responsible investments necessary to maintain operations and meet customer demand over the six-year forecast period without significantly increasing operating risk. Accordingly, the costs incorporated are a "status quo" approach to operations, and reflect the cost of continuing business as usual.

The table below outlines the major categories of spending and revenue sources that are included in the revenue requirement, which determines customer rates. The categories are ordered such that areas with the greatest potential to change the rate trajectory are discussed first. Each of these categories will be discussed in detail later in this section; the column at the left denotes the sub-section for each category.

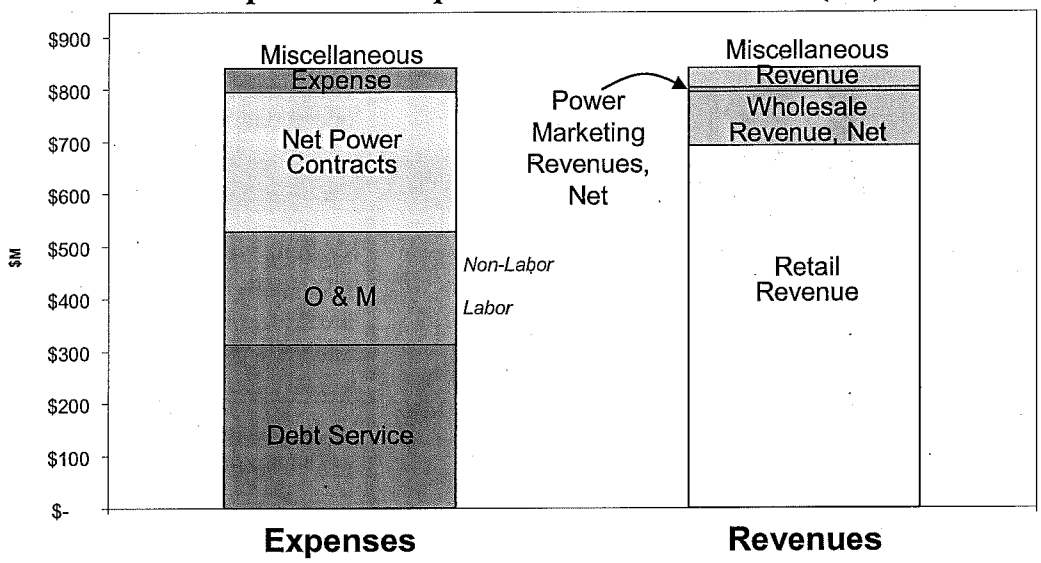
Table 2.1
Components of Revenue Requirement ($M)

Section	Element	2012 Expenses $M	2012 Revenue $M	Impact on Rates and Rate Increases from 2013-2018		Volatility
Capital Spending and Debt Service						
2.1	Capital Program (CIP) and Deferred O&M			Indirect (Debt Service)	52%	High - Large impact on rates, but indirectly and lagged- via debt service
2.2	Debt Service (Coverage)	$312		Large		Medium – Interest rates are an uncertain component, but bond issues are determined by operational decisions.
Non-Power O&M, Taxes and Other						
2.3	Non-Power O & M	$216		Large	30%	Medium – Some volatile components (city allocations, pensions, healthcare) but changes are driven primarily by program decisions, not uncertain factors.
2.4	Miscellaneous Revenue		$39	Small		High—Property sales and one-time payments can be large and are difficult to predict.
2.5	Rate Discounts, Uncollectibles, Taxes & Other	$48		Small		Low – Follows rates.
Power Costs						
2.6	Net Power Contracts Expense	$255		Large	18%	Medium— Most contract terms are known, but some costs (such as BPA) have long-term uncertainty.
2.7	Net Wholesale Energy Revenue		$102	Med/ High		High – Hydroelectric generation volumes and market prices are major unknowns. The Rate Stabilization Account buffers this.
2.8	Net Power Marketing Revenues		$9	Small		Medium – Small source of revenue, but could swing by $5-$10 M depending on market opportunity.
2.9	Retail Revenue		$681	na		Low—% volatility is small, but because of the sheer size of this category, the overall impact of small changes can be nontrivial.
Total		**$831**	**$831**			

Data for the table and chart above is based on the 2012 retail revenue requirement.

Figure 2.1 illustrates the relative magnitude of revenue and expense components. Every utility, including City Light, has a unique profile of revenue and expense sources. Wholesale revenue is a larger component of revenue for City Light than for most utilities because of City Light's low cost hydro generation resources and net surplus position, though it's relative size has shrunk in recent years because of falling market prices. However, it is a smaller percentage of total revenue compared to very hydro-centric public utilities such as Chelan PUD with a relatively small customer base. On the expense side, debt service is a growing expense component since SCL's debt load is increasing; the reasons for this are discussed in Section 2.1 and 2.2 of this document.

Figure 2.1
Composition of Expenses and Revenues - 2012 ($M)



Key Points:

- Major determinants of rates are:
  - Debt service and coverage (paying bondholders for borrowed funds for past capital spending, and the additional collection for debt service coverage that funds current year capital expenditures)
  - Power costs
  - O&M
- Labor costs are a relatively small portion of the overall revenue requirement (about 14-15%, or about 20% with benefits), which is the inverse of most other City Departments, where labor costs are about 85% of their total budgets.
- Most items on the "Expense" side of Figure 2.1 above are relatively (non-power O&M) or entirely (Debt Service) fixed, while Net Wholesale Revenue is highly variable (though the implementation of the Rate Stabilization Account will allow the Utility to depend on a budgeted amount of Net Wholesale Revenue).

2.1 Capital Program and Deferred O&M

The Utility develops and submits for City Council approval a Six-Year Capital Improvement Plan (CIP) that is rolled forward one year at a time as part of the annual budget process. The Six-Year CIP is updated based on input from capital project managers and reviewed by SCL Officers. Figure 2.2 shows the annual cash requirements that are used in the rate forecast.[10]

As part of the financial baseline exercise described in this document, SCL Officers reviewed and adjusted the Six-Year CIP to ensure that the current level of service would be maintained. This involved removing some projects which could reasonably be deferred, while supplementing the budget in out years to ensure appropriate maintenance of facilities.

This spending category also includes Deferred O&M, which may be funded with debt like CIP. Deferred O&M is comprised of Conservation, Toxic Cleanup, High Ross costs, project license costs for Skagit and Boundary environmental mitigation, and Endangered Species Act mitigation. Some deferred O&M spending is related to relatively non-controllable costs associated with the licensing of generation facilities and federally mandated cleanup of Superfund sites. Conservation costs are more controllable, and are based on a forecast provided by the Conservation Division. The forecast reflects the expenditures necessary to comply with I-937, and as a result, expenditures in 2013-16 are higher than in the current 5-year Conservation Plan that runs through 2012.

This category also includes Contributions in Aid of Construction (CIAC), capital grants and miscellaneous funding for deferred O&M projects, which are offsets to spending. These are any payments received from outside sources to help pay for capital projects. CIAC sources are customers and private organizations that represent them, while grant sources are public entities such as federal, State and local government agencies. Forecasted grant funds are currently from a single source, Sound Transit. In addition, City Light anticipates receiving federal funding for Conservation from the Bonneville Power Administration.

The total six-year capital program of $1,618 million, including $1,238 million from the baseline CIP and $380 million from the Deferred O&M forecast. The baseline CIP is from the Six-Year CIP Plan for 2012-2017, plus a preliminary estimate for 2018 developed as part of the CIP process.

Table 2.2
Strategic Plan Baseline Six-Year Capital Program (Constant 2011 $ in Millions)

[10] Typically, cash dollars lag budget dollars somewhat, as budget dollars can be encumbered and carried forward to future years. To make multi-year comparisons more understandable, amounts are presented in constant dollars. A discussion of the impact of inflation and spending trends can be found later in the section.

		2013	2014	2015	2016	2017	2018	Total
Customer Focused	Customer and Billing	6.8	8.0	1.0	0.0	0.0	0.0	15.9
	Customer Other	0.1	0.1	0.1	0.1	0.1	0.1	0.3
	Local Jurisdictions	13.2	10.0	8.9	4.3	4.0	4.0	44.5
	Service Connections	33.8	33.0	33.0	33.0	32.9	33.1	198.8
	Transportation Relocations	34.7	22.3	25.3	10.3	21.4	25.1	139.1
Finance and Technology	Finance and IT Systems	9.2	9.4	9.1	5.5	5.6	5.6	44.3
Power Supply & Environmental Affairs	Boundary	52.9	47.4	36.9	47.2	29.1	34.9	248.3
	Cedar Falls - Tolt	3.7	3.0	2.2	2.4	2.4	2.4	16.2
	Fleets and Facilities	13.4	13.6	10.0	9.9	8.5	8.5	64.0
	Power Supply Other	5.0	5.1	3.8	2.8	1.7	1.7	20.1
	Programmatic Conservation	38.2	38.3	40.0	40.0	40.0	40.0	236.3
	Skagit	8.2	16.6	20.7	19.1	20.0	20.0	104.7
	Toxic Cleanup	12.5	6.3	4.3	1.6	1.6	4.2	30.5
Transmission and Distribution	Distribution Other	8.7	5.1	4.7	4.1	3.6	2.9	29.1
	Network	12.0	11.5	13.1	13.1	13.1	11.1	74.0
	Radial	33.3	37.1	34.0	35.3	35.6	33.2	208.6
	Substations	24.4	18.0	22.5	21.8	20.9	20.2	127.9
	Transmission	2.5	2.5	2.5	2.5	2.5	2.5	15.0
Grand Total		312.6	287.4	272.1	253.1	243.0	249.4	1,617.7

Table 2.3 contains high level descriptions of critical capital projects that are funded under the 6-year financial baseline and projects that are not funded. Note that the list of non-funded projects provided here is far from comprehensive; these and other new capital initiatives will be discussed in greater detail in the Strategic Plan.

Table 2.3
CIP Critical Project Descriptions and Projected Spending

Key Capital Programs Included in Financial Baseline		Cost 2013-2018($M)	Addresses SWOC Issues[11]:
• Alaskan Way Viaduct utility relocations		$84.2	Aging infrastructure
• Replace obsolete customer information system, automate manual processes and provide easier rate design and implementation.		$15.9	Customer communication, Lagging technology
• Substation automation (pilot program and complete program)		$21.5	Aging infrastructure
• Recurring infrastructure replacement (e.g., poles, cable, transformer replacements) and customer connection continued at 2012 budget levels:		$606.5	Aging infrastructure
	o Infrastructure - General	$139.2	
	o Infrastructure - Cable Injection	$30.1	
	o Infrastructure - Connections	$218.5	
	o Infrastructure - Network	$74.0	
	o Infrastructure - Poles	$38.5	
	o Infrastructure - Substations	$106.3	

[11] The full SWOC assessment can be found at www.seattle.gov/light/strategic-plan/docs/challenges.pdf

• Mobile Workforce Technology Implementation (enables real time dispatch for planned and emergency work)	$4.0	Lagging technology
• Distribution Automation (enhanced outage restoration)	$5.6	Aging infrastructure
• Completion of projects currently underway:		Aging infrastructure
o Mercer Corridor West Relocation	$5.6	
o Work and Asset Management System	$1.6	
• Boundary Rebuilds for Units 55, 56, 53, 54, 51 and Diablo Rebuilds for Units 32 and 31	$53.1	Aging infrastructure
• Miscellaneous generation projects*	$302.4	Aging infrastructure
• Equipment and vehicle replacement program	$45.0	Aging infrastructure
• Conservation programs (includes deferred O&M)	$238.6	I-937 costs
• Boundary – Transfer Blocks 151-156 Rock Damage Mitigation	$14.8	
• Skagit Housing - demolition and upgrades	$4.0	Aging infrastructure
• Skagit Sewer - Ecology mandated, decommission treatment facilities	$3.3	Regulatory requirements
• Skagit energy conservation - retrofits for remaining buildings only	$0.0	Aging infrastructure
Anticipated Capital Project NOT Included in the Financial Baseline	**Cost 2013-2018($M)**	
• Automated Metering Infrastructure (AMI)	$90-$130	
• Puget Sound Area transmission congestion mitigation projects	$15-$25	
• North Downtown Substation	$45-$65	
• North Downtown Network	$50-75	
• Electrification of transportation	Unknown	
• Feeder energy efficiency work	$50-$85	
• Previously-unidentified replacements and refurbishments discovered via new asset management program.	TBD/~$25	

**Includes: Ross Rock Slide Area Improvements, headgate hoist room upgrades, electrical systems upgrades and minor improvement projects at Boundary, special work at Plants and Shops, access road and forebay paving, overflow dike improvements, continuation of Oil Containment Improvements, completion of Gen 20 Support Facility Rebuild, FERC mandated Ross Dam - AC/DC Distribution System Upgrade, and minor improvement programs at Skagit.*

Long Term Perspective and Change Analysis

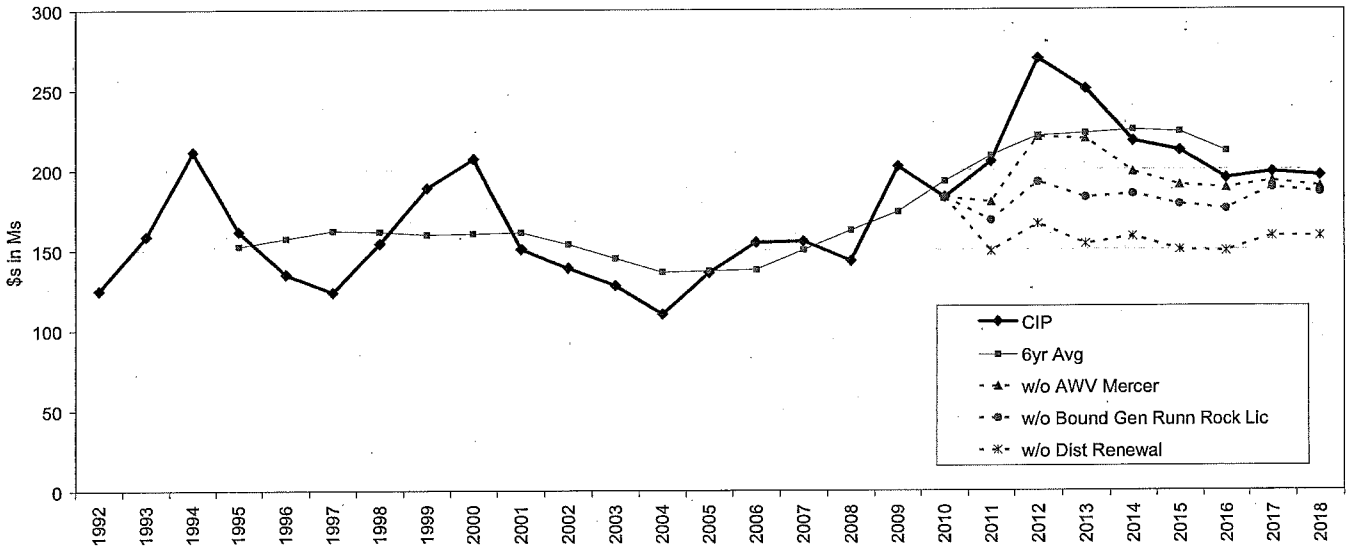
City Light's CIP spending is projected to be higher in the period ahead than in preceding years. Comparing average annual CIP for the period from 2004-10 ($144 million) vs. 2011-18 ($252 million)

shows an increase of 75% or $108 million per year. Of that, 28% relates to inflation, and the balance of 47% represents real growth in spending. Major drivers of the increase include:

1. Relocation of City Light transmission and distribution facilities required by the Alaskan Way Viaduct replacement and Mercer Corridor realignment.
2. Equipment and facilities rehabilitation and improvements at Boundary, including Generator Rebuilds, Runner Replacements, Rockfall Mitigation, and relicensing.
3. Distribution system renewals including substation automation and transformer replacement, wood pole replacement, cable injection, and replacement of sodium vapor streetlights with LED lights.

A chart showing historical CIP spending, proposed spending in future years, and proposed spending with adjustments for the three major drivers just noted follows. With adjustments for the three significant factors not present in previous years, the spending levels are comparable to the past twenty years. Additionally, it should be noted that the period following the 2000/01 energy crisis saw the Utility restrict capital spending to an unsustainable level in response to severe funding shortfalls and rate pressures.

Figure 2.2
Historical and Proposed CIP with and without Major Drivers



An overview of the increase in average annual spending in the years ahead versus much of the past decade is contained in the table below. The categories containing the three major drivers are highlighted.

Table 2.4
2011-2018 Changes in Average Annual CIP Spending

In thousands of 2011 constant dollars	Explanation	2004-2010	2011-2018	$ Change	% Change
INCREASES					
1. Power Supply: Boundary	Generator Rewinds, Turbine Runners, Transformers, Boundary Rockfall.	$4,530	$25,055	$20,526	453%
2. Finance and IT Systems	Replacement of Energy Management System, Inventory, and Budget Systems	3,091	7,489	4,399	142%
3. Customer Focused: Transportation Relocations	Primarily Alaskan Way Viaduct, Mercer Corridor Relocations.	11,968	28,669	16,701	140%
4. Customer Focused: Other		254	484	230	90%
5. Power Supply: Cedar Falls - Tolt	Penstock Stabilization	1,470	2,463	993	68%
6. T&D: Substations	Transformer Replacement, Substation Automation	13,834	21,562	7,728	56%
7. Power Supply: Fleets and Facilities	Vehicle Replacement (deferred), Spokane Street Exit, Workplace Improvements	7,694	11,756	4,062	53%
8. Customer Focused: Local Jurisdictions	Shoreline, LED Streetlights	7,546	10,084	2,537	34%
9. T&D: Radial	Wood Pole Replacement Program, Cable Injection Program	29,299	37,921	8,621	29%
10. Customer Focused: Customer and Billing	Replacement of CCSS	1,701	2,112	412	24%
11. Customer Focused: Service Connections	Electronic Meters	28,398	34,207	5,809	20%
12. Power Supply: Skagit	Diablo Generator Rebuilds	14,498	16,723	2,225	15%
13. T&D: Transmission		2,513	2,866	352	14%
DECREASES					
14. T&D: Network		16,180	12,777	(3,403)	-21%
15. Power Supply: Other		4,507	3,616	(892)	-20%
16. T&D: Distribution Other		7,595	7,019	(577)	-8%
Total CIP		152,552	224,800	72,248	47%

2.2 Debt Service

The capital program impacts rates through the debt service on bonds issued to pay for the capital projects. Debt service is calculated for all bonds outstanding and projected for the future. For existing bonds, principal and interest is based on actual bond parameters. For future years, the model assumes debt is issued whenever the operating cash balance falls below $50 million, and the size of the forecasted bond issue is determined by the capital spending requirements for the subsequent 12 months. Therefore, the model assumes fairly frequent bond issues, about one each year.

Table 2.5 shows total debt service, as well as debt service coverage. Because SCL financial policy calls for sufficient revenue to cover debt service 1.8 times, one dollar in debt service impacts the revenue

requirement by 1.8 dollars. Therefore, the coverage requirement is the amount that is indicative of the magnitude of rate impact.

Table 2.5
Debt Service and Coverage Requirements ($M)

$M	2009*	2010*	2011	2012	2013	2014	2015	2016	2017	2018
Debt Service	$144.9	$118.4	$142.1	$172.8	$177.9	$196.6	$211.3	$222.0	$226.5	$235.5
Coverage at 1.8x	$260.8	$213.1	$255.7	$311.1	$320.3	$353.9	$380.4	$399.6	$407.6	$423.9

2009 and 2010 reflect actuals, not revenue requirement. 2010 debt service was substantially lower than expected due to refunding savings.

It is assumed that future bonds will be issued with a 25 year term (consistent with past practice), with a 5% interest rate, which approximates the historical interest rate on debt already issued. Actual interest rates on bonds issues may vary from this.

Figure 2.3
Debt Service by Bond Series ($M)

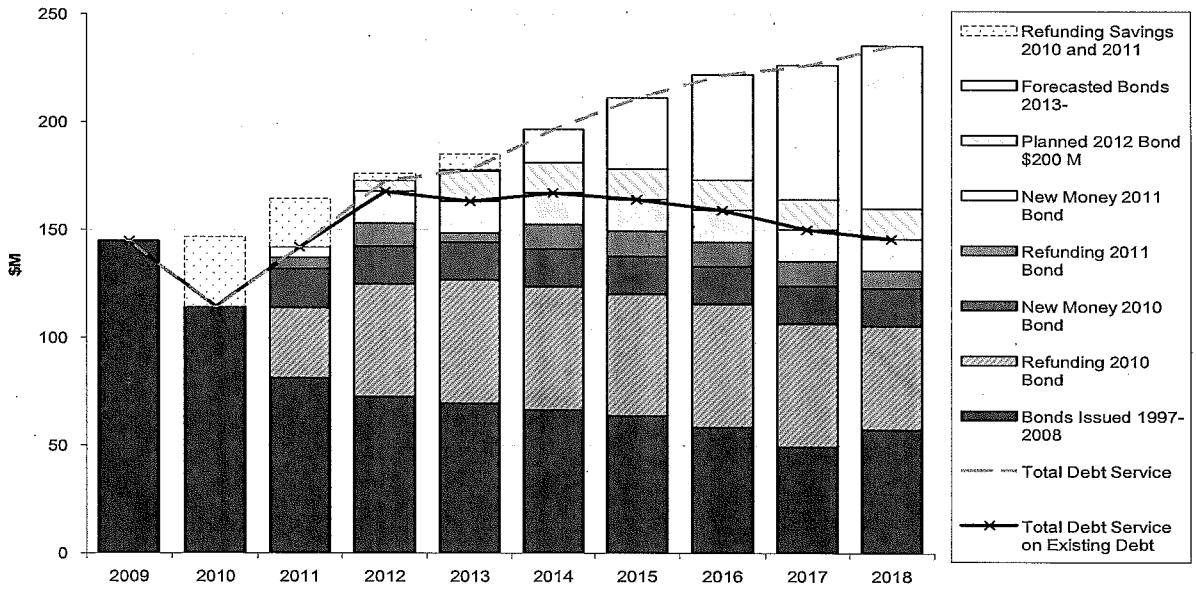


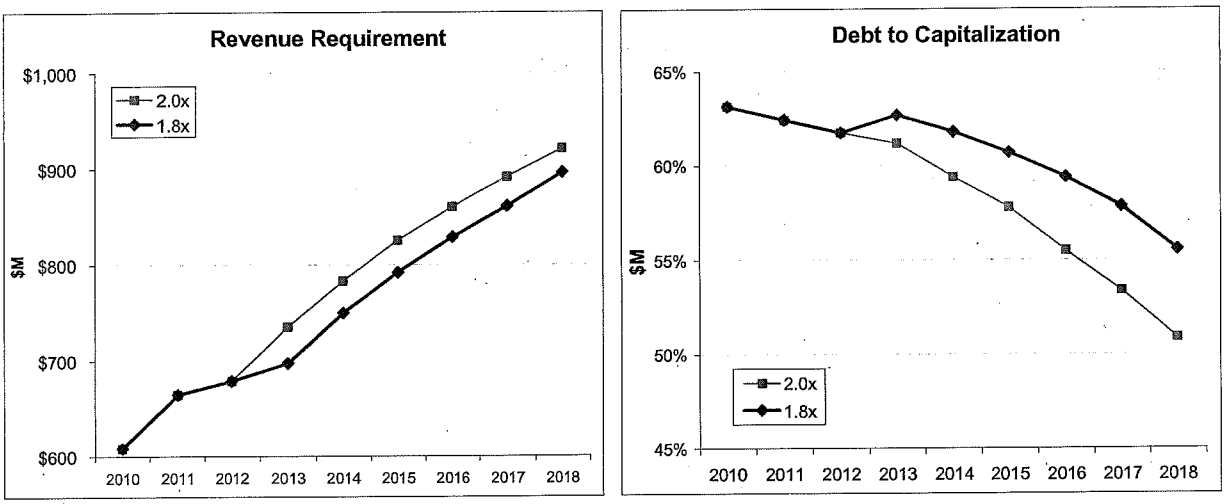
Figure 2.3 shows that total debt service is rising in the future. There are several reasons for this apart from increased capital spending. First, low wholesale revenues in 2009 and 2010 meant that a larger portion than normal (77%) of capital requirements for these years was financed via bond proceeds. This increased borrowing in 2010 and 2011 over expected levels, resulting in increasing debt service beginning in 2012. Second, the 2010 financial policy change from 2.0 to 1.8 times coverage means that going forward, City Light will finance a larger portion of CIP with debt than when the 2.0 debt service coverage standard was in place. . A lower coverage ratio translates to lower retail rates in the short run, and less cash from operations to fund CIP. However, increasing debt service will increase rates in the long run. Lastly, a large amount of debt was refinanced in 2010 to take advantage of low market rates. The $57 M in

refunding savings were front loaded into 2010 and 2011 to provide cash for initial funding of the RSA, offsetting the rising debt service due to new debt until 2012-13.

Debt service and coverage needs are a major driver of rate increases in the coming years. This category accounts for 52% of the rate increases for 2013-2018.

Despite this, City Light's debt burden will continue to be prudent and manageable. City Light's debt to capitalization continues to gradually decline in the coming years, despite an increase in the absolute dollar value of debt. The pace of this decline in debt to capitalization is governed by the size of the capital spending program, and how that capital program is funded—the mix of customer collections and additional bond issuances. The financial policy of 1.8 times debt service results in taking on more debt over time than the previous financial policy of 2.0 times debt service coverage. The excess above 1.0 times is used to finance the capital program. The higher the excess, the less additional debt the Utility takes on. As a result, the times coverage financial policy governs the trajectory of how much debt the utility takes on, and also governs the slope of how rates will change over time.

Figure 2.4
Impact of Debt Service Coverage Policy on Key Financial Measures



Key Points:

- In addition to increased spending in the current 6-year CIP versus the comparable past period, debt service is rising because of: (1) higher debt issues in recent years due to low wholesale revenue; (2) the financial policy change from 2.0x to 1.8x; and (3) bond refunding savings temporarily reducing debt service in 2010-2011.
- Despite rising debt service, City Light's debt to capitalization ratio is still projected to decrease.
- The 2010 bond refinancing saved rate payers $57 M.
- Reducing projected capital spending would reduce the amount of new debt City Light would need to issue. Reducing the capital spending budget by $75 million annually reduces the amount of necessary rate increases by about 1% per year.

2.3 Non-Power Operating & Maintenance Costs (O & M)

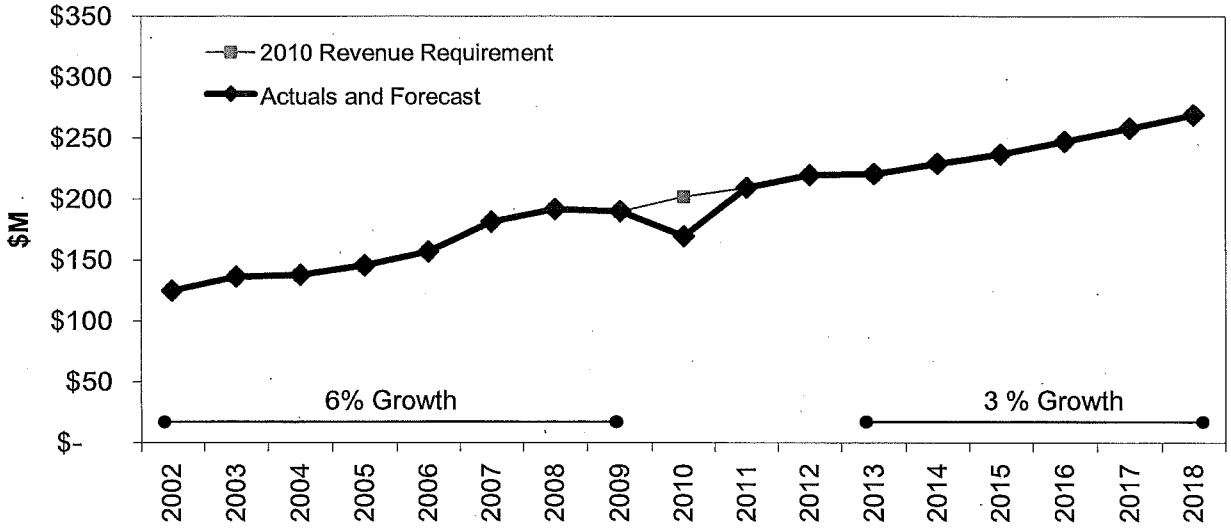
Sections 2.3, 2.4, and 2.5 discuss non-power O&M, miscellaneous revenues, and miscellaneous uncontrollable expenses such as taxes. Grouped together, these three categories account for 30% of the increase in rates from 2012-2018.

Table 2.6
Non-Power O&M and Other Miscellaneous Revenues and Costs as Driver for Change in Revenue Requirement from 2012 to 2018

Rate Driver	Reference Section	Change in revenue requirement in 2018 vs. 2012 ($M)	% of total change in revenue requirement
Non-power O&M due to inflation	2.3	$53.1	25%
Miscellaneous revenues	2.4	-$4.2	-2%
Taxes and other costs	2.5	$15.2	7%
Total Change from 2012 to 2018		**$64.1**	**30%**

Non-power O&M in aggregate has grown historically at a fairly steady rate, and the forecasted baseline trajectory is slightly lower than the historical rate of increase. This is illustrated in Figure 2.5, which shows actuals through 2010 and forecast values for 2011-2018. From 2002-2009, O&M increased annually at 6% on average, while for 2013-2018 the annual rate of growth is assumed to be somewhat lower, at 3%.

Figure 2.5
O&M Historical and Forecast



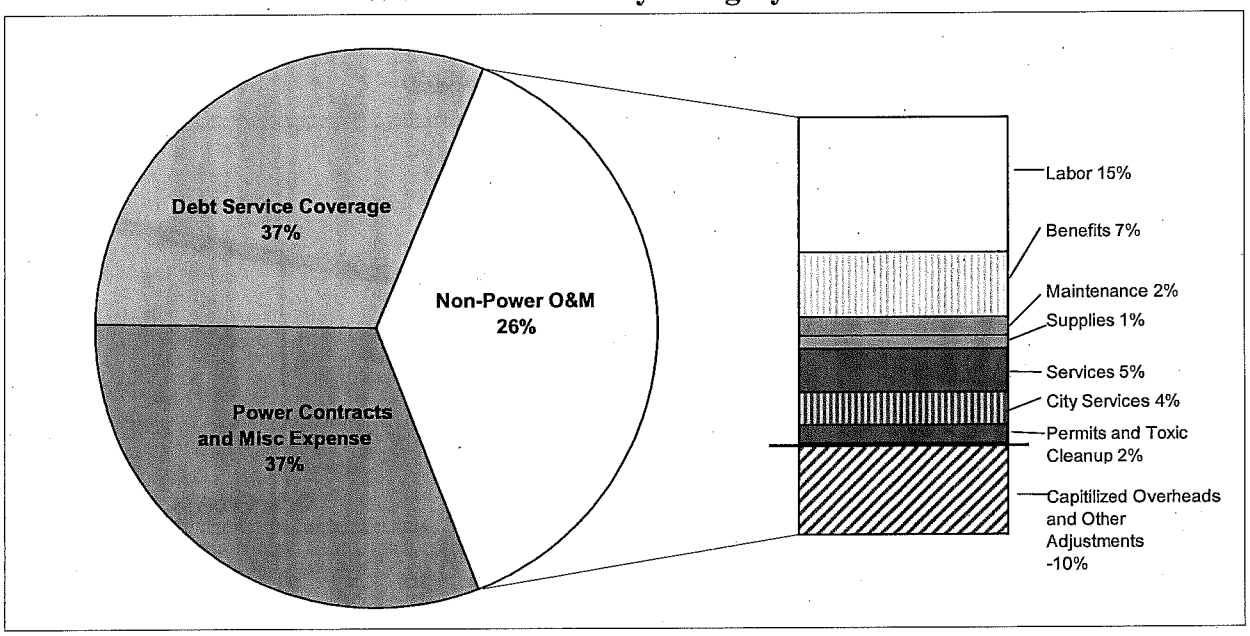
O&M for 2011 and 2012 reflect the Adopted Budget, which included approximately $4.5 million in continuing cuts from 2010, new funding for restored programs originally cut in 2010, and some new programs. The 2011-12 Budget included:

- Restored programs including generation facility maintenance, tree trimming, and funding conservation back to the 5-Year Conservation Plan level.
- New funding for work and asset management, increased software and IT costs, and higher payments to other City Departments for services and pensions.
- To help smooth rate increases across the two years, approximately $5 million in 2012 A&G expenses were frontloaded into 2011. This helps to explain the large increase in 2011 vs. 2010.

Budget changes for ongoing expenses were continued into 2013-2018 using inflation factors discussed later in this section. Increases in non-power O&M account for about $53 M in increased revenue requirement between 2012 and 2018, as shown in Table 2.6. The vast majority of this change comes from inflation. The policy decision to defer future environmental superfund cleanup expenses also accounts for a small portion of this change; around $3 million of direct O&M is forecast for superfund cleanup in 2012 and none is assumed in the future (since it will all be deferred).

Figure 2.7 shows non-power O&M and its various components. Non-power O&M only makes up 26% of total (2012) expenditures, with debt service and power costs making up the remainder. The bar chart in Figure 2.6 shows the components of non-power O&M by budget expense type. The budget includes labor overhead and other costs that are ultimately capitalized and excluded from O&M; therefore, they are deducted from the O&M forecast, as shown in the striped bar at the bottom of the O&M breakout.

Figure 2.6
Non-Power O&M by Category – 2012



Assumptions for inflators for various components of O&M are discussed in detail in Section 3.[12] Some components are assumed to grow at the overall inflation rate (CPI), or at a rate slightly higher than inflation. Others, such as medical benefits and field supplies, are expected to grow at rates higher than inflation. Note that though the O&M costs are forecast as specific dollar amounts, they are not a budget but merely point estimates representing a considerable range of cost uncertainty. Table 2.7 summarizes the inflators used for various O&M components.

Table 2.7
Growth Assumptions for O&M Categories

Section	O&M Category	2013-2018 Growth Rate
3.1	Labor	CPI+1%
3.1	Labor Benefits (medical, pension, etc.)	5.6%
3.1	Benefits - Business Units	CPI
3.2	Services	CPI
3.3	City Services, Payments & Rentals	CPI
3.4	Maintenance	CPI+1%
3.4	Maintenance – Data Processing (IT)	3%
3.5	Supplies & Materials	CPI
3.5	Operating Supplies & Inventory (Field Supplies)	8%
3.6	Toxic Clean Up	Direct Forecast
3.6	Permits	5%
3.7	CIP Overhead and Other Reductions	na

CPI Forecast

City Light's inflation forecast is updated annually. Typically City Light uses the official City forecast for the next year or two, to align with City Budget assumptions. For out years, inflation is based on local economist Dick Conway's forecast for the Puget Sound Region (this forecast is commonly used throughout the Seattle area).

Table 2.8
Inflation Forecast

	2012	2013	2014	2015	2016	2017	2018
% Change in CPI	1.74%	2.01%	2.07%	2.13%	2.21%	2.37%	2.35%

Key Points:

[12] O & M costs are forecast in the Utility's financial model in six categories: production, transmission, distribution, non-programmatic conservation, customer accounting and administration. These categories are based on FERC accounting codes to aid in tracking with accounting actuals and are not affected by any reorganizations that the utility and other organizations periodically undertake. To assist in aligning spending with Officers' budget control areas, the Strategic Plan O&M baseline was developed using Budget categories, not FERC accounting categories. This section will discuss O&M in terms of Budget categories, but because of the data conversion issue just noted, O&M spending is aggregated into a single line in some of the charts used in this document and in the Utility's financial forecast model.

- In total, non-power O&M changes from 2013 to 2018 drive about 25% of the change in the revenue requirement for City Light, as illustrated in the Table 2.6.

2.4 Miscellaneous Revenue

City Light realizes relatively small amounts of revenue from sources other than retail energy sales and wholesale energy sales. These miscellaneous revenues are shown in Table 2.9 and are estimated based on the best information available. These include: sales of property, investment income, suburban undergrounding payments, operating fees and grants, distribution capacity charges, retail green power programs, and power factor charges.

Table 2.9
Miscellaneous Revenue ($M)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Sale of Property	$1.0	$0.1	$2.5	$2.3	$1.1	$1.1	$1.2	$1.2	$1.2	$1.2
Investment Income	$4.1	$3.8	$4.5	$10.7	$7.1	$8.9	$11.7	$13.1	$13.6	$13.4
Suburban Undergrounding	$0.3	$0.4	$0.7	$0.9	$1.1	$1.3	$1.4	$1.5	$1.5	$1.6
Operating Fees and Grants	$1.7	$3.0	$0.3	$0.1	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Distribution Capacity Charge	$1.6	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2	$0.2
Green Power Programs	$1.4	$1.3	$2.5	$3.1	$2.8	$2.9	$1.8	$1.8	$1.9	$1.9
Power Factor Charges	$2.6	$2.5	$2.7	$2.7	$2.6	$2.6	$3.0	$3.0	$3.1	$3.2
Other Revenue (Expense)	$21.3	$24.0	$21.2	$21.6	$22.1	$22.7	$23.2	$23.7	$24.3	$24.9
RSA Surcharge	$0.0	$18.4	$0.0	$0.0	$14.0	$11.1	$1.1	$0.0	$0.0	$0.0
Cash Transfers from (to) RSA	$0.0	($54.3)	($22.0)	($2.9)	($14.0)	($12.1)	($3.8)	($3.2)	($3.3)	($3.4)
Total	**$33.9**	**($0.7)**	**$12.6**	**$38.8**	**$37.2**	**$38.8**	**$39.7**	**$41.4**	**$42.5**	**$43.0**

The timing of property sales is uncertain since the Utility has a large portfolio of surplus land, a single sale could be worth millions of dollars, and the property disposition process is lengthy. Property sales are generically assumed at about $1 million per year in out-years. The baseline estimate of revenues from land sales is conservative, and does not include a potential $30 million property sale (8th & Roy St.) that City Light's Real Estate Division is tentatively projecting for 2014. A sale of this size would substantially reduce the revenue requirement for that year.

Miscellaneous revenue sources (shown in the Other Revenue (Expense) line in Table 2.9) are indexed to simple indicators such as inflation or number of accounts. These include: late payment fees, damages to property, property rental income, transmission attachments and cell sites, pole attachments, account change fees, and a placeholder for additional retail revenue received from reduced current diversion.

Revenue from and transfers to the RSA are also included in Miscellaneous Revenue. Transfers include interest earned, as well as the one-time transfers to initially fund the account in 2010 and 2011. RSA surcharges are projected for years where the forecasted net wholesale revenue deviates from the RSA baseline. This is discussed further in Section 2.7 and in Section 4.

Key Points:

- Miscellaneous revenues are projected to increase slightly over the 2013-2018 period, reducing the revenue requirement by around 2%.
- An expedited process to sell surplus properties could generate revenue to reduce pressure on rates. The current property disposition process is lengthy, reducing revenue opportunities that could potentially reduce pressure on rates.
- For 2010, City Light identified numerous opportunities to increase miscellaneous revenues, and these increases have been incorporated into the forecast.

2.5 Rate Discounts, Uncollectibles, Taxes and Franchise Payments

There are a number of costs that tend to increase steadily with rates. Discounts for rate assistance for low income customers, uncollectible revenue, and State and City Taxes are all modeled as a percentage of revenues. Payments to Suburban Franchises are determined by long term agreements with the various franchise areas. In the table below summarizes these costs; in total they account for roughly 7% of the increase in the revenue requirement over the 2013-2018 period. Note City Taxes are shown, but are separate from other costs. City Taxes are not part of the debt service coverage calculation and therefore are not a direct driver of the revenue requirement.

Table 2.10
Taxes, Rate Discounts and Uncollectibles ($M)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Rate Discounts	$5.4	$6.4	$6.8	$7.2	$7.2	$7.7	$8.2	$8.5	$8.9	$9.2
Uncollectible Revenue	$5.3	$8.0	$5.9	$6.2	$6.3	$6.7	$7.1	$7.4	$7.7	$8.0
State Taxes and Franchise Payments	$28.6	$31.7	$32.9	$34.4	$37.2	$39.5	$41.0	$41.9	$43.9	$45.7
Total	**$39.2**	**$46.2**	**$45.6**	**$47.8**	**$50.7**	**$54.0**	**$56.3**	**$57.8**	**$60.5**	**$63.0**
City Taxes	$33.7	$38.7	$40.7	$42.8	$44.2	$47.2	$49.0	$51.1	$53.9	$56.2

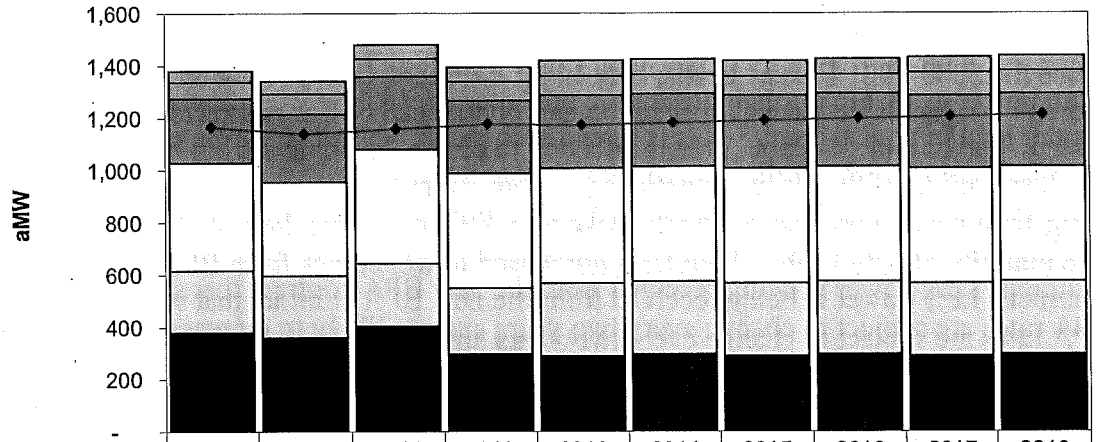
2.6 Power Contract Costs and Revenues

City Light serves customer energy demand through a variety of power supply sources. The three primary sources of supply are the Skagit Project and Boundary generating facilities, and a long term Bonneville

Power Administration (BPA) power supply agreement. City Light's BPA agreement is comprised of both a fixed (Block) amount of power supply and a variable (Slice) component. As illustrated in Figure 2.8, these three sources make up over 90% of City Light's power supply portfolio. Figure 2.8 also illustrates that City Light has an anticipated surplus of power under normal water conditions.

Excess or surplus power from City Light's power supply portfolio is sold into the wholesale power market. The actual amount of power produced by hydro resources is very uncertain. Figure 2.8 reflects average water assumptions, so actual generation amounts could be greater or less than the amounts shown.

Figure 2.7
Generation Resources (aMW)



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Renewables	43	49	53	55	60	60	60	60	58	57
Contracts & Small Hydro	62	76	68	72	72	72	72	73	89	87
Skagit	246	261	281	279	279	279	279	280	279	280
Boundary	412	357	435	438	440	439	439	439	438	439
BPA Block	238	237	240	253	278	278	278	279	278	278
BPA Slice	379	360	404	296	290	296	290	296	289	296
Load	1,167	1,141	1,161	1,178	1,175	1,183	1,191	1,199	1,207	1,214
Surplus	213	200	320	216	244	242	228	226	225	224

Table 2.11 summarizes costs for contracted generation resources, and revenues from long-term power delivery contracts. These resources supplement City Light's owned resources, such as Skagit and Boundary. The generation output from owned resources are shown in Figure 2.8, but the bulk of the costs associated with operating these resources are considered non-power O&M (labor, materials) or CIP, and are not found in this section.

Table 2.11
Power Contract Costs and Revenues ($M)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenues										
BPA Credits	$16.8	$11.9	$11.3	$9.4	$9.0	$9.1	$9.2	$9.3	$9.4	$9.5
Priest Rapids	$5.4	$6.4	$8.2	$9.5	$5.2	$5.5	$5.9	$6.3	$6.7	$7.0
Boundary-Rel. Sales	$1.7	$1.6	$1.7	$1.7	$1.7	$1.7	$1.8	$1.8	$1.9	$1.9
Total	**$23.9**	**$19.8**	**$21.2**	**$20.6**	**$15.9**	**$16.4**	**$16.9**	**$17.4**	**$17.9**	**$18.4**
Costs										
Bonneville	$164.6	$169.3	$165.9	$152.9	$158.6	$162.3	$165.0	$169.4	$172.1	$177.0
Small Hydro	$25.4	$32.5	$26.3	$36.0	$25.7	$25.8	$26.2	$26.6	$35.3	$36.4
Renewables	$20.0	$23.9	$27.0	$30.6	$34.6	$34.9	$35.2	$35.5	$34.6	$33.3
Planned Renewables	$0.0	$0.0	$1.8	$3.7	$1.9	$1.9	$2.0	$2.0	$2.1	$2.1
Wheeling & Fees	$46.6	$43.1	$51.9	$51.8	$50.6	$51.9	$52.5	$54.0	$54.7	$56.3

Total	**$218.5**	**$268.9**	**$272.9**	**$275.0**	**$271.4**	**$276.8**	**$280.8**	**$287.5**	**$298.8**	**$305.2**

Key Points:

- Since the 2000-2001 Energy Crisis, City Light's strategy is to be long on power—i.e., to have more power available through generation and guaranteed power contracts than needed to meet system load in typical years. This is intended to protect customers from exposure to high wholesale prices if the Utility experiences a poor water year.
- Long-term power purchase contracts make up a little more than half of City Light's resources.
- The majority of City Light's long-term purchased power comes from BPA Block and Slice contracts. Less power is being received from the new BPA contract that started in October 2011.
- BPA rates are subject to change every two years and are likely to increase at or above the rate of inflation through the study period. BPA power cost changes are automatically passed through to City Light customers and are assumed to grow with inflation.
- City Light evaluates future resource needs through the Integrated Resource Plan (IRP). The IRP is based on an estimate of power generation that City Light can meet with 95% certainty.
- Given City Light's current generation capacity and existing power contracts, the IRP anticipates meeting load growth primarily through energy conservation efforts over the next 10 years.
- Conservation is a "virtual power plant", a cost-effective means to meet load growth when compared to the cost of acquiring new sources of energy. City Light began focusing on conservation in the 1970's in response to the OPEC energy crisis and to avoid costly investment in nuclear projects (WPSS).
- City Light will need to continue conservation efforts to meet IRP goals and offset future load growth.
- Transmission costs are likely to increase to address regional transmission constraints and decrease the risk to deliver power from the congested Puget Sound Area Northern Intertie (PSANI).
- New green energy resources ("Planned Renewables" line in Table 2.11 above) acquired to comply with I-937 will carry a premium over typical market costs, and will be more costly than City Light's current resources. To meet I-937 requirements at least cost, City Light plans to primarily purchase renewable energy credit (REC) purchases rather than actual green resources.
- It is a policy of City Light to be a net-zero emitter of GHG. City Light purchases carbon offsets to balance the non-hydro portion of City Light's power portfolio (i.e., the portion of BPA's power that is not hydro) and utility operations (vehicles and other). The cost of this program is projected to be approximately $1M per year.

2.7 Net Wholesale Energy Revenue

Since City Light's power generation is based on river flows, maintaining sufficient generation assets to meet load even under drought conditions means that most of the time City Light will generate more power than it needs. This excess power is sold on the wholesale market, and City Light receives a substantial amount of revenue from surplus energy sales.

Net Wholesale Revenue and the RSA Baseline

The amount of net wholesale energy revenue that City Light depends on when setting rates is specified by the RSA Ordinance adopted by the Council in 2010. The amount to be assumed is specified as the average of net wholesale revenue for the years 2002 to the present, unless otherwise adjusted by Council. For 2011-2012, our rates were set using this approach, and Council made certain reductions to better align the figure with our current forecast of wholesale revenues in those years. However, there is a gap between our current outlook and the amount of net wholesale revenue assumed in the rate calculations in the coming years. The difference between the RSA baseline and City Light's current forecast (which is lower) would be withdrawn from the RSA and would likely result in temporary rate surcharges to replenish the RSA. For 2013 and future years, to the baseline assumes the approach specified in the RSA Ordinance—that base rates will be established using the average of realized net wholesale energy sales from 2002 forward to the latest available year. The results, compared with current market-based forecasts, are shown in the Table 2.12.

Table 2.12[13]
Net Wholesale Revenue Actuals and RSA Baseline Assumptions
(Bold values indicate actuals or Council Adopted figures)

	Actual and Forecasted Net Wholesale Revenue	RSA Baseline	Forecast minus RSA Baseline
2002	**$89.6**		
2003	**$113.4**		
2004	**$113.6**		
2005	**$87.4**		
2006	**$140.1**		
2007	**$137.3**		
2008	**$134.4**		
2009	**$68.2**		
2010	**$54.2**		
2011	$109.4	**$96.8**	$12.6
2012	$59.4	**$102.1**	-$42.7
2013	$79.8	$104.8	-$25.0
2014	$83.8	$100.6	-$16.8
2015	$85.2	$98.9	-$13.7
2016	$89.9	$97.7	-$7.8
2017	$98.4	$96.8	$1.6
2018	$107.0	$96.4	$10.6

Wholesale Energy Sales - Forecast Assumptions

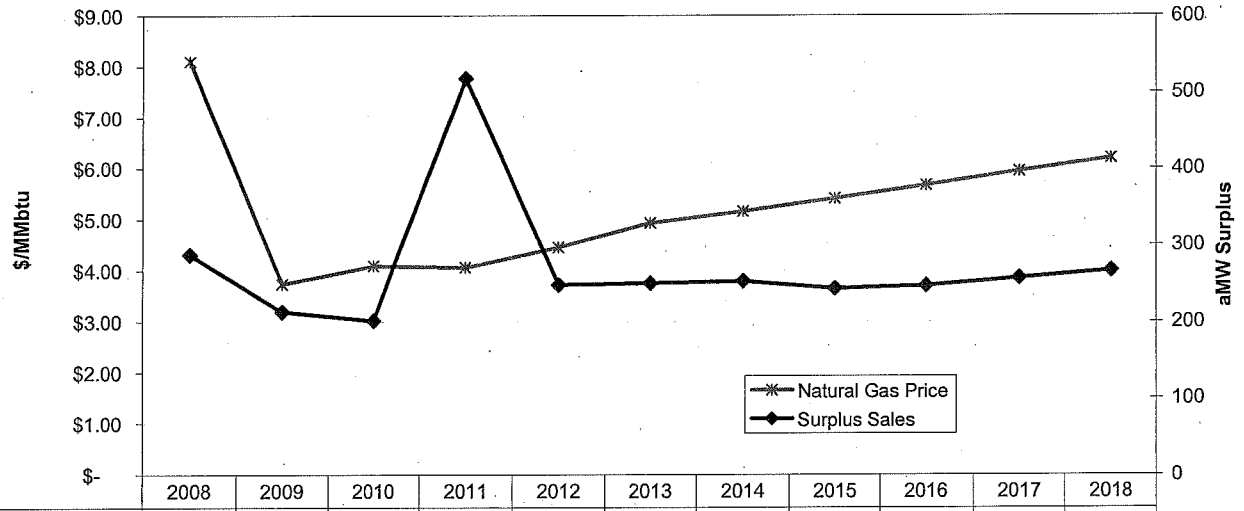
Wholesale energy sales revenue is determined by volumes and prices. Wholesale sales volumes were down sharply in 2009-10. As shown in Figure 2.9 (below), 2011 hydro generation was above normal due

[13] 2011-2018 forecast of net wholesale revenue is from the 2011_08_26 financial planning model run.

to cold and wet conditions. Expected total net wholesale sales volumes drop in 2012 due to reductions in City Light's BPA long term power sale agreement. The figure below shows only expected volumes; the actual amounts can vary with regional precipitation and resulting stream flow conditions.

In addition to sales volume uncertainty, wholesale energy prices are extremely volatile and unpredictable. Long-term wholesale power prices are driven primarily by changes in natural gas prices. Figure 2.9 shows actual natural gas prices for the period 2008 through 2010, and projected prices for 2011 through 2018. Predicting changes in energy markets continues to be one of the significant challenges facing City Light.

Figure 2.8
Wholesale Market Price and Surplus Volume Assumptions



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Natural Gas Price	$8.11	$3.74	$4.10	$4.07	$4.46	$4.94	$5.17	$5.42	$5.68	$5.95	$6.21
Surplus Sales	288	213	202	518	248	251	253	244	247	257	267

Adopting a More Conservative View of Wholesale Energy Sales

Setting the wholesale revenue baseline for the RSA and rate setting is an important issue. Consistently setting the baseline too high will lead to ongoing RSA surcharges and risk of draining the RSA. An approach for moving toward a more conservative assumption for setting net wholesale revenue expectations is an initiative proposed in the draft Strategic Plan.

Rate Stabilization Account (RSA)

In 2009 and 2010, City Light's finances were greatly stressed due to large shortfalls in net wholesale revenues. In response, the RSA was established and funded and became effective on January 1, 2011, to help absorb variances in net wholesale revenue. It is a new financial forecast component. The financial planning model compares the forecast of net wholesale revenue against the RSA baseline, withdrawing cash from the RSA when actual wholesale revenue is less than the baseline, and depositing cash when the actual is greater than the baseline. If the RSA balance drops below specified levels ($90 million, $80 million and $70 million), increasing rate surcharges take effect in order to refill the RSA. The RSA surcharges that would come about are not changes in base rates, but are temporary surcharges only that

range from 1.5% to 4.5%. The advent of the RSA reduces financial risk for City Light, but if wholesale revenues fall below expectations either because of several bad hydro years, price stagnation, or overly optimistic forecasting, customers would be faced with ongoing surcharges.

Key Points:

- Hydroelectric generation and energy demand vary significantly between years, seasonally and over the course of a day. To balance out these peaks (power shaping), City Light makes short-term energy trades (from less than 24 months out in advance to the hourly spot market).
- City Light tries to maximize financial return on its resources and manage dam operations in response to fluctuations in energy prices.
- Increasing federal oversight since the 2000-2001 Energy Crisis is leading to increased regulatory requirements for transmission grid reliability and energy marketing activities. City Light anticipates significant on-going efforts to ensure compliance with NERC standards.
- Surplus power is sold on the wholesale market. Income from net wholesale revenue is assumed in City Light's budget and is used to reduce retail rates.
- Net wholesale revenue depends on both the amount of water available for City Light's own generation to provide surplus, and the price of energy on the wholesale market, which are both outside the control of City Light. Energy prices are closely tied to natural gas prices.
- The combination of low water and low prices in 2009-2010 resulted in $180 million less net wholesale revenue than anticipated over the two years. This required both spending cuts throughout the utility and rate increases.
- The RSA legislation specifies that the baseline net wholesale revenue is to be calculated as the average of the net wholesale revenues since 2002 through the last year for which there is complete information, absent further adjustment by the Council.
- The $100 million RSA was set up to buffer future fluctuations in net wholesale revenue and manage the risk associated with it. City Light is allowed to draw from the RSA when net wholesale revenue is less than budgeted. Temporary surcharges will be applied to retail rates when the RSA balance falls below a certain level and will be lifted when the RSA is replenished. The RSA helps address volatility from net wholesale revenue, but does not entirely solve the problem, especially if the net wholesale revenue baseline assumed when setting rates is too high.

2.8 Net Power Marketing Revenues

In addition to the Net Wholesale Energy Revenues described above, City Light receives additional wholesale revenues through its power marketing efforts. These revenues are distinct from wholesale energy revenue because they are (mostly) the result of Power Management's optimization of its underlying power and transmission portfolio. As shown in Table 2.13 below, forecast revenues from power marketing activities are expected to fall substantially starting in 2012. This is due to changes in City Light's long term BPA supply agreement that reduce the amount of energy purchased from BPA, the need for City Light to use increasing amounts of energy to meet its retail load obligations, and reductions in Renewable Energy Credit (REC) revenues, since RECs will be needed to meet I-937 targets.

Table 2.13
Power Marketing Revenues by Product ($M)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Capacity and Reserve Sales	$4.9	$5.1	$4.9	$2.5	$1.0	$1.0	$1.0	$1.0	$1.0	$1.0
Transmission Sales	$1.8	$3.0	$2.6	$2.6	$4.4	$4.4	$4.1	$3.9	$3.9	$4.7
Other transactions	$8.4	$6.0	$8.1	$3.5	$2.4	$2.9	$1.7	$1.7	$1.8	$1.8
Total	**$15.2**	**$14.1**	**$15.6**	**$8.6**	**$7.8**	**$8.4**	**$6.8**	**$6.7**	**$6.7**	**$7.6**

Key Points:

- Currently City Light has surplus RECs. As I-937 requirements increase, the utility will no longer be a net seller of RECs.
- Lower capacity and reserve sales are expected in the future due to a decreased market for these products.

The three power related components discussed in sections 2.6, 2.7 and 2.8 are collectively a significant driver of the need for the change in customer rates from 2012 to 2018, as illustrated in the table below.

Table 2.14
Power Related Costs and Revenues as Driver for Change in Revenue Requirement from 2012 to 2018

Rate Driver	Reference Section	Change in revenue requirement in 2018 vs. 2012 ($M)	% of total change in revenue requirement
Increase in Power Contract Costs (Net of Revenues)	2.6	$32.4	15%
Decrease in Net Wholesale Revenue	2.7	$5.7	3%
Decrease in Power Marketing Revenues	2.6	$1.0	0%
Total Change in Revenue Requirement caused by Power Related Costs		**$39.2**	**18%**

2.9 Retail Revenue

Sales revenues from City Light retail customers provide approximately 80% (over $700 million annually) of the total revenue necessary to run the Utility's daily operations with the balance of operating revenue supplied from net wholesale energy sales and miscellaneous sources.

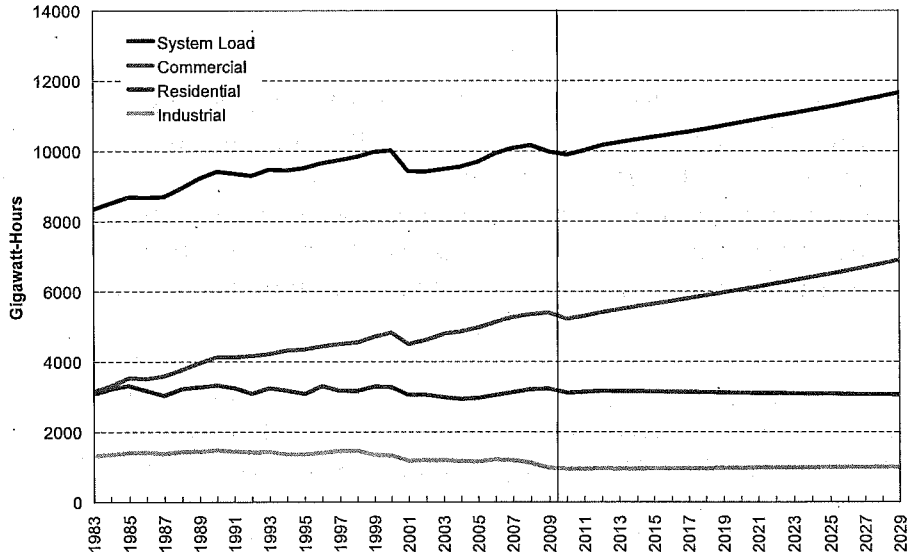
Retail revenue is calculated based on a retail load forecast that separates demand by customer rate class. For the years which have Council-approved rates (through 2012), retail revenue is the product of the adopted rates and demand. For future years, retail revenue is determined by the calculated revenue requirement. (The revenue requirement is the total cost to operate the utility, less non-retail revenue.)

System Load

City Light's historical and projected total retail customer load is shown in the Figure 2.10 for the period 1983 through 2029. Based on the May 2011 official long term load growth forecast, City Light's long term growth rate is expected to be modest, at less than 1% per year. As illustrated in Figure 2.10, most if not all of the load growth is expected to occur within the commercial sector. The effects of the recent

recession and slow economic recovery can especially be seen in the industrial and residential sector. This forecast is updated annually based on customer information and economic assumptions. The load forecast assumes conservation levels as forecasted in the 5-Year Conservation Plan, and does not assume additional conservation or load reductions from rate design changes or any other initiatives.

Figure 2.9
Load Forecast by Customer Class (GWh)



Key Points:

- Load is expected to grow slowly at < 1% per year (0.8% on average) due to economic conditions, Seattle's aggressive conservation efforts, and the relatively mature market that the utility serves.
- Load can change at rates outside of these bounds if a larger customer leaves or enters City Light's service territory, or if the Seattle economy grows faster or slower than the forecast assumed here.

3 Key O&M Assumptions (By Expense Type)

This section provides additional detail about the significant components of the SCL O&M budget, including discussion of historical cost trends, and a forecasted growth rate for years 2013-2018, for which budgets have not yet been adopted.

3.1 Labor and Benefits

O&M labor and benefit costs represent only approximately 15% of City Light's overall revenue requirement as shown in Section 2 (labor costs are about 13%, and benefit costs about 6%, prior to assigning a portion of these costs to the capital improvement program, as described in Section 3.7). Non-power O&M costs comprise about one-quarter of the Utility's annual revenue requirement, and labor and benefit costs represent about 61% of those costs (again prior to assignment of a portion of those costs to the CIP).

Labor unions represent 89% of the Utility's workforce. The agreements with the unions specify cost of living adjustments ("COLA") typically based on 100% of CPI for the next 1-3 years. The labor agreements are negotiated by the City. Overall labor costs are the product of the number of staff (headcount) times the unit costs.

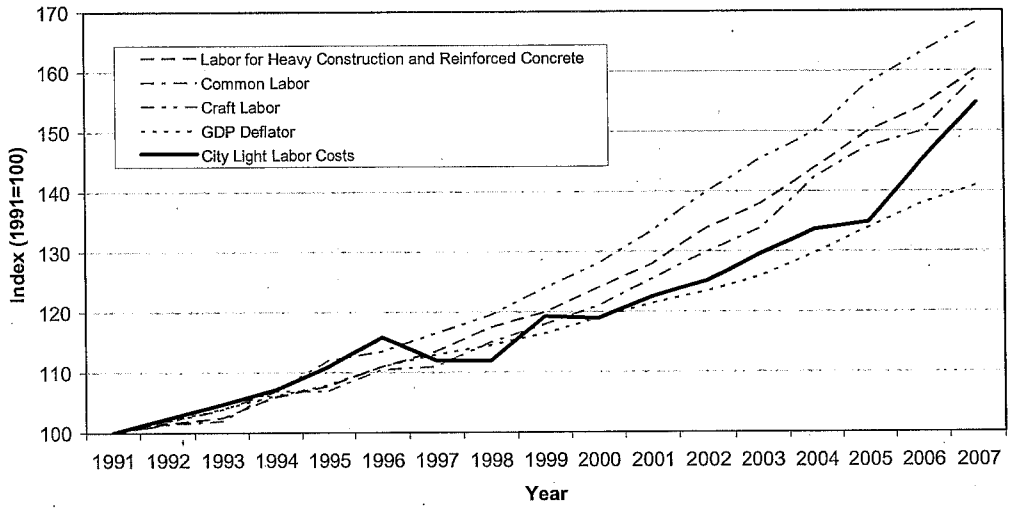
Headcount

Historically, FTEs have declined since their high of 2,077 in 1992, reaching a low of 1,734 in 2005. Staffing increased to 1,882 in 2008 due to the addition of skilled trade positions to hire for the apprenticeship program to replace the high number of attritions, and several prominent programs including Asset Management and Conservation. Headcount was reduced in the 2010 and 2011 budgets as part of an effort to mitigate rate increases in those years. The baseline assumes that FTEs remain constant at the 2011 level of 1,811 employees. The budget assumes a position vacancy rate of approximately 4%.

Labor Costs

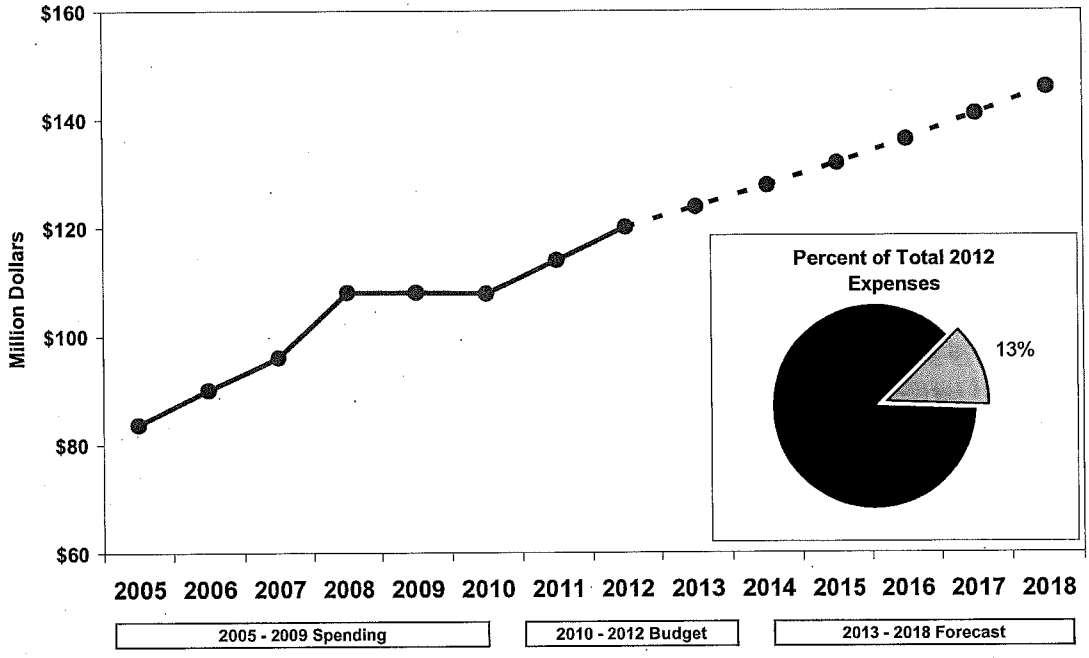
Labor costs are assumed to increase at the rate of inflation, plus 1%. This assumption is based on approximate historical trend for SCL wage rates observed from 2000 to 2008. Labor costs related to most staff classifications have tracked the CPI, but labor costs for certain classifications (Lineworkers, Power Marketers, IT Professionals, and Strategic Advisors) increased at rates slightly above CPI. SCL's experience in labor costs for certain categories increasing above the rate of inflation is consistent with broader industry experience, as shown by Figure 3.1. SCL competes with other utilities for staff in many classifications.

Figure 3.1
National Average Labor Costs Index[14] vs. City Light Labor Costs



Composite labor costs experienced and projected are shown in Figure 3.2.

Figure 3.2
Labor O&M Historical and Forecast ($M)



[14] Source: http://www.edisonfoundation.net/Rising_Utility_Construction_Costs.pdf

Explanation of significant changes:

- Increases from 2005 to 2009 resulted from more effectively recruiting and filling vacant budgeted positions. The improvements in City Light's hiring processes decreased the actual vacancy rate from 11.6% to 8.8%.
- Increases from 2007 to 2009 resulted from increased hiring for the apprenticeship program, Conservation and Asset Management Program.
- Decreases from 2009 to 2010 resulted from hiring freeze, COLA freeze, and furloughs for some employees.

Risks and Unknowns related to this spending category include:

- Attrition in key utility workforce segments due to retirements and other factors could lower labor costs.
- Demand for skilled trades people outstrips supply, increasing wages.
- Increases in staffing may be necessary to comply with future federal/state regulations. The following areas have required additional resources in the past, and additional requirements could be forthcoming: (1) NERC Compliance (plants and power operations); (2) FERC - Increase in Fees and Regulations; (3) I-937 - State mandated Renewable Energy requirements; (4) Carbon Legislation/Cap and Trade.

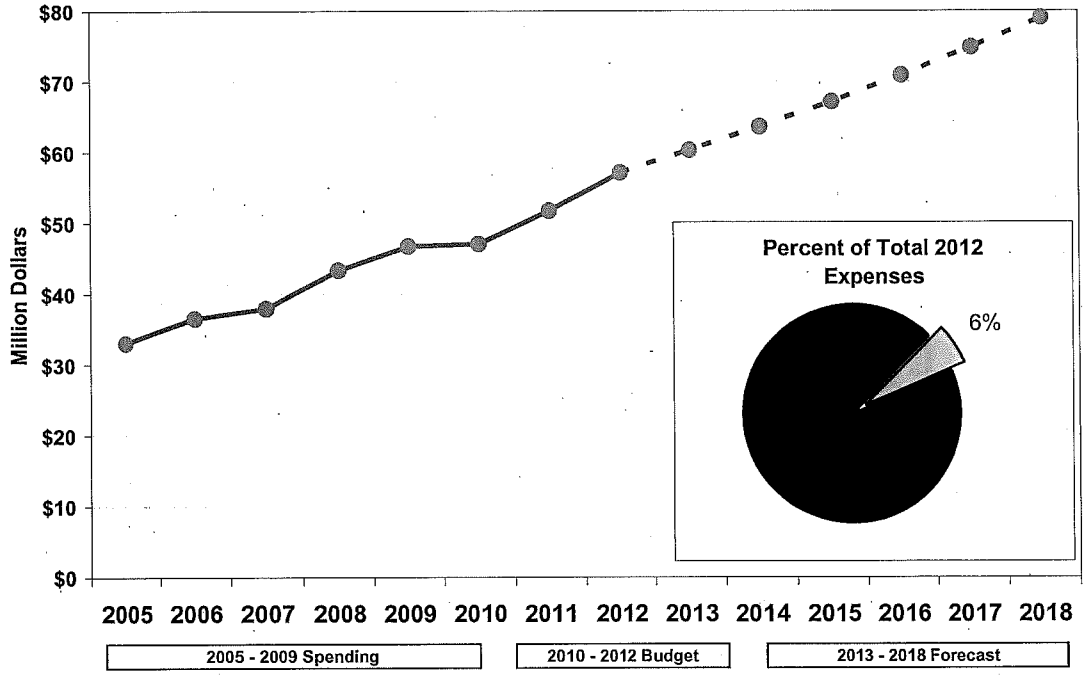
Miscellaneous Benefits

This category includes special clothing, meals, and incentive payments specific to business units. These are a small portion of O&M (<$1 million per year) and are assumed to grow with inflation.

Labor Benefits

Labor benefits include pensions, social security (FICA), Medicare costs, industrial insurance, unemployment compensation, medical-dental-vision insurance, the employee assistance program, long-term disability insurance, life insurance and death benefits. The table below includes the cost categories that account for 99% of labor benefits costs of about $50 million per year. It is clear that these benefits have not increased at a steady rate, but instead increase or decrease abruptly. Some of the change is due to number of staff, while the rest is due to underlying cost changes. Just under half of the total labor benefits are in the medical-dental-vision insurance category. The average annual compound growth rate for all labor benefits costs is 5.6% over 2008-2012. A weighted average yields a slightly higher value of 7%, reflecting the recent large increase in retirement fund contribution rates due to the underperformance of City investments. As an added check, the City Budget Office independently calculated a rate of 5.7% for the 2013-16 period, which is very close to City Light's assumption.

Figure 3.3
Labor Benefits O&M Historical and Forecast ($M)



Explanation of significant changes:

- The increase from 2005 to 2009 resulted from an increased number of filled positions that are paid labor benefits.
- Changes from 2008 to 2010 are due to increased workers compensation costs and medical/dental cost increases.
- Investment returns for the City's pension plan were adversely affected by the 2008/2009 recession, necessitating an increase in the City's contribution rates from 8.03% of payroll in 2010 to 10.03% of payroll by 2012.

Risks and Unknowns related to this spending category include:

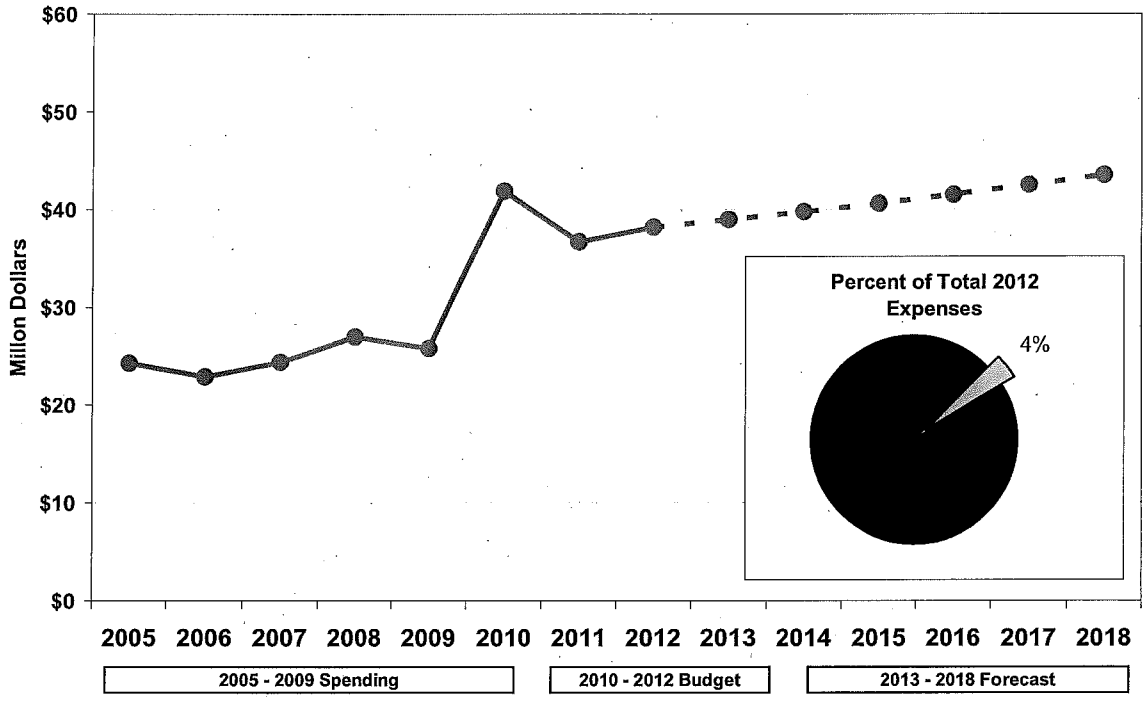
- Pension costs depend on uncertain investment returns. Additional increases are possible.
- The effect of healthcare reform on medical costs incurred by the Utility under the City's healthcare plans is uncertain, but rising costs are likely.
- Results of labor negotiations could increase costs and offsetting productivity improvements would be needed to offset increased expenses.

3.2 Services

Services include various engineering, architectural, data processing and professional services contracts, as well as training and travel expenses, and comprise approximately 5% of the 2012 Non-Power O&M budget. Services are assumed to grow with inflation (CPI).

Historically, spending in this category has grown at approximately 1.2% annually from 2005-2009, as illustrated in Figure 3.4:

Figure 3.4
O&M Services Historical and Forecast ($M)



Explanation of significant changes:

- Increases from 2007 to 2010 resulted from the addition of specific programs that required significant service contracting. These programs include Asset Management and Outage Management, which required contractors to provide software-specific implementation services (knowledge not resident within the utility). The increase in the conservation program reflects payments for customer energy efficiency improvements.

Risks and Unknowns related to this spending category include:

- The level of travel/training was reduced to an unsustainable level during 2009/10, and not restored in the 2011/12 budget. Additional spending in both areas is likely warranted and may be necessary. For example, federal or state issues might arise that directly impact the utility, and this could require additional travel to lobby for the utility's interests.

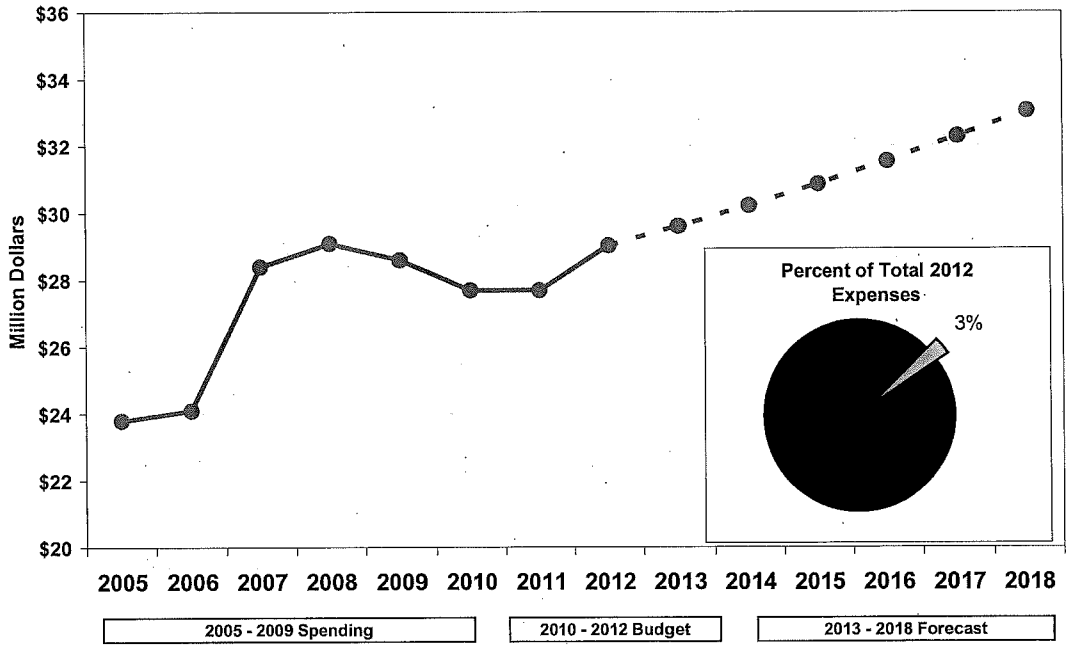
- The cost of new IT system implementation and maintenance costs could increase at a rate greater than inflation.

3.3 City Services, Payments & Rentals

This category includes the lease cost for the Seattle Municipal Tower (SMT), payments to SPU for the Call Center, Department of Information Technology (DoIT) costs, and other City Cost Allocations, totaling approximately 4% of the 2012 Non-Power O&M budget. SCL pays City Cost Allocations for a variety of services based on an allocation methodology or the direct cost of the services. City Payments and Rentals are assumed to grow at the rate of inflation (CPI).

Historically, spending in this category has increased on average by about 1.3% per year during 2005-2009, as illustrated in Figure 3.5:

Figure 3.5
O&M City Services, Payments and Rentals
Historical and Forecast ($M)



Explanation of significant changes:

- The increase from 2006 to 2007 resulted from space rent increases for the Seattle Municipal Tower (leased from the City).
- Increases in 2009 are due to City IT cost increases (updates to Microsoft Office and Exchange email migration) and City vehicle maintenance cost increases.
- Decreases in 2010 and 2011 due to spending reductions across the City.

Risks and Unknowns related to this spending category include:

- Changes in the methodology that the City Budget Office uses for allocated costs for shared services.
- Significant new expenditures or upgrades in shared services. For example, all City Departments use a common general ledger system, called "Summit." An upgrade of this system will be required in the next several years, with a charge to SCL of $2M-$3M anticipated.
- Vehicle and equipment maintenance: City Light is dependent on vehicle and equipment maintenance performed by the Fleets and Facilities Department. City Light is billed for completed work. To some degree the timing and costs of these repairs is out of City Light's control. More work is needed in this area in order to manage and control future costs.

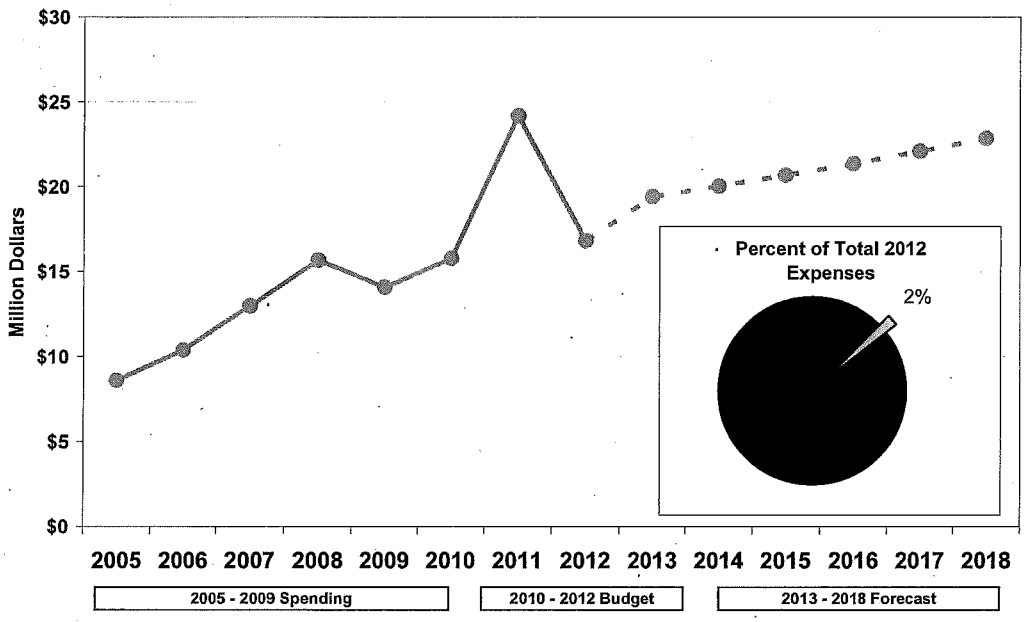
3.4 Maintenance

The maintenance category includes costs paid to vendors for tree trimming, facility maintenance, IT equipment maintenance and distribution system maintenance outside costs. It comprises 2% of total 2012 budgeted Non-Power O&M spending.

General maintenance is assumed to grow at CPI plus 1% to reflect contracted labor costs growing at a rate 1% higher than inflation. Maintenance for IT is assumed to grow at 3%, which is based on the observed historical rate.

Historically, spending in this category has increased on average by about 12.8% per year during 2005-2009.

Figure 3.5
O&M Maintenance Historical and Forecast ($M)



Explanation of significant changes:

- Increases from 2005 to 2008 are a result of increased spending for powerline clearance.
- Decreases from 2009 to 2010 are a result of budget reductions to the powerline clearance budget and power production facility maintenance budget. These reductions were not sustainable and restored in 2011.
- O&M maintenance for power production increased approximately $3.2M from 2010 to 2011.
- A 2010-11 addition of $1.8M resulted from an increased allocation for City vehicle maintenance and repair.
- Vegetation management costs for transmission lines increased by $1.0M from 2010 to 2011.
- Increases in 2011 IT system maintenance and the reshaping of IT costs to constrain the 2012 rate increase resulted in approximately $5.5M in added costs to 2011. This includes significant increases in Oracle and Microsoft product maintenance costs.

Risks and Unknowns related to this spending category include:

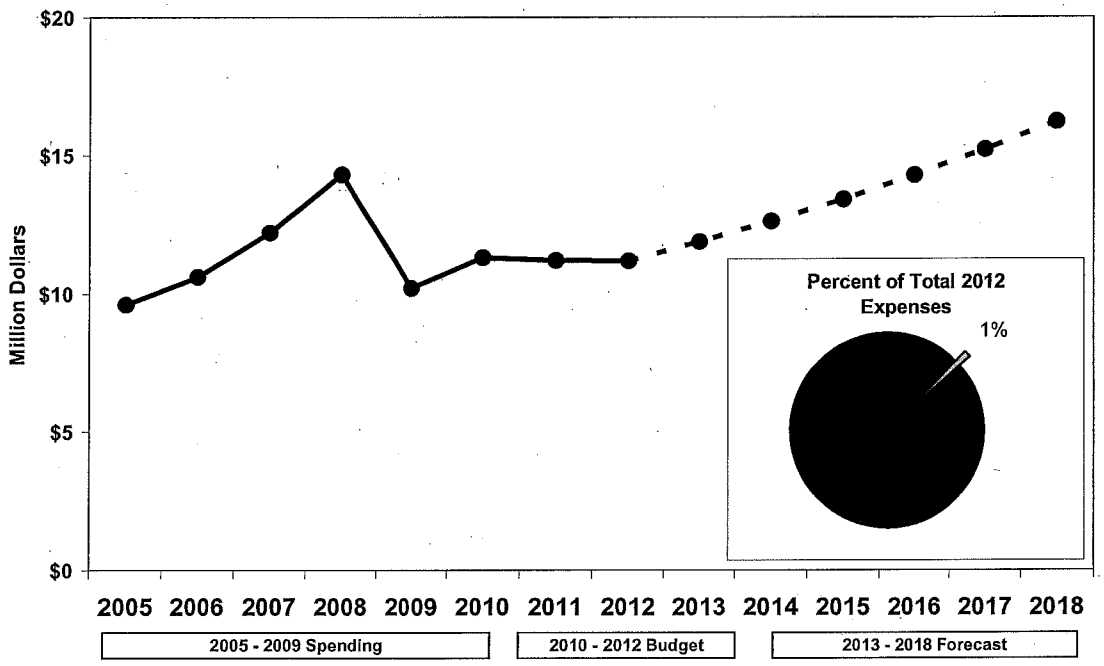
- Risks of additional maintenance costs for aging distribution infrastucture will be identified as a result of Asset Management work.
- Major IT system costs may increase faster than inflation (such as CCSS - Customer Billing System replacement).

3.5 Supplies & Materials

Supplies and Materials includes costs for IT equipment and software, fuel costs, and inventory materials for distribution and generation systems. General supplies and materials, including the first two components noted above, are 1% of the O&M budget for 2012, and are assumed to grow with inflation.

Field Supplies and Inventory were 3% of O&M costs in 2011, and are assumed to grow at 8% per year, a conservative estimate that reflects rising costs of copper and steel--two commodities used extensively in electrical equipment. An analysis of Producer Price Indices for copper from the Bureau of Labor and Statistics for the period July 2002-October 2010 showed prices to be highly variable, with price index changes from October of one year to October of the next year ranging from -2% to +76%. The change between October 2009 and October 2010 was +19%. An analysis of the same price indices for cold rolled steel also showed extreme variability, with price index changes from October of one year to October of the next year ranging between -15% to +42%. The change between October 2009 and October 2010 was +10.4%. Over a recent 12-month period, City Light negotiated a generator rewind contract, which will be carried out using large quantities of both copper and steel; during the negotiation period, the price increased by $1 million over an initial price of $15 million, or 6.7%.

Figure 3.6
O&M Supplies and Materials Historical and Forecast ($M)



Explanation of significant changes:

- Increases from 2005 to 2008 resulted from increased operating supply costs for inventory purchases and IT equipment cost increases.
- Decreases from 2008 to 2009 are a result of reduced purchases of supplies and materials. Maintenance work was temporarily deferred to achieve O&M savings targets for 2009.

Risks and Unknowns related to this spending category include:

- A rebounding economy and/or increased inflation could drive up commodity costs.

3.6 Permits, Injury and Environmental Claims

Claims include payments for costs associated with environmental cleanup, employee injury claims, and customer claim costs. Permits include taxes and fees such as payments to FERC[15]. Workers compensation injury claims are not included in this category and are budgeted with industrial insurance pooled costs in the benefits category. For 2013–2018, permit costs are assumed to grow at 5% per year [?]. Environmental cleanup costs do not escalate like other O&M costs; instead, they are projected directly based on work completed and known obligations.

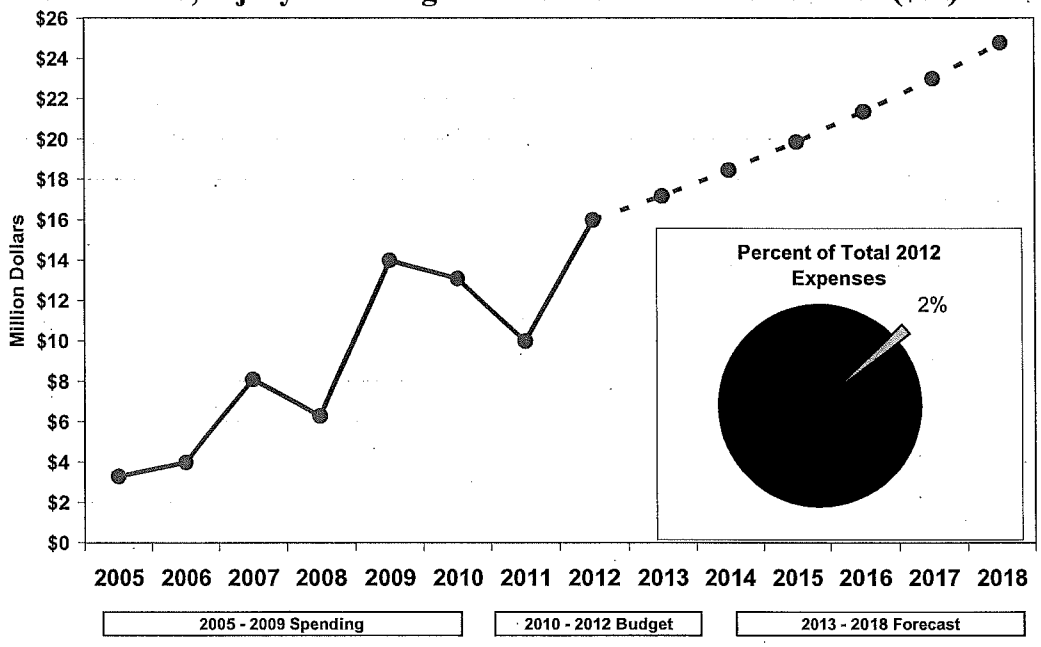
However, both FERC fees and environmental cleanup fees are not considered part of non-power O&M in the financial forecast. FERC fees are considered purchased power and environmental cleanup costs are now being treated as deferred O&M, which was a recent policy change that was made as part of the

[15] FERC fees are initially discussed in Section 2.4 since they are forecast as part of power costs (not O&M) but are also discussed along with other permit costs in this section because this is how they are budgeted.

Strategic Plan Baseline. Both of these expenses are removed from the O&M budget as part of the other reductions described in Section 3.7

Historically, spending in this category has grown at approximately 64.8% annually from 2005-2009, as illustrated in Figure 3.7:

Figure 3.7
O&M Permits, Injury & Damage Claims Historical and Forecast ($M)



Explanation of significant changes:

- Increases from 2006 to 2007 resulted from a legal settlement for employee damage claims.
- The increase from 2008 to 2009 resulted from increased environmental claim costs for the Duwamish cleanup and increased FERC fees.

Risks and Unknowns related to this spending category include:

- Allocation between years of existing/known cleanup costs is uncertain and total Duwamish cleanup costs could change.
- City Light could experience upward pressure on meeting existing or new environmental compliance cleanup requirements and regulations.
- There is a potential for large employee or customer damage claims that have not been anticipated. City Light has emphasized creating a culture of employee safety and established Grass Roots Safety Teams in 2005 to reduce work related injuries.

3.7 CIP Overhead and Other Reductions

As mentioned earlier in Section 2.3, the O&M Budget actually includes some labor, benefits, and supplies and materials costs that are ultimately categorized as part of CIP or deferred O&M. The forecast includes

an estimate for these overheads associated with CIP and deducts them from the budgeted O&M, which is shown in Table 3.1 below.

There are also several costs that are included in the O&M budget but are actually categorized as power costs or deferred O&M in the forecast, specifically Water for Power (FERC) fees and environmental cleanup costs. These costs are removed from the O&M forecast (inflated 2012 level) and included in other areas of the financial forecast. There are also costs that are part of the power budget that are categorized as O&M in the financial forecast. These include some transmission costs and also Renewable Energy Credits. The amounts of these adjustments are shown in the Table 3.1.

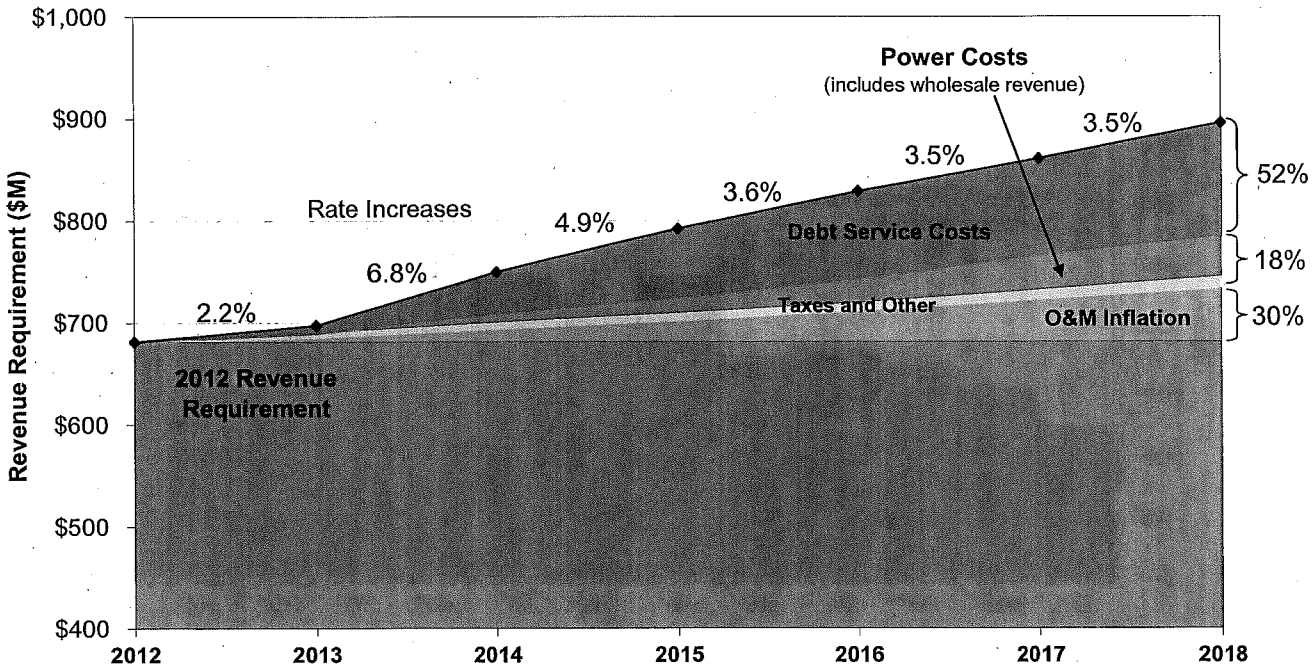
Table 3.1
CIP Overhead and Other O&M Reductions ($M)

	2012	2013	2014	2015	2016	2017	2018
Reductions to O&M Budget							
Capitalized Overheads	-65.2	-66.8	-68.8	-71.0	-73.3	-76.0	-79.0
Budgeted FERC Fees	-8.1	-8.5	-8.9	-9.4	-9.9	-10.4	-10.9
Environmental Clean Up	-7.8	-8.5	-9.4	-10.3	-11.4	-12.5	-13.8
Additions to O&M Budget							
AC Intertie Costs	0.7	0.8	0.8	0.8	0.8	0.8	0.9
Renewable Energy Credits	1.5	2.5	3.0	2.3	3.6	5.1	6.7
Total Capitalized Overheads and Other Reductions	**-78.8**	**-80.6**	**-83.4**	**-87.7**	**-90.1**	**-93.0**	**-96.1**

4 Financial Baseline Rate Projection

This section applies and summarizes the information and assumptions discussed earlier to lay out the resulting expectation of the cost to ratepayers to maintain existing levels of service during 2012-18. It should be noted that these projections contain uncertainty and accordingly should be viewed as primarily illustrating a likely mid-range point estimate of a range of possible costs. The baseline forecasted six-year average rate increase is 4.1% per year for 2013 to 2018. The primary cost drivers, in order of magnitude are: (a) increased debt service costs; (b) increases in O&M spending, taxes and other; and (c) increased net power costs. Figure 4.1 below shows changes in the overall revenue requirement from the 2012 level, and the various colors illustrate what costs are causing the pressure on the revenue requirement.

Figure 4.1
Rate Drivers ($M)
(Does Not Include Forecasted RSA Surcharge)



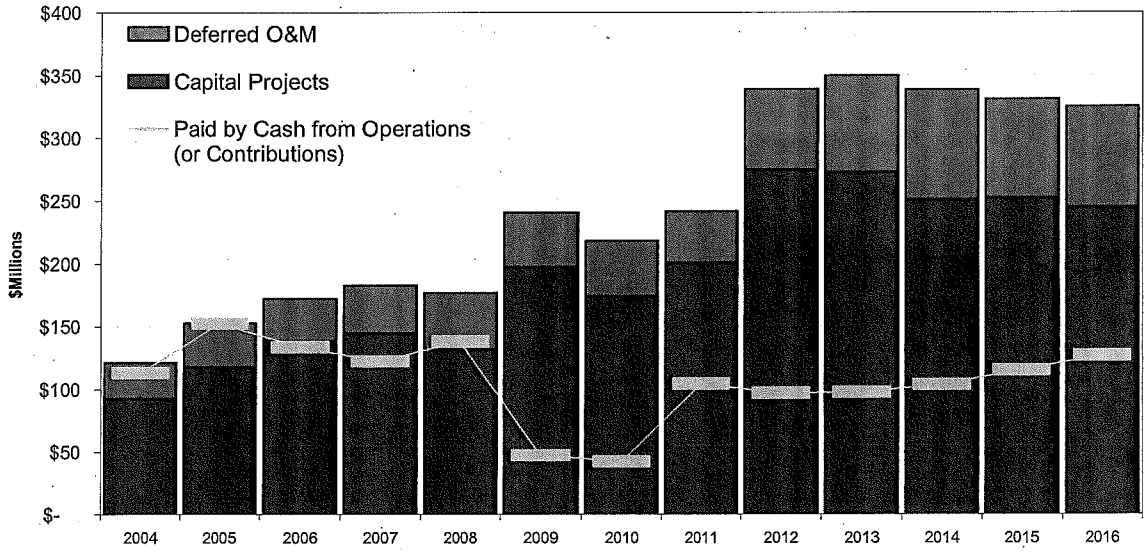
Rate Driver	% of total change in revenue requirement in 2018 vs. 2012
(a) Debt Service (Costs from funding Capital Program)	52%
(b) Non-Power O&M, Taxes and Other	30%
(c) Power Costs and Change in Wholesale Revenue	18%
Total	100%

(A) Debt Service

Increased costs associated with debt service (and, by extension, capital spending) are the primary driver for the rate increases in the next six years. This shift is caused by several factors. The first factor is the obvious one: that capital spending is projected to be higher than in previous years. As discussed in Section 2.1, City Light is undertaking several major capital efforts including relocation of facilities due to the Alaskan Viaduct relocation, Boundary dam improvements and relicensing, and much-needed distribution system renewal.

The second reason for the increase in debt service is the lagged effect of recent years' revenue shortfalls. In 2009 and 2010, $180 million[16] in wholesale revenue shortfalls led to maintenance deferrals and greater debt financing of CIP. A portion of this deficit was offset by debt refinancing and reducing expenditures, though many of the reductions were deferrals of maintenance and other projects, serving only to delay the financial impact. The rest of the shortfall was addressed by financing a much larger portion of capital requirements via bond proceeds than planned (77%). Figure 4.2 below shows that this was a noticeable departure from financing patterns in previous years.

Figure 4.2
CIP and Deferred O&M Funded with Cash from Operations ($M)



Thirdly, a financial policy change has also increased the rate at which City Light issues bonds. The City Council approved a 13.8% rate increase for 2010, which increased expected retail revenues by about $75 million. Council also at that time reduced the financial policy for debt service coverage from 2.0x to 1.8x. Lowering coverage targets reduced near term rate pressure. However, the long term effect of this policy

[16] For 2009, rates assumed net wholesale revenues of $178 million, leaving a $110 million revenue gap between the assumed amount and the $68 million actually realized. The wholesale revenue ultimately included in the Adopted Budget was $142.2 million. There was no explicit requirement at the time for the net wholesale revenue used to set rates to match the budget, and so while the rates met financial policy targets, the Adopted Budget did not. New financial policies have since addressed this problematic loophole. For 2010, net wholesale revenues actuals were approximately $70 million below the amount assumed in the revenue requirement, totaling $180 million for the 2 years.

change is that the amount of capital that is funded with operating dollars each year is reduced, increasing debt service and therefore rates in the longer term. Going forward, City Light's policy is to fund approximately 60% of CIP with debt, and the financial baseline projects issuing approximately $200 million in bonds each year on average.

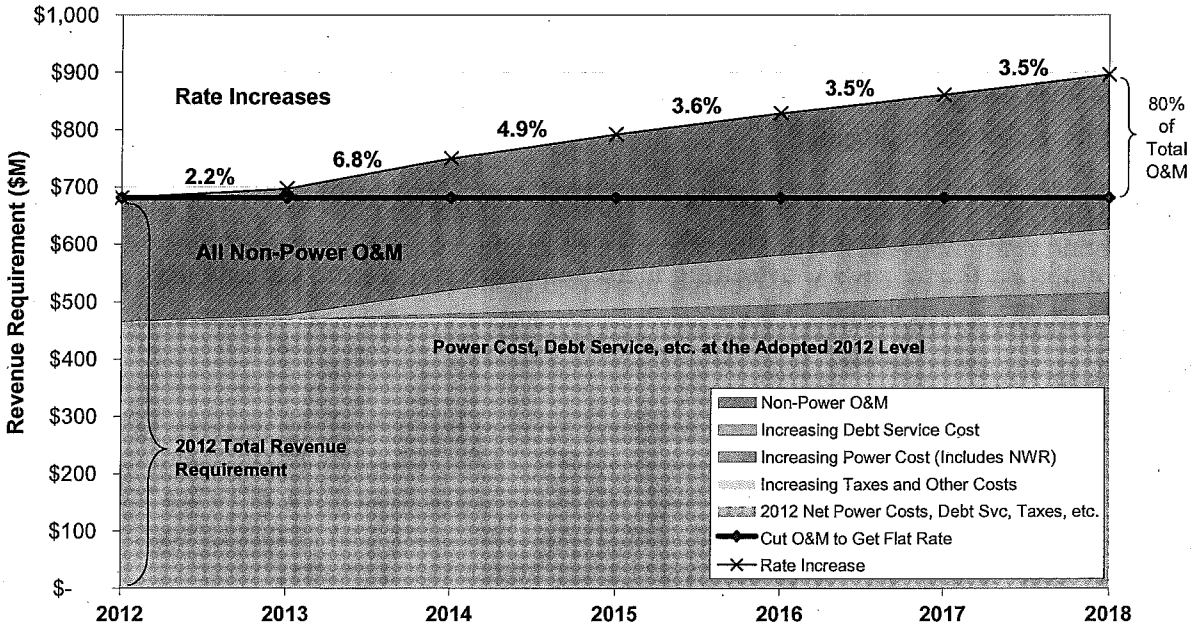
The immediate effect of the revenue shortfalls and policy changes on rates was offset in part by savings from a large bond refinancing in 2010. The interest cost savings were front loaded into 2010 and 2011 to provide seed funds for the new RSA, offsetting increased debt service from the new debt until 2012. (This is illustrated in Figure 2.4 in Section 2.2.)

(B) O&M Costs

Figure 4.1 shows that O&M, taxes and other expenses account for 30% of the increase in revenue requirements. Increased non-power O&M costs account for 25%, which is due to inflation of costs for maintaining the same level of services as in 2012. O&M increases from 2013-2018 are driven by the factors outlined in Section 3 of this document, which notes that some cost elements, such as material costs and health care costs, are anticipated to increase at a rate higher than inflation.

Some have inquired about whether rate increases could be avoided by reducing City Light costs. Figure 4.3 (which is another version of Figure 4.1 with different category groupings) shows the challenges involved in such an undertaking. The hatched area depicts all O&M costs that might be considered "controllable," about $200 million that consists of labor, benefits, rents, materials, and city services. Controllable O&M represents only a fraction of total City Light costs; thus, maintaining flat rates in the face of rising power cost and capital pressures would require cutting around 50% of controllable O&M by 2015, and 80% of that budget by 2018. Cost control remains a key priority for City Light--our process improvement initiatives and implementing improvements from lessons learned from benchmarking studies will help us ensure we are as efficient as we can be. However, Figure 4.3 illustrates that any O&M efficiencies that arise from these initiatives will not be sufficient to offset the need for rate adjustments over this period.

Figure 4.3
O&M Cuts Needed for Flat Rates ($M)



Since increased debt service is a significant driver for the rate increases over this period, efforts can also appropriately focus on ensuring that capital spending is limited to necessary and appropriate projects. Constraining efforts in this direction is the need to maintain an aging infrastructure, significant non-utility related interagency project work that must occur during this period, and the need to make investments in technology to improve utility efficiency over the longer term.

(C) Power Costs and Change in Net Wholesale Revenue

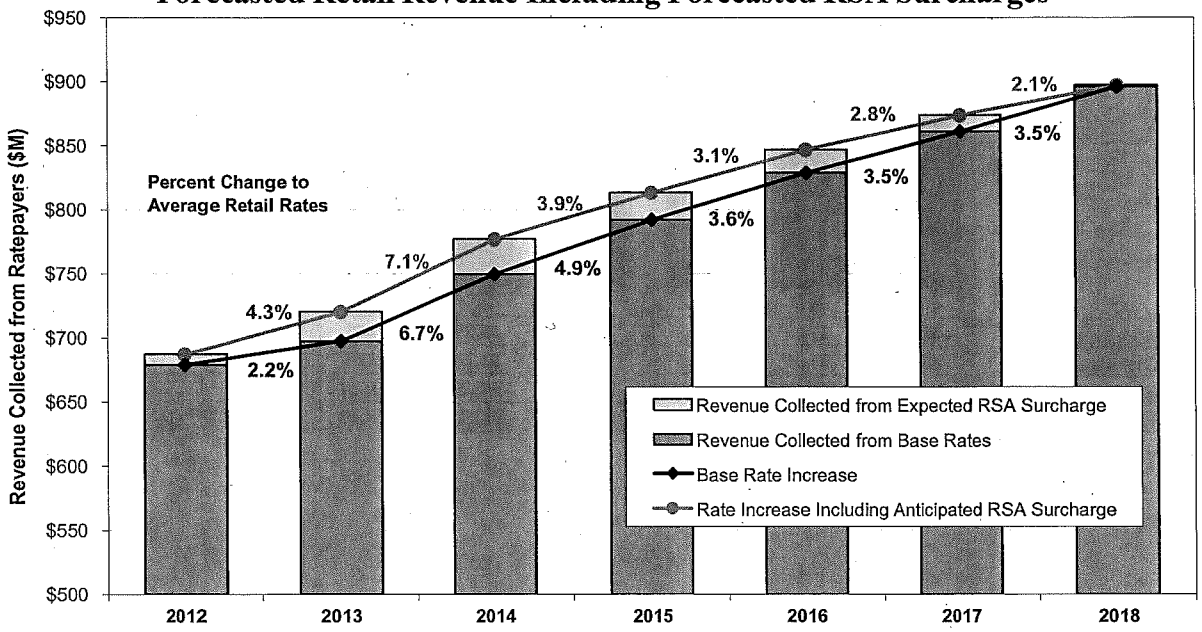
In Figure 4.1, "Power Costs" includes power contract costs, renewable acquisitions to meet I-937, and offsetting wholesale sales, contract, and power marketing revenues. Power costs are projected to increase rates by 18% over the coming six years. The majority of this increased cost is coming from inflationary pressures from power contracts, largely BPA. Decreased planning levels of net wholesale revenue (RSA Baseline) and slightly lower power marketing revenues also contribute to the upward rate pressure.

RSA, Net Wholesale Revenue, and Rates

The rate increases shown in Figures 4.1 and 4.3 do not include RSA surcharges. As mentioned earlier, the net wholesale revenue assumed for rate setting purposes is equivalent to the RSA baseline. For future years, wholesale revenue (RSA baseline) is set using the approach specified in the RSA Ordinance—it is the average of realized net wholesale energy sales from 2002 to present. This approach yields net wholesale revenue that is up to $40 million higher for some years than the forecast of net wholesale revenue produced by City Light staff. In other words, the rates in the strategic plan baseline are lower than they would be if SCL's internal wholesale revenue forecast was used. If base rates are set as shown in this baseline, but wholesale revenues are actually lower like the forecast predicts, the RSA account balance will be eroded and rate surcharges will be implemented. Figure 4.4 shows revenue forecast to be

collected via the RSA surcharge as an addition to base rate revenue.[17] The rate increases shown in black are the expected annual increases to base rates. The rate increases shown in red are the expected annual increase to effective rates (base rates plus expected RSA surcharges).

Figure 4.4
Forecasted Retail Revenue Including Forecasted RSA Surcharges



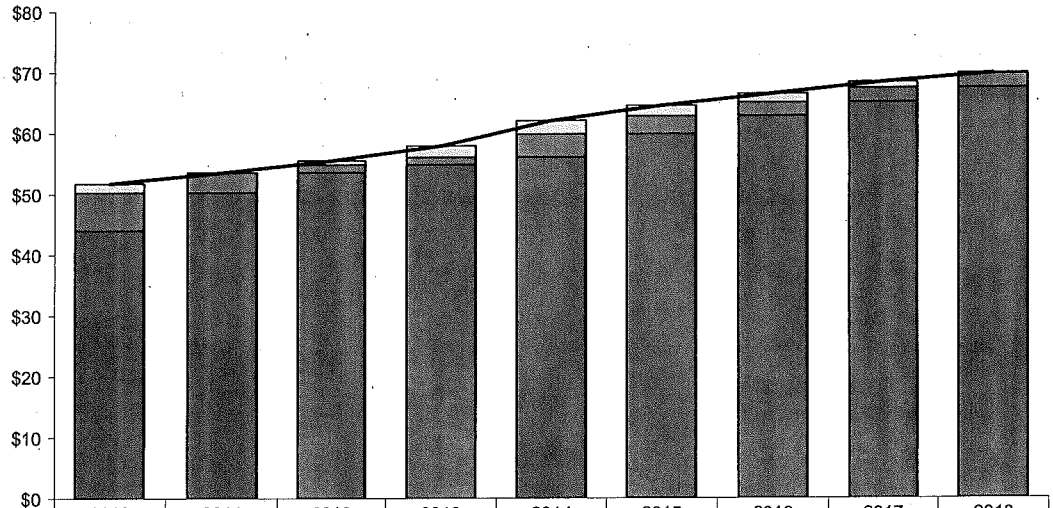
As an alternative, base rates could be increased to eliminate this reliance on the RSA to fund the gap between the amount of net wholesale revenue specified by the RSA Ordinance and the Utility's current outlook. City Light will identify solutions to this issue as part of the strategic plan process.

Impact on the Average Residential Customer

Figure 4.5 shows a monthly bill for a typical residential customer that uses about 700 kWh a month. Given the rate increases and projected RSA surcharges in the financial baseline forecast described above, a typical residential customer's monthly bill increases by about $5 with each year (on average).

Figure 4.5
Monthly Bill for Average Residential Customer

[17] These are expected RSA surcharges based on City Light's forecast dated 2011_09_02. They are for illustrative purposes only. RSA surcharges are very uncertain and will vary with changing expectations about net wholesale revenue and other RSA activity.



	2010	2011	2012	2013	2014	2015	2016	2017	2018
RSA Surcharge	$1.48	$0.00	$0.68	$1.88	$2.21	$1.71	$1.42	$1.01	$0.10
Base Rate Increase	$6.29	$3.25	$1.25	$1.23	$3.78	$2.94	$2.28	$2.29	$2.33
Bill at Prior Year Rate	$44.01	$50.30	$53.55	$54.80	$56.03	$59.81	$62.75	$65.03	$67.32
Total Bill	$51.78	$53.55	$55.49	$57.91	$62.02	$64.46	$66.45	$68.33	$69.74

5 Overall Conclusions

SCL's revenue requirement and rates for providing today's level of service are projected to increase in the coming years, even prior to consideration of prudent strategic priorities and initiatives. Points for consideration include:

1. Some elements of the drivers for the rate increases are generally controllable, while others are not.

   Relatively more controllable:
   - Program additions (generally excluded from this baseline projection)
   - Number of staff / how work is performed
   - Size and timing of future capital improvement budgets

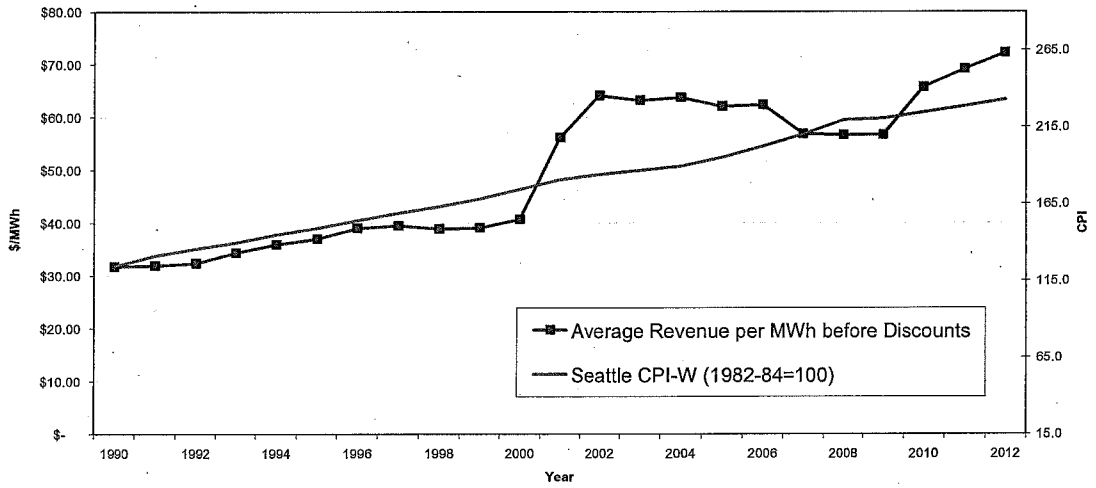
   Relatively less controllable or not controllable:
   - Labor cost changes
   - Net wholesale energy prices and volumes
   - Costs related to meeting regulatory requirements
   - Interest rates on newly issued debt
   - Upcoming debt service changes for capital dollars already spent

2. All spending is reflected in rates, either sooner or later, but financial policies determine timing. Two examples include:
   - Debt financing spreads capital costs across a number of years, but adds interest cost. At different times in the history of the Utility, financial policies have varied reflecting either more or less willingness to pay costs upfront or to defer them to future years. How much capital is debt financed is primarily determined by debt service coverage targets.
   - The net wholesale revenue assumption affects rate levels, but revenue shortfalls are collected in some form, eventually. An aggressive net wholesale revenue assumption will yield a lower base rate initially, but if actual revenues fall short, either higher debt (leading to higher debt service and higher future rates) or RSA surcharges will make up the difference.

   Financial policy decisions such as those described above have long term impacts. The utility most recently revised its financial policies in the spring of 2010 and our finances are currently evolving as response to this change.

3. City Light Rates, over the past 20 year period, have grown at a rate comparable to inflation, though at times have led or lagged the overall inflation. This is illustrated in Figure 5.1.

Figure 5.1
City Light Retail Rates and CPI ($M)

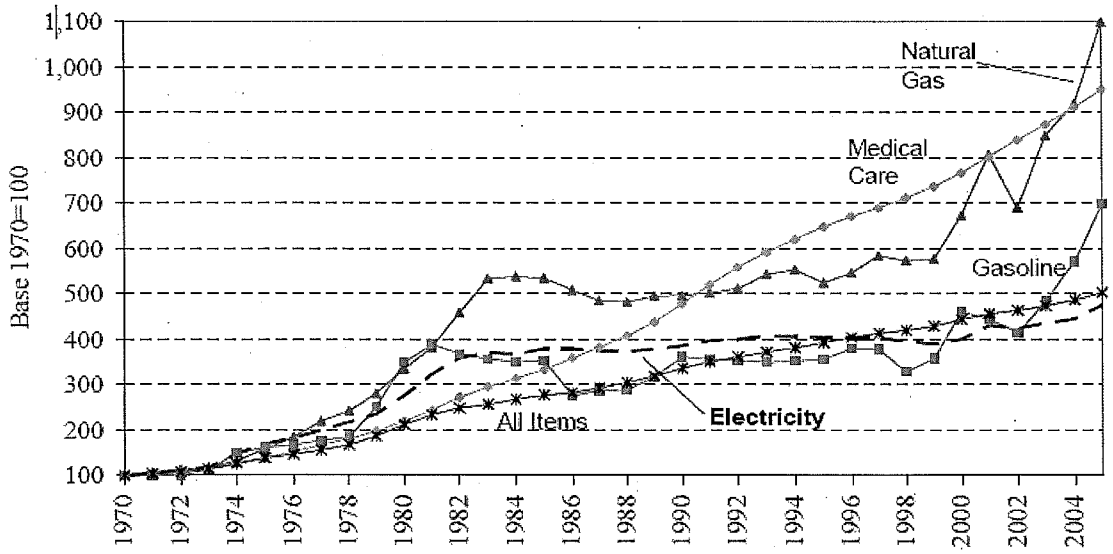


The same may be true over a future period of similar duration, though costs in the next several years are likely to increase at rates ahead of inflation (inflation is projected at about 2% annually).

SCL rates will increase, but will be less volatile and grow at a lower rate than experienced by certain other essential services or commodities, some of which have grown consistently at rates significantly higher than inflation over an extended period, or have exhibited significant volatility (natural gas).

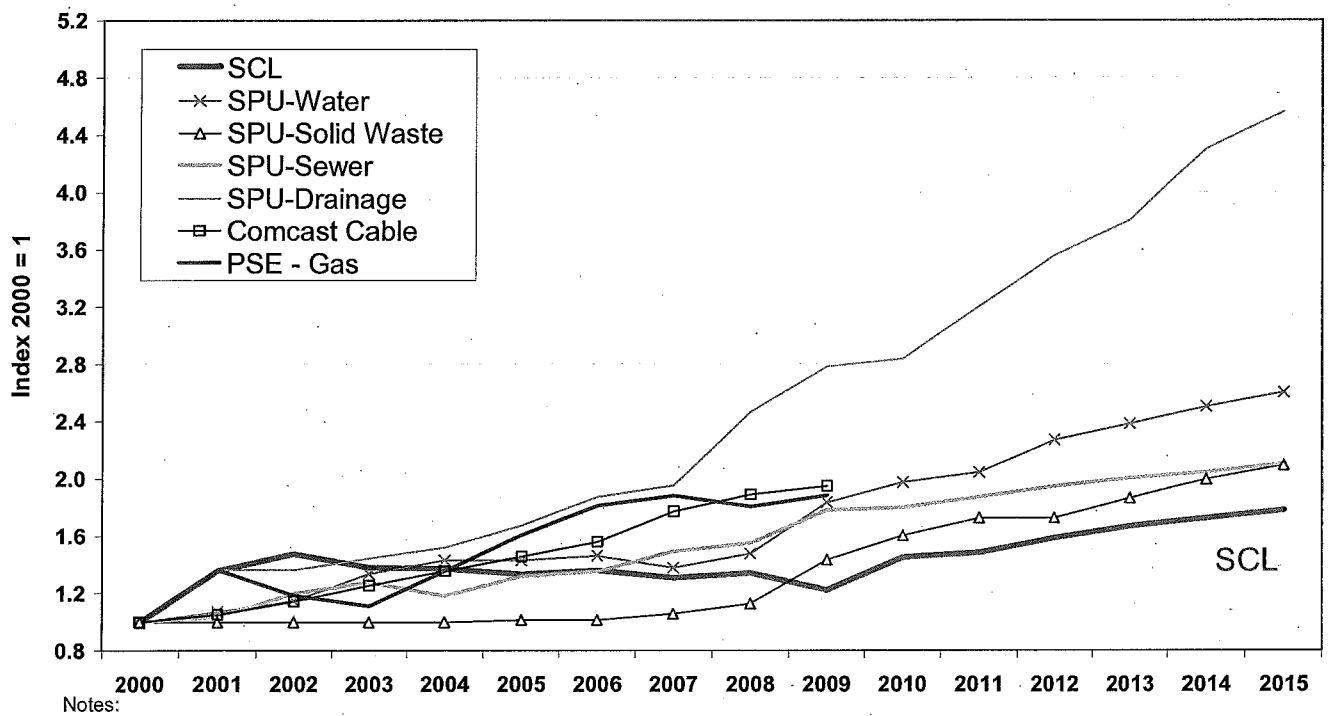
Figure 5.2[18]
Comparison of Electricity and Other Consumer Price Trends 1970-2005

[18] Source: EIA Annual Energy Review 2004, EIA Monthly Energy Review March 2006, and US Bureau of Labor Statistics. http://www.brattle.com/_documents/UploadLibrary/ArticleReport2414.pdf



At the local level, SCL rates have increased at lower rates than other utility services, as illustrated by Figure 5.3:

Figure 5.3
SCL Rates vs. SPU rates and Other Household Bills



Notes:
1. 2011-2015 Data is estimated except for SCL and SPU-Water.
2. Data for PSE - Gas only available through 2009.
3. Data for Comcast Cable is available only through 2009.
4. Estimates for SPU do not include King County wastewater and drainage rates

4. Because SCL rates are low, percentage changes in our rates are less impactful to customers than the same percentage change for the customers of utilities whose rates are significantly higher than SCL's.

5. SCL rates are and are likely to remain among the lowest nationwide and in the region.

Figure 5.4
City Light Retail Rates Compared with
Other Large Cities and Neighboring Utilities

	City	Avg System Rate (cents/kwh)
1.	**Seattle***	**6.65****
2.	Indianapolis	6.83
3.	San Antonio*	7.46
4.	Charlotte	7.51
5.	Memphis*	8.58
6.	Austin*	8.74
7.	Nashville*	8.95
8.	Denver	9.11
9.	Columbus	9.15
10.	El Paso	9.75
	U.S. Average	**9.88**
11.	Jacksonville*	10.08
12.	Detroit	10.28
13.	Milwaukee	10.40
14.	Las Vegas	10.62
15.	Phoenix	10.63

Local Utility	Avg System Rate (cents/kwh)
1. Tacoma*	5.60
2. **Seattle***	**6.47**
3. Snohomish*	7.56
4. Avista	7.70
5. Portland General	8.87
6. Puget Sound Energy	9.69

* Publicly Owned

Rates are average for calendar year 2010

6. As noted in Section 1, there are trends and cost drivers that the entire electric utility industry is facing. SCL will be subject to many of them, but will be relatively immune to others (e.g., greenhouse gas limitations). We believe that SCL is better positioned than many (if not most) electric utilities to respond to factors that will put upward pressure on electric utility rates. Our clean and renewable power supply will not require the costs of carbon mitigation that may be significant for other electric utilities.

7. While the financial baseline represents a projection of costs for maintaining the current level of service, this should not be taken as an indication that no improvement opportunities exist. The results of the baseline rate projection compel us to look for opportunities to reduce costs. Management is confident that there are numerous opportunities to improve efficiency and effectiveness through programs that may require changes in policies and practice. The draft strategic plan documents such initiatives.

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.

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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.

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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.

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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, administrating 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.

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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.

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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.

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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.

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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.

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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.

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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 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.

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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.

Strategic Plan Categories of Interest by Stakeholder Group

	Key Customers (16)	Business Group (88)	Environmental (22)	Emerald Cities (20)	Hospital/ Large Institutions (12)	Public Forums – two (55)	Municipal Customers (11)
Finance & Rates							
• Rate predictability	√	√			√		√
• Too much debt						√	
• Rates to promote economic development	√						√
• Rates to promote energy efficiency (focus on low bill not low rates)		√	√	√		√	
• Improve communications with customers in advance of major financial decisions	√						
Conservation / Environment							
• Conservation as an objective		√	√	√		√	
• Conservation incentives need to make economic sense (long and short term)					√		√
• A focus on climate change initiatives			√				√
• Promote District and Distributed energy			√				
Reliability/System/Resources							
• System reliability		√			√ (and redundancy)	√	√
• Infrastructure investments						√	√
• Improve outage communications	√						
• Review of I-937 challenges	√	√		√			
• Diversify Fuel Mix Portfolio						√	√
Workforce							
• Address workforce challenges	√	√					√
• Address workforce safety	√					√	
Efficiency & Other							
• Use a longer term planning horizon		√		√			√
• Employ technology to enhance efficiency		√					√
• Invest in a fiber optic network							√

Online Survey Results (note: 81 total responses)

Highest priority: Provide reliable, safe, cost-effective electric service to customers

- 89% of the respondents are City Light Customers; 60% have been customers for more than 10 years
- Overwhelmingly, aging infrastructure was the greatest challenge customers felt City Light faced (53%); the next highest responses were: keeping rates as low as possible while preserving system reliability (23%); and up-grading electric meters to allow "time of use" billing (22%)
- In ranking the importance of various utility attributes, respondents ranked the following either "more" or "most" important:
  - Provide greater rate predictability: **31%**
  - Anticipate and exceed customer service expectations: **61%**
  - Promote environmental stewardship: **62%**
  - Balance multiple policy goals in rate design (affordability; recover costs, etc.): **66%**
  - Ensure a safe work environment: **65%**
  - Attract/train/retain a high performance workforce: **65%**
  - Provide reliable, safe, cost-effective electric service: **85%**
  - Maintain a stable, cost-effective, environmentally response power supply: **73%**
  - Incorporate technology to meet future customer needs: **69%**
  - Improve communication about and support for City Light's strategic priorities: **37%**
  - Implement best practices in business processes and technology: **60%**
  - Ensure fiscal strength: **68%**
- Only 9% have attended a strategic plan forum and 46% said that they would be likely to attend
- 59% of the respondents are male; 75% are between the ages of 35 and 64; the distribution of respondents was spread across our service territory. Forty-five percent said that they wanted to receive more information about the strategic plan process and several gave us their contact information.

Outreach Summary
Seattle City Light Strategic Plan
Second Phase – February – April 2012

Seattle City Light began an extensive outreach effort to engage customers and stakeholders in a discussion about the proposed six-year strategic plan. This is a summary of the various methods used to reach interested individuals and organizations. An earlier report on the first phase of the strategic plan outreach is included in the Appendix to the plan.

Direct Mail Postcard	To all 408,000 customers with an invitation to a public meeting and to take the online survey 40,000 postcards to small/med business customers
Stakeholder Meetings (Approximately 125 attending)	Chamber of Commerce – Feb. 23 Key Customers – March 12 Environmental community – March 19 Brown Bag – Great Cities – March 22 Neighborhood businesses – March 28 Burien City Council – April 2 Lake Forest Park City Council – April 12 Shoreline City Council – December, 2011
Public Meetings (Approximately 130 attending)	Northgate Community Center The Gathering Place – NewHolly
Five non-English outreach meetings (Total of 70 participants)	Vietnamese, Chinese, Hispanic, Ethiopian, Somali
Online Survey	1236 respondents
Email comments	95 comments
Six letters	Environmental community and large institutions/ hospitals
Advertising	Comcast – 360,000 impressions 2.39% "click thru" to watch ad (7200 individuals)
Media/Social Media	3800 visits to strategic plan home page Press release, blog, Twitter, Facebook about the plan, public meetings, and survey

Outreach Summary
Seattle City Light Strategic Plan
Second Phase – February – April 2012
RESULTS

Stakeholder Group	Key Comments	Number of Participants
Chamber of Commerce	- What is being done to improve efficiencies identified in UMS study? - Will the plan address governance? - Will the plan include rate design? - Does plan address critical infrastructure needs/reliability?	15
Key Customers	- How are infrastructure needs addressed in the pathways? - What new conservation programs are being considered? - Can AMI be delayed/can you opt out?	20
Environmental Community	- More solar in the preferred plan. - Have you factored in the possible limit to conservation opportunities. - Conservation is essential – should be considered a resource. - Delay AMI - Nothing in plan about transmission efficiencies. - Does plan take into consideration increased use of electric vehicles?	27
CM O'Brien Brown Bag – Great Cities	- Does plan consider variable rates? - Does plan anticipate increased electric vehicle? - Does plan include urban design considerations for the new substation?	10
Neighborhood Business	- Is streetlighting a part of the plan? - Does plan identify who will pay for the new meters with AMI? - How are you addressing the need for more skilled workers?	3

Public Forum	Key Questions/Comments	Number of Participants
NewHolly – The Gathering Place	- Can't afford increased rates. - Do all rate payers pay for the new substation? - Does the plan include nuclear power? - Can the plan put more people to work? - How will you replace retiring	45

	workers?	
Public Forum	**Key Questions/Comments**	**Number of Participants**
Northgate Community Center	- Concerns about AMI cost and practicality - When is the pay-back on LED streetlights? - Will rates go down after six years with all of these efficiencies? - Do commercial customers pay different rates than residential customers? - Do we pay more for renewable energy sources? -	85
Non-English Speaking Groups: - Vietnamese - Chinese - Hispanic - Ethiopian - Somali	- Concerned about rate increases. - Want more information on how to save energy in languages other than English.	70 (total)

Online Comments	**Key Comments**	**95 Comments Received***
	- More renewable energy investments	13
	- Increase infrastructure investments/reliability	10
	- Don't raise rates	10
	- Rates should be increased to make needed investments	10
	- No investment in Automated Meter Infrastructure	7
	- Improve efficiency	6
	- Increase conservation/energy efficiency	6
	- Don't invest in nuclear power	6
	- Correct labor inefficiencies	5
	- Underground all power lines	5
	- No more investments in solar/wind	4
	- Create a sliding scale/time of use rate	4
	- Invest in more LEDs	3
	- City Light provides great service/ affordable rates	3
	- Invest in tidal energy	1
	- Don't invest in fiber optics	1
	- Control invasive vegetation	1
	- Do something about the governance structure	1

*Some had more than one comment; several comments were received about the survey contents or explaining their survey answers

Online Survey Results	**Topic**	**1236 Respondents (98% residential)**
Ranking of Pathways	- New efficiencies Pathway #2	63% (Good/Very good ranking)
	- Strategic Initiatives Pathway #3	51% (Good/Very good ranking)
	- Bolder Environmental Pathway #5	50% (highest number of negative responses however)
How they would spend $100	- Ways to minimize the rate increase	$26.30
	- Invest in more renewable energy	$19.50
	- Increased efficiencies to improve utility performance using technology investments	$14.40
	- Invest to improve reliability	$11.10
	- Invest to increase conservation	$11.00
Rating City Light's overall performance	Good/Very Good	80% of respondents
	Neutral	15%

Seattle City Light Review Panel
c/o K. Kinney Seattle City Light
P.O. Box 34023 Seattle WA 98124-4023
CLRPquestions@seattle.gov

April 30, 2012

Honorable Mayor McGinn
The City of Seattle
600 Fourth Avenue
PO Box 94749
Seattle, WA 98124-4749

Dear Mayor McGinn:

As members of the City Light Review Panel, we are pleased to convey to you our endorsement of the Preferred Path in the Seattle City Light 2013-2018 Strategic Plan, as presented in the February 2012 public outreach draft document. We refer below to this draft document as the "Strategic Plan," understanding that you are now considering what to transmit to the City Council for its action. We believe that of the five paths presented in the Utility's Strategic Plan, the Preferred Path is the most appropriate alterative for City Light to pursue over the next six years.

The Strategic Planning Process

As previously conveyed in our letter of February 16, 2012, we are very pleased with the process that has been used to develop the Utility's Strategic Plan, and Panel's advisory role in that process. The effort has been time-intensive and thorough. We have met 32 times as a Panel over the course of two years, discussing and advising the Utility's senior leadership with respect to the Strategic Plan. The Utility has been highly responsive to our questions and suggestions, and there has been a high level of engagement by the Panel members throughout the effort. The process has had good integrity and transparency. In addition, the process has included two extensive rounds of public input, through which we heard from hundreds of the Utility's customers.

Rates: The "Baseline" Analysis and the Preferred Path

The Strategic Planning process incorporates two foundational analyses: (1) an assessment of City Light's strengths, weaknesses, opportunities and challenges; and (2) a "Baseline" analysis of the costs to maintain the current level of service and reliability, including meeting mandates and completing projects and efficiency efforts already underway. The Baseline projects that an average annual rate increase of 4.1% per year over each of the next six years will be necessary. We believe the Baseline analysis reflects a credible, thorough assessment of the likely costs the Utility will incur to maintain current service levels, address mandates and complete ongoing projects and efficiency efforts. The Baseline is built on a series of assumptions: we find these assumptions to be reasonable but note they could change over the planning period (2013-2018).

The Preferred Path prescribes a series of investments, efficiencies and actions that are additive to the Baseline, and which will in total result in an annual average electricity rate increase estimated at 4.7% per year in each of the next six years. While any rate increase is challenging for residents and businesses

alike, in our view the most prudent path is to maintain current service levels and undertake the additional key investments and efficiencies outlined in the Preferred Path. Among the key investments are:

- a new substation in the north downtown area and an automated metering investment --both of which support overall system reliability;
- investment in workforce safety and in the Utility's ability to attract, train and retain a high quality workforce – both are critical in terms of basic operations and to address an impending wave of retirements (half the Utility's workforce is eligible to retire in the next five years);
- programs and tools that will improve effectiveness and efficiency – many investments targeting outdated, legacy technologies; and
- continued leadership in environmental stewardship.

Additional comments regarding some specific investment proposals are provided below, including the importance of rate predictability and avoiding rate spikes. In terms of the rate impact of the Preferred Path, we note that the industrial sector representative on the Panel, Matt Lyons, while supporting many aspects of the Strategic Plan, believes that increasing rates 31 percent over the next six years as called for in the Preferred Path will hit all rate payers, and particularly manufacturing and industrial businesses, very hard and he therefore does not support those proposed rate increases.

Driving Towards More Efficiencies: The Importance of Continued Benchmarking and City Support for More Flexibility in Labor Policies

We strongly endorse the importance of continuing to benchmark the performance of City Light against its national peers-- and to take steps to achieve parity with its peers in efficiency of operations and quality of service delivery. City Light is the 10th largest public utility in the nation. It operates in a national market—in terms of purchasing power (including renewable energy), and in terms of competing to attract and retain highly skilled staff. In other words, the Utility has a national peer group against which to benchmark itself. It is also important to track performance against internally-set performance targets. We are in agreement that City Light:

- Is making a solid effort in the area of securing efficiencies and has proposed to do what it reasonably can in this area over the Planning Period; and
- Should continue to examine and identify the drivers that are causing its performance and efficiency in some areas to be below its peer group average.

The City and the Utility should be commended for commissioning the national firm of UMS to develop a benchmarking study for City Light in 2011—and for developing a specific plan to follow up on the recommendations in that report. The Utility has identified 19 projects it plans to pursue in order to generate operating efficiencies that will reduce Baseline costs by $18million within three years. These projects were selected based on general direction provided by the UMS Report. The Panel encourages City Light to be as transparent as possible about how the $18M in savings will be achieved. The Panel intends to track the Utility's success in implementing the proposed efficiencies. The Utility indicates that of these 19 efficiency projects, seven will require changes in existing labor contracts and/or personnel rules. It is important that the Mayor and City Council support the Utility's need for flexibility in new labor contracts and personnel system rules in order to be able to implement greater levels of operational efficiency. The Panel supports continued benchmarking in the future.

Endorsement of Key Strategic Plan Objectives: The Strategic Plan outlines four key strategic objectives, which the Panel endorses as the appropriate foundational pillars for the planning period:

1. Improve customer experience and rate predictability
2. Increase workforce performance and safety practices
3. Enhance organizational performance
4. Continue conservation and environmental stewardship leadership.

We offer comments below organized, as in the Strategic Plan, around these four key objectives.

Objective 1: Improve Customer Experience and Rate Predictability

We support the major investment in the North Downtown Substation that is included in the Preferred Path: this project supports system-wide reliability. We heard strong support during the Strategic Plan outreach as to the importance of reliable electric power.

We also strongly support the goal of rate predictability and changes to Net Wholesale Revenue calculation. When rates need to increase, this should be implemented on as steady a basis as possible, with significant advance notice wherever possible. Establishing the Rate Stabilization Account was an important first step in this regard. Adopting a six-year strategic Plan is the next step. And, we are persuaded that it is now time to re-examine the methodology for setting the Net Wholesale Revenue assumptions that go into building the Utility's budget. The more accurate these assumptions are, the more accurate the budget will be and the smoother rates will be. It does appear to us that more conservative assumptions around supply and market price assumptions about wholesale revenue are warranted.

We support actions that minimize the need for rate surcharges. The Panel supports taking actions to reduce the likelihood of rate surcharges–including temporarily lengthening debt term, undertaking additional refinancing, and assessing the timing of major projects-- while maintaining the Utility's bond rating. We feel such steps are appropriate in light of the current economic and financial environment. The Panel would like to revisit this issue over time to see if there are other ways to achieve this policy goal. Again, it is important to acknowledge that any rate increases are challenging for residents and businesses alike, and avoiding rate volatility is a critical part of addressing this issue for the Utility's customers.

The Panel is generally comfortable with pursuing the Advanced Metering Infrastructure (AMI) investment in 2015 , or later if necessary, to ensure that the Customer Information System (CIS) and Meter Data Management Systems are first solidly in place to support the AMI technology. The Utility needs to carefully design the rollout for AMI: outreach and education needs to be very well executed in order to address concerns that have surfaced in other communities. The Panel will seek to closely track this project as it proceeds, and has requested the Utility report to us at key milestone points. It should be noted that the customer meters now in place are not digital, and are no longer manufactured. They will all have to be replaced, most sooner than later. In this sense, there is not a lot of choice in pursuing as least that aspect of the AMI project. Based on information provided to us, the trend nationally is towards implementing these systems, and City Light is lagging in pursuing this project. In

sum, at some point in the future, the Utility will need this capacity, which serves as the foundation for future smart grid investments.

Objective 2: Increase Workforce Performance and Safety Practices.

Taking steps to improve workforce safety is a very important action item, for employees and the community. The Preferred Path includes a relatively small financial investment in workforce safety, but it is an investment we believe is absolutely necessary. As noted in the Strategic Plan, City's Light's reported injury record is *nearly twice the national average*. This is a serious issue that the Panel believes must be addressed.

The Utility should be allowed to implement policies and practices that enable it to better compete in the national market for needed staff expertise and to meet the objectives of the Strategic Plan. The Utility has mapped out an important initiative with respect to attracting and retaining a qualified workforce—at all levels of the organization. We endorse this effort and we further recommend the City should, as requested by the Utility, adopt a compensation philosophy that allows City Light to better attract professional staff. This means providing City Light with flexibility to develop compensation and classification requirements to meet its needs. As noted, the Utility operates in a national market, competing with other utilities regionally and nationally to attract and retain highly skilled staff. We are told that nearly a third of the City Light leadership and subject matter expert positions are paid between 10-40% less than their industry peers, without taking into account cost-of-living differentials which make the pay gap even greater. In addition, over half the utility's workforce will be eligible to retire in the next five years. City Light's employee age profile is common to utilities across the country. Without a competitive compensation, training and retention program, City Light will be ill-equipped to meet the impending wave of retirements and attract the necessary personnel. Additionally, we recommend the Utility be more involved in discussions with labor partners, to help insure the Utility can meet the objectives of the Strategic Plan. The Utility must address these human resource challenges in order to position itself for success.

Objective 3: Enhance Organizational Performance.

Benchmarking and efficiencies are central to this effort and have been discussed above. The Panel acknowledges and supports the importance of the other initiatives within the Preferred Path that will improve organizational performance. Many of these are technology and systems upgrades—ranging from completing the Utility's "IT Roadmap," to undertaking a comprehensive performance–based reporting effort, to project management quality improvement, to entering into internal service agreements with City central service departments. To become a high performing organization, the Utility must be given an opportunity to improve the tools available to it, and be encouraged to focus on delivering the most efficient, effective service possible.

Objective 4: Continue Conservation and Environmental Stewardship Leadership.

The Utility is carbon neutral and has an aggressive conservation and energy efficiency program in place. By endorsing the Preferred Path, we are acknowledging the value of the aggressive energy efficiency

program included in the Baseline. The Utility's Integrated Resource Plan supports these efficiency acquisitions as the most prudent approach to meeting the Utility's future power needs and mitigating risk from uncertainty in water resources. This approach makes good business sense and should be continued.

Consideration of Other Alternatives in the Strategic Plan

We are supporting the Preferred Path in lieu of Alternate Paths 4 (More Aggressive Reliability Investments) and 5 (Bolder Environmental Initiatives). While both Alternative Paths include some worthy proposals, we believe the highest priority items are those included in the Preferred Path. The Utility will have a very full plate to be able to successfully move ahead on these items, and our endorsement of the Preferred Path reflects our desire that the City and the Utility focus on accomplishing the Preferred Path in the next six years.

The Panel's Work Ahead

For the remainder of 2012, the Panel will focus on rate design and cost allocation. We also will work with the Utility to develop means through which we can track the Utility's progress in implementing the Strategic Plan. Also, while we hope that our own efforts provide an important new level of oversight to the Utility, we will consider whether there are other governance-related matters that should be part of City Light's strategic planning framework.

Acknowledgements

We thank Superintendent Carrasco and the Utility's executive team for their many hours of dedicated effort and leadership in the strategic planning effort. We also thank the City Councilmembers, their staff, and the Mayor's Office for their participation and input throughout the process.

In closing, we believe that implementing the Preferred Path will place City Light in a much stronger position to serve its customers in the years ahead and will improve the efficiency of City Light's operations. We cannot overstate the importance of a longer-term approach to oversight of the Utility. Adopting a six-year strategic plan, and providing oversight and support of the Utility's work over that time to achieve specific objectives within prescribed rate limits will be a major step forward for the

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Utility and its customers. We encourage your support for the Preferred Path.

Sincerely,

City Light Review Panel

Stan Price, Co-Chair
Panel Position 3:
Non-Profit Energy Efficiency Advocate

Eugene Wasserman, Co-Chair
Panel Position 8:
At-Large Customer

David Allen
Panel Position 5:
Commercial Customer

Tom Lienesch
Panel Position 1:
Economist

Matt Lyons
Panel Position 6:
Industrial Customer

Julia M. Ryan
Panel Position 2:
Financial Analyst

Sue Selman
Panel Position 7:
Low-Income Customer Representative

Debbie Tarry
Panel Position 9:
Suburban Franchise Customer

(Position 4 Currently Vacant)

cc: Seattle City Councilmembers
Jorge Carrasco, Superintendent, Seattle City Light

Form revised: December 6, 2011

FISCAL NOTE FOR NON-CAPITAL PROJECTS

Department:	Contact Person/Phone:	CBO Analyst/Phone:
Seattle City Light	Paula Laschober 684-3168	Calvin Chow 684-4652

Legislation Title: A RESOLUTION relating to the City Light Department; adopting a 2013-2018 Strategic Plan for the City Light Department and endorsing a six-year rate path required to support the Strategic Plan.

Summary of the Legislation: This legislation adopts a six-year Strategic Plan for City Light, endorses an average 4.7% per year rate increase required to support the Strategic Plan, and requests that the Utility prepare the 2013-2014 Proposed Budget and Proposed Rates assuming a 4.4% rate increase in 2013 and a 5.6% rate increase in 2014.

Background:
In 2010, City Light began a two-year Strategic Planning process to identify the challenges facing the Utility and to vet the investments necessary to meet them. The Mayor and City Council appointed customer stakeholder representatives to the City Light Review Panel, and asked the Panel to review and advise on the development of the Strategic Plan.

As part of the Strategic Planning process, City Light engaged in extensive public outreach, including stakeholder meetings, public meetings, non-English speaking outreach, online surveys, advertising, media, and direct mail. The public feedback was used to inform the development of the Strategic Plan.

The resulting Strategic Plan is a package of investments to achieve additional operational efficiencies, maintain current service levels, improve reliability, strengthen the Utility's workforce, and support job growth and economic development in the region. The Strategic Plan requires additional investment and implies a six-year rate path averaging 4.7% per year. The six-year path reflects anticipated BPA pass-through rate adjustments (SMC 21.49.081), but does not reflect potential automatic Rate Stabilization Account surcharges (SMC 21.49.086).

The Strategic Plan provides a forum for discussion between the Utility, elected officials, and customer stakeholders, and provides more transparency and accountability for decision-making within the Utility. It is intended to guide budget and rate development for the Utility, and this legislation requests that the Utility prepare the 2013-2014 Proposed Budget with proposed rate increases of 4.4% in 2013 and 5.6% in 2014.

The Strategic Plan will be revised and updated every two years.

Please check one of the following:

____ **This legislation does not have any financial implications.**

__X__ **This legislation has financial implications.**

While this Resolution does not result in direct budget or rate actions, it endorses an average rate increase of 4.7% per year over the 2013-2018 period, and requests that the Utility prepare the 2013-2014 Proposed Budget and 2013-2014 Proposed Rates assuming a 4.4% rate increase in 2013 and a 5.6% rate increase in 2014.

Appropriations: *N/A*

Fund Name and Number	Department	Budget Control Level*	2012 Appropriation	2013 Anticipated Appropriation
TOTAL				

**See budget book to obtain the appropriate Budget Control Level for your department.*

Appropriations Notes: There are no appropriations as a direct result of this legislation. Appropriations related to it will be submitted with 2013-2014 budget legislation.

Anticipated Revenue/Reimbursement Resulting from this Legislation: *N/A*

Fund Name and Number	Department	Revenue Source	2012 Revenue	2013 Revenue
TOTAL				

Revenue/Reimbursement Notes: There are no revenues/reimbursements as a direct result of this legislation. Revenues related to it will be submitted with 2013-2014 budget legislation.

Total Regular Positions Created, Modified, or Abrogated through this Legislation, Including FTE Impact: *N/A*

Position Title and Department	Position # for Existing Positions	Fund Name & #	PT/FT	2012 Positions	2012 FTE	2013 Positions*	2013 FTE*
TOTAL							

** 2013 positions and FTE are total 2013 position changes resulting from this legislation, not incremental changes. Therefore, under 2013, please be sure to include any continuing positions from 2012.*

Position Notes: This legislation does not create, modify or abrogate any positions. FTE impacts will be submitted along with 2013-2014 budget legislation.

Do positions sunset in the future? *N/A*

Spending/Cash Flow: *N/A*

Fund Name & #	Department	Budget Control Level*	2012 Expenditures	2013 Anticipated Expenditures
TOTAL				

** See budget book to obtain the appropriate Budget Control Level for your department.*

Spending/Cash Flow Notes: This legislation does not directly impact spending or cash flow. Spending and cash flow impacts will be submitted along with the 2013-2014 budget legislation.

Other Implications:

a) **Does the legislation have indirect financial implications, or long-term implications?**
Yes, adoption of the Strategic Plan implies a trajectory of rate increases averaging 4.7% per year over the 2013-2018 period, and directs City Light to prepare the 2013-2014 Proposed Budget and supporting rate increases of 4.4% for 2013 and 5.6% for 2014.

b) **What is the financial cost of not implementing the legislation?**
N/A

c) **Does this legislation affect any departments besides the originating department?**
This legislation does not directly affect any other department. Certain projects, such as capital work and customer service, are done jointly with other City departments including SDOT and SPU, but coordination is established and ongoing. Certain aspects of the Plan could also affect how services provided by the City to City Light are carried out; CBO staff is aware of them.

d) **What are the possible alternatives to the legislation that could achieve the same or similar objectives?**
NA

e) **Is a public hearing required for this legislation?**
No

f) **Is publication of notice with *The Daily Journal of Commerce* and/or *The Seattle Times* required for this legislation?**
No

g) **Does this legislation affect a piece of property?**

No

h) Other Issues:

List attachments to the fiscal note below:
none

Mike McGinn, Mayor
City of Seattle

May 8, 2012

Honorable Sally J. Clark
President
Seattle City Council
City Hall, 2nd Floor

Dear Council President Clark,

I am pleased to transmit the attached proposed resolution which will adopt the City Light 2013-2018 Strategic Plan.

This legislative package is the culmination of a two-year effort launched by the Seattle City Council and Mayor in May 2010 with the appointment of a newly-established Seattle City Light Review Panel. The City Light Executive Team (Superintendent and Officers) led this planning effort which included an extensive public process that involved hundred of citizens, businesses and community leaders, as well as the Mayor's Office, City Council members and other utility employees and staff.

The Strategic Plan provides, for the first time, long-term guidance for decision-making for City Light. The plan affirms Seattle City Light's mission and values, takes stock of the current situation, analyzes future demand, outlines strengths and challenges, commits to ongoing efficiencies and recommends a preferred path to success and the rate impacts for 2013-2018 associated with this recommendation.

Seattle City Light's low-cost, reliable electricity is a significant driver for our economy. It's one of the biggest reasons businesses choose to locate in Seattle. This plan enhances the utility's ability to maintain that vital service, supports necessary investments in the electrical system and outlines the anticipated costs for everyone who pays a City Light bill. We continue to benefit from wise energy decisions our early leaders made to invest in clean, renewable hydroelectric power. This plan will allow us to reliably carry that legacy forward for the next generation.

This plan envisions a 4.7% rate increase per year for the next two years. It would be easy to avoid that rate proposal and shirk our responsibility to protect and enhance the reliability and quality of our electricity service. However, I felt it was important to heed the strong recommendation of the City Light Review Panel to support the Preferred Path which builds on the Current Level of Service (Baseline) and New Efficiencies path but takes the Utility one step further to make intentional choices and investments that will bring economic and productivity returns for City Light and its customer-owners, including an infusion of jobs from the nearly $2 billion in capital investment.

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City Light's annual budget will reflect the implementation strategies for the Strategic Plan and raises the Utility's performance to be more accountable to its customers, more strategic in its capital expenditures and have better, more efficient business practices in place to successfully manage the assets and operations that are the foundation of the City's electric utility.

Energy availability, costs and reliability are inextricably linked to our City's economic development, public safety and quality of life. We heard from the public, the business community, our health care institutions and many others that electricity needs to be available when we want it, not prone to failures, outages and disruptions, and able to recover quickly when disruptions occur. We also heard that our customers want more rate predictability and stability – continuing the "run to failure" practices of the past that resulted in rate spikes every few years was not a good business model for a critical asset such as City Light.

This Strategic Plan and the ongoing role of the Review Panel in ensuring accountability and updating the outlook every two years sets a new standard for City Light. I request that the City Council consider this resolution adopting the Strategic Plan and requesting the Utility prepare the 2013-2014 Proposed Budget and Proposed Rates assuming a 4.4% rate increase in 2013 and a 5.6% rate increase in 2014.

Thank you for your consideration of this legislation. Should you have questions, please contact Paula Laschober at 684-3168.

Sincerely,

Mike McGinn
Mayor of Seattle

Copy: Honorable Members of the Seattle City Council