## Overview of Facilities and Programs

Seattle City Light (City Light) is a municipal electric utility, owned by the residents of Seattle and run by the City's elected officials. The utility serves a population of almost 700,000 people living in a 130-square-mile area, including the City of Seattle and several adjoining jurisdictions. To serve these customers, Seattle owns, and City Light maintains and operates, a multi-billion-dollar physical plant. The physical plant includes:

- A distribution system with 14 major substations and more than 2,500 miles of overhead and underground cable;
- A generation system comprising seven major hydroelectric plants on the Skagit, Cedar, Tolt, and Pend Oreille Rivers with a combined capacity of almost 2,000 megawatts;
- 650 miles of high-voltage transmission lines linking these plants to Seattle;
- A state-of-the-art System Control Center coordinating these activities; and
- Billing and metering equipment tracking more than 375,000 accounts.

City Light's Capital Improvement Program (CIP) is the vehicle for maintaining, upgrading, and expanding this infrastructure. The CIP also funds a variety of safety and mitigation activities. The CIP's overriding goal is assuring that the facilities required to serve City Light customers with low-cost, reliable power are in place when and where the power is requested.

Several major transportation projects in Seattle will make unprecedented demands on City Light's resources in the next few years. Security concerns also have increased. City Light's 2007-2012 Adopted CIP reflects increases in planned spending for interagency projects adopted in 2006.

The funds shown in this document are expressed as total project costs, including both direct and overhead costs. This makes the funds comparable to other City department funds and estimates the amounts to be capitalized upon completion of the project. The total project cost combines the direct project charges shown in the operating budget under CIP with the applicable intradepartmental expenses, commonly referred to as overhead costs or loadings. As is the case with direct cost, the project overhead costs are included in the operating budget, but overhead costs are not necessarily in the line of business where the direct cost of the project is incurred. City Light applies overhead costs to capital project expenditures only as they occur.

## Highlights

- In 2007, the $146 million CIP for the Customer Services & Energy Delivery – CIP Budget Control Level provides funding for utility relocations supporting the South Lake Union Streetcar, Sound Transit light rail system and Alaskan Way Viaduct; resources to connect new customers and perform major maintenance on the transmission and distribution system throughout the City Light service area; and underground design and relocation work for franchise customers in Shoreline and Burien. Work continues on rehabilitation of the downtown network and ensuring reliable service for all City Light customers.

- The $4.1 million CIP for the Financial Services – CIP Budget Control Level includes program expenditures for the Utility's Information Technology program. The Information Technology program consists of four continuing projects: Consolidated Customer Service System, Information Technology Infrastructure, Information Technology Projects, and Disaster Recovery/Business Continuity.

- The $34 million CIP for the Power Supply and Environmental Affairs – CIP Budget Control Level includes expenditures for Generation, Facilities Management, Environmental Affairs, Power Management, and Vehicle Replacement programs. In 2007, the $22 million CIP for the Generation program is allocated over 56 active projects, 43 of which are multi-year projects continuing from 2006. The Generation program CIP includes $4.7 million for rebuilding a generator at the Diablo hydroelectric facility. Approximately $3.6

million is allocated to Boundary facility projects to restore major equipment, auxiliary systems, and support features. The $7.7 million budget for the Utility Support Budget Control Level includes 7 projects that preserve and improve buildings and physical plant, and $5.7 million is provided for replacement of vehicles. The $842 K Environmental Affairs program includes capital portions of license-required mitigation projects on the Skagit and Newhalem Rivers, and capital projects that enable the utility to meet its commitments to habitat protection and restoration for Chinook salmon and bull trout under the Endangered Species Act (ESA).

## Project Selection Process

In making capital investments in its infrastructure, the City tries to balance three goals:

- Rehabilitation of existing facilities to avoid the higher costs of deferred maintenance;
- Improvement of existing facilities to meet growing demand, and
- Development of new facilities to provide additional services.

City Light also has a fourth goal for new investment: to maximize the productive use of technology.

City Light used a new process to select and prioritize capital projects for the 2007 – 2012 Adopted CIP. This step was taken to maximize the value of our capital investments and to implement direction from the Mayor and Council to use industry best practices.

City Light identified best practices for prioritizing capital projects by investigating the processes used by other utilities, City departments and engineering firms. Six specific priority-setting systems also were evaluated. This research helped to identify and select a core set of best practices, which formed the basis of City Light's new process. This process combines human review with an objective scoring and ranking process.

The following summarizes the selection process City Light uses to develop its CIP:

**Project Identification:** City Light staff members throughout the Department identify potential projects using several criteria, including economic, environmental impact, reliability, customer service, regulations, and safety. Existing strategic plans are a primary source of capital projects. Staff members working in the field also provide input based on their understanding of customer demands. A master list of projects is then developed, documented and justified in the capital budgeting system. Description, goals, rationale of, and alternatives to the proposed project also are entered into this system. Primary, secondary, and tertiary reasons for performing the project are identified. Staff members proposing projects answer a set of standardized questions pertaining to the primary criterion. When all of this information is collected, the capital budgeting system calculates an overall project score on the basis of answers to these questions.

Additional information is developed external to the capital budgeting system to evaluate projects with policy or programmatic implications or those with substantial lifetime allocations.

**Project Selection:** A cross-functional team comprising representatives of all City Light business units reviews project documentation and status. All projects Department-wide are ranked according to their scores.

To refine the list of projects meeting the criteria listed above, City Light management and staff, with the help of the Department of Finance, evaluate projects further using the results of studies, load forecasts, and rate forecasting estimates. Following this review, City Light refines the list of potential projects to those that can be accomplished with available revenue.

**Project Scheduling and Budgeting:** After the project list is refined, City Light staff enters detailed information about the selected projects into the capital project scheduling system. The scheduling system tracks and refines labor hours and non-labor costs, and allows staff to cross-check projects against Mayor and Council priorities.

## CIP Budget Control Levels

City Light's Capital Improvement Program consists of the capital budgets of its lines of business and the overhead costs associated with their projects. A detailed list of all projects in City Light's CIP follows this overview. The dollar figures reflected in this CIP document represent fully loaded project costs.

**Customer Services & Energy Delivery – CIP:** The CIP for this Budget Control Level supports fundamental electric utility service. It covers design, construction, and major maintenance of the distribution system. This system includes 14 principal substations, 650 miles of high-voltage transmission lines, 1,800 miles of overhead feeder circuits, 600 miles of underground feeder cables, 53,000 transformers, and 100,000 poles. The Customer Services & Energy Delivery Budget Control Level includes an array of projects spanning six major areas: Services, Capacity, Reliability, Interagency, Streetlights, and Ancillary.

**Financial Services – CIP:** The CIP for this Budget Control Level consists of Information Technology projects. These projects provide modern and efficient information systems and related services to meet City Light's business objectives.

**Power Supply and Environmental Affairs – CIP:** The CIP for this Budget Control Level consists of Generation, Facilities Management, Environmental Affairs, and Vehicle Replacement projects.

The Generation program includes projects improving and enhancing Seattle's hydroelectric generating facilities. These facilities include seven major plants on the Skagit, Pend Oreille, Cedar, and Tolt Rivers, which, on average, meet 63% of Seattle's annual electrical power demands. The remainder comes from long-term contracts and spot-market purchases.

The Facilities Management program includes projects that keep City Light's buildings and grounds functional, safe, and up-to-date. City Light owns 1.4 million square feet of building space in four counties with an aggregate value of approximately $570 million. These include service centers, substations, switchgear buildings, training centers, communications buildings, office buildings, warehouses, construction and maintenance shops, garages, remote employee housing, and tourist facilities.

The Environmental Affairs program includes projects mitigating the environmental effects of City Light's hydroelectric projects, meeting the City's commitments to providing wildlife habitat protection and restoration, and providing utility-wide safety improvements. Projects include purchasing and setting aside critical habitat for wildlife in the Skagit and Nooksack river basins; constructing additional salmon spawning and rearing areas; and acquiring and restoring habitat for threatened Chinook salmon.

The Vehicle Replacement program includes replacement of cars, trucks, and heavy equipment used by City Light crews.

## Anticipated Operating Expenses Associated with Capital Facilities Projects

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

## City Light's CIP Project Summary Table

The values for Budget Control Levels and projects in the Project Summary Table on the following pages correspond to amounts in the 2007-2008 Adopted Budget.

## City Council Provisos to the CIP

Council adopted the following capital budget provisos:

None of the money appropriated for 2007 for Seattle City Light's Customer Service and Energy Delivery-CIP BCL can be spent to pay for Neighborhood Voluntary Undergrounding (Project ID=8383) unless authorized by future ordinance.

None of the money appropriated for 2007 for Seattle City Light's Customer Service and Energy Delivery-CIP BCL can be spent to pay for Mercer Corridor Relocations (Project ID=8376) unless authorized by future ordinance.

None of the money appropriated for 2007 for Seattle City Light's Customer Service and Energy Delivery-CIP BCL can be spent to pay for Automated Meter Reading (Project ID=8368) unless authorized by future ordinance.

None of the money appropriated for 2007 for Seattle City Light's Customer Service and Energy Delivery -CIP BCL can be spent to pay for South Lake Union Substation (Project ID=7757) unless authorized by future ordinance.

None of the money appropriated for 2007 for Seattle City Light's Power Supply and Environmental Affairs-CIP BCL can be spent to pay for Summer Falls-BPA Interconnection (Project ID=7120) unless authorized by future ordinance.

In addition to the restriction imposed in Section 4 (c) of the ordinance adopting a 2007 budget and elsewhere, no more than $2 million of the money appropriated for 2007 for Seattle City Light's Customer Service and Energy Delivery-CIP BCL can be spent to pay for consulting services for the utility relocation related to the Alaskan Way Tunnel and Seawall Project (Project ID=8307) until authorized by future ordinance. Council anticipates that such authority will not be granted until the governor makes a decision on an option and the City approves the governor's selection and Seattle City Light provides detailed information on the planned use of the proposed consulting dollars including the scope of work, deliverables, and costs for each consultant.