

## 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 to ensure that the facilities required to serve City Light customers with low-cost, reliable power, are in place when and where the power is requested.

For 2009, City Light plans twelve new projects, which include, but not limited to, fiber broadband service design and rock fall protection at Diablo.

The amounts shown in this document are expressed as total project costs, including both direct and overhead costs. The Project Summary that follows combines funds budgeted for direct project costs in the CIP Budget Control Levels with anticipated overhead costs budgeted in the operating Budget Control Levels. This makes the funds comparable to other City departments and estimates the amounts to be capitalized upon completion of the project. City Light applies overhead costs to capital project expenditures only as they occur.

## Highlights

In 2009, the Customer Services & Energy Delivery – CIP Budget Control Level provides \$202 million in CIP funding for 87 projects of which four are new. These projects connect new customers and maintain and enhance the transmission and distribution system throughout the City Light service area.

- ◆ Support for major regional transportation improvements including utility relocations for the new Sound Transit light rail system and for design review and project management costs related to utility relocation for the replacement of the Alaskan Way Viaduct and Seawall.
- ◆ City Light will acquire land and start the design of the construction for a new substation in the North Downtown area. When completed in 2013, this new substation will be the hub of a new underground network. The combined substation and network will provide power for the expected growth in the north downtown area by distributing an additional 200 MVAs. City Light continues the rehabilitation of the existing downtown network, ensuring reliable service for network customers.
- ◆ The 2009-14 Proposed CIP includes various projects (including the Mercer Corridor Relocations Project and Citywide Undergrounding Initiative project) that provide for the relocation of overhead lines to underground lines in conjunction with upcoming transportation and utilities projects. Undergrounding helps to implement the City's Complete Streets policy, adopted by Ordinance 122386, while making City Light's infrastructure

more resilient and providing aesthetic benefits. The CIP also provides funding for requested underground design and relocation work in the franchise areas of Shoreline and Burien.

- ◆ Additional relocation funding fully supports the City's "Bridging the Gap" initiative; City Light will work with its City partners to complete planned street improvements.

In 2009, the Financial Services – CIP Budget Control Level includes \$7.8 million for the Utility's Information Technology program. The Information Technology program consists of three continuing projects and a new one; other technology projects are budgeted in the client organizations.

- ◆ The Broadband Initiative is new for 2009 and 2010 and provides funding to begin designing a fiber-to-the-premises network. SCL will collaborate with the Department of Information Technology to develop a broadband strategy enabling Internet access to all City residents at a reasonable cost.

In 2009, the Power Supply and Environmental Affairs – CIP Budget Control Level includes \$46.4 million for Power Production, Utilities Support Services, Environmental Affairs, Power Management, and Vehicle Replacement programs with 64 projects.

- ◆ The Power Production program includes 46 projects and totals \$29.2 million. Power Production continues design work on the second tunnel at Gorge Dam. Studies show that friction would be significantly reduced, allowing the turbines to run more efficiently. When the tunnel becomes operational in 2013 the second tunnel will increase production by 45,000 MW per year with no increased water release. This project helps City Light to realize the goal of 15% power from renewable resources as mandated by Initiative 937.
- ◆ The Ladder Creek Lighting and Historic Housing Renovation projects allows City Light to meet Federal Energy Regulatory Commission (FERC) licensing requirements at the Skagit facilities. Installing a lighting system enhances the Ladder Creek Gardens and creates a safer work environment for maintenance crews. The restoration of the housing units improves living conditions for out-of-area work crews when assigned to jobs at the Skagit facilities.
- ◆ The Utility Support Services program is comprised of 16 projects and totals \$15.9 million. Of this, \$7.2 million is dedicated for the acquisition of vehicles to update the fleet by replacing outdated vehicles and improving the fleet through additional purchases of new vehicles. The Proposed CIP modifies access to the South Service Center and reconfigures the service yard area to accommodate SDOT's new 4<sup>th</sup> Avenue South intersection (\$4.0 million in 2009 for architectural and engineering design). The other \$4.7 million preserves and improves buildings and physical plant.
- ◆ The Environmental Affairs program includes \$1.3 million for the capital portions of license-required mitigation work on the Skagit and Newhalem Rivers and for capital improvements to meet commitments to habitat protection and restoration for Chinook salmon and bull trout under the Endangered Species Act.

## 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.

As part of its Asset Management Program, City Light uses a process formed from investigating industry best practices to select and prioritize capital projects in order to maximize the value of our capital investments and to

implement direction from the Mayor and Council. The following summarizes the selection process City Light uses to develop its CIP.

**Project Identification:** City Light staff members identify potential projects using several criteria, including but not limited to 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 developed, documented and justified in the capital budgeting system. Also entered into the system are descriptions, goals, rationale of, and alternatives to the proposed project. Primary, secondary, and tertiary reasons for performing the project are then 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.

City Light develops additional information external to the capital budgeting system to evaluate projects with policy or programmatic implications or those with substantial lifetime allocations.

**Project Selection:** As part of the new Asset Management Program, a cross-functional team comprising representatives of all City Light business units reviews project documentation and status. All Department-wide projects receive rankings 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 resources.

**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 crosscheck 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 total project costs (direct and applied overhead).

**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.

**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 supports projects that improve and enhance the hydroelectric generating facilities, buildings, mitigate the environmental effects of City Light's hydroelectric projects, and purchases new vehicles.

## 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.

