

## 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, including rock fall protection at Diablo and improvements to the South Service Center Spokane Street Exit.

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 \$181 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 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 will also continue the rehabilitation of the existing downtown network, ensuring reliable service for network customers.
- ◆ The 2009-2014 Adopted 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 \$5.2 million for the Utility’s Information Technology program. The Information Technology program consists of three continuing projects; other technology projects are budgeted in the client organizations.

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 will continue with 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 will help 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 will allow City Light to meet Federal Energy Regulatory Commission (FERC) licensing requirements at the Skagit facilities. Installing a lighting system will enhance the Ladder Creek Gardens and create a safer work environment for maintenance crews. The restoration of the housing units will improve 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 Adopted 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 will preserve and improve 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 will use a process that 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 unit's 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.

## City Council Provisos to the CIP

The City Council adopted the following budget provisos:

None of the money appropriated for 2009 for the City Light Department may be spent for pre-design or design work related to the North Downtown Substation Development project, CIP Project ID 7757, until authorized by future ordinance. The Council anticipates that such authority will not be granted until City Light presents a convincing case for the substation. This proviso does not restrict expenditures for the purchase of property for a substation, or for work in support of that purchase.

None of the money appropriated in 2009 for the City Light Department may be spent for work related to the North Downtown Network Services CIP project, Project ID 8405, or North Downtown System Network CIP project, Project ID 8404, until authorized by future ordinance. The Council anticipates that such authority will not be granted until City Light proposes rates for the existing University District and First Hill networks and for the proposed new network.

None of the money appropriated in 2009 for the City Light Department may be spent for the Citywide Undergrounding Initiative CIP project, Project ID 8403, until authorized by future ordinance. The Council anticipates that such authority will not be granted until City Light presents policies and criteria for the use of the funds that are acceptable to the Council.

None of the money appropriated in 2009 for the City Light Department may be spent on the Backup System Control Center Installation CIP project, Project ID 9213, until authorized by future ordinance. The Council anticipates that such authority will not be granted until City Light explains its plans for its Roy Street facility.

None of the appropriations in 2009 for the City Light Department may be spent on the Mercer Corridor Relocations project, Project ID 8376, until authorized by future ordinance. The Council anticipates that such authority will not be granted until City Light demonstrates that it has secured contributions from those customers requesting undergrounding.

None of the money appropriated in 2009 for the City Light Department, and none of the appropriations carried forward from previous years by the Department, may be spent for the Roy Street Emergency Center Building Renovation CIP project, Project ID 9210.