

## Overview of Facilities and Programs

Seattle City Light (City Light) is a municipal electric utility, owned by the residents of Seattle and operated by a department of City government. 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 almost 350,000 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 assure 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 are scheduled to make unprecedented demands on City Light's resources in the next few years. Security concerns also have increased. City Light's 2006-2011 Proposed CIP reflects increases in planned spending to address these demands.

The funds shown in this document are expressed as total project costs, including both direct costs and overhead costs commonly referred to as "loadings." Most of the direct project costs for the projects within a given CIP program (such as the Customer Services & Energy Delivery – CIP Program) are budgeted in the applicable budget control level (in this case, the Customer Services & Energy Delivery – CIP BCL). As is the case with the direct costs, the project overhead costs included in this CIP are included in SCL's operating budget, but not necessarily in the budget control level where the bulk of the direct cost of the project is incurred. It should be noted that in the 2006 Proposed Budget, City Light's CIP budget control levels and programs have been revised to reflect the utility-wide reorganization announced by the utility's superintendent in December, 2004. The CIP highlights that follow describe the proposed CIP in terms of these newly delineated lines of business.

## Highlights

- ◆ In 2006, \$113 million allocated for the Customer Services & Energy Delivery – CIP Budget Control Level provides funding for utility design work and relocations supporting the Sound Transit light rail system and the 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 costs for underground design and relocation work for franchise customers in Shoreline and Burien. Work continues on rehabilitating the downtown network and ensuring reliable service for all City Light customers. Forty-four capital projects are pursued in support of the Utility's Customer Services & Energy Delivery functions.
- ◆ The \$10 million allocated for the Financial Services – CIP Budget Control Level includes program expenditures for four continuing information technology projects: Consolidated Customer Service System, Information Technology Infrastructure, Information Technology Projects, and Mapping System for Non-Network Areas.
- ◆ The \$31 million allocated for the Power Supply and Environmental Affairs – CIP Budget Control Level includes costs for generation, facilities management, environmental affairs, and vehicle replacement projects.

In 2006, this program includes 68 active projects, of which 55 are multi-year projects continuing from 2005. This program includes \$5.7 million for rebuilding two generators at the Ross hydroelectric facility, and \$5.5 million for projects to restore major equipment, auxiliary systems, and support features at the Boundary Dam. Approximately \$1.8 million is provided for facilities management projects that preserve and improve buildings and the physical plant. Approximately \$900,000 is provided for environmental affairs projects including the capital portions of license-required mitigation expenses on the Skagit and Tolt Rivers, which enable the City to meet its commitments for habitat protection and restoration for Chinook salmon under the Endangered Species Act (ESA). Funding for vehicle replacements is \$4.4 million.

## 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.

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

**Project Identification:** City Light staff throughout the Utility 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 working in the field also provides input based on their understanding of customer demands. A master list of projects is then developed in the capital budgeting system.

**Project Selection:** To refine the list of projects meeting the criteria listed above, City Light management and staff, with the help of the Department of Finance, evaluates 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 Programs

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, grouped in their newly-defined programs, follows this overview. The dollar figures reflected in this CIP document represent fully loaded project costs.

**Customer Services & Energy Delivery – CIP:** This program 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 program includes an array of projects spanning six major areas: services, capacity, reliability, interagency, streetlights, and ancillary infrastructure.

**Financial Services – CIP:** This program 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:** This program consists of generation, facilities management, environmental affairs, and vehicle replacement projects.

Generation projects improve and enhance Seattle’s hydroelectric generating facilities. These facilities include seven major plants on the Skagit, Pend Oreille, Cedar, and Tolt Rivers, which, on average, meet 70% of Seattle’s annual electrical power demands. The remainder comes from long-term contracts and spot-market purchases.

Facilities management projects 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 \$525 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.

Environmental affairs projects mitigate the environmental effects of City Light’s hydroelectric projects, meeting the City’s commitments to provide 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 project replaces cars, trucks and other vehicles 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).

## **City Light’s CIP Project Summary Table**

The values in the Project Summary Table on the following pages consist of the value of the allocation to a specific project from the appropriation for a CIP budget control level in City Light’s 2006 Proposed Budget, plus the sum of estimated overhead additions (indirect costs) to the project’s allocation.