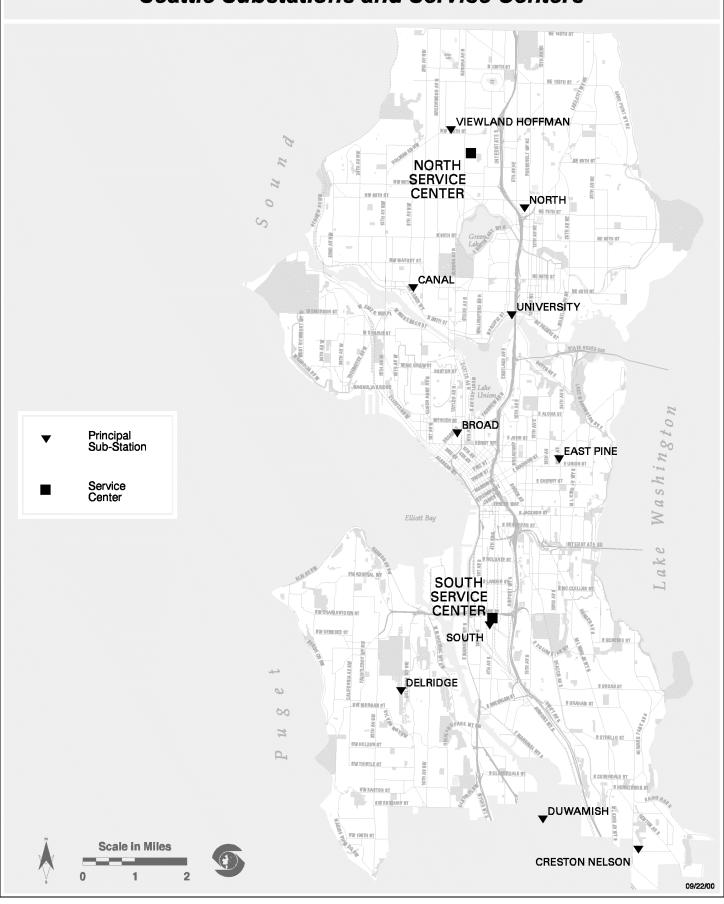
# Seattle City Light Seattle Substations and Service Centers



# **Overview of Facilities and Programs**

Seattle City Light (City Light) is a municipal electric utility, owned by the residents of Seattle and run by their 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 to coordinate these activities; and
- Billing and metering equipment to track almost 350,000 accounts.

City Light's Capital Improvement Program (CIP) is the vehicle for upgrading and expanding this infrastructure. Because this work is labor and cash intensive, and because it may have significant environmental effects, the CIP also funds a variety of safety and mitigation activities. The overriding goal of the CIP is to give City Light customers value by providing low-cost reliable power when and where it is requested.

# **Highlights**

- ♦ In 2002, the \$100.7 million budget for the Distribution program provides resources to connect new customers and maintain the transmission and distribution system throughout the City Light service area. Work continues on rehabilitation of the downtown network and ensuring reliable service for all City Light customers. There are 49 CIP projects that support Distribution infrastructure work. This program includes design and planning support for Sound Transit.
- ♦ The rapid growth in telecommunication and internet-oriented businesses in the Seattle area has created a new group of high-demand users. Infrastructure additions are necessary to serve these customers. In 2001 and 2002, work includes building new line segments, reconductoring old line segments, installing substation equipment, replacing poles, adding or renovating underground facilities, and repairing and adding new streetlights to enhance the ability of the system to reliably meet these projected demand increases. The cost of some of this work is reimbursed by customers.
- ◆ Telecommunications projects include completing the fiber optic network connecting all substations, completing the Bothell/Skagit fiber optic link, and improvements to City Light's radio system to allow better communication between field crews and dispatch center staff. The construction of fiber rings extends the communications backbone system beyond central monitoring and control of the electrical system from generators to substations, to the level of distribution feeders and ultimately down to individual distribution transformers and customer meters.
- ♦ The \$2.7 million budget for the Environment & Safety program expenditures in 2002 funds the capital portions of license-required mitigation expenses on the Skagit and Tolt Rivers and meets the City's commitments for habitat protection and restoration for Chinook salmon under the Endangered Species Act

(ESA). Skagit mitigation projects include constructing an environmental learning center on Diablo Lake, creating interpretive displays for visitors to the Skagit, and acquiring additional wildlife lands in the Skagit Basin. On the Tolt River, City Light continues to monitor, maintain and enhance salmon spawning habitat. ESA projects include acquiring and restoring critical Chinook habitat in the Skagit and Tolt basins.

- ♦ In 2002, the \$24.3 million budget for the Generation program is allocated over 28 active projects. Of these, 17 are multi-year projects continuing from 2000. Ten projects from the previous biennium have been substantially completed. The Boundary Rehabilitation, Dam Safety, and Boundary Runner Replacement programs make up the core of the 2002 CIP, representing 55% of the Generation CIP.
- ♦ The \$14.5 million budget for the Information Technology program consists of three new projects and six multi-year projects. An additional \$700,000 has been added in 2002 to develop a new system called "Complex Billing," the purpose of which is to automate billing of customers with high usage (currently a manual process). Other projects new in this biennium (with budgets adopted in 2001) include Work Process Management, Disaster Recovery, and Customer Data Services.
- ♦ City Light's largest system, the Consolidated Customer Service System (CCSS) project, handles all City utility billing and customer records and replaces the City's two existing utility billing systems. Seattle switched to the new system in April 2001. Funding from 2002 forward is for system enhancements and upgrades. Seattle Public Utilities (SPU) is sharing the cost for this project.

# **Anticipated Operating Expenses Associated with Capital Facilities Projects**

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.

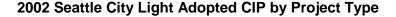
# **Project Selection**

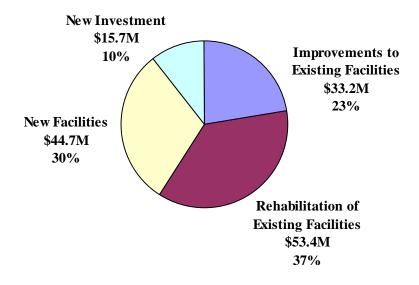
In making capital investments in its infrastructure, the City tries to balance three goals:

- 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 chart shows how City Light's 2002 Adopted CIP allocates funding to these types of projects:





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

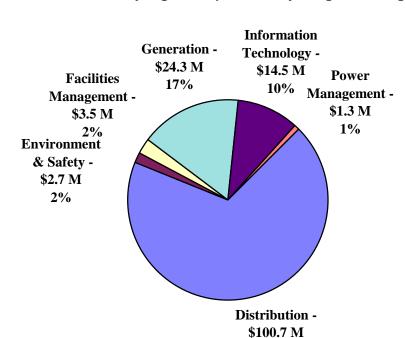
**Project Identification**: City Light staff throughout the department identify potential projects using several criteria, including economics, environmental impact, reliability, customer service, regulations, and safety. Staff working in the field also provide input based on their understanding of customer demands. A master list of projects is then developed.

**Project Selection**: To refine the list of projects that meet the criteria listed above, City Light management and staff, with the help of the City Budget Office, 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 Budget and Scheduling**: After the project list is refined, City Light staff enter information about selected projects into the capital project scheduling system. The scheduling system tracks and refines budget and labor costs and allows staff to cross-check projects against Mayoral and Council priorities.

# **CIP Programs**

City Light's CIP consists of six program categories: Distribution, Environment & Safety, Facilities Management, Generation, Information Technology, and Power Management. The chart below shows the appropriation amounts for 2002 followed by brief descriptions of each program category. A detailed list of all programs for City Light's CIP follows this overview.



#### 2002 Seattle City Light Adopted CIP by Program Category

**Distribution**: This program category provides fundamental utility service by ensuring that City Light's distribution system (more than 2,500 miles of overhead and underground distribution lines with a replacement cost of over \$900 million) is designed, constructed, and maintained to safely and reliably deliver electricity to customers. This category includes an array of projects spanning eight major areas: New Services, Capacity Additions, Network, Substation Additions, Transmission, Communications, Streetlighting, and 26-kilovolt Conversion. It includes enhanced resources for the implementation of the downtown Network Strategic Systems Plan.

69%

**Environment and Safety**: This program category includes projects to mitigate the environmental effects of City Light's hydroelectric projects, to meet the City's commitments to provide habitat protection and restoration, and to provide for utility-wide safety improvements. Projects include purchasing and setting aside critical habitat for wildlife in the Skagit and Nooksack river basins; constructing the North Cascades Environmental Learning Center; building a new information center for visitors to the Skagit; constructing additional salmon spawning and rearing areas; habitat acquisition and restoration for endangered Chinook salmon; and restoring floodplain functions for wildlife in the Tolt River Delta.

**Facilities Management**: The Facilities Management category includes projects to 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.

**Generation**: The Generation program category includes projects to 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, supply 70% of Seattle's annual electrical power demands. The remainder comes from long-term contracts and spot market purchases.

**Information Technology**: The Information Technology category includes projects that provide modern and efficient information systems and related services to meet City Light's business objectives.

**Power Management**: The Power Management category includes projects to support and enhance City Light's ability to control electricity production, manage the purchase and sale of power, balance supply with demand, and operate the transmission and distribution systems that deliver power to customers. These projects help ensure that power is managed safely, reliably, and efficiently, and in compliance with all applicable laws, contracts, licenses, and regulations.

Program/Project	Project ID	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Distribution										
Broad Street Substation Networks	8203	5,970	5,066	3,971	3,209	4,188	7,738	7,704	3,530	41,376
Central Arterial Streetlights Major Maint	8212	63	436	497	1,013	1,051	1,076	1,092	0	5,228
Central Fiber Rings	9307	415	868	1,604	2,866	3,185	2,471	2,502	0	13,911
Communications Improvements	9009	262	450	713	758	779	799	812	0	4,573
Distribution Replacemen	t 8997	0	0	0	0	0	0	0	86,231	86,231
Downtown Substation - Prelim Engr	7754	0	818	679	0	0	0	0	0	1,497
Downtown Substation Programmatic EIS	7717	154	338	18	0	0	0	0	0	510
E3 Busway Transmission Ducts	7102	0	45	59	0	0	0	0	0	104
First Hill Network	8301	0	0	78	1,694	2,633	4,440	4,547	0	13,392
Massachusetts Street Substation Networks	8202	1,407	71	112	2,438	2,417	2,475	2,543	2,615	14,078
Meter Additions	8054	2,623	3,438	3,515	4,339	4,486	4,584	4,662	0	27,647
Metro Direct Current Cables	8144	31	5	339	1,283	197	0	0	0	1,855
Miscellaneous Transmission Improvements	7011	488	228	353	433	448	456	464	0	2,870
Mobile Equipment	9101	3,932	2,499	4,775	4,905	5,034	4,922	4,896	0	30,963
Neighborhood Planning	8207	114	348	644	943	977	1,000	1,017	0	5,043
Neighborhood Undergrounding	8206	302	579	542	1,756	1,827	1,764	1,793	0	8,563
Network Additions and Services	8057	17,285	12,127	12,819	6,063	6,142	6,237	6,336	0	67,009
Network Hazeltine Upgrade	8129	280	109	114	339	352	361	368	0	1,923
Network Maintenance Hole and Vault Rebuild	8130	1,806	708	4,597	6,082	6,313	6,439	6,600	352	32,897
North 26kV Conversion	8124	2,354	2,865	3,420	472	0	0	0	0	9,111
North Arterial Streetlights Major Maintenance	8211	1	334	189	194	200	205	208	0	1,331
North Capacity Addition	s 8122	10,407	10,244	10,144	12,577	16,665	17,851	15,000	3,704	96,592

<sup>\*</sup>Amounts in thousands of dollars

Program/Project	Project ID	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Distribution										
North New Street and Flood Lighting	8134	91	0	37	50	51	52	54	0	335
North Outage Replacements	8302	0	82	84	86	88	90	93	0	523
North Relocations	8304	0	207	216	222	228	234	238	0	1,345
North Residential Streetlight Improvements	8136	449	0	82	95	104	34	0	0	764
North Services - Overhead and Underground	8120	7,074	7,608	7,779	8,357	8,583	8,803	8,953	0	57,157
Power Stations Demand Driven Improvements	7755	0	79	81	47	48	50	51	0	356
Relaying Improvements	7753	0	961	1,367	989	957	978	995	0	6,247
Replace 115kV Arbutus Conductors	7103	0	15	367	0	0	0	0	0	382
SCL 230kV Reliability Loop - Prelim Engr	7104	0	84	121	0	0	0	0	0	205
Skagit Telephone System Upgrade	9311	0	403	295	0	0	0	0	0	698
SnoKing-Bothell #2 Permanent Connection	7101	0	480	776	0	0	0	0	0	1,256
South 26kV Conversion	8125	788	3,160	5,656	6,641	0	0	0	0	16,245
South Arterial Streetlights Major Maintenance	8210	0	465	484	145	144	147	148	0	1,533
South Capacity Addition	s 8123	11,338	11,597	12,037	15,329	14,939	20,148	20,547	0	105,935
South New Street and Flood Lighting	8133	250	217	211	327	339	346	352	0	2,042
South Outage Replacements	8303	0	81	83	86	88	90	92	0	520
South Relocations	8305	0	207	216	222	228	234	238	0	1,345
South Residential Streetlight Improvements	8135	308	281	354	369	379	387	394	0	2,472
South Services - Overhead and Underground	8121	6,310	4,628	4,459	4,357	4,493	4,580	4,657	0	33,484
South to Broad Transmission Line - Prelim Eng	7055	15	314	353	0	0	0	0	0	682

<sup>\*</sup>Amounts in thousands of dollars

Program/Project	Project ID	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Distribution										
Special Work Equipment - Substation Plant	7902	603	190	451	464	477	489	497	0	3,171
Substation Capacity Additions	7751	0	4,395	3,305	6,029	4,638	5,191	4,956	0	28,514
Substation Equipment Improvements	7752	0	8,388	6,930	4,465	3,704	6,074	6,150	0	35,711
Substation Fiber Optic Network	9108	1,179	1,505	2,211	2,195	2,252	2,310	2,349	0	14,001
Substation Plant Improvements	7750	0	1,240	1,734	2,074	6,368	1,866	1,839	0	15,121
Tool and Work Equipment - Other Plant	9102	873	875	867	935	961	985	1,002	0	6,498
Transmission Demand- Driven Improvements	7105	0	630	0	11	11	11	12	0	675
Transmission Replacement	7098	0	0	0	9,909	10,320	10,621	10,893	11,461	53,204
Union Street Substation Networks	8201	5,062	2,844	953	14	912	1,360	1,114	1,143	13,402
<b>Distribution Total</b>		82,234	92,512	100,691	114,782	117,206	127,898	126,168	109,036	870,527
<b>Environment &amp; Safety</b>										
Endangered Species Act Mitigation	6990	478	2,341	1,153	1,183	1,204	0	0	0	6,359
Environment and Safety Replacement	6992	0	0	0	0	0	62	140	484	686
Safety Modifications	9006	356	416	419	238	240	246	250	0	2,165
Skagit Licensing Mitigation	6991	29,542	11,860	1,075	222	91	86	32	0	42,908
South Fork Tolt River Mitigation	6046	117	835	36	22	22	23	24	0	1,079
Environment & Safety Total		30,493	15,452	2,683	1,665	1,557	417	446	484	53,197
Facilities Management										
Facilities ADA and Regulatory Compliance	9151	8	78	80	83	85	87	89	0	510
Facilities Environmental Remediation	9152	19	253	137	141	145	148	151	0	994
Facilities Replacement	9998	0	0	0	243	225	430	444	2,764	4,106
Facility Security	9154	17	109	111	114	117	120	122	0	710
*Amounts in thousands of	of dollars									

Program/Project	Project ID	LTD	2001	2002	2003	2004	2005	2006	2007	Total
<b>Facilities Management</b>										
Mechanical Improvements	9156	339	223	153	224	231	236	240	0	1,646
Miscellaneous Building Improvements	9007	232	210	485	456	465	477	485	0	2,810
North and South Service Center Improvements	9107	19,940	1,786	1,902	0	0	0	0	0	23,628
Office Furniture and Equipment Purchase	9103	650	594	243	251	258	264	269	0	2,529
Roof Replacements	9072	65	1,352	0	221	220	224	228	0	2,310
Seismic Mitigation	9134	1,137	110	0	110	115	118	121	0	1,711
Space Consolidation	9159	20	159	0	111	116	119	121	0	646
Substation Comprehensive Improvements	9161	54	542	438	183	199	0	0	0	1,416
Facilities Management Total		22,481	5,416	3,549	2,137	2,176	2,223	2,270	2,764	43,016
Generation										
Boundary Dam Safety Improvements	6161	984	1,326	1,052	436	511	464	452	74	5,299
Boundary Rehabilitation	6186	27,916	13,616	7,536	12,860	5,163	4,264	1,911	243	73,509
Boundary Unit 51 Turbine Runner	6124	784	749	3,551	1,236	19	0	0	0	6,339
Boundary Unit 53 Turbine Runner	6126	1,478	2,695	1,178	0	0	0	0	0	5,351
Cedar Falls Habitat Conservation Plan	6214	161	1,583	923	35	0	0	0	0	2,702
Cedar Falls Intake Gate Replacement	6171	4,724	1,181	33	13	0	0	0	0	5,951
Diablo Lake Shipyard Hoist	6229	0	2	161	0	0	0	0	0	163
Diablo Sewer System Improvement	6232	1	6	729	0	0	0	0	0	736
Diablo Spillgate Control Improvements	6238	0	0	56	0	0	0	0	0	56
Diablo Water System Improvements	6304	0	1	223	0	0	0	0	0	224
Fire Protection Systems Modification	6166	1,380	0	785	24	0	0	0	0	2,189

<sup>\*</sup>Amounts in thousands of dollars

Program/Project	Project ID	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Generation										
Generation - Civil- Mechanical Modification	6005	111	803	1,582	634	636	650	660	0	5,076
Generation Electrical Enhancements	6087	848	647	939	260	242	245	248	0	3,429
Gorge 240 kV Oil-filled Circuit Breakers	6226	46	508	544	0	0	0	0	0	1,098
Gorge AC/DC Distribution System	6207	25	11	218	129	50	0	0	0	433
Gorge Inn Renovation	9201	0	14	202	0	0	0	0	0	216
Gorge Powerhouse Air Circuit Breaker Replacement	6211	290	253	2	0	0	0	0	0	545
Gorge Spillgate Control Improvements	6222	0	92	16	36	0	0	0	0	144
Gorge Spillgate Rehabilitation	6221	0	4	756	483	0	0	0	0	1,243
Gorge Unit 24 Turbine- Runner Overhaul	6219	20	2	1,011	2,839	733	1,934	58	0	6,597
Ladder Creek Water System	6234	0	52	221	0	0	0	0	0	273
Newhalem Garage Revisions	6231	0	5	304	0	0	0	0	0	309
Newhalem Main Street Repairs	6233	0	0	383	129	0	0	0	0	512
Power Generation Replacement	6999	0	0	0	0	7,836	9,887	14,398	17,871	49,992
Ross Dam Abutment Rock Stabilization	6241	0	126	379	0	0	0	0	0	505
Ross Generator Rewind Program	6215	22	0	469	418	476	0	0	2,831	4,216
Ross Powerhouse Air Circuit Breaker Replacement	6206	610	154	73	0	0	0	0	0	837
Ross Powerhouse Annunciator Replacement	6205	546	18	0	646	795	265	0	0	2,270
Special Work Equipment - Generation Plant	6102	432	273	967	779	800	818	831	2	4,902
<b>Generation Total</b>		40,378	24,121	24,293	20,957	17,261	18,527	18,558	21,021	185,116

<sup>\*</sup>Amounts in thousands of dollars

Program/Project	Project ID	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Information Technology	y									
Consolidated Customer Service System - City Light	9910	17,494	11,205	792	1,336	1,424	1,274	1,417	0	34,942
Customer Data Services (CMart)	9926	0	1,617	2,045	670	525	325	0	0	5,182
Disaster Recovery/Business Continuity	9925	0	49	1,171	1,110	301	296	298	0	3,225
Distribution Automated Mapping System	9905	2,832	1,294	2,206	1,415	1,026	1,306	921	0	11,000
Information Technology Infrastructure	9915	3,057	3,781	5,083	4,554	4,797	5,056	5,553	0	31,881
Information Technology Replacement	9997	0	0	0	0	3,267	4,825	5,572	19,385	33,049
Seattle City Light Drawing Conversions	9909	5,389	613	473	156	0	0	0	0	6,631
Summit Installation	9923	867	1,241	814	1,098	1,577	765	766	0	7,128
Warehouse Management System	9906	2,442	1,012	570	2,314	623	378	301	0	7,640
Work Process Management System	9927	0	1,118	1,354	4,383	2,536	1,690	1,524	0	12,605
Information Technology Total	y	32,081	21,930	14,508	17,036	16,076	15,915	16,352	19,385	153,283
Power Management										
Power Management Replacement	7099	0	0	0	0	0	97	84	1,383	1,564
Replace and Enhance EMS External to SCC	9304	364	344	353	229	204	90	93	0	1,677
SCC EMS Upgrades and Enhancements	9305	600	735	929	939	972	1,010	1,039	0	6,224
X-Windows/WEB EMS User Interface	9402	0	0	0	569	0	0	0	0	569
<b>Power Management To</b>	tal	964	1,079	1,282	1,737	1,176	1,197	1,216	1,383	10,034
Sequestered Savings										
Budget Savings	9999	0	25,742	0	0	0	0	0	0	25,742
<b>Sequestered Savings To</b>	tal	0	25,742	0	0	0	0	0	0	25,742
<b>Department Total</b>		208,631	186,252	147,006	158,314	155,452	166,177	165,010	154,073 1	,340,915

<sup>\*</sup>Amounts in thousands of dollars

# **Fund Source Summary**

Funding Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	208,631	186,252	147,006	158,314	155,452	166,177	165,010	154,073	1,340,915
Department Total	208,631	186,252	147,006	158,314	155,452	166,177	165,010	154,073	1,340,915

#### **Boundary Dam Safety Improvements**

Program:GenerationStart Date:1991 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:6161

10382 Boundary Rd

The purpose of the Boundary Dam Safety Improvements project is to implement corrective actions required by the Federal Energy Regulatory Commission (FERC) to reduce risk of dam failure. This is part of a special dam safety review that began in 1990. Projects completed to date include: installing a drainage system to reduce foundation water pressures (1992,1997); installing an anchoring system to strengthen the left spillway abutment rock (1992); epoxy grouting of cracks in the dam to limit water seepage (1994); strengthening the dam elevator tower to resist earthquakes (1997); evaluating large floods to make sure that the dam foundation does not erode (1997); and reviewing dam safety instrument data to make sure that the dam and foundation are stable (1998). The work targeted for completion in 2002 includes designing and installing an improved dam safety monitoring system.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	984	1,326	1,052	436	511	464	452	74	5,299
TOTAL FUNDS	984	1,326	1,052	436	511	464	452	74	5,299
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **Boundary Rehabilitation**

Program:GenerationStart Date:1995 1st QuarterType:Rehabilitation or RestorationEnd Date:2008 3rd QuarterLocation:Project ID:6186

10382 Boundary Rd

The purpose of the Boundary Rehabilitation project is to provide comprehensive programmatic rehabilitation of major equipment, auxiliary systems, support features, and recreational facilities at the Boundary Hydroelectric Facility. These improvements improve plant reliability, increase its operating life, provide consistency with current industry practice and technology, and strategically position the facility for upcoming relicensing negotiations with the Federal Energy Regulatory Commission.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	27,916	13,616	7,536	12,860	5,163	4,264	1,911	243	73,509
TOTAL FUNDS	27,916	13,616	7,536	12,860	5,163	4,264	1,911	243	73,509
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Boundary Unit 51 Turbine Runner**

Program:GenerationStart Date:1996 1st QuarterType:Rehabilitation or RestorationEnd Date:2004 4th QuarterLocation:Project ID:6124

10382 Boundary Rd

The purpose of the Boundary Unit 51 Turbine Runner overhaul project is to refurbish the turbine to an "as new" condition. This is accomplished by replacing or refurbishing worn turbine components and by installing a new turbine runner. Project goals are improved turbine efficiency, increased operational flexibility, and increased overall generating reliability. Major activities include: the purchase of a new runner (same design as Units 52, 53 and 54); the purchase of additional turbine components (including self lubricating bushings); disassembly of the turbine/generator; evaluation of the condition of parts; refurbishment, replacement, or modification of parts; and reassembly with new, refurbished, or modified parts.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	784	749	3,551	1,236	19	0	0	0	6,339
TOTAL FUNDS	784	749	3,551	1,236	19	0	0	0	6,339
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Boundary Unit 53 Turbine Runner**

Program:GenerationStart Date:1996 1st QuarterType:Rehabilitation or RestorationEnd Date:2002 4th QuarterLocation:Project ID:6126

10382 Boundary Rd

The purpose of the Boundary Unit 53 Turbine Runner overhau projectl is to refurbish the turbine to an "as new" condition. This is accomplished by replacing or refurbishing worn turbine components and by installing a new turbine runner. Project goals are improved turbine efficiency, increased operational flexibility, and increased overall generating reliability. Major activities include: the purchase of a new runner (same design as Units 51, 52 and 54); the purchase of additional turbine components (including self lubricating bushings); disassembly of the turbine/generator; evaluation of the condition of parts; refurbishment, replacement, or modification of parts; and reassembly with the new, refurbished, or modified parts.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	1,478	2,695	1,178	0	0	0	0	0	5,351
TOTAL FUNDS	1,478	2,695	1,178	0	0	0	0	0	5,351
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **Broad Street Substation Networks**

Program:DistributionStart Date:1999 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:8203

6th AV N and Broad St

Urban Village: South Lake Union Neighborhood District: Downtown

The purpose of the Broad Street Substation Networks project is to provide added capacity and improved electrical system reliability to City Light customers in the Broad Street Substation service area. The project provides existing customers with reliable electric service and new customers with connections to the system. Work may include installation of new civil facilities (vaults and conduits); reconductoring and relocation of primary feeders; upgrading network transformers; additions and separations to secondary bus ties; installation of fire wrap on cables; transferring load between networks (cuts and taps); installation of real time ampacity equipment; installation of primary switches for load transfer or sectionalizing; installation or replacement of network protectors; installation of fire protection systems; and rebalancing feeders.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	5,970	5,066	3,971	3,209	4,188	7,738	7,704	3,530	41,376
TOTAL FUNDS	5,970	5,066	3,971	3,209	4,188	7,738	7,704	3,530	41,376
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Budget Savings**

Program:Sequestered SavingsStart Date:2001 1st QuarterType:Rehabilitation or RestorationEnd Date:2001 4th QuarterLocation:Project ID:9999

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of this project is to acknowledge the sequestration of budget savings for 2001 in response to Resolution 30276. The sequestered budget authority was not used in 2001. Carryforwards may be approved to allow use of some of these savings in 2002.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	25,742	0	0	0	0	0	0	25,742
TOTAL FUNDS	0	25,742	0	0	0	0	0	0	25,742
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Cedar Falls Habitat Conservation Plan**

Program:GenerationStart Date:2000 1st QuarterType:Improved FacilityEnd Date:2003 2nd QuarterLocation:Project ID:6214

19901 Cedar Falls Rd SE

The purpose of the Cedar Falls Habitat Conservation Plan project is to implement environmental mitigation facilities for the Cedar Falls Hydroelectric Project. This action is required under the Cedar River Habitat Conservation Plan. City Light's efforts combine with mitigation and enhancement projects funded by Seattle Public Utilities.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	161	1,583	923	35	0	0	0	0	2,702
TOTAL FUNDS	161	1,583	923	35	0	0	0	0	2,702
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Cedar Falls Intake Gate Replacement**

Program:GenerationStart Date:1993 1st QuarterType:New FacilityEnd Date:2003 1st QuarterLocation:Project ID:6171

19901 Cedar Falls Rd SE

The purpose of the Cedar Falls Intake Gate Replacement project is to provide a new intake gate which can be closed if an earthquake or a large flood causes the failure of either of the Cedar Falls penstock pipelines. The major activities of this project occurred in 1999-2000. Funds remaining to be spent in 2002-2003 are for actual installation construction and closeout.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	4,724	1,181	33	13	0	0	0	0	5,951
TOTAL FUNDS	4,724	1,181	33	13	0	0	0	0	5,951
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **Central Arterial Streetlights Major Maint.**

Program:DistributionStart Date:2000 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8212

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Central Arterial Streetlights Major Maintenance project is to provide capital improvements and replacement of the City of Seattle's arterial streetlights in the downtown streetlight system. These improvements ensure that street right-of-ways have proper light. The City transferred ownership of 18,600 arterial streetlights to City Light at the end of 1999. Of those 18,600 streetlights, 5,000-6,000 lights are on poles installed exclusively for streetlighting. Many of these are fed underground.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	63	436	497	1,013	1,051	1,076	1,092	0	5,228
TOTAL FUNDS	63	436	497	1,013	1,051	1,076	1,092	0	5,228
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Central Fiber Rings**

Program:DistributionStart Date:1999 1st QuarterType:New FacilityEnd Date:OngoingLocation:Project ID:9307

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Central Fiber Rings project is to provide fiber rings to Seattle area facilities to create a secure digital communications network. The fiber infrastructure provides a secure path for power system command and control, Supervisory Control Automated Data Acquisition (SCADA), Energy Management System data, and other City Light communications demands that support Substation Automation, Distribution Automation, Distributed Generation, and AMR.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	415	868	1,604	2,866	3,185	2,471	2,502	0	13,911
TOTAL FUNDS	415	868	1,604	2,866	3,185	2,471	2,502	0	13,911
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

# **Communications Improvements**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:9009

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Communications Improvements project is to provide for unforeseen emergency work on City Light's communications systems. This ongoing program provides funding to replace critical communications components due to failure, changing regulatory requirements, or requirements for upgrades. Funding details for this project in years 2007 and beyond have yet to be determined.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	262	450	713	758	779	799	812	0	4,573
TOTAL FUNDS	262	450	713	758	779	799	812	0	4,573
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Consolidated Customer Service System - City Light**

Program:Information TechnologyStart Date:1995 1st QuarterType:New InvestmentEnd Date:OngoingLocation:Project ID:9910

700 5th Avenue

Urban Village: Commercial Core Neighborhood District: Downtown

The purpose of the Consolidated Customer Service System project is to create a single customer service system that provides billing services for Seattle City Light and Seattle Public Utilities. The application provides seamless customer service and greater flexibility in serving the City's utility customers. Council Resolution #29444 defines the scope and approach for this project.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	17,494	11,205	792	1,336	1,424	1,274	1,417	0	34,942
TOTAL FUNDS	17,494	11,205	792	1,336	1,424	1,274	1,417	0	34,942
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

# **Customer Data Services (CMart)**

Program:Information TechnologyStart Date:2001 1st QuarterType:New InvestmentEnd Date:2005 4th QuarterLocation:Project ID:9926

700 5th Avenue

**Urban Village:** Commercial Core **Neighborhood District:** Downtown

The purpose of the Customer Data Services (CMart) project is to provide a data repository for query, ad hoc reporting, and data extract requirements of City Light staff. The system provides premise, meter, consumption, billing, technical metering, and conservation program data by extracting and centralizing data from various systems including the Consolidated Customer Service System (see Project #9910). City Light staff can then quickly respond to customer inquiries, identify future marketing areas, and resolve customer billing and service issues in a proactive and timely manner.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	1,617	2,045	670	525	325	0	0	5,182
TOTAL FUNDS	0	1,617	2,045	670	525	325	0	0	5,182
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Diablo Lake Shipyard Hoist**

Program:GenerationStart Date:1999 1st QuarterType:Rehabilitation or RestorationEnd Date:2002 3rd QuarterLocation:Project ID:6229

Milepost 126 State Highway 20

The purpose of the Diablo Lake Shipyard Hoist project is to replace the existing 110-ton winch and related electrical equipment for "haul out" of the Diablo Lake boats, to inspect and repair the building that covers the boats while they are being repaired, and to install security fencing to prevent unauthorized access.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	2	161	0	0	0	0	0	163
TOTAL FUNDS	0	2	161	0	0	0	0	0	163
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

# **Diablo Sewer System Improvement**

Program:GenerationStart Date:1999 1st QuarterType:Rehabilitation or RestorationEnd Date:2002 4th QuarterLocation:Project ID:6232

Milepost 126 State Highway 20

The purpose of the Diablo Sewer System Improvement project is to provide for repair of numerous sewer pipe breaks, leaks, and sags in the combined Diablo sewer and drainage collection system. Overloads in the sewage treatment plant, pollution of Skagit River, and contamination of soil can then be eliminated.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	1	6	729	0	0	0	0	0	736
TOTAL FUNDS	1	6	729	0	0	0	0	0	736
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Diablo Spillgate Control Improvements**

Program:GenerationStart Date:2000 1st QuarterType:Improved FacilityEnd Date:2002 2nd QuarterLocation:Project ID:6238

Milepost 126 State Highway 20

The purpose of the Diablo Spillgate Control Improvements project is to replace the motor starters and controls for the three Diablo Dam motorized spillgates. Gate status and opening height transducers and analog data transponders are replaced. Safety disconnect switches and motor current limiters are also installed.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	56	0	0	0	0	0	56
TOTAL FUNDS	0	0	56	0	0	0	0	0	56
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Diablo Water System Improvements**

Program:GenerationStart Date:2001 1st QuarterType:Rehabilitation or RestorationEnd Date:2002 4th QuarterLocation:Project ID:6304

Milepost 126 State Highway 20

The purpose of the Diablo Water System Improvements project is to provide adequate water supply for the town of Diablo. This project provides the following: minimum levels of "fire flow" (adequate water pressure and flow rates for fire fighting) in the Hollywood housing area; remaining required backflow protection assemblies as required by drinking water regulations; and a new well for the Diablo water system. Four subprojects have been identified to provide a booster pump, backflow protection, a new well, and an upgraded tail race pipe.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	1	223	0	0	0	0	0	224
TOTAL FUNDS	0	1	223	0	0	0	0	0	224
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Disaster Recovery/Business Continuity**

Program:Information TechnologyStart Date:2001 1st QuarterType:New InvestmentEnd Date:OngoingLocation:Project ID:9925

614 NW 46th St

Urban Village: Ballard Neighborhood District: Ballard

700 5th Avenue

**Urban Village:** Commercial Core **Neighborhood District:** Downtown

The purpose of the Disaster Recovery/Business Continuity project is to provide backup or alternative processing sites to City Light staff in the event of a disaster so that productivity loss is minimized. This project ensures that critical systems are backed up and alternative processing sites are established.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	49	1,171	1,110	301	296	298	0	3,225
TOTAL FUNDS	0	49	1,171	1,110	301	296	298	0	3,225
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

# **Distribution Automated Mapping System**

Program:Information TechnologyStart Date:1992 1st QuarterType:New InvestmentEnd Date:OngoingLocation:Project ID:9905

700 5th Avenue

**Urban Village:** Commercial Core **Neighborhood District:** Downtown

The purpose of the Distribution Automated Mapping System project is to provide electronic geographic mapping data used to model City Light's distribution system. This application provides timely and accurate information about City Light's distribution system that can be used to help facilitate the uninterrupted delivery of power to customers. The system supports automated mapping and analytical tools for system maintenance and operation. Funding allows the project to continue adding major data sets and integration with other critical information systems. New data sets include detailed records about facilities in the downtown network and utility easements. System integration work provides links with the Consolidated Customer Service System, System Operations applications, and computer-aided drafting and design.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	2,832	1,294	2,206	1,415	1,026	1,306	921	0	11,000
TOTAL FUNDS	2,832	1,294	2,206	1,415	1,026	1,306	921	0	11,000
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Distribution Replacement**

Program:DistributionStart Date:2003 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8997

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Distribution Replacement project is to provide a placeholder for future expenditures. This is done for financial planning purposes. The projected expenditures assist rates staff in making projecting future revenue requirements and rates. As specific projects are identified, the funds are moved to the appropriate project.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	0	0	0	0	0	86,231	86,231
TOTAL FUNDS	0	0	0	0	0	0	0	86,231	86,231
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

# **Downtown Substation - Prelim Engr**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:7754

Citywide

**Urban Village:** In more than one urban village **Neighborhood District:** Downtown

The purpose of the Downtown Substation - Preliminary Engineering project is to research property acquisition options and to perform preliminary engineering to determine timing of construction of a new substation. A new substation ensures that adequate capacity to serve Downtown and First Hill customers is maintained.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	818	679	0	0	0	0	0	1,497
TOTAL FUNDS	0	818	679	0	0	0	0	0	1,497
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Downtown Substation Programmatic EIS**

Program:DistributionStart Date:1999 2nd QuarterType:New FacilityEnd Date:2002 2nd QuarterLocation:Project ID:7717

700 5th Avenue

Urban Village: Commercial Core Neighborhood District: Downtown

The purpose of the Downtown Substation Programmatic EIS project is to provide engineering and other professional services for an environmental analysis of property to be identified and acquired for a new substation.

<b>Fund Source</b>	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	154	338	18	0	0	0	0	0	510
TOTAL FUNDS	154	338	18	0	0	0	0	0	510
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

# **E3 Busway Transmission Ducts**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:7102

600 S Royal Brougham Wy

**Urban Village:** Not in an urban village **Neighborhood District:** Greater Duwamish

The purpose of the E3 Busway Transmission Ducts project is to secure the rights to occupy the E3 Busway and to design and install several electrical duct banks for the installation of Seattle City Light transmission equipment.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	45	59	0	0	0	0	0	104
TOTAL FUNDS	0	45	59	0	0	0	0	0	104
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Endangered Species Act Mitigation**

Program:Environment & SafetyStart Date:2000 1st QuarterType:New FacilityEnd Date:OngoingLocation:Project ID:6990

South Fork Tolt River

500 Newhalem St

19901 Cedar Falls Rd SE

The purpose of the Endangered Species Act (ESA) Mitigation project is to provide habitat protection and restoration benefits to Chinook salmon so that the City meets its ESA commitments under the Early Action Proposal (EAP) adopted by the City Council in March 1999. The EAP includes habitat acquisition and protection in the four Puget Sound watersheds where the City has primary operational interests (Skagit, Snohomish, Cedar/Lake Washington, and the Green/Duwamish), and a research and monitoring program.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	478	2,341	1,153	1,183	1,204	0	0	0	6,359
TOTAL FUNDS	478	2,341	1,153	1,183	1,204	0	0	0	6,359
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

# **Environment and Safety Replacement**

Program:Environment & SafetyStart Date:2003 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:6992

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

This is a CIP placeholder item. The purpose of the Environment and Safety Replacement project is to provide funding estimates of environmental mitigation related to generation projects where specifics have yet to be determined. The projected expenditures for these projects assist rates staff in making estimates of future revenue requirements and rates. As specific projects are identified, the funds are moved to the appropriate project.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	0	0	0	62	140	484	686
TOTAL FUNDS	0	0	0	0	0	62	140	484	686
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Facilities ADA and Regulatory Compliance**

Program:Facilities ManagementStart Date:1998 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:9151

500 Newhalem St

The purpose of the Facilities ADA and Regulatory Compliance project is to provide barrier-free, code-compliant facilities to City Light employees and customers. Many of the public facilities at the Skagit Hydroelectric Site support recreational activities within the National Park and also serve the Skagit Tours program. All of these public areas are subject to the regulations outlined in the Americans with Disabilities Act (ADA). Many modifications already have been made by the Skagit Facilities staff, with special focus on tourist facilities. Continued efforts to achieve equal access include modification to building entrances and ramps, dining accommodations, restrooms, and parking. Projects are located at Skagit, Boundary, Key Tower, and Service Centers.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	8	78	80	83	85	87	89	0	510
TOTAL FUNDS	8	78	80	83	85	87	89	0	510
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **Facilities Environmental Remediation**

Program:Facilities ManagementStart Date:1997 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:9152

1300 N 97th St

Urban Village: Aurora-Licton Neighborhood District: Northwest

3613 4th AV S

Urban Village: Not in an urban village

Neighborhood District: Greater Duwamish

The purpose of the Facilities Environmental Remediation project is to provide improved air quality and better hazardous material handling equipment and facilities to field crews and industrial shops to preserve the public environment and employee health. This ongoing project implements cost-appropriate solutions for environmental problems, when identified, and provides facilities to meet environmental and remediation concerns. Typical projects include providing ventilation for painting and sandblasting operations and providing storage for toxic materials.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	19	253	137	141	145	148	151	0	994
TOTAL FUNDS	19	253	137	141	145	148	151	0	994
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **Facilities Replacement**

Program:Facilities ManagementStart Date:2003 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:9998

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

This is a CIP placeholder item for facility rehabilitation and restoration related project planning for the years 2003-2007. The projections assist rates staff in estimating future revenue requirements and rates. As specific projects are identified, the funds are moved to the appropriate project.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	0	243	225	430	444	2,764	4,106
TOTAL FUNDS	0	0	0	243	225	430	444	2,764	4,106
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Facility Security**

Program:Facilities ManagementStart Date:1998 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:9154

1300 N 97th St

Urban Village: Aurora-Licton Neighborhood District: Northwest

3613 4th AV S

Urban Village: Not in an urban village

Neighborhood District: Greater Duwamish

The purpose of the Facility Security project is to provide personal safety and protection for buildings and equipment at service centers, substations, and power generation sites. This project provides a safe workplace for employees and protects assets to ensure uninterrupted power delivery to City Light customers. This project involves designing and installing effective intrusion alarm systems and implementing procedures to improve security at powerhouses. Improvements are based on a security study performed in 1998. Intrusion-deterrent hardware may include improved doors and locks to prevent unauthorized access, motion detectors to reduce false alarms, and audio/light devices activated upon intrusion. Central station monitoring is included.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	17	109	111	114	117	120	122	0	710
TOTAL FUNDS	17	109	111	114	117	120	122	0	710
O&M Costs (Savings)			N/C	15	15	15	15	15	75

### **Fire Protection Systems Modification**

Program:GenerationStart Date:1993 1st QuarterType:Improved FacilityEnd Date:2003 1st QuarterLocation:Project ID:6166

Milepost 128 State Highway 20

10382 Boundary Rd

19901 Cedar Falls Rd SE

The purpose of the Fire Protection Systems Modification project is to procure and install a refrigerated carbon dioxide storage tank which operates at 300 psi. This system protects generators, the oil rooms, and the station service room. An advanced smoke detection system for early warning is installed for the control, relay, and communications rooms.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	1,380	0	785	24	0	0	0	0	2,189
TOTAL FUNDS	1,380	0	785	24	0	0	0	0	2,189
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **First Hill Network**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:8301

1100 Madison St

Urban Village: First Hill Neighborhood District: Downtown

The purpose of the First Hill Network project is to provide added capacity and improved electrical system reliability to City Light customers in the First Hill service area. The project provides existing customers with reliable electric service and new customers with system connections. Preliminary engineering is done in 2002 to address anticipated capacity problems in the First Hill network. Work may include: installation of new civil facilities (vaults and conduits); reconductoring and relocation of primary feeders, upgrades to network transformers; additions and separations of secondary bus ties; installation of fire wrap on cables; and load transferring between networks (cuts and taps).

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	78	1,694	2,633	4,440	4,547	0	13,392
TOTAL FUNDS	0	0	78	1,694	2,633	4,440	4,547	0	13,392
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **Generation - Civil-Mechanical Modification**

Program:GenerationStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:6005

500 Newhalem St

10382 Boundary Rd

The purpose of the Generation - Civil-Mechanical Modification project is to provide funding for Generation Civil-Mechanical Engineering so that unscheduled capital work can be accomplished. This project covers miscellaneous small unscheduled improvements.

<b>Fund Source</b>	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	111	803	1,582	634	636	650	660	0	5,076
TOTAL FUNDS	111	803	1,582	634	636	650	660	0	5,076
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Generation Electrical Enhancements**

Program:GenerationStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:6087

500 Newhalem St 10382 Boundary Rd

The purpose of the Generation Electrical Enhancements project is to provide a general electrical service fund for Generation Electrical Engineering so that unscheduled capital projects can be accomplished. This project covers miscellaneous small unscheduled improvements.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	848	647	939	260	242	245	248	0	3,429
TOTAL FUNDS	848	647	939	260	242	245	248	0	3,429
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# Gorge 240 kV Oil-filled Circuit Breakers

Program:GenerationStart Date:1999 1st QuarterType:Rehabilitation or RestorationEnd Date:2002 3rd QuarterLocation:Project ID:6226

Milepost 121 State Highway 20

The purpose of the Gorge 240 kV Oil-filled Circuit Breakers project is to replace the out-of-date oil circuit breakers at the Gorge Powerhouse with SF-6 gas circuit breakers. The project replaces the four oil-filled circuit breakers at the Gorge Switchyard.

<b>Fund Source</b>	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	46	508	544	0	0	0	0	0	1,098
TOTAL FUNDS	46	508	544	0	0	0	0	0	1,098
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Gorge AC/DC Distribution System**

Program:GenerationStart Date:1998 2nd QuarterType:Rehabilitation or RestorationEnd Date:2004 2nd QuarterLocation:Project ID:6207

Milepost 121 State Highway 20

The purpose of the Gorge AC/DC Distribution System project is to improve efficiency and reliability by: replacing DC distribution panels, unitizing DC control and alarm circuits to individual generators, providing AC station service grounding, and replacing AC distribution panels and branch circuits in the Gorge Powerhouse. The existing system contains outmoded parts that are impossible to replace in kind, and the existing circuitry is subject to frequent breakdown.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	25	11	218	129	50	0	0	0	433
TOTAL FUNDS	25	11	218	129	50	0	0	0	433
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Gorge Inn Renovation**

Program:GenerationStart Date:2001 1st QuarterType:Rehabilitation or RestorationEnd Date:2002 4th QuarterLocation:Project ID:9201

Milepost 121 State Highway 20

The purpose of the Gorge Inn Renovation project is provide minimal funding to preserve the Gorge Inn while City Light develops detailed plans for adaptive re-use of the building. These preservation actions include minor repairs to the building envelope, mitigation and prevention of water damage, commencing a minimal preventive maintenance program, and other minor work as necessary to stop further deterioration of the structure. The historic Gorge Inn, on Main Street in Newhalem, has been vacant and essentially unused since 1980. In 1999 a consultant completed an adaptive use study for the Inn, analyzing building condition, market, and design options. Funding requests for future use of the building are likely in the next biennial budget submittal.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	14	202	0	0	0	0	0	216
TOTAL FUNDS	0	14	202	0	0	0	0	0	216
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### Gorge Powerhouse Air Circuit Breaker Replacement

Program:GenerationStart Date:1998 1st QuarterType:Rehabilitation or RestorationEnd Date:2002 1st QuarterLocation:Project ID:6211

Milepost 121 State Highway 20

The purpose of the Gorge Generator Air Circuit Breakers project is to provide rebuilt, refurbished air circuit breakers (ACBs) to the Gorge Powerhouse to ensure proper function, reduce downtime, and improve safety. The project replaces five critical generator ACBs (Units 21, 22, 23, Bank 27, and a spare). The breakers have exceeded their design life and doubled their design number of operations. These factors indicate a high risk of failure. Rebuilt ACBs reduce the risk of expensive electrical fault damage to the generators. The project is being completed in 2001, with closeout to occur in 2002.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	290	253	2	0	0	0	0	0	545
TOTAL FUNDS	290	253	2	0	0	0	0	0	545
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Gorge Spillgate Control Improvements**

Program:GenerationStart Date:2001 1st QuarterType:Improved FacilityEnd Date:2003 3rd QuarterLocation:Project ID:6222

Milepost 121 State Highway 20

The purpose of the Gorge Spillgate Control Improvements project is to replace the motor starters and controls for the two Gorge Dam spillgates. Gate status and opening height transducers and their telecommunications equipment are also replaced.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	92	16	36	0	0	0	0	144
TOTAL FUNDS	0	92	16	36	0	0	0	0	144
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

# **Gorge Spillgate Rehabilitation**

Program:GenerationStart Date:2001 1st QuarterType:Rehabilitation or RestorationEnd Date:2003 3rd QuarterLocation:Project ID:6221

Milepost 121 State Highway 20

The purpose of the Gorge Spillgate Rehabilitation project is to provide inspection and repairs to the two spillgates to prevent loss or compromise of structural integrity. The Gorge High Dam contains two 47'x50' vertical lifting spillgates, used to regulate the river flow during floods and increase the dam's capability to generate electricity during normal flows. The project is driven primarily by deteriorated bolts, a condition observed in 1997 during seal replacement work on gate #1 in 1997. The same condition is assumed to exist on gate #2.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	4	756	483	0	0	0	0	1,243
TOTAL FUNDS	0	4	<b>756</b>	483	0	0	0	0	1,243
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

# **Gorge Unit 24 Turbine-Runner Overhaul**

Program:GenerationStart Date:1999 1st QuarterType:Rehabilitation or RestorationEnd Date:2006 4th QuarterLocation:Project ID:6219

Milepost 121 State Highway 20

The purpose of the Gorge Unit 24 Turbine-Runner Overhaul project is to refurbish the turbine to an "as new" condition. Worn turbine components are replaced or refurbished and a new turbine runner is installed. The goal is improved turbine efficiency, increased operational flexibility and increased overall generating reliability. This project is part of the turbine programmatic rehabilitation program to overhaul and upgrade City Light's aging hydroelectric turbines. Along with runner replacement, new seal rings, self lubricating bushings and wicket gate refurbishment are provided.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	20	2	1,011	2,839	733	1,934	58	0	6,597
TOTAL FUNDS	20	2	1,011	2,839	733	1,934	58	0	6,597
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars



# **Information Technology Infrastructure**

Program:Information TechnologyStart Date:OngoingType:New InvestmentEnd Date:OngoingLocation:Project ID:9915

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

700 5th Avenue

Urban Village: Commercial Core Neighborhood District: Downtown

1300 N 97th St

**Urban Village:** Aurora-Licton **Neighborhood District:** Northwest

3613 4th AV S

Urban Village: Not in an urban village

Neighborhood District: Greater Duwamish

The purpose of the Information Technology Infrastructure project is to replace aging and obsolete hardware and software that supports City Light's information technology infrastructure. This project ensures a stable computing environment so that City Light staff can accomplish work requiring automated technology without interruption or loss of productivity. Components purchased and maintained include computer workstations, laptops, servers, printers, network and data communications infrastructure, and supporting software. These components meet basic business requirements for the utility's information technologies.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	3,057	3,781	5,083	4,554	4,797	5,056	5,553	0	31,881
TOTAL FUNDS	3,057	3,781	5,083	4,554	4,797	5,056	5,553	0	31,881
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### Information Technology Replacement

Program:Information TechnologyStart Date:2003 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:9997

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

This is a CIP placeholder item for Information Technology Replacement related projects. The dollars amounts assigned to the various years are used for financial planning purposes. The estimates assist rates staff in making projections of future revenue requirements and rates. As specific projects are identified, the funds are moved to the appropriate project.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	0	0	3,267	4,825	5,572	19,385	33,049
TOTAL FUNDS	0	0	0	0	3,267	4,825	5,572	19,385	33,049
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

# **Ladder Creek Water System**

Program:GenerationStart Date:1999 3rd QuarterType:New FacilityEnd Date:2002 4th QuarterLocation:Project ID:6234

Milepost 126 State Highway 20

The purpose of the Ladder Creek Water System project is to provide a reliable and legal supply of irrigation water to Ladder Creek Gardens behind the Gorge Powerhouse so that the historic gardens receive sufficient water. The existing irrigation system is no longer functional. City Light's Federal Energy Regulatory Commission license obligates the utility to provide management attention to the facilities in this area, which is also a nature walk and tourist attraction.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	52	221	0	0	0	0	0	273
TOTAL FUNDS	0	52	221	0	0	0	0	0	273
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **Massachusetts Street Substation Networks**

Program:DistributionStart Date:1999 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:8202

1555 Utah AV S

**Urban Village:** Not in an urban village **Neighborhood District:** Greater Duwamish

The purpose of the Massachusetts Street Substation Networks project is to provide added capacity and improved electrical system reliability to City Light customers in the Massachusetts Street Substation service area. The project provides existing customers with reliable electric service and new customers with system connections. Work may include: installation of new civil facilities (vaults and conduits); reconductoring and relocation of primary feeders; upgrading network transformers; additions and separations to secondary bus ties; installation of fire wrap on cables; transferring load between networks (cuts and taps); installation of real time ampacity equipment; installation of primary switches for load transfer or sectionalizing; installation or replacement of network protectors; installation of fire protection systems; and rebalancing feeders.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	1,407	71	112	2,438	2,417	2,475	2,543	2,615	14,078
TOTAL FUNDS	1,407	71	112	2,438	2,417	2,475	2,543	2,615	14,078
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **Mechanical Improvements**

Program:Facilities ManagementStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:9156

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Mechanical Improvements project is to provide funding for design, materials and construction for a variety of small HVAC improvement and replacement projects. Examples include installing approximately one additional heat pump unit per year over a three-year period to improve cooling performance at the South Service Center, and, in conjunction with the North Service Center remodel, installing energy-efficient heat pumps to service the offices.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	339	223	153	224	231	236	240	0	1,646
TOTAL FUNDS	339	223	153	224	231	236	240	0	1,646
O&M Costs (Savings)			N/C	25	25	25	25	25	125

#### **Meter Additions**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:8054

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Meter Additions project is to provide new or replacement meters so that City Light can generate customer bills. There are three types of work in this project: New Services - installation of approximately 5,000 meters annually for new or upgraded commercial and residential customer electrical services. Obsolete Meter Exchanges - Exchange of approximately 12,500 (out of 370,000 in the distribution system) obsolete meters annually. New Technology and Automated Metering Options - Pilot projects to demonstrate new metering devices and systems, including study of micro-turbines, fuel cells, and solar cells to determine the impact on the distribution system and the requirements for net metering.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	2,623	3,438	3,515	4,339	4,486	4,584	4,662	0	27,647
TOTAL FUNDS	2,623	3,438	3,515	4,339	4,486	4,584	4,662	0	27,647
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

## **Metro Direct Current Cables**

Program:DistributionStart Date:1996 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:8144

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Metro Direct Current Cables project is to relocate Metro DC cables out of City Light maintenance holes and vaults. This improves network reliability by separating and isolating the two electric systems, which have uncoordinated protection schemes.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	31	5	339	1,283	197	0	0	0	1,855
TOTAL FUNDS	31	5	339	1,283	197	0	0	0	1,855
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

## **Miscellaneous Building Improvements**

Program:Facilities ManagementStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:9007

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Miscellaneous Building Improvements project is to provide funds for design, materials, and construction of a variety of small, scheduled projects that are not large enough to merit separate capital projects. Funds are also included for urgent, unscheduled improvements associated with City Light's general plant. Typical projects include plumbing, air quality projects, remodeling, and demolition. Time and funds are expended on an as-needed basis that is often unpredictable. Examples include upgrading the dock on South Service Center Building B to expand capacity by providing three truck stalls dock levelers, improving employee safety by increasing the depth of the dock, and installing locking devices and two-way light communications at each leveler location.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	232	210	485	456	465	477	485	0	2,810
TOTAL FUNDS	232	210	485	456	465	477	485	0	2,810
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

## **Miscellaneous Transmission Improvements**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:7011

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Miscellaneous Transmission Improvements project is to provide for small miscellaneous scheduled improvements as well as urgent unanticipated modifications required on the overhead and underground transmission system to ensure reliable system operation. Examples of past work include replacing load interrupters and upgrading short spans of City Light's transmission system.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	488	228	353	433	448	456	464	0	2,870
TOTAL FUNDS	488	228	353	433	448	456	464	0	2,870
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Mobile Equipment**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:9101

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Mobile Equipment project is to provide funding for the expansion and replacement of City Light's heavy duty mobile equipment fleet and gradual purchase of light duty vehicles (previously leased from Fleets and Facilities) so that the necessary mobile equipment is available to accomplish work tasks in the field.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	3,932	2,499	4,775	4,905	5,034	4,922	4,896	0	30,963
TOTAL FUNDS	3,932	2,499	4,775	4,905	5,034	4,922	4,896	0	30,963
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Neighborhood Planning**

Program:DistributionStart Date:1999 1st QuarterType:New FacilityEnd Date:OngoingLocation:Project ID:8207

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Neighborhood Planning project is to implement Neighborhood Planning projects as these relate to electrical utilities and existing policies.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	114	348	644	943	977	1,000	1,017	0	5,043
TOTAL FUNDS	114	348	644	943	977	1,000	1,017	0	5,043
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Neighborhood Undergrounding**

Program:DistributionStart Date:1999 1st QuarterType:New FacilityEnd Date:OngoingLocation:Project ID:8206

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

During the 2000 budget process, the City Council adopted a Statement of Legislative Intent which directed City Light not to expend or divert any funds from this project until the Council has established clear policies and guidelines for responding to neighborhood plan requests for undergrounding utilities, and has by Resolution, restored City Light's authority to use these funds. This prohibition is intended to apply whether the undergrounding is on residential streets or on arterial streets.

It was not the intent of this legislation to hinder the legitimate use of utility funds in assisting neighborhoods with planning and feasibility assessment, or the implementation of non-undergrounding projects already approved - that activity is funded separately in City Light's CIP as project #8207 Neighborhood Planning.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	302	579	542	1,756	1,827	1,764	1,793	0	8,563
TOTAL FUNDS	302	579	542	1,756	1,827	1,764	1,793	0	8,563
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **Network Additions and Services**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:8057

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Network Additions and Services project is to provide electrical service connections and related improvements in response to requests for service from customers in the Downtown, First Hill and University network areas. Capacity additions associated with service connections are included in this project. This project includes replacement of failed network transformers, network protectors, and specialty transformers as needed; making short-duration system improvements identified during operations; and retrofitting in-building vaults in the First Hill network with fire detection systems. This program fluctuates with land use development. Services provided during 2001-2002 include 1700 7th Avenue, Madison Financial Center, 919 Pine Hotel, KOMO Phase II, City Justice Center, City Hall development, 2715 Western Avenue, 9th & Virginia Tower, US Courthouse, and the Camlin Hotel block development.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	17,285	12,127	12,819	6,063	6,142	6,237	6,336	0	67,009
TOTAL FUNDS	17,285	12,127	12,819	6,063	6,142	6,237	6,336	0	67,009
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Network Hazeltine Upgrade**

Program:DistributionStart Date:1995 1st QuarterType:New FacilityEnd Date:OngoingLocation:Project ID:8129

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Network Hazeltine Upgrade project is to install upgraded equipment in the existing network transformer monitoring system. Upgraded equipment allows for better monitoring of network vaults and transformers and new system capabilities which maintain network reliability.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	280	109	114	339	352	361	368	0	1,923
TOTAL FUNDS	280	109	114	339	352	361	368	0	1,923
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **Network Maintenance Hole and Vault Rebuild**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8130

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Network Maintenance Hole and Vault Rebuild project is to repair or replace damaged or degraded maintenance holes and vaults to prevent future unsafe working conditions and avoid public hazards. Field surveys of network vaults and maintenance holes are performed in the downtown and First Hill areas and design and repairs are made to facilities requiring capital replacement. Repairs are prioritized by the results of the field surveys.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	1,806	708	4,597	6,082	6,313	6,439	6,600	352	32,897
TOTAL FUNDS	1,806	708	4,597	6,082	6,313	6,439	6,600	352	32,897
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Newhalem Garage Revisions**

Program:GenerationStart Date:1999 1st QuarterType:Rehabilitation or RestorationEnd Date:2002 4th QuarterLocation:Project ID:6231

500 Newhalem St

The purpose of the Newhalem Garage Revisions project is to modify the existing garage arrangement and design in order to adapt them to current use requirements. These requirements include size increases, installation of concrete floors and addition of 115V interior lighting and outlets. Access to the garages is changed to adapt to new landscape improvements (consistent with the Master Landscape Plan required by City Light's Federal Energy Regulatory Commission license) built in 2000.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	5	304	0	0	0	0	0	309
TOTAL FUNDS	0	5	304	0	0	0	0	0	309
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Newhalem Main Street Repairs**

Program:GenerationStart Date:2001 1st QuarterType:Rehabilitation or RestorationEnd Date:2003 2nd QuarterLocation:Project ID:6233

500 Newhalem St

The purpose of the Newhalem Main Street Repairs project is to regrade and resurface Main Street in front of the Newhalem store, to replace the failing asphalt and subgrade, correct existing drainage problems, improve traffic flow, and organize parking and pedestrian accessibility during the summer tourist season.

<b>Fund Source</b>	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	383	129	0	0	0	0	512
TOTAL FUNDS	0	0	383	129	0	0	0	0	512
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **North 26kV Conversion**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8124

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the North 26kV Conversion project is to replace all old 4kV electrical equipment remaining in the distribution system with new 26kV electrical equipment that is more efficient and reliable.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	2,354	2,865	3,420	472	0	0	0	0	9,111
TOTAL FUNDS	2,354	2,865	3,420	472	0	0	0	0	9,111
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **North and South Service Center Improvements**

Program:Facilities ManagementStart Date:1991 1st QuarterType:Improved FacilityEnd Date:2002 4th QuarterLocation:Project ID:9107

1300 N 97th St

Urban Village: Aurora-Licton Neighborhood District: Northwest

3613 4th AV S

Urban Village: Not in an urban village

Neighborhood District: Greater Duwamish

The purpose of the North and South Service Center Improvements project is to provide efficient, well-designed work areas to service centers so that personnel are optimally located and able to provide responsive, integrated services to ratepayers in each distribution area. Major facility improvements are requested by branch customers and screened by a comprehensive facilities planning process. Construction takes place without interrupting business activities on site. The completed South Service Center Addition/Remodel subproject consisted of a new two-story office addition plus remodeled space at the north end of building A. Reconfiguring the main North Service Center building to consolidate all off-site office functions is in progress. This work follows remodeling of the warehouse and construction of locker rooms in 1998.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	19,940	1,786	1,902	0	0	0	0	0	23,628
TOTAL FUNDS	19,940	1,786	1,902	0	0	0	0	0	23,628
O&M Costs (Savings)			N/C	50	50	50	50	50	250

## North Arterial Streetlights Major Maintenance

Program:DistributionStart Date:2000 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8211

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the North Arterial Streetlights Major Maintenance project is to provide capital improvements and replacement of the City of Seattle's arterial streetlights in the northern half of the service area. These improvements ensure that street right-of-ways have proper light. The City transferred ownership of 18,600 arterial streetlights to City Light at the end of 1999. Of those 18,600 streetlights, 5000-6000 lights are on poles installed exclusively for streetlighting. Many of these are fed underground.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	1	334	189	194	200	205	208	0	1,331
TOTAL FUNDS	1	334	189	194	200	205	208	0	1,331
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

## **North Capacity Additions**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:8122

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the North Capacity Additions project is to provide electrical lines from substations to customers' property lines so that City Light has sufficient capacity to serve customers and maintain reliability. This project builds new and replaces old line segments, replaces rotten and damaged poles, and adds or renovates underground distribution system facilities in the northern half of the service area. Some of the subprojects are paid for by City Light customers.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	10,407	10,244	10,144	12,577	16,665	17,851	15,000	3,704	96,592
TOTAL FUNDS	10,407	10,244	10,144	12,577	16,665	17,851	15,000	3,704	96,592
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

## **North New Street and Flood Lighting**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:8134

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the North New Street and Flood Lighting project is to provide requesting customers with rental streetlights and floodlights attached to City Light poles. This service is provided to customers pursuant to City Light Rate Ordinance #116619.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	91	0	37	50	51	52	54	0	335
TOTAL FUNDS	91	0	37	50	51	52	54	0	335
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **North Outage Replacements**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8302

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the North Outage Replacements project is to support the capitalized portion of work resulting from unplanned outages so that City Light customers' electric power is restored as quickly as possible. Unplanned outages result from storms, accidents, and equipment failures. Pole and transformer replacements required to restore power are among the elements capitalized during such repairs.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	82	84	86	88	90	93	0	523
TOTAL FUNDS	0	82	84	86	88	90	93	0	523
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **North Relocations**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8304

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the North Relocations project is to relocate electrical lines from substations to customers' property lines so that City Light has sufficient capacity to serve customers and maintain reliability. This project builds new and replaces old line segments, installs and replaces poles, and adds or renovates underground distribution system facilities in the northern half of the service area. Distribution systems are relocated for transportation projects, street vacations, and large industrial, commercial, and residential developments. Some of the subprojects are paid for by City Light customers.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	207	216	222	228	234	238	0	1,345
TOTAL FUNDS	0	207	216	222	228	234	238	0	1,345
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **North Residential Streetlight Improvements**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:8136

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the North Residential Streetlight Improvements project is to improve public safety by installing additional residential streetlights within the north service territory and Seattle City limits. High crime and low income locations are prioritized. The additional lights double light levels to comply with the standard currently recommended by the Illumination Engineering Society and the American National Standards Institute. The annual scope of this program is planned with input from the community and neighborhood groups.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	449	0	82	95	104	34	0	0	764
TOTAL FUNDS	449	0	82	95	104	34	0	0	764
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### North Services - Overhead and Underground

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8120

1300 N 97th St

Urban Village: Aurora-Licton Neighborhood District: Northwest

The purpose of the North Services - Overhead and Underground project is to provide electrical power from the street right-of-way to the customer in response to customer requests for power. The number of requests fluctuates with land use development and customer demand. The scope of this project is to design, install, and energize new or enlarged electrical services to serve the electrical demands of the industrial, commercial, and residential customers in the northern half of the service area. Project elements include labor and/or materials to remove the old services, renovation of existing services, and installation of new services. Requests for voluntary underground projects are also included.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	7,074	7,608	7,779	8,357	8,583	8,803	8,953	0	57,157
TOTAL FUNDS	7,074	7,608	7,779	8,357	8,583	8,803	8,953	0	57,157
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### Office Furniture and Equipment Purchase

Program:Facilities ManagementStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:9103

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Office Furniture and Equipment Purchase project is to purchase office furniture and equipment over \$1,000 (City Account 760560) for all utility branches. It additionally provides replacement of furniture which is no longer ergonomically suitable. City Light's office furniture is being standardized to Steelcase 9000 Series Modular Furniture to reduce spare parts inventory, improve equity among departments, and speed the implementation of move requests.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	650	594	243	251	258	264	269	0	2,529
TOTAL FUNDS	650	594	243	251	258	264	269	0	2,529
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Power Generation Replacement**

Program:GenerationStart Date:2003 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:6999

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

This is a placeholder CIP item for power generation replacement related projects. The purpose of the Power Generation Replacement placeholder is to provide estimates of project expenditures in future years to assist the rates staff in making projections of future revenue requirements and rates. As specific projects are identified, the funds are moved to the appropriate project.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	0	0	7,836	9,887	14,398	17,871	49,992
TOTAL FUNDS	0	0	0	0	7,836	9,887	14,398	17,871	49,992
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	C N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Power Management Replacement**

Program:Power ManagementStart Date:2003 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:7099

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

This is a CIP placeholder item for Power Management Replacement projects. The projected expenditures in future years are for financial planning purposes. The project assists the rates staff members in making projections of future revenue requirements and rates. As specific projects are identified, the funds are moved to the appropriate project.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	0	0	0	97	84	1,383	1,564
TOTAL FUNDS	0	0	0	0	0	97	84	1,383	1,564
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **Power Stations Demand Driven Improvements**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:7755

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Power Stations Demand Driven Improvements project is to provide design and delivery of electrical services to customers so that they receive prompt, reliable connections. This project includes reimbursable and demand-driven activities.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	79	81	47	48	50	51	0	356
TOTAL FUNDS	0	79	81	47	48	50	51	0	356
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Relaying Improvements**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:7753

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Relaying Improvements project is to provide improved general metering, control, and relaying to substations and the transmission system to improve and maintain system reliability.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	961	1,367	989	957	978	995	0	6,247
TOTAL FUNDS	0	961	1,367	989	957	978	995	0	6,247
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

## **Replace 115kV Arbutus Conductors**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:7103

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Replace 115kV Arbutus Conductors project is to replace the remaining 115kV 795 AAC conductor with 954 ACSR, City Light's standard conductor, on the Bothell-University line. This replacement raises the rating of the line so that its full capacity can be utilized.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	15	367	0	0	0	0	0	382
TOTAL FUNDS	0	15	367	0	0	0	0	0	382
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

## Replace and Enhance EMS External to SCC

Program:Power ManagementStart Date:1997 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:9304

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Replace and Enhance EMS External to SCC project is to support remote control of City Light's generating plant so that the utility can optimize hydroelectric facility operation and power marketing. This project repairs, replaces, and upgrades the Remote Control Operating System and the Supervisory Control and Data Acquisition system, including hardware, software, and field components. These systems provide gauging and data gathering on reservoirs for Power Management and Generation personnel. This project installs gauges to acquire and report on weather and reservoir data for hydro resources at Cedar Falls, Tolt, Boundary, Morse Lake, and the Masonry Pool.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	364	344	353	229	204	90	93	0	1,677
TOTAL FUNDS	364	344	353	229	204	90	93	0	1,677
O&M Costs (Savings)			N/C	40	40	40	40	40	200

#### **Roof Replacements**

Program:Facilities ManagementStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:9072

500 Newhalem St

The purpose of the Roof Replacements project is to replace major roofing and weatherproofing systems on all City Light structures. Replacement and maintenance schedules, based on historic records and periodic inspections, keep weather barriers in good condition and minimize costly structural damage and disruption of business operations. Exterior elements such as roofing, sheet metal, windows, siding, exterior stone, brick and concrete elements, when replaced or restored under this program, help define the architectural character of City Light structures, some of which are historically significant. Project examples include roof replacements at the Skagit Hydroelectric Site, which experiences severe weather.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	65	1,352	0	221	220	224	228	0	2,310
TOTAL FUNDS	65	1,352	0	221	220	224	228	0	2,310
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

## Ross Dam Abutment Rock Stabilization

Program:GenerationStart Date:1999 3rd QuarterType:Rehabilitation or RestorationEnd Date:2002 2nd QuarterLocation:Project ID:6241

Milepost 128 State Highway 20

The purpose of the Ross Dam Abutment Rock Stabilization project is to stabilize a promontory rock knob above the right abutment of the Ross Dam. This is achieved by construction of a concrete buttress to prevent additional weathering and support the rock above the overhang. Significant risk of minor or major rockfall from that area is mitigated.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	126	379	0	0	0	0	0	505
TOTAL FUNDS	0	126	379	0	0	0	0	0	505
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Ross Generator Rewind Program**

Program:GenerationStart Date:2000 2nd QuarterType:Rehabilitation or RestorationEnd Date:2007 4th QuarterLocation:Project ID:6215

Milepost 128 State Highway 20

The purpose of the Ross Generator Rewind Program project is to provide electronic scanners for generator Units 41-44 at Ross Powerhouse so that more accurate data can be obtained about generator condition, thereby enabling more timely determination of the most economical time to proceed with rewind projects. One scanner is to be installed each year between 2002 and 2004.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	22	0	469	418	476	0	0	2,831	4,216
TOTAL FUNDS	22	0	469	418	476	0	0	2,831	4,216
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### Ross Powerhouse Air Circuit Breaker Replacement

Program:GenerationStart Date:1998 1st QuarterType:Rehabilitation or RestorationEnd Date:2002 3rd QuarterLocation:Project ID:6206

Milepost 128 State Highway 20

The purpose of the Ross Generator Air Circuit Breakers project is to provide rebuilt and refurbished air circuit breakers (ACBs) to Ross Powerhouse so that they function properly, reduce downtime, and increase safety. The project replaces four critical generator ACBs at Ross Powerhouse (Units 41, 42, 43, 44). The existing ACBs have exceeded their design lives and doubled their design number of operations. These factors indicate a high risk of failure. Replacement reduces the risk of expensive electrical fault damage to generators.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	610	154	73	0	0	0	0	0	837
TOTAL FUNDS	610	154	73	0	0	0	0	0	837
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Ross Powerhouse Annunciator Replacement**

Program:GenerationStart Date:1998 1st QuarterType:Rehabilitation or RestorationEnd Date:2005 4th QuarterLocation:Project ID:6205

Milepost 128 State Highway 20

The purpose of the Ross Powerhouse Annunciator Replacement project is to provide improved automatic signal processing and information management to Powerhouse hydro operators and the Power Management Branch so that downtime can be reduced and power generation is maximized. The new annunciators also provide networking compatibility to support the future governor replacement project.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	546	18	0	646	795	265	0	0	2,270
TOTAL FUNDS	546	18	0	646	795	265	0	0	2,270
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Safety Modifications**

Program:Environment & SafetyStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:9006

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Safety Modifications project is to provide a general service fund for unscheduled safety projects. This project typically involves safety improvements costing less than \$50,000.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	356	416	419	238	240	246	250	0	2,165
TOTAL FUNDS	356	416	419	238	240	246	250	0	2,165
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **SCC EMS Upgrades and Enhancements**

Program:Power ManagementStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:9305

614 NW 46th St

**Urban Village:** Not in an urban village **Neighborhood District:** Northeast

The SCC EMS Upgrades and Enhancements project provides repairs, replacements, and upgrades to the System Control Center Energy Management System (EMS) and the Accounts, Contracts and Energy Scheduling System (ACES). The project includes associated hardware and software for EMS users (including other utilities and regulators) so that these systems comply with new utility regulatory standards and continue to provide effective electrical system operation, power scheduling, and marketing for City Light. City Light installed an EMS in 1995. Since then, external requirements have driven system enhancements and upgrades. EMS problem reports and enhancement requests continue and must be addressed. Since much of EMS is custom code and the system is complex, Siemens technical services is assisting with this work.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	600	735	929	939	972	1,010	1,039	0	6,224
TOTAL FUNDS	600	735	929	939	972	1,010	1,039	0	6,224
O&M Costs (Savings)			N/C	10	10	10	10	10	50

<sup>\*</sup>Amounts in thousands of dollars

### SCL 230kV Reliability Loop - Prelim Engr

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:7104

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the SCL 230kV Reliability Loop project is to provide preliminary engineering and system analysis to determine the optimal transmission system improvements for increased capacity and reliability of the regional and local City Light transmission systems. This work ensures that adequate capacities and system reliability are maintained to meet the growing demands for power.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	84	121	0	0	0	0	0	205
TOTAL FUNDS	0	84	121	0	0	0	0	0	205
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **Seattle City Light Drawing Conversions**

Program:Information TechnologyStart Date:1995 1st QuarterType:Improved FacilityEnd Date:2003 2nd QuarterLocation:Project ID:9909

700 5th Avenue

Urban Village: Commercial Core Neighborhood District: Downtown

The purpose of the Seattle City Light Drawing Conversions project is to convert the utility's paper engineering drawings to electronic format. This conversion enables City Light to more easily update and maintain the drawings so that engineers and field crews have accurate and up-to-date documents. The multi-year proposal directly supports the generation system rehabilitation projects, the recommendations from a CIP Review performed by R.W. Beck, and the Information Technology Strategic Plan.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	5,389	613	473	156	0	0	0	0	6,631
TOTAL FUNDS	5,389	613	473	156	0	0	0	0	6,631
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Seismic Mitigation**

Program:Facilities ManagementStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:9134

1300 N 97th St

Urban Village: Aurora-Licton Neighborhood District: Northwest

3613 4th AV S

Urban Village: Not in an urban village

Neighborhood District: Greater Duwamish

The purpose of the Seismic Mitigation project is to provide structural upgrades to City Light buildings so that they can withstand earthquakes. Facility seismic improvements protect the utilities' assets, employees, customers, visitors, equipment, and materials. The scope of improvements is linked to the business conducted at each site and requirements during emergency conditions. Examples of seismic projects include: seismic bracing to correct significant deficiencies at East Pine; designing and constructing previously identified seismic upgrades at the North Service Center; seismically upgrading storage areas while increasing storage density and reducing overall space requirements at the South Service Center.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	1,137	110	0	110	115	118	121	0	1,711
TOTAL FUNDS	1,137	110	0	110	115	118	121	0	1,711
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Skagit Licensing Mitigation**

Program:Environment & SafetyStart Date:1991 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:6991

500 Newhalem St

The purpose of the Skagit Licensing Mitigation project is to provide environmental mitigation so that City Light fulfills federal license requirements and minimizes adverse project impacts. Projects include purchasing wildlife lands, constructing the North Cascades Environmental Learning Center, and updating interpretive displays for visitors to the Skagit.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	29,542	11,860	1,075	222	91	86	32	0	42,908
TOTAL FUNDS	29,542	11,860	1,075	222	91	86	32	0	42,908
O&M Costs (Savings)			N/C	N/C	35	35	35	35	140

<sup>\*</sup>Amounts in thousands of dollars

## Skagit Telephone System Upgrade

Program:DistributionStart Date:2000 1st QuarterType:Improved FacilityEnd Date:2002 4th QuarterLocation:Project ID:9311

500 Newhalem St

The purpose of the Skagit Telephone System Upgrade project is to replace the five existing analog telephone switches (loaded at 90% capacity) with two new digital switches and related equipment. New switches provide additional capacity for the Skagit Hydroelectric Project, including the Interpretive Center. The new switches utilize the fiber now being installed between the Bothell and Skagit Substations, and are compatible with existing Department of Information Technology equipment. Similar work was accomplished at Boundary in 1999.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	403	295	0	0	0	0	0	698
TOTAL FUNDS	0	403	295	0	0	0	0	0	698
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

## **SnoKing-Bothell #2 Permanent Connection**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:7101

3912 156th SE

The purpose of the SnoKing-Bothell #2 Permanent Connection project is to provide a 230kV line from the Bothell Substation to the SnoKing substation. Installation of a 230kV connection between City Light and BPA ensures that the eastside line requirements are met. City Light work includes installing a 230kV breaker at Bothell, replacing a span of City Light's line to reconnect the eastside line to Bothell, and tree removal on 3.7 miles of right-of-way. BPA is installing a breaker at SnoKing and a section of line to connect to City Light.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	480	776	0	0	0	0	0	1,256
TOTAL FUNDS	0	480	776	0	0	0	0	0	1,256
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

## **South 26kV Conversion**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8125

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the South 26kV Conversion project is to replace of all old 4kV electrical equipment remaining in the electrical distribution system with new 26kV distribution equipment that is more efficient and more reliable.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	788	3,160	5,656	6,641	0	0	0	0	16,245
TOTAL FUNDS	788	3,160	5,656	6,641	0	0	0	0	16,245
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

## South Arterial Streetlights Major Maintenance

Program:DistributionStart Date:2000 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8210

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the South Arterial Streetlights Major Maintenance project is to provide necessary capital improvements and replacements to the City of Seattle's arterial streetlights in the southern half of the service area to ensure that the street right-of-ways have proper light. The City transferred ownership of 18,600 Arterial Streetlights to City Light at the end of 1999. Of those 18,600 streetlights, 5000-6000 lights are on poles installed exclusively for streetlighting. Many of these are fed underground.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	465	484	145	144	147	148	0	1,533
TOTAL FUNDS	0	465	484	145	144	147	148	0	1,533
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **South Capacity Additions**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:8123

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the South Capacity Additions project is to provide electrical lines from substations to the customers' property line so that City Light has sufficient capacity to serve customers and maintain reliability. This project builds new and replaces old line segments, replaces rotten and damaged poles, and adds or renovates underground distribution system facilities in the southern half of the service area. Some of the subprojects are paid for by City Light customers.

Fund Source	LTD	2001 2	002 2003	2004	2005	2006	2007	Total
Seattle City Light Fund	11,338	11,597 12,	037 15,329	14,939	20,148	20,547	0	105,935
TOTAL FUNDS	11,338	11,597 12,	037 15,329	14,939	20,148	20,547	0	105,935
O&M Costs (Savings)			N/C N/C	C N/C	N/C	N/C	N/C	0

## South Fork Tolt River Mitigation

Program:Environment & SafetyStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:6046

South Fork Tolt River

The purpose of the South Fork Tolt River Mitigation project is to provide environmental mitigation to the natural environment and the general public so that City Light fulfills federal license requirements and minimizes adverse project impacts. The South Fork Tolt River Hydroelectric Project uses the hydroelectric potential of the existing Seattle Public Utilities Tolt River municipal/industrial water supply system located northeast of Carnation, Washington. The Federal Energy Regulatory Commission License and 1988 Settlement Agreement stipulate mitigation and enhancement requirements for City Light's operation of the South Fork Tolt Hydroelectric Project. These include responsibilities in the areas of recreation, water quality, wetlands, and fisheries resources.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	117	835	36	22	22	23	24	0	1,079
TOTAL FUNDS	117	835	36	22	22	23	24	0	1,079
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

## **South New Street and Flood Lighting**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:8133

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the South New Street and Flood Lighting project is to provide requesting customers with rental streetlights and floodlights attached to City Light poles. This service is provided to customers pursuant to City Light Rate Ordinance #116619.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	250	217	211	327	339	346	352	0	2,042
TOTAL FUNDS	250	217	211	327	339	346	352	0	2,042
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

## **South Outage Replacements**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8303

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the South Outage Replacements project is to support the capitalized portion of work resulting from unplanned outages so that customer's electric power is restored as quickly as possible. This project covers outage replacement work in the southern half of City Light's service area. Unplanned outages result from storms, accidents, and equipment failures. Pole and transformer replacements required to restore power are among the elements capitalized during such repairs.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	81	83	86	88	90	92	0	520
TOTAL FUNDS	0	81	83	86	88	90	92	0	520
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **South Relocations**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8305

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the South Relocations project is to relocate electrical lines from the substations to customers' property lines so that City Light has sufficient capacity to serve customers and maintain reliability. This project builds new and replaces old line segments, installs and replaces poles, and adds or renovates underground distribution facilities in the southern half of the service area. Distribution systems are relocated for transportation projects, street vacations, and large industrial, commercial, and residential developments. Some of the subprojects are paid for by City Light customers.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	207	216	222	228	234	238	0	1,345
TOTAL FUNDS	0	207	216	222	228	234	238	0	1,345
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **South Residential Streetlight Improvements**

Program:DistributionStart Date:OngoingType:New FacilityEnd Date:OngoingLocation:Project ID:8135

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the South Residential Streetlight Improvements project is to improve public safety by installing additional residential streetlights within the south service territory and Seattle City limits. High crime and low income locations are initial priorities. The additional lights double the light levels to comply with the standard currently recommended by the Illumination Engineering Society and the American National Standards Institute. The annual scope of this program is planned with input from community and neighborhood groups.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	308	281	354	369	379	387	394	0	2,472
TOTAL FUNDS	308	281	354	369	379	387	394	0	2,472
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

## **South Services - Overhead and Underground**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:8121

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the South Services - Overhead and Underground project is to provide electrical power from the street right-of-way to customers requesting power. The number of requests fluctuates with land use development and customer demand. This project designs, installs, and energizes new or enlarged electrical services to serve the industrial, commercial, and residential customers in the southern half of the service area. This includes labor and/or materials to remove the old services, renovate the existing services, and install the new services. Requests for voluntary underground projects also are accomplished.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	6,310	4,628	4,459	4,357	4,493	4,580	4,657	0	33,484
TOTAL FUNDS	6,310	4,628	4,459	4,357	4,493	4,580	4,657	0	33,484
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### South to Broad Transmission Line - Prelim Eng

Program:DistributionStart Date:1999 3rd QuarterType:New FacilityEnd Date:OngoingLocation:Project ID:7055

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the South to Broad Transmission Line - Preliminary Engineering project is to perform preliminary engineering to determine the feasibility of adding a transmission line between South Substation and Broad Street Substation.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	15	314	353	0	0	0	0	0	682
TOTAL FUNDS	15	314	353	0	0	0	0	0	682
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Space Consolidation**

Program:Facilities ManagementStart Date:1999 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:9159

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Space Consolidation project is to improve efficiency and cost effectiveness in the space utilized for City Light activities. This includes upgrading existing facilities and sites to better use available assets, providing space for functions now residing in leased space, and relocating activities to improve efficiency. Planned projects include laying out the North Service Center tool room to increase storage capacity and operational efficiency.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	20	159	0	111	116	119	121	0	646
TOTAL FUNDS	20	159	0	111	116	119	121	0	646
O&M Costs (Savings)			N/C	20	20	20	20	20	100

### **Special Work Equipment - Generation Plant**

Program:GenerationStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:6102

South Fork Tolt River

500 Newhalem St

10382 Boundary Rd

19901 Cedar Falls Rd SE

The purpose of the Special Work Equipment - Generation Plant project is to provide special work equipment, machinery, and tools to be used for the workload activities or operations of the Generation Branch. This ongoing project provides for purchase of tools and equipment required for operations at the Skagit, Boundary, Tolt, and Cedar Falls facilities. City Light bases its purchases on a five-year plan, updated for technological improvements.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	432	273	967	779	800	818	831	2	4,902
TOTAL FUNDS	432	273	967	779	800	818	831	2	4,902
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

## **Special Work Equipment - Substation Plant**

Program:DistributionStart Date:1999 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:7902

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Special Work Equipment - Substation Plant project is to provide funding for the capitalized purchase of tools and special work equipment for the crews at the North and South Power Stations, Shops, and Relay. These tools enable crews to accomplish their work in a safe, timely, and efficient manner. This project is ongoing and provides tools for accomplishing high voltage electrical and related work.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	603	190	451	464	477	489	497	0	3,171
TOTAL FUNDS	603	190	451	464	477	489	497	0	3,171
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### **Substation Capacity Additions**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:7751

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Substation Capacity Additions project is to provide new infrastructure to existing substations and systems so that increasing load demands are met and the transmission of power from the substations to the distributions systems is safer, more reliable, and more efficient. This work includes, but is not limited to, adding transformers and related equipment, reconfiguring and extending getaways, and building ring buses.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	4,395	3,305	6,029	4,638	5,191	4,956	0	28,514
TOTAL FUNDS	0	4,395	3,305	6,029	4,638	5,191	4,956	0	28,514
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Substation Comprehensive Improvements**

Program:Facilities ManagementStart Date:1999 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:9161

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Substation Comprehensive Improvements project is to provide improvements to substations so that adequate facilities are available for assigned personnel and necessary upgrades are made to ensure the integrity of the facility. The project involves addressing each substation in a prioritized sequence, and completing all identified projects under one contract while minimizing disruption to operations. These improvements are identified in the Comprehensive Facilities Plan. Included are lunch and locker room facilities required by union contracts, work areas for crew chiefs, ventilation and heating systems, and correction of water, sewer, security, and other significant building-related concerns.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	54	542	438	183	199	0	0	0	1,416
TOTAL FUNDS	54	542	438	183	199	0	0	0	1,416
O&M Costs (Savings)			N/C	15	15	15	15	15	75

#### **Substation Equipment Improvements**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:7752

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Substation Equipment Improvements project is to replace and upgrade substation equipment so that system reliability is maintained or improved, compliance is obtained, and safe work sites are maintained.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	8,388	6,930	4,465	3,704	6,074	6,150	0	35,711
TOTAL FUNDS	0	8,388	6,930	4,465	3,704	6,074	6,150	0	35,711
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Substation Fiber Optic Network**

Program:DistributionStart Date:1998 1st QuarterType:New InvestmentEnd Date:OngoingLocation:Project ID:9108

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Substation Fiber Optic Network project is to replace existing analog microwave or leased circuits with fiber optic cable or digital microwave systems. This enables City Light to eliminate monthly lease fees, enhance operations, improve employee productivity, increase the security, quality and speed of data transmission, provide emergency response, and maintain public and employee safety. This project supports the Transmission and Generation radio systems that provide City Light's vital utility command and control, SCADA, and Energy Management System. This project is different from project 9307 in that it deals with the existing communications infrastructure (typically analog microwave or leased lines) between various Communications sites (e.g., Skagit to Seattle, City Light to Bonneville Power Administration, and Bothell to SCC).

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	1,179	1,505	2,211	2,195	2,252	2,310	2,349	0	14,001
TOTAL FUNDS	1,179	1,505	2,211	2,195	2,252	2,310	2,349	0	14,001
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Substation Plant Improvements**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:7750

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Substation Plant Improvements project is to upgrade and improve substation buildings, their facilities and systems, and other structures so that systems are reliable and compliant, and work sites are safe. It includes, but is not limited to, environmental improvements and removal and replacement of outdated utilities, structures, and equipment.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	1,240	1,734	2,074	6,368	1,866	1,839	0	15,121
TOTAL FUNDS	0	1,240	1,734	2,074	6,368	1,866	1,839	0	15,121
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **Summit Installation**

Program:Information TechnologyStart Date:1997 1st QuarterType:New InvestmentEnd Date:OngoingLocation:Project ID:9923

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Summit Installation project is to pay City Light's share of the development costs of the Summit Project, which replaced the City's previous financial system. City Light's contribution is roughly one third of Summit's budget. This project also pays for the interface, conversion and other development work that is specific to City Light. This project is necessary so that City Light can participate along with the rest of the City in the development and enhancement of a centralized financial system.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	867	1,241	814	1,098	1,577	765	766	0	7,128
TOTAL FUNDS	867	1,241	814	1,098	1,577	765	766	0	7,128
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### **Tool and Work Equipment - Other Plant**

Program:DistributionStart Date:OngoingType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:9102

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Tool and Work Equipment - Other Plant project is to replace old or broken tools or work equipment for field crews and other employees. This ongoing procurement project provides capitalized tools and work equipment required by all individual units of City Light, except those required at the generation plants (see project 6102) or substations (see project 7902).

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	873	875	867	935	961	985	1,002	0	6,498
TOTAL FUNDS	873	875	867	935	961	985	1,002	0	6,498
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Transmission Demand-Driven Improvements**

Program:DistributionStart Date:OngoingType:Improved FacilityEnd Date:OngoingLocation:Project ID:7105

Citywide

**Urban Village:** In more than one urban village

Neighborhood District: In more than one district

The purpose of the Transmission Demand-Driven Improvements project is to provide demand-driven transmission improvements to City Light's transmission system including reimbursable transmission work and relocations of transmission equipment to meet customer, other utility, agency, and regulatory requirements.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	630	0	11	11	11	12	0	675
TOTAL FUNDS	0	630	0	11	11	11	12	0	675
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

## **Transmission Replacement**

Program:DistributionStart Date:2003 1st QuarterType:Rehabilitation or RestorationEnd Date:OngoingLocation:Project ID:7098

Citywide

Urban Village: In more than one urban village

Neighborhood District: In more than one district

The purpose of the Transmission Replacement placeholder is to provide estimates of future expenditures for use in financial planning. The expenditures projections for future years assist staff members in projecting of future revenue requirements and rates. As specific projects are identified, the funds are moved to the appropriate project.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	0	9,909	10,320	10,621	10,893	11,461	53,204
TOTAL FUNDS	0	0	0	9,909	10,320	10,621	10,893	11,461	53,204
O&M Costs (Savings)			N/C	N/C	N/C	N/C	C N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

#### **Union Street Substation Networks**

Program:DistributionStart Date:1999 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:8201

1312 Western AV

**Urban Village:** Commercial Core **Neighborhood District:** Downtown

The purpose of the Union Street Substation Networks project is to provide added capacity and improved electrical system reliability to City Light customers in the Union Street Substation service area. This project provides existing customers with reliable electric service and new customers with system connections. Work may include: installation of new civil facilities (vaults and conduits); reconductoring and relocation of primary feeders; upgrading network transformers; additions and separations to secondary bus ties; installation of fire wrap on cables; transferring load between networks (cuts and taps); installation of real time ampacity equipment; installation of primary switches for load transfer or sectionalizing; installation or replacement of network protectors; installation of fire protection systems; and rebalancing feeders.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	5,062	2,844	953	14	912	1,360	1,114	1,143	13,402
TOTAL FUNDS	5,062	2,844	953	14	912	1,360	1,114	1,143	13,402
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

### Warehouse Management System

Program:Information TechnologyStart Date:1992 1st QuarterType:Improved FacilityEnd Date:OngoingLocation:Project ID:9906

3613 4th AV S

**Urban Village:** Not in an urban village **Neighborhood District:** Greater Duwamish

The purpose of the Warehouse Management System project is to provide bar code technology and portable data terminals to improve accuracy and overall efficiency of warehouse operations. This application helps City Light manage all aspects of inventory control processing and warehouse management so that supplies and equipment are readily available without excess inventory.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	2,442	1,012	570	2,314	623	378	301	0	7,640
TOTAL FUNDS	2,442	1,012	570	2,314	623	378	301	0	7,640
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars

### **Work Process Management System**

Program:Information TechnologyStart Date:OngoingType:New InvestmentEnd Date:OngoingLocation:Project ID:9927

500 Newhalem St

The purpose of the Work Process Management System project is to provide an integrated work management system used by City Light personnel who identify, plan, schedule, track, and document field work across the utility. This system enables work planners and schedulers to match job requirements with available resources so that the use of automated cost estimation results in efficient engineering design, more accurate planning of materials and labor, and significant reductions in warehoused inventories.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	1,118	1,354	4,383	2,536	1,690	1,524	0	12,605
TOTAL FUNDS	0	1,118	1,354	4,383	2,536	1,690	1,524	0	12,605
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

#### X-Windows/WEB EMS User Interface

Program:Power ManagementStart Date:2003 1st QuarterType:New InvestmentEnd Date:2003 4th QuarterLocation:Project ID:9402

614 NW 46th St

Urban Village: Ballard Neighborhood District: Ballard

The purpose of the X-Windows/WEB EMS User Interface project is to provide, acquire, install, and integrate the Spectrum X-Windows and WEB user interfaces to the Energy Management System (EMS). These interfaces provide utility managers and staff who do not currently have access to EMS graphical displays and data access to manage generation and other energy resources. The project includes purchase of Spectrum and other third party software and installation and integration services from Siemens.

Fund Source	LTD	2001	2002	2003	2004	2005	2006	2007	Total
Seattle City Light Fund	0	0	0	569	0	0	0	0	569
TOTAL FUNDS	0	0	0	569	0	0	0	0	569
O&M Costs (Savings)			N/C	N/C	N/C	N/C	N/C	N/C	0

<sup>\*</sup>Amounts in thousands of dollars