Appendices

Department of Finance and Administrative Services

Project Name	Project ID	Project Capacity	Project Location	202(Bud	
ADA Improvement - FAS	MC-FA- ADAIMPFAS	This is an Asset Preservation project and has no requirements under the Growth Management Act (GMA).	Multiple City facilities	\$	750
Seattle Municipal Courts	MC-FA- MUNICOURT	This is an Asset Preservation project and has no requirements under the Growth Management Act (GMA).	600 5th AVE	\$	140

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Advanced Metering Infrastructure	MC-CL-ZS8426	Rationale: City Light is at a point where replacement is unavoidable and needed in the short term due to the age and condition of its meters, meter reading equipment, and software. Approximately 50% of 350,000 residential meters in the field are at least 30 years old, which is outside the estimated lifespan for electro-mechanical meters. As of February 2009, residential electro-mechanical meters are no longer being manufactured. The software and handheld devices currently used by City Light meter readers to manually capture and record reads will no longer be supported after 2012. In addition, City Light currently employs 57 FTEs in Customer Billing and 44 FTE Meter Readers, of which 43%, or 25 FTE and 19 FTE respectively, are eligible to retire by 2014. This presents an opportunity for SCL to make operational changes that move the utility from a manual to an automated system at a time when it is needed. Alternative(s): Option 1 - Recommended solution: Full AMI implementation as entered. This option's up front capital costs result in significant net savings due primarily to reduced labor costs and increased revenue. In addition, it establishes the infrastructure, technology, and capabilities for improved customer service and support for future plans and operations. Option 2 - Status quo: Continue current meter replacement cycle using current commercially available digital meters without communication capabilities. At the current expenditure rate, between 5,000 and 7,000 meters are installed annually (replacement of failed meters, new meter growth, service changes, etc.). This option minimizes current annual capital costs, but does not provide for timely replacement of all electro-mechanical meters. In the event of accelerated failure rates from the aging meter population, capital costs would escalate. Other options previously screened out: A. Replace failed electro-mechanical meters with working electro-mechanical meters. The cost of purchasing electro-mechanical meters is currently lower than digital units but	Citywide	\$ -

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Alaskan Way Viaduct and Seawall Replacement - Utility Relocs	MC-CL-ZT8307	Rationale: The Alaskan Way Viaduct replacement includes a complex transmission and network/non-network relocation, design and construction, and is on a fast track. This work is integrated and required by the broader transportation project. The externally generated project and schedule includes significant electrical relocation work in the near term that will extend for over a decade. The utility is required to relocate for transportation relocated projects. The City's overall plan for the Alaskan Way Viaduct project includes utility funded relocations for the viaduct replacement and for rebuilding the Seawall. The series of subprojects that make up the Alaskan Way Viaduct replacement have opportunities for system improvements that will also be funded under this program. For most of the subprojects in the Alaskan Way Viaduct project, utility relocations will lead the construction. Therefore any delay in accomplishing SCL work will result in delays along the overall projects critical path. While the designs & construction schedules for the various subprojects in the Alaskan Way Viaduct program are being sequenced and detail design is underway for the immediate projects, the central waterfront elements of the overall project are beyond this budget cycle and are still in the preliminary design phases. Alternative(s): The Alaskan Way Viaduct program provides the utility with a combination of obligations and opportunities for system improvements over the next 6 years. The Alaskan Way Viaduct program will likely be the City's primary construction focus as its various projects impact traffic and roadway construction, seawall stabilization, and urban design on the waterfront. Seattle City Light facility relocations will be a part of each of these projects. The global nature of the Viaduct Program also provides the opportunity to make system improvements that will increase feeder capacity for our customers. For example, work in the south end will include system improvement sthat will increase feeder capacity and reliabil	SR 99 / Battery St	\$ 21,959

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Boundary Powerhouse Generator Step-up Transformer Replacement	MC-CL-XB6493	Rationale: Design to begin in 2010. Closeout in 2017. First transormer delivered in 2012. Alternative(s): An alternative approach would be to repair or replace units as they fail from deferred maintenance. This approach would eventually result in a significant loss of revenue and/or fines from a regulatory agency. Accepting the risk of failure would not be in the best interest of the utility. Having a spare unit onsite would prevent such failures.	10382 Boundary Rd, Metaline, WA 99153	\$ 7,635

Project Name	Project ID	Project Capacity	Project Location	202 Bu	20 dget*		
Broad Street Substation - Network	MC-CL-YN8203	Rationale: Customer demand for higher loads continues. Capacity of the cables serving two sub-networks is near overload, requiring immediate attention to avoid cable failure and customer outages. In the next five years, customers are projected to exceed the capacity of cables in another five network subareas. This capital project addresses the means to serve customer demand for higher capacity. Reliability measures identified in the Network Strategic System Plan are incorporated into this capacity driven work. Without this critical project it is very likely that there will be insufficient reliable electrical capacity in the very near future to hook up new customers and to serve present customers such as the Westin building. hernanju (7/29/21010): The project goal increases capacity of present Broad Street Substation network feeder cables to their ultimate service build-out limit (an overall increase of just under 100 MVA) as determined by Broad Street Substation's transformer capacity. This project constructs ten vaults and ten blocks of duct banks, re-conductors and relocates three primary feeders per year, upgrades/optimizes network transformers as needed, reduces secondary bus ties (reduce the size of the secondary grid resulting in greater reliability), and performs ancillary work. Alternative(s): Alternatives include: 1. Do nothing. Make no improvements to system reliability or additions to feeder capacity. This would allow customer load to continue growing without commensurate additions to capacity of feeders serving this area, ultimately leading to multiple cable failures and extended customer outages. This would reduce the customer reliability of the network systems from its present level, subjecting it to infrequent but lengthier outages. 2. Reduce customer demand for more loads with demand side management measures. This alternative was evaluated in the Network Strategic Systems Plan and found to have negligible ability to reduce customer demand in the network area. 3. Increase capacity of network feed	319 6th AVE N		4,472		
Citywide Under- grounding Initiative - City Light	MC-CL-ZL8403	Rationale: No Rationale Provided. Alternative(s): No Alternatives Provided.	System wide	\$	10		
Creston- Nelson to Intergate East Feeder Installation	MC-CL-ZO8430	Rationale: No Rationale Provided. Alternative(s): No Alternatives Provided.	Tukwila	\$	315		
*Amounts in thousands of dollars.							

Project Name	Project ID	Project Capacity	Project Location	2020 Budg	
Denny Substation - Network	MC-CL-YN8404	Rationale: This project is a result of a four years of advocacy by customers to make sure that the electrical distribution system has sufficient capacity to meet the projected loads in the rapidly growing area of North Downtown, and that the system has the reliability and voltage stability to support the research activities of the emerging biotech industry there. The principal stakeholders are the Fred Hutchinson Cancer Research Center, the UW School of Medicine, the Seattle Biomedical Research Institute, Rosetta Inpharmatics, ZymoGenetics, Children's Hospital and Medical Center, and the startups at the Accelerator Project. This five to seven year infrastructure project is specifically tailored and designed to the core needs of this business sector in the North Downtown area. The research activities and the laboratory equipment are so sensitive to system reliability and voltage stability that this area requires an extraordinary level of service from the utility. The motto is "World class research requires world class facilities.". The utility through this project is a partner in that effort. Because existing City Light substations cannot accommodate the new network feeders, this project cannot exist without the new substation. Alternative(s): 1. Enhance the service using non-network feeders from other substations. 2. Have individual customers invest in private reliability improvements. 3. Install network system in core service area, including the biotech industries. 4. Install network system throughout North Downtown area. Option 1 is not feasible because the availability of feeders from adjacent substations is limited and in question over time. Option 2 has been tried recently, but did not meet the reliability needs of this set of customers. Option 3 is the recommended option, as it is effective in meeting the need and cost effective. Option 4 includes all	Valley Street	\$ 11 \$.,262
Substation Transmission Lines		Provided.			

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Distribution Area Commu- nications Networks	MC-CL-YD9307	Rationale: The communication systems now employed are in need increased capacity, better security, faster speeds, and increased reliability to meet new regulatory requirements. This will meet our ever increasing data and voice communication needs and take us twenty years or more into the future. Maintenant costs are lower because increased redundancy and reliability as well as better system alarms and the capability to remotely troubleshoot and reprogram the system. Traffic on the network is easily rerouted until major failures can be repaired. The new requirements of security, relaying, Automated Meter Reading, Automated Distribution and other automated systems will be easier to implement at lower cost once this project is completed. The system is easily upgraded to increase capacity or take advantage of new technology as it becomes available. Alternative(s): Option 1 Proceed as proposed. Install/complete fiber optic rings. Option 2 Do nothing. Have an inadequate communications network, with a high expense O&M component.	Citywide	\$ 3,565

Project Name	Project ID	Project Capacity	Project Location	2020 Budg	et*
Distribution Management System	MC-CL-YD9966	Rationale: City Light currently uses manual processes to accomplish this work, but without the same outcome. Manual processes require reviewing maps to determine system configuration and options. They also do not provide accurate estimates of customers impacted by planned outages, and require additional labor to perform planning. DMS would be installed when it is determined that City Light has enough substation automation, communication infrastructure, Advanced Metering Infrastructure (AMI), and Supervisory Control and Data Acquisition (SCADA) field switching equipment in place to benefit from its use. The labor saving benefit will be achieved by maximizing the utilization of the substation and SCADA field switching equipment linked to the DMS. Customers will receive more accurate information regarding planned outages, and in some cases, reduce the area needed for the outage because of the ability to create switching scenarios during the planning process. Alternative(s): The only alternative direction would be to delay installation of DMS or choose not to install.	Citywide	\$	(0)

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Equipment Fleet Replacement	MC-CL-XF9101	Rationale: As mobile equipment ages, it reaches a point where it becomes more economical to replace the equipment than to continue to repair it. In the past, the mobile equipment fleet coordinator used a twenty year replacement plan to maintain City Light's vehicle pool. Due to replacement deferrals starting in the mid 90's and the budget cuts which began in 2000, that replacement plan by necessity was revised. We are now faced with replacing fleet on an as needed basis. That priority is to replace the most often used, specialized, or critical equipment to the Utility, or the most costly to maintain and least reliable vehicles first. To get back to an established plan will require seven plus years of enhanced financing. A seven year recovery plan requires \$10 million annually. That plan has been underfunded for 15 years. The planned annual purchases, per the twenty year plan for the heavy fleet equates to approximately \$8 million per year. That \$10 million replaces the equipment that normally needs to be replaced every year and addresses some of the equipment that has been deferred. The proposed \$10 million will not fully cover inflation and the increasing cost of materials as many purchases now have a steel surcharge added. There are also added emissions requirements for the coming years starting in 2007. This will require about \$10,000 per disel engine along with design changes to accommodate space for higher heat and larger exhaust pipes. The Memorandum of Understanding between the Fleet Management Department (FMD) and Seattle City Light (SCL) regarding financing and management of the City Light fleet states on June 22, 1998, the City Council adopted Resolution 29771. In that resolution is reference to Timely Replacement of Vehicles. The recommendation is to replace vehicles in a timely manner, when fully depreciated. Alternative(s): The recommended alternative is to address the backlog of City Light vehicles and hajner rental costs both for specialized vehicles and hajner rental costs both for specialized v	System wide	\$7,182

Project Name	Project ID	Project Capacity	Project Location	2020 Budg	
First Hill - Network Load Transfer	MC-CL-YN8407	Rationale: No Rationale Provided. Alternative(s): No Alternatives Provided.	1100 Madison St.	\$	0
Generation Federal Reliability Standards Improvements	MC-CL-XP6470	Rationale: In June 2007, newly established standards regulating the North American bulk electric power system, which includes generation and transmission, became mandatory. Failure to comply may be punishable by financial penalties of up to \$1 million per day per violation. As of April 2008, there are 140 standards in force; 30 of these apply to Seattle City Light's (SCL) Power Production Division. SCL is in full compliance with many of the standards, but has identified elements of the new standards which require rapid mitigation to avoid financial penalty or other forms of censure. Publication of new and revised standards requires an on-going project level effort to put improvements into service which keep generation equipment and operations in full compliance. Alternative(s): No Alternatives Provided.	500 Newhalem Creek Rd, Marblemount, WA 98267	Ş	10

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Interbay Substation - Development	MC-CL-YS7756	Rationale: The Broad Street Substation is reaching its capacity to serve the network and the growing South Lake Union neighborhood. The limiting factor is an inability to construct additional underground feeders to carry electrical current in to the area. The existing 26 kV distribution system and substations are becoming overloaded and a new 26-kV substation will feed the areas load growth. The 115 kV ring bus work at Broad Street and Canal Substations will provide the connections to the transmission system. The new substations will provide 10 to 15 new 26 kV getaways, adding to the distribution network and providing a new path for power to the area. Because City Light already owns property for a station in Interbay, it is the nearest opportunity we have to add capacity in the western part of the service area that will off-load demand from the Broad Street Substation for the South Lake Union district. Developers who are interested in projects in the SLU district want to know that City Light will be able to serve their needs reliably. Alternative(s): 1. Not build the new substation. 2. Option one build: Contract out the design and construction 3. Option two build: Have City Light design and integrate the facility into the distribution system, and construct the facility. It requires at least 36 months to site, contract for design, construct, and energize a distribution substation. There are several alternatives such as installing distributed generation facilities to meet load growth. City Light has considered constructing additional transmission corridors from the University Substation and/or Canal Substation. Both alternatives require crossing a body of water, which are expensive options even if environmental challenges do not delay or halt progress. Given the recognized growth in South Lake Union, City Light selected the most cost effective and achievable option - constructing a station at Interbay to serve the growing load in that part of the service territory.	17th Ave West	\$29

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Large Overhead and Underground Services	MC-CL-ZS8365	Rationale: There is a continuous demand for additional electric power services as new construction and renovation work occurs. Seattle City Light provides service to new customers in a safe, reliable, timely, and cost effective manner as a means to fulfill its commitment to be a customer and community focused organization. Alternative(s): Each service connection may have unique aspects that would require or facilitate design, construction, and financing alternatives. Seattle City Light will fully consider alternatives as a means to fulfill its commitment to be a customer and community-focused organization.	System wide	\$ 2,997

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Massachusetts Street Substation - Networks	MC-CL-YN8202	Rationale: The rational for this project is to increase the capacity and reliability of present Massachusetts Street Substation network feeder cables to their ultimate service build out limit (an overall increase of 69 MVA), as determined by Massachusetts Street Substation's transformer capacity, with allowance for feeder imbalances, feeder diversity and diversity among sub- networks. The Alaska Way Viaduct project will require the relocation of all 13kV distribution feeders that are suspended from the viaduct. These include feeders serving Pioneer Square and the downtown core. Additional duct banks and electrical vaults must be built throughout the Pioneer Square area to accommodate the feeder relocations. Doing the engineering for this relocation during 2007 will ensure that timely civil construction can be done in order to avoid many conflicts with other utilities and mitigate some of the traffic impacts that will occur during the Viaduct and Seawall construction. Alternative(s): Alternatives include: 1. Do nothing. Make no improvements to system reliability or additions to feeder capacity. This would allow customer load to continue growing without commensurate additions to capacity of feeders serving this area, ultimately leading to multiple cable failures and extended customer outages. This would reduce the customer reliability of the network systems from its present level, subjecting it to infrequent but lengthier outages. 2. Reduce customer demand for more load with demand side management measures. This alternative was evaluated in the Network Strategic Systems Plan and found to have negligible ability to reduce customer demand in the network area. 3. Increase capacity of network feeders to the full limit of the substations capability to deliver power. 4. Add measures that improve system reliability to mitigate the severity of any network event. 5. Add measures that improve customer reliability by preventing the chain of events leading to major customer impacts.	Location 1555 Utah Ave S	Budget* \$ 3,420

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Medium Overhead and Underground Services	MC-CL-ZS8366	Rationale: There is a continuous demand for additional electric power services as new construction and renovation work occurs. Seattle City Light provides service to new customers in a safe, reliable, timely, and cost effective manner as a means to fulfill its commitment to be a customer and community focused organization. Alternative(s): Each service connection may have unique aspects that would require or facilitate design, construction, and financing alternatives. Seattle City Light will fully consider alternatives as a means to fulfill its commitment to be a customer and community-focused organization.	System wide	\$ 16,335

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Meter Additions	MC-CL-ZS8054	Rationale: Background: Of the 400,000 meters in City Light's metering system, approximately 80,000 are older than 30 years. City Light's Rates Unit estimates that replacing the meters would result in an increase in revenues of more than \$450,000 annually. City Light has a fiduciary responsibility to continually update the metering system. Due to continuous budget constraints, both in labor and material, targets of 10,000 obsolete meter exchanges were reduced in 2000, 2006 and 2008 to our current level of 5300, thus the backlog of older meters continues to increase. Methodology: New Service Installations: Over the past 9 years, new or upgraded services have averaged 5,500 a year. Material budgeting was based on a 2006 to 2008 average and current labor figures. These project funds support the demands of new construction and upgraded services. Obsolete Meter Exchange: The life cycle of a meter is 30 years based on the electromechanical meter. However, current and future electronic technology may reduce this life-span up to 50%. Older meters slow with age, resulting in a loss of revenue to the Department. Obsolete meters can account for up to 3 percent loss in department revenue. The Technical Metering Unit expects to exchange 10,000 obsolete meters annually starting in 2013 through 2016. Alternative(s): 1. Continue to replace obsolete meters at current level of 5,300 annually. City Light could not accurately bill for electrical consumption. Incur loss of City Light revenue due to slow meters. Results in increasing backlog of meters at ony sers old. Increased future utility costs due to replace obsolete meters at higher level of 10,000 annually. Increase number of customers who receive accurate and timely bills. Reduce loss of utility revenues due to slow meters. Avoid higher cost of meter replacement when meters fail.	System wide	\$ 3,700
Mobile Workforce Implementatio n	MC-CL-YR8429	Rationale: No Rationale Provided. Alternative(s): No Alternatives Provided.	Citywide	\$ 1,163

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*	
Neighborhood Voluntary Undergroundi ng Program	MC-CL-ZO8383	Rationale: Many residential customers have a strong interest in converting overhead power lines to underground lines. Legislation limits City Light from subsidizing this activity from the general rate base. Since the City enacted Council Ordinance 112738 in 1986, customers wishing to convert an existing service from an overhead to an underground connection have utilized the utility's Voluntary Underground Program (VUP). It requires that the customers pay all costs associated with any residential undergrounding. This is still currently a part of the Seattle Municipal Code (SMC) in Section 21.49.110.T. The Seattle City Light VUP coordinator works with any customer or customer group expressing an interest in undergrounding to form a VUP project. The purpose of the Voluntary Underground Program (VUP) is to satisfy residential customers who are interested in converting their overhead distribution system to an underground system. This project allocates customer support, design, and construction services so that the customers feel well treated whether or not they ultimately decide to go ahead with the conversion. Alternative(s): No Alternatives Provided.	System wide	\$	15

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Network Additions and Services - Denny	MC-CL-ZS8405	Rationale: This is a mandated project that provides electrical service connections and related improvements in response to requests for service from customers. The project provides targeted civil and electrical design assistance to customers to connect existing and proposed buildings to the North Downtown network system. The conversion effort is quite large since we are installing a new network in this area. It is imperative to participate in early design discussions with customers building in the area. For existing buildings, the conversions to network service are complicated and require expert assistance. This project provides service connections to biotech industry, condominiums, office buildings, medical facilities, hotels, and commercial and apartment buildings. Alternative(s): 1. Do nothing. 2. Hook up customers as they request. Option 2 is recommended as it is most compatible with our mission of customer service.	Valley Street	\$ 9,468

Seattle City Light

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Network Additions and Services: Broad Street Substation	MC-CL-ZS8363	Rationale: The Broad Street Substation Network Additions and Services project connects approximately five small, four medium, and five large properties costing \$4.6 million and performs capacity additions work associated with service connections. These connections include condominiums, office buildings, medical facilities, hotels, and commercial and apartment buildings. Alternative(s): No Alternatives Provided.	319 6th AV N	\$ 11,000

Network MC-CL-ZS8364 Additions and Svcs: First Hill, Mass, Union & Univer

Rationale: This Network Additions and Services project for the customers in the First Hill, Massachusetts, Union, and University District network areas provides service connections to approximately nine small, five medium, and four large properties costing \$3.5 million. These connections include condominiums, office buildings, medical facilities, hotels, and commercial and apartment buildings. Alternative(s): No Alternatives Provided.

1555 Utah AV \$ 5,000 S

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Network Hazeltine Upgrade	MC-CL-YN8129	Rationale: Using the Network Hazeltine system provides reliable power by remotely monitoring the electrical vaults and electrical equipment within the entire downtown service area. The Power Dispatchers constantly monitor the real time status of the network using the Hazeltine system. This program costs \$304K per year and avoids problems that can easily exceed twice that amount for Seattle City Light and its customers. The utility's cost for one such problem can range from \$200K up to as much as \$3M. Aggregated customer costs can range from \$100K up to \$5M. The benefit cost ratio for any one problem can range from 0.99 ([\$200k+\$100k]/\$304k) to be as high as 26.3 ([\$3M+\$5M]/\$304k). We usually avoid 4 to 5 smaller problems each year and a larger problem, with combined costs of \$1.53M, every 5 years. The yearly benefit cost is then [4*0.99 + 1.53M/(304k*5)] = 5.0. Alternative(s): 1. Do nothing. Do not change existing Hazeltine system. Hazeltine has changed the production of their transmitters, forcing utilities to pay a premium for the transformers that is a fraction of the cost of upgrading to their Next Generation equipment. 2. Upgrade to Hazeltine's Next Generation system, changing station receivers and transmitters on each transformer. Total cost is about \$2.2 million. 3. Develop SCL proprietary network EMS system, capable of monitoring plus a new function of control of NP's, BTS's, and primary switches if they are added. Total cost: A. Buy any upgradess from vendors only. Wait for Hazeltine or other vendors, to develop network EMS systems with the desired control and monitoring features. No products or competitors to Hazeltine are available at this time for cost estimates. 5. Add sensors to existing or future Hazeltine system to enhance the monitoring of the network environment. This would enable system operators to detect and respond to abnormal field condition and thereby improve customer reliability. 6. Continue existing program of upgrading the sensors to match the current SCL standard. In 2007 and 2008,	System wide	\$ 766

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Office Furniture and Equipment Purchase	MC-CL-XF9103	Rationale: Workplace and process improvements completed under program 9159, plus ongoing organizational change, require the purchase of office furniture and equipment in order to achieve the project objectives. Each year Utility Support Services completes approximately 450 service requests requiring furniture reconfiguration, at least a third of which involve ergonomic corrections. Alternative(s): 1. Fund program 9103. 2. Don't fund program 9103 and purchase all office furnishings and equipment from the O&M budget. 3. Maintain office furniture until it can no longer be sustained in acceptable condition and then replace in total with a future ad hoc program.	System wide	\$ 1,131

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Overhead and Underground Relocations	MC-CL-ZT8369	Rationale: This project provides the means to move City Light system infrastructure, located in the public right-of-way for transportation projects, including street widening and street vacation projects. This means moving distribution lines to make way for construction of buildings, bridges, airport runways, tunnels, and for other utilities. This project moves electrical lines to accommodate or take advantage of transportation-related projects being constructed by other agencies. The project builds new and replaces old line segments, installs and replaces poles, and adds or renovates underground facilities to the distribution system, as necessary, to relocate distribution systems for transportation projects, street vacations, or other projects are paid for by City Light and some are paid for by the requesting agencies. This project provides the means to move the system for transportation projects in the public right of way, including street widening and street vacation projects. Alternative(s): The do nothing alternative leaves the distribution of facilities in their current location, which would interfere with the projects of the other agencies.	System wide	\$ 4,676

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Overhead Customer Driven Capacity Additions	MC-CL-YR8355	Rationale: This project adds capacity to the distribution system to accommodate increased load from new services. Alternative(s): The do nothing alternative leaves the existing system in place. New loads added to the system will adversely impact system reliability and voltage stability. It may be necessary, if the load increase is significant, to deny new service connections if the feeder capacity is inadequate.	System wide	\$ 5,595

Overhead System	MC-CL-YR8356	Rationale: This project adds capacity to the distribution system to maintain the reliability level for the existing customers on the	System wide	\$ 2,707
Capacity		system and accommodate the increased load from new services.		
Additions		Alternative(s): The do nothing alternative leaves the existing		
		system in place. New loads added to the system will adversely		
		impact system reliability and voltage stability. It may be		
		necessary, if the load increase is significant, to deny new service		
		connections if the feeder capacity is inadequate.		

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Pole Attachments	MC-CL-YR8452	Rationale: City Light is legally and contractually obligated to make space available on its facilities to government and private entities for communication and other purposes. Customers wishing to utilize space on City Light facilities are required to pay in advance for any necessary work required to provide the necessary space and minimum clearances to the electrical equipment. This ensures that the attachments meet all applicable federal, state and local safety codes. Customers are not allowed to make any attachments until all make ready work, including tree trimming, has been completed and the system made safe for the communication worker. Speed to market in the communications industry is critical for them to maintain their competitive advantage. Customers pay in advance for City Light crews to complete this work on overtime, without interrupting the normal assignments of the crews. All construction charges are deposited into the Light Fund. New wireless facilities and pole attachments generate an additional \$100,000 in rental revenue annually. Currently \$3.3 million in annual rental revenue is being generated and will continue to increase as construction and make ready work is completed. All rental revenue is deposited into the Light Fund. The communications industry and associated technology are growing at an astounding rate. City Light has experienced a 375 percent increase in pole attachment applications since 2007. All trends indicate that this growth will increase by an average of 24 percent annually. This does not take into account major initiatives such as fiber to the home, Advanced Metering Infrastructure (AMI), or vast expansion of existing networks and Distributed Antenna Systems (DAS). Completing the construction for make ready work and wireless facilities will enable City Light to fulfill its legal and contractual obligations to our customers. Customers will be provided a small measure of rate relief through increased revenue streams from these additi Alternative(s): It is possible that some or	System wide	\$ 16,614

Project Name	Project ID	Project Capacity	Project Location	2020 Budget	*
Power Production - Network Controls	MC-CL-XP6385	Rationale: A 2003 Report from Westin Engineering identified limits to our automation, remote control and supervisory control capabilities at Skagit. Among other things, the report found that there are protocol issues within and between the facilities and between the facilities and the System Control Center. Improvements are necessary before supervisory control, such as remote start stop and remote loading can be achieved. The consequence of not coordinating all the individual controls and monitoring projects is that we will not resolve our protocol issues, and that we will continue to limit our ability to remotely control and operate the plants. This leads to reduced efficiencies and higher production costs. Project Weighted Rating-26.8, Primary Rationale-Reliability Alternative(s): Do nothing. This is not advisable as it can lead to higher maintenance costs and to unscheduled outages due to unforeseen catastrophic bearing failures. Do partial replacements. This has been the approach. However, there are incompatible pieces that cannot be replaced or replicated as some components are no longer in production. This results in greater potential of system failures due to outdated electronic components being run past their life or not updatable.	500 Newhalem Creek Rd, Marblemount, WA 98267	\$	(0)

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Security Improvements	MC-CL-YD9202	Rationale: If Seattle City Light's Security Improvements Program is underfunded, its critical facilities face increased risk to sabotage, vandalism, theft, and terrorism that can result in the loss of valuable infrastructure for generation and distribution of power, as well as noncompliance with North American Reliability Council (NERC) 1200 Standards, adopted May 2, 2006, to improve security at critical facilities that house command and control systems. Curtailment of Seattle City Light's electric operations would impact reliability of the power system in the Pacific Northwest, create lost revenues, and jeopardize public safety and emergency response due to loss of lifeline services such as medical services, water and wastewater systems, communications, law enforcement, banking, transportation system, etc. Alternative(s): Option 1, Status Quo: No centralized security system. Operate local security systems in place and use local law enforcement and private security companies to address security on a limited basis. Use private security services and/or request additional assistance from local law enforcement during times when the Federal government has raised the alert level for the nation or region, or for a situation that has occurred requiring additional security services. Option 2, Centralized Security System: Seattle City Light installs security enhancements to delay, detect, and respond to security intrusions at its critical facilities that are connected to a central security monitoring center that will be staffed by trained security guards on a 24/7 basis to monitor and respond to security incidents. Department wide response procedures will be established and coordination with local law enforcement will be established for responding to security incidents.	System wide	\$ 2,616

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Small Overhead and Underground Services	MC-CL-ZS8367	Rationale: There is a continuous demand for additional electric power services as new construction and renovation work occurs. Seattle City Light provides service to new customers in a safe, reliable, timely, and cost effective manner as a means to fulfill its commitment to be a customer and community focused organization. Alternative(s): Each service connection may have unique aspects that would require or facilitate design, construction, and financing alternatives. Seattle City Light will fully consider alternatives as a means to fulfill its commitment to be a customer and community-focused organization.	System wide	\$ 4,993

Project Name	Project ID	Project Capacity	Project Location	202 Bud	0 get*
SMT AutoLab	MC-CL-XP6600	Rationale: This project supports continued new cyber security and automation projects. The existing equipment lab is too small and the HVAC system doesn't adequately cool existing equipment. Alternative(s): The project will also look at enlarging the existing lab on SMT 35, as well as looking at alternate spaces to create a new lab. Existing IT labs will be considered.	System wide	\$	268

Project Name	Project ID	Project Capacity	Project Location	2020 Budg	
Sound Transit - City Light System Upgrades	MC-CL-ZT8475	Rationale: Pursuant to its role as a utility in the State of Washington, City Light must supply Sound Transit with electric power. The system capacity work to be done under this project needs to be coordinated with City Light's other capacity planning work, so a comprehensive project will provide a better tool to manage work than would several piece-meal projects focussed on separate distribution feeder upgrades. As of the 1st quarter of 2016, some system planning work is being done on the separate Sound Transit Link projects. These separate but related efforts will probably be brought into this new project. Alternative(s): No Alternatives Provided.	City Wide	\$	25

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Sound Transit Light Rail East Link - City Light	MC-CL-ZT8450	Rationale: Sound Transit is in the preliminary stages of planning a light rail line running from Seattle's International District Station to the Bellevue Redmond area. As of 2Q2010, final decisions on the alignment to be chosen have not been made by Sound Transit and SCL has not begun engineering. Per Sound Transit's official communications, the current plan states that Sound Transit's board will select the final alignment for East LINK in 2011 after the EIS is completed. As of 2Q2010, SCL has pointed out that the main area of potential concern with its facilities is the possible crossing under SCL's eastside transmission lines in SE Bellevue, depending on the location chosen for the East LINK alignment there. Until a final alignment is chosen, SCL anticipates that we will be acting in an advisory role. So far, discussions regarding the Seattle section of the East LINK alignment have proposed locating a station somewhere in the vicinity of the 23rd Ave E & Rainier Avenue S neighborhood. Also, current plans are that the line would not be underground between the International District Station and the I-90 Bridge, although all plans are subject to change ahead of the board's vote next year. Sound Transit estimates construction could then start in late 2013 or early 2014 SCL will develop engineering estimates and a complete budget, working with Sound Transit's project team, as more details of the project move forward. Depending on the final alignment, scL will revise our FY2011 budget as needed to fit Sound Transit's time lines. As Sound Transit readies for the board's vote on the alignment, we will work with Sound Transit the project will be 100% reimbursable to SCL in keeping with past work with Sound Transit. Alternative(s): SCL must, if possible, facilitate the construction of this customer's project.	I-90	\$ -

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Substation Capacity Additions	MC-CL-YS7751	Rationale: We plan to design the feeder get-aways to carry power from substations as needed. Alternative(s): The alternatives to making capacity additions to existing substations are: 1. Accepting limitations on service to customers. 2. Successfully promoting voluntary power demand reductions. 3. Meeting capacity demand increases by new substations and transmission lines.	System wide	\$ 2,456

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Substation Comprehensiv e Improvements	MC-CL-XF9161	Rationale: 1. Reduce the risk to communications equipment and power network controls in order to sustain City Light's historically high system reliability. 2. Reduce workplace complaints among substation staff so that City Light maintains its harmonious relationship with electrical workers. Alternative(s): 1. Fund Program 9161. 2. Eliminate Program 9161 and make limited scope improvements in reaction to critical situations. 3. Eliminate Program 9161 and fund substation improvements out of other programs. 4. Make no improvements and finance increasing risk through insurance. 5. Eliminate Program 9161 and complete substation improvements as an O&M expense.	System wide	\$ 236

Project Name	Project ID	Project Capacity	Project Location	2020 Budge	et*
Substations Demand Driven Improvements	MC-CL-YS7755	Rationale: Requests from other agencies typically occur without enough notice to be included in the biennial budgeting process. The Power Stations Division budgets a nominal sum for each year to cover requests and to request spending authority. Alternative(s): The alternative to implementing regional demands is failing to meet City commitments to regional agreements.	System wide	\$	5

Underground Customer	MC-CL-YR8360	Rationale: This project adds capacity to the distribution system to accommodate increased load from new services. Alternative(s):	System wide	\$ 5,293
Driven		The do nothing alternative leaves the existing system in place.		
Capacity		New loads added to the system will adversely impact system		
Additions		reliability and voltage stability. It may be necessary, if the load		
		increase is significant, to deny new service connections if the		
		feeder capacity is inadequate.		

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Union Street Substation Networks	MC-CL-YN8201	Rationale: The Union Street Substation Networks project provides sufficient and reliable electrical capacity for the growing power needs of our customers. It is a programmatic approach for comprehensive management of underground network assets (electrical and in some cases civil) serving customers in the area bounded by Yesler Street, Alaska Way, Pike Street, 6th Avenue, Union Street, the Freeway, University Street, 3rd Avenue and the Waterfront area from Denny to Yesler. The project goal is to increase the capacity of present Union Street Substation network feeder cables to their ultimate service build out limit (an overall increase of 128 MVA) as determined by Union Substations transformer capacity, with allowances for feeder imbalances, feeder diversity and diversity among sub-networks. We will reconductor and re-route four targeted service feeders by the end of 2008 and perform associated work such as feeder balancing. This includes the work in support of finishing the main stem build out and to address capacity issues in the branch portion of the feeder service cables as needed in response to specific service requests, as well as analyses of branch cable congested areas. Work in 2007 and 2008 as well as successive years is necessary to be able to pick up loads that will likely be transferred from Broad Street sub-networks in 5 years. To meet the projected new loads on the Waterfront and at specific downtown core sites we need to complete re-conductoring and re-routing of four targeted service feeders by the end of 2008 and perform associated work such as feeder balancing that will be transferred from Broad Street, and may be transferred from Massachusetts Street; build and energize a new network substation at least six years before all Downtown network capacity is used so that service cutovers can be done with minimal impact to our customers. This work is essential to meet near term load requirements of the SAM/WaMu and Four Seasons projects. This critical project Alternative(s): Alternatives include: 1. D	1312 Western AV	\$ 2,605

*Amounts in thousands of dollars.

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
		reliability to mitigate the severity of any network event. 6. Add measures that improve customer reliability by preventing the		
		chain of events leading to major customer impacts.		
Seattle Department of Transportation

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
23rd Avenue Corridor Improvements	MC-TR-C037	This project will install road improvements and improve the efficiency of Seattle's transportation network and of the regional transit network.	23rd AVE S/E John ST/Rainier AVE S	\$ 1,720
3rd Avenue Corridor Improvements	MC-TR-C034	This project will increase the person-carrying capacity of Seattle's transportation network and of the regional transit network.	3rd AVE	\$-
Alaskan Way Main Corridor	MC-TR-C072	The program will construct a new Alaskan Way surface street and public space.	Various	\$ 84,040
Alaskan Way Viaduct Replacement	MC-TR-C066	This project funds the City's involvement in the replacement of the Alaskan Way Viaduct and Seawall.	ALASKAN WY VI SB	\$ -
Bike Master Plan - Protected Bike Lanes	MC-TR-C062	This program will install bike lanes and bicycle route signing, and complete links or reconstruct key sections of urban trails in order to increase bicycle safety and access.	Citywide	\$ 8,670
Burke-Gilman Trail Extension	MC-TR-C044	This project will construct three miles of new multi-use trail.	Various	\$ 5,107
Freight Spot Improvement Program	MC-TR-C047	This project will improve mobility. Specific projects and the corresponding impacts on capacity are still to be determined.	Citywide	\$ 5,323

Seattle Department of Transportation

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Madison BRT - RapidRide G Line	MC-TR-C051	This project will increase the person-carrying capacity of Seattle's transportation network and of the regional transit network.	Madison ST/Alaskan Way/Martin Luther King Junior W	\$ 10,164
Neighborhood Traffic Control Program	MC-TR-C019	This program will install traffic calming devices on neighborhood streets.	Citywide	\$ 325
New Traffic Signals	MC-TR-C020	This project will install new traffic signals to improve traffic flow, reduce the frequency and severity of traffic accidents, and support pedestrian activity.	Citywide	\$ 114
Northgate Bridge and Cycle Track	MC-TR-C030	This program will design and build pedestrian and bicycle improvements in order to increase safety and improve access to transit modes.	Multiple	\$ 8,763
RapidRide Roosevelt	MC-TR-C013	This project will increase the person-carrying capacity of Seattle's transportation network and of the regional transit network.	Various	\$ 8,086
S Lander St. Grade Separation	MC-TR-C028	The project will construct a grade separation of the S Lander St. roadway and the Burlington Northern mainline tracks between 1st and 4th Avenues S.	S Lander St/1st Ave S/4th Ave S	\$ 29,430
Sound Transit - East Link	MC-TR-C004	This project will provide design review, permitting, and construction support services for the Sound Transit - East Link project.	Citywide	\$ 70

Seattle Department of Transportation

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Sound Transit North Link	MC-TR-C027	Construct a 4.3-mile light rail line and three stations at Northgate, Roosevelt and University District.	Various	\$ -
Transit Corridor Improvements	MC-TR-C029	This program implements projects that improve transit speed, reliability, access, and convenience, consistent with the Transit Master Plan.	Citywide	\$ 3,634
Vision Zero	MC-TR-C064	This project will upgrade existing signals and signs, and install new ADA ramps, and pedestrian safety improvements.	Citywide	\$ 4,140

Seattle Parks and Recreation

Project Name	Project ID	Project Capacity	Project Location	202	-
14th Avenue NW Park Boulevard Development (NW 58th to NW 62nd)	MC-PR-16006	This project will provide 17,000 square feet of pedestrian and environmentally-friendly amenities such as swales, natural landscaping, and benches.	E 14th Ave NW	В и \$	dget* -
Activating and Connecting to Greenways	MC-PR-21004	This project will increase the number of miles of safe pedestrian routes for all ages.	Citywide	\$	221
Bryant Site Development	MC-PR-61002	This project will increase the waterfront parkland in Seattle by 3.9 acres.	1101 NE Boat ST	\$	-
Community Food Gardens and P-Patches	MC-PR-17001	This project adds community gardens and P-Patches to afford more opportunities to the public for growing food locally.	Citywide	\$	-
Develop 14 New Parks at Land-Banked Sites	MC-PR-21003	This project will add 14 developed parks for active recreation to help meet the City's parks and open space goals.	Citywide	\$	1,707
East John Street Open Space Development	MC-PR-15004	This project adds green, environmentally sensitive improvements in an existing park.	Summit AVE E	\$	-
Golf Master Plan Implementatio n	MC-PR-31004	This project includes new driving ranges, building replacements, perimeter trails and cart paths.	Citywide	\$	-
Green Space Acquisitions- 2008 Parks Levy	MC-PR-12001	This project will acquire various new properties.	Citywide	\$	-
Levy Hing Hay Park Development	MC-PR-16003	This project adds .31 acres of parkland to an existing neighborhood park.	423 Maynard AVE S	\$	-

Seattle Parks and Recreation

Project Name	Project ID	Project Capacity	Project Location	20 Bu	20 dget*
Jimi Hendrix Park Improvements	MC-PR-15003	This project makes the park more inviting, usable, and environmentally friendly.	2400 Massachusetts ST	\$	- -
Marra- Desimone Park Development	MC-PR-16004	This project will provide community and recreation space to the 8.7 acre site.	9026 4th AVE S	\$	-
Neighborhood Park Acquisitions- 2008 Parks Levy	MC-PR-14001	This project will acquire various new properties.	Multiple Locations	\$	-
Opportunity Fund Acquisitions- 2008 Parks Levy	MC-PR-15001	This project will acquire various new properties.	Citywide	\$	-
Park Land Acquisition and Leverage Fund	MC-PR-21001	This project will add acreage to Seattle's total park land acreage.	Citywide	\$	5,208
Rainier Beach Urban Farm and Wetlands Improvements	MC-PR-15005	This project develops a working organic urban farm, wetlands, and related amenities that will be open to the public.	5513 S Cloverdale ST	\$	-
Victor Steinbrueck Park Renovation	MC-PR-16005	Capacity will depend on the project scope that will be the subject of additional citizen review consistent with the Parks Department's Public Involvement Policies.	2001 Western Ave	\$	-
Washington Park Arboretum Improvements - 2008 Parks Levy	MC-PR-13002	This project renovates park areas with new horticultural displays and trails.	2300 Arboretum DR E	\$	-

Seattle Public Utilities

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Asset Information Management	MC-SU-C5407	Not applicable	Various	\$ 2,447
Broadview Long-Term Plan	MC-SU-C3812	Program does not increase capacity.	Broadview	\$ 4,000
CSO Facility Retrofit	MC-SU-C3611	This project will retrofit, upgrade, and modify existing Combined Sewer Overflow reduction facilities.	Various	\$ 13,195
Customer Contact & Billing	MC-SU-C5402	Not applicable	N/A	\$ 2,658
Drainage Capacity Program	MC-SU-C3802	This program will provide flood control and local drainage and wastewater projects in under-served parts of Seattle to improve system capacity or increase the existing level of service.	Various	\$ 2,448

Enterprise Information Management	MC-SU-C5403	Not applicable	Various	\$ 926
Green Stormwater Infrastructure Program	MC-SU-C3610	This project increases capacity to convey combined sewer flows by slowing stormwater flows and reducing volumes entering the combined system, this is achieved by slowing, infiltrating or reusing stormwater.	Citywide	\$ 2,700

IT Infrastructure	MC-SU-C5404	Not applicable	N/A	\$ 750
Long Term Control Plan	MC-SU-C3604	This project will determine size and location of all future CSO control facilities within the City.	Various	\$ 1,200

Seattle Public Utilities

Project Name Project Delivery &	Project ID MC-SU-C5405	Project Capacity Not applicable	Project Location N/A	2020 Budget* \$ 2,968
Performance Pump Station & Force Main Improvements	MC-SU-C3703	This program will provide wastewater pump station improvements, upgrades, repairs and rehabilitation.	Various	\$ 5,921
Regional Facility - Other	MC-SU-C4107	This program will improve facilities at SPU's regional sites.	Regional	\$ 4,045
Regional Water Conservation	MC-SU-C1504	This project will extend SPU's water supply by up to 11 MGD using demand reduction from customer upgrades in water-using facilities and equipment to be more water efficient.	Citywide and Regional	\$ 1,126
S Henderson CSO Storage	MC-SU-C3609	This project will construct or modify faciltlies to manage Combined Sewer Overflow control volumes totaling approximately 26 million gallons. Estimates are from the Draft CSO 2010 Plan Update.	S Henderson St.	\$-
Sanitary Sewer Overflow Capacity	MC-SU-C3804	This project will add capacity to the existing sanitary sewer collection system to improve service and accommodate growth.	Various	\$ 12,931
Science &	MC-SU-C5406	Not applicable	N/A	\$ 1,450

System Performance

Seattle Public Utilities

Project Name	Project ID	Project Capacity	Project Location	2020 Budget*
Seattle Direct Water Conservation	MC-SU-C1505	This project will upgrade water-using facilities to be more water efficient and accelerate conservation savings by 3 million gallons per day in conjunction with reservoir covering, other system efficiencies, and upgrades to low income customer facilities.	Citywide and Direct Service	\$ 648
South Park Stormwater Program	MC-SU-C3806	New Pump Station with capacity of 44 cubic feet per sec, an associated stormwater filtration facility will treat flows up to 11 CFS, with the balance of higher flows bypassing filtration and pumped directly to the river.	698 S Riverside DR	\$ 17,873
South Recycling Center	MC-SU-C2302	This project will replace the existing facility to increase the capacity to recycle more solid waste and improve the transfer capability of non-recyclable materials.	8100 2nd Ave S	\$ 12,408
Tolt Bridges	MC-SU-C1308	Not applicable.	Tolt River Watershed	\$-
Water Infrastructure- New Hydrants	MC-SU-C1112	This project will improve fire protection by increasing the number of fire hydrants in the city.		\$ 14
Water Infrastructure- Water Main Extensions	MC-SU-C1111	This project will install approximately 8,000 feet of new watermains per year.	Citywide	\$ 714

DEPARTMENT OF PARKS AND RECREATION

Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-PR-21011 Freeway Park Improvements 1227 9th AVE \$8,050,000 This project will make major improvements to Freeway Park, including renovation and upgrades to its electrical and lighting systems, utilities, and storm-water infrastructure. Related work may also include enhancements to entries, renovation of the comfort station, site furnishings, wayfinding, programming and activation. This project is part of the Building for the Future Budget Summary Level, and using mitigation funds allocated from the convention center expansion public benefits package.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-PR-31005 Golf - Capital Improvements Multiple \$1,536,000 This project is an ongoing program designed to improve the four City-owned golf courses (Interbay, Jackson, Jefferson, and West Seattle). Funding for these improvements is provided by green fees, golf cart rentals, ball purchases, and other golf revenues.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-PR-41039 Play Area Renovations Multiple \$2,500,000 This project renovates a number of play areas in the park system. Improvements may include equipment replacement, ADA access, surfacing and containment renovation, and related elements. The sites will be determined each year using the Play Area Inventory and Assessment report.

SEATTLE CITY LIGHT

Project ID:	MC-CL-XB6535
Project Title:	Boundary Powerhouse - Unit 52 Generator Rebuild
Location:	Boundary Rd, Metaline, WA 99153
2020 Proposed	
Budget:	\$11,437,504
Description:	This project provides rewinding and refurbishing of the Boundary Powerhouse Unit 52 generator, which is part of a programmatic series of projects to maintain and extend the useful life of the Utility's aging generators. The rewind and rehabilitation of the generator includes the stator core, stator bars, rotor poles, etc. Mechanical upgrades such as seal rings and wicket gates may also be installed. This project also

provides replacement of the carbon dioxide fire-suppression system with a water sprinkler system to improve worker safety. If technology is sufficiently advanced, it may also include a rotor-mounted scanner or other diagnostic equipment.

Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-CL-XC6573 Cedar Falls - Bank 6 Replacement Cedar Falls \$2,154,484 This project builds a new substation at Cedar Falls and replaces the 60 yr old Bank 6 power step up transformer at Cedar Falls. Bank 6 provides the connection between our Cedar Falls Generating Units 5 and 6 and the transmission system. The aging transformer is water cooled posing an environmental hazard to the cities drinking water supply and the switchyard does not meet electrical clearance safety standards. The transformer and switchyard are is approaching the end of their its useful lives and the goal of this project is to replace them to resolve reliability, environmental and safety issues.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-CL-XF9238 Solar Microgrid for Resilience TBD \$261,584 This project provides construction of an islandable microgrid located at a City of Seattle designated emergency shelter such as a community center, where a solar photovoltaic (PV) system coupled with an appropriately-sized battery energy storage system will be installed. The project provides backup power to support critical emergency facilities and services during extended power outages when electricity distribution facilities are down due to a catastrophic event, such as an earthquake, severe windstorm (or associated flooding), fire or landslide. Smart microgrids improve resiliency and reliability, minimize carbon footprints, and reduce costs. This project positions City Light as one of the utilities in the forefront of an innovative application of microgrids and serve as a testbed for testing and operating not just the microgrid, but the solar and battery energy storage system equipment as well. The Washington State Dept. of Commerce will grant the utility approximately half of the funding to cover the costs for this project.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-CL-XS6515 Skagit Facility Conservation Newhalem Creek Rd, Marblemount, WA 98267 \$3,234,148 This project provides funding for structural improvements to existing facilities at Skagit, both residential and commercial. It replaces lights, windows, and HVAC systems, insulates buildings, and performs related work. The project dramatically reduces the amount of energy expended to keep structures warm or cool depending upon the season.

Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-CL-XS6520 Skagit Facilities Plan Newhalem Creek Rd, Marblemount, WA 98267 \$2,804,818 This project implements a comprehensive facility plan to optimize buildings and structures at two Skagit town sites. The project preserves essential facilities that support SCL's power production needs, and retains important civic, cultural, and historic features in keeping with the historic preservation requirements of the Skagit FERC Licensing agreement. The project will reduce operational costs by dismantling and removing surplus facilities that require significant on-going maintenance.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-CL-XS6540 Skagit - Boat Facility Improvements Newhalem Creek Rd, Marblemount, WA 98267 \$1,251,646 This project provides design and construction of several new structures to support industrial and recreational boat operations on our Skagit reservoirs. Structures include a new tour dock, new dry dock, additions to the existing boat houses and a new barge landing in Diablo. The project provides improved visitor access for the Skagit Boat Tour, safer boat fueling facilities, reduced impact of snowfall on boats, consolidated barge landings, and improved dry docks.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-CL-YD9967 Outage Management System Phase II Implementation Citywide \$3,000,000 This project funds City Light's Outage Management System (OMS) upgraded in order to maintain its availability as it be available 100% of the time. However, its application, operating system, and database have aged to the point where OMS' availability is at risk. It was fielded in 2011 and has not been significantly modified since. The upgrade of OMS will bring it to a currently supported product version (application, OS, database, physical infrastructure, etc.). The scope of this project is to cover as much as possible of the as-is system, with an additional change to integrate with the ongoing deployment of the Advanced Metering Infrastructure (AMI) initiative.
Project ID: Project Title: Location: 2020 Proposed Budget:	MC-CL-ZL8481 Seattle Waterfront Streetlight Installation 1312 Western AVE \$4,738,093

Description:	This project funds the street lighting associated with the bored tunnel hybrid plan for the Alaskan Way Viaduct replacement which is a project that will result in the City rebuilding Alaskan Way, led by the Office of the Waterfront.
Project ID:	MC-CL-ZS8350
Project Title:	Overhead Outage Replacements
Location:	System wide
2020 Proposed	
Budget:	\$1,181,279
Description:	This ongoing project supports the capitalized portion of work resulting from unplanned, non-emergency, overhead outages. These outages result from events, such as storms, accidents, and equipment failures. The project funds permanent storm repairs and construction of new infrastructure to bypass failing equipment. The project ensures that customers' electric power is restored as quickly as possible.

SEATTLE DEPARTMENT OF TRANSPORTATION

Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-TR-C031 Pedestrian Master Plan - Stairway Rehabilitation Various \$1,449,810 This ongoing program implements the Pedestrian Master Plan. The goals of the program are to reduce the number and severity of crashes involving pedestrians; make Seattle a more walkable city for all through equity in public engagement, service delivery, accessibility, and capital investments; develop a pedestrian environment that sustains healthy communities and supports a vibrant economy; and raise awareness of the important role of walking in promoting health and preventing disease. The projects rebuild and/or rehabilitate stairways to the latest standards, adding proper width, step height, grip rail, landings, and other features required by the Americans with Disabilities Act. The historical LTD amount for the Stairway Rehabilitation is in project TC367150.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-TR-C042 Delridge Way SW - RapidRide H Line Delridge AVE \$15,226,743 This project improves pavement conditions, enhances safety, and improves traffic operation for all modes. The project will add transit lanes and improve transit speed and reliability. It includes protected bike lanes, sidewalk improvements, and amenities for walkers and transit riders along the corridor. It will streamline traffic operations and improve multimodal connections between transit, freight, pedestrians, and general-purpose vehicles. Note: The project title is changing from "Delridge Multimodal Corridor" to "Delridge Way SW - RapidRide H Line."

Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-TR-C054 SPU Drainage Partnership - South Park TBD \$7,300,000 This funding will be used to partner with SPU's South Park Drainage Improvement projects. SPU is planning to install a pump station to control flooding in the South Park area. However, that alone will not control flooding. Many streets in the area are in poor condition and don't have a street drainage collection system. This funding will allow SPU and SDOT to partner to install the needed collection systems and repair the deteriorated roads.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-TR-C078 Route 44 Transit-Plus Multimodal Corridor TBD \$4,721,199 This project will implement speed and reliability improvements along the Route 44 corridor. This project seeks to improve and make reliable the connection between the University of Washington, Wallingford, and Ballard. The project may add bus lanes, pedestrian improvements, channelization changes, signal modifications, transit signal priority, and new adaptive signals. Note: The project title is changing from "Market / 45th Multimodal Corridor" to "Route 44 Transit-Plus Multimodal Corridor."
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-TR-C088 Sound Transit 3 Various \$1,802,326 The City of Seattle is committed to actively collaborating with Sound Transit early in the environmental assessment and design phases of ST3 projects to refine and provide certainty around project scope and cost estimates, and to streamline and expedite the permitting processes.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-TR-C097 Seattle Transportation Benefit District - Capital Improvements TBD \$7,514,462 This program funds projects improving transit speed, reliability, safety, and passenger amenities which occur along transit routes or at stops that serve the Urban Centers and Villages across the Seattle. The program will provide transit speed and reliability improvements allowing the people of Seattle to more quickly,

effectively and travel via transit to, through, and between Urban Centers and Villages.

Project ID: Project Title: Location: 2020 Proposed	MC-TR-C101 North of Downtown Mobility Act TBD
Budget:	\$4,837,232
Description:	This project will construct transportation related improvements in the North Downtown area in support of the Seattle Center Arena Redevelopment project. The City is also partnering with the Port of Seattle to improve movement of cargo and other modes on city streets, including 15th Ave W/Elliott Ave W/Mercer St corridor areas around Seattle Center.

SEATTLE PUBLIC UTILITIES

Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-SU-C1128 Distribution System Improvements Citywide \$2,000,000 This ongoing project improves service reliability, pressure, capacity, and fire flow in the City's water distribution system. Typical improvements may include, but are not limited to, booster pump station installation, creation of new service zones, and tank elevation or replacement, as well as additional water main pipelines and pressure reducing valves. These improvements to service levels meet Washington Department of Health (DOH) regulations and SPU's Distribution System Pressure Policy to provide greater than 20 psi service pressure. These improvements provide higher flow of water for fire protection which improves public safety and results in smaller and shorter fires.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-SU-C1134 Tank Improvements Citywide \$5,566,665 This ongoing project implements water quality, seismic, and other improvements to steel water tanks in Seattle. Functional water tanks are essential to public health protection as they assure that the distribution system is under pressure at all times, even when pump stations or control valves malfunction. Depressurization of the water system may result in siphoning back contaminants from faulty private systems and from the ground into the water pipes.
Project ID: Project Title: Location:	MC-SU-C1418 Reservoir Covering-Lake Forest Lake Forest Park

2020 Proposed Budget: Description:	\$8,695,000 This project addresses the need for a new cover on Lake Forest Park Reservoir once it has reached the end of its useful life. The project will evaluate options for a new cover, including replacing the existing floating Hypolan cover with a similar design. A new cover will be designed and constructed to maintain and improve the water quality protection and security enhancement functions of the existing cover.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-SU-C1506 Dam Safety Various \$4,751,000 This ongoing project maintains the safety of SPU's water supply dams in the Cedar River and South Fork Tolt River Municipal Watersheds and the in-town reservoir dams. Typical improvements may include, but are not limited to, upgrades to the dams' failure warning systems, spillways, outlet works, piping, and other civil, mechanical, and structural systems. This project ensures the continuing safe functioning, operation and monitoring of SPU's water supply dams and associated facilities per Federal Energy Regulatory Commission (FERC), state and local regulations, and SPU requirements to prevent loss of life and/or property damage and loss of SPU's ability to deliver reliable drinking water supply to its customers.
Project ID: Project Title: Location: 2020 Proposed Budget: Description:	MC-SU-C2403 Midway Landfill Kent \$8,240,000 This program funds compliance activities related to the Midway landfill closure project. These activities include environmental and feasibility studies to demonstrate the effectiveness of the Midway landfill closure project. The studies are required under the existing Consent Decree with the State Department of Ecology and validate that current environmental controls are effective and reduce the likelihood of additional capital or O&M expenditures. The flare improvements are also a regulatory requirement. To ensure that SPU maintains regulatory compliance, a smaller flare or new technology will be required. The current telemetry used to monitor the environmental control systems at the Kent Highlands Landfill and the Midway Landfill, both Superfund sites, are nearly obsolete and the equipment is no longer supported. In addition, the current system only transmits alarm conditions and does not have any data acquisition functionality. This program funds a replacement system that will allow remote data acquisition as well as alarm functionality.
Project ID: Project Title: Location: 2020 Proposed Budget:	MC-SU-C3314 Creek Culvert Replacement Program Various \$2,883,883

Description:	This ongoing project provides for the repair and replacement of stream culverts that are part of SPU's critical drainage infrastructure. Culverts are prioritized for repair or replacement based on structural condition. Projects are then sequenced based on prioritization and other factors such as readiness to proceed, ability to address other drainage needs (e.g., flooding, maintenance), potential partnerships, synergies with other projects and availability of funding.
Project ID: Project Title: Location: 2020 Proposed Budget:	MC-SU-C3612 Future CSO Projects TBD \$3,406,442
Description:	This project is for future combined sewer overflow (CSO) reduction projects that will be identified through the CSO Long-Term Control Plan (LTCP) Update. Future projects are most likely to include underground storage projects, wastewater lift station improvements, and/or wastewater conveyance system improvements. Planning for the projects began in 2018, and the projects should complete their construction by 2030.
Project ID: Project Title: Location:	MC-SU-C5406 Science & System Performance TBD
2020 Proposed Budget: Description:	\$1,450,000 This ongoing project will provide new and improved technology applications and accompanying data management tools to support the gathering, monitoring, tracking and analysis of science and engineering information. Several planned projects include replacement of obsolete regulatory compliance tracking applications, upgrades to field monitoring equipment, and the integration of SCADA data with other data systems. This project enhances SPU's ability to control water quality and comply with environmental and health regulations.
Project ID: Project Title: Location:	MC-SU-C5407 Asset Information Management Various
2020 Proposed Budget: Description:	\$2,447,404 This ongoing project provides applications, upgrades and data management tools in support of SPU's work and asset management projects. Several new and updated technology solutions designed to enhance the efficiency and effectiveness of drinking water, sewer, drainage, and solid waste operations are planned. Activities within this project aim to further enhance safety and improve responsiveness of SPU's utility operations.

Appendix C: REET II Funding Report

Section 3(a) - Project pages as shown in the 2020-2025 Proposed Capital Improvement Program (CIP), which represents the City's Capital Facilities Plan, demonstrate that adequate funding from all sources of public funding exists to pay for all capital projects for the succeeding two-year period.

Section 3(b)/(c) - The following tables identifies how revenues collected under RCW 82.46.035 were programmed during the prior two-year period (2018 and 2019) where the City utilized the temporary provision for spending on housing the homeless, and the current planned spending for the succeeding two-year period (2021 - 2022). Proposed spending for 2020 represents the Mayor's Proposed Budget. Anticipated amounts shown for 2021 and 2022 represents current projections as seen in the Mayor's Proposed 2020-2025 Capital Improvement Program (CIP) and are subject to change based on actual revenues collected and unanticipated asset preservation/major maintenance needs or changes in priorities. Not all anticipated revenues have been programmed in the CIP to allow for addressing emergent needs that have yet to be identified or set aside as a reserve for planned items yet to be programmed.

Amounts are in thousands

nd De	Pept Project Name	Project #	2018 Adopted Budget	2019 Adopted Budget	2020 Proposed Budget	2021 Proposed Budget	2022 Proposed Budget
al Esta	ate Excise Tax (REET II Capital Projects Fund (3002	0))					
Hu	uman Service Department						
	Bridge Housing for Homelessness	HSD2	1,000	-	-	-	-
	Debt Service for contructing Low-Income Housing	HSD1	-	1,000	-	-	-
Hu	uman Service Department Total		1,000	1,000	-	-	-
Sea	attle Department of Transportation						
	23rd Avenue Corridor Improvements	MC-TR-C037	-	943	60	-	-
	Alaskan Way Main Corridor	MC-TR-C072	-	-	-	5,000	2,00
	Arterial Asphalt & Concrete Program Phase II	MC-TR-C033	-	450	-	-	-
	Arterial Major Maintenance	MC-TR-C071	500	2,450	2,500	-	-
	Bike Master Plan - Greenways	MC-TR-C063	-	550	-	-	-
	Bridge Load Rating	MC-TR-C006	500	-	-	-	-
	Bridge Painting Program	MC-TR-C007	2,135	2,135	2,135	2,135	2,13
	Debt Service - REET I	MO-TR-D003	812	852	815	-	-
	Debt Service - REET II	MO-TR-D006	-	-	-	815	81
	Hazard Mitigation Program - Areaways	MC-TR-C035	331	332	333	334	34
	Hazard Mitigation Program - Landslide Mitigation	Prc MC-TR-C015	1,200	200	200	200	20
	Market to MOHAI	MC-TR-C095	500	-	-	-	-
	Neighborhood Parks Street Fund - Your Voice, Yo	ur C MC-TR-C022	1,910	1,446	2,000	2,000	1,45
	Next Generation Intelligent Transportation Syster	ns (MC-TR-C021	-	987	-	-	-
	Non-Arterial Street Resurfacing and Restoration	MC-TR-C041	1,150	1,150	1,150	1,150	1,15
	Pedestrian Master Plan - New Sidewalks	MC-TR-C058	-	888	-	11	-
	Pedestrian Master Plan - Stairway Rehabilitation	MC-TR-C031	49	49	49	49	4
	Retaining Wall Repair and Restoration	MC-TR-C032	212	212	212	212	21
	S Lander St. Grade Separation	MC-TR-C028	-	369	96	-	-
	SDOT ADA Program	MC-TR-C057	-	2,300	7,653	1,350	5,50
_	Sidewalk Safety Repair	MC-TR-C025	2,000	2,100	2,142	-	-
Sea	attle Department of Transportation Total		11,299	17,413	19,345	13,256	13,85

Fund	Dept	Project Name	Project #	2018 Adopted Budget	2019 Adopted Budget	2020 Proposed Budget	2021 Proposed Budget	2022 Propose Budget
Real E	Estate Exci	se Tax (REET II Capital Projects Fund (30020))						
	Seattle Pa	rks and Recreation						
	AD	0A Compliance - Parks	MC-PR-41031	-	2,000	1,000	-	2,0
	Aq	uarium - Pier 59 Piling Replacement and Aquarium	MC-PR-31002	1,543	1,545	1,540	1,547	1,5
	Aq	uarium Expansion	MC-PR-21006	2,370	-	300	-	-
	Atl	hletic Field Improvements	MC-PR-21009	1,566	-	-	-	-
	Atl	hletic Field Replacements	MC-PR-41070	-	1,120	2,116	3,590	-
	Ba	llfield Lighting Replacement Program	MC-PR-41009	500	-	-	500	5
	Ba	llfields - Minor Capital Improvements	MC-PR-41023	50	46	45	50	
	Во	iler and Mechanical System Replacement Program	MC-PR-41007	175	100	-	175	1
	Co	mfort Station Renovations	MC-PR-41036	-	-	-	660	6
	Co	mmunity Center Rehabilitation & Development	MC-PR-41002	-	3,339	2,284	3,508	3,5
	De	velop 14 New Parks at Land-Banked Sites	MC-PR-21003	-	-	1,300	-	
		ectrical System Replacement Program	MC-PR-41008	150	100	100	150	1
		vironmental Remediation Program	MC-PR-41016	100	100	100	100	1
		s Works Park - Remediation	MC-PR-31007	790	-	-	670	1,0
		een Lake Community Center & Evans Pool Replace	MC-PR-41071	-	500	500	-	_,
		prove Dog Off-Leash Areas	MC-PR-51002	100	-	-	-	
		igation Replacement and Outdoor Infrastructure Pl	MC-PR-41020	300	250	250	550	,
		ke City Community Center Improvements	MC-PR-41040	3,000	2,000	4,000	-	
		ndscape Restoration Program	MC-PR-41017	430	2,000	264	430	4
		yal Heights Community Center Renovation	MC-PR-41038	1,671	-	-	-	
		yal Heights Playfield Turf Replacement	MC-PR-41048	2,385	-	-	-	
		agnuson Community Center Improvements	K732511	1,150	-	-	-	
		agnuson Park Athletic Field 12 Conversion	MC-PR-41064	-	-	-	334	1,5
		ajor Maintenance Backlog and Asset Management	MC-PR-41001	-	4,723	4,854	4,962	5,0
		sighborhood Capital Program	MC-PR-41015	90	498	-,054	-	5,0
		ighborhood Response Program	MC-PR-41013	250	200	200	250	:
		rks Central Waterfront Piers Rehabilitation		10,150	730	1,987	250	-
			MC-PR-21007				-	
		vement Restoration Program	MC-PR-41025	400	350	320	400	1
		ay Area Renovations	MC-PR-41039	-	-	-	1,000	1,0
		ay Area Safety Program	MC-PR-41018	150	75	75	150	:
		ieen Anne Turf Field Replacement	MC-PR-41072	-	-	3,000	-	
		of & Building Envelope Program	MC-PR-41027	350	250	250	350	:
		uth Park Campus Improvements	MC-PR-21013	-	1,800	-	-	
	-	ort Court Restoration Program	MC-PR-41019	100	100	75	100	:
		ails Renovation Program	MC-PR-41026	350	350	350	350	:
		ban Forestry - Forest Restoration Program	MC-PR-41022	200	200	200	200	
		ban Forestry - Green Seattle Partnership	MC-PR-41012	1,700	1,700	1,700	1,700	1,
		ban Forestry - Tree Replacement	MC-PR-41011	95	95	95	95	
		ility Conservation Program	MC-PR-41010	250	200	200	250	2
		ctor Steinbrueck Parking Envelope	MC-PR-41044	3,000	-	-	-	
	Ye	sler Crescent Improvements	MC-PR-21012	-	500	-	-	
		o Major Maintenance	MC-PR-41005	-	1,938	1,938	2,037	2,0
		rks and Recreation Total		33,365	25,073	29,043	24,108	24,3
al Eu	nd 30020 -	Real Estate Excise Tax II		45,664	43,486	48,388	37,364	38,2

Appendix C: REET II Funding Report

Section 3(d) - The table below identifies the amounts and percentage of City resources allocated to Capital Projects.

Revenue Source	2020 Proposed Amount	% 2020
Bond Financed	53,960,141	3.9%
Federal Funds	57,634,223	4.2%
King County Funding	53,849,516	3.9%
Other City Funds	63,202,520	4.6%
Other Local Government	12,974,577	0.9%
Private Funding	17,964,794	1.3%
Real Estate Excise Tax	90,814,804	6.6%
State Funding	96,943,289	7.1%
Utility Funding	761,699,909	55.7%
Voter-approved Funds (Seattle and King Co.)	159,566,848	11.7%
Total	1,368,610,620	100.0%