

Appendices

Department of Parks and Recreation

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-PR-16006	14th Avenue NW Park Boulevard Development (NW 58th to NW 62nd)	This project will provide 17,000 square feet of pedestrian and environmentally-friendly amenities such as swales, natural landscaping, and benches.	0	E 14th Ave NW/NW 58th ST/NW 62nd ST
MC-PR-21004	Activating and Connecting to Greenways	This project will increase the number of miles of safe pedestrian routes for all ages.	215	Citywide
MC-PR-61002	Bryant Site Development	This project will increase the waterfront parkland in Seattle by 3.9 acres.	0	1101 NE Boat ST
MC-PR-17001	Community Food Gardens and P-Patches	This project adds community gardens and P-Patches to afford more opportunities to the public for growing food locally.	0	Citywide
MC-PR-21003	Develop 14 New Parks at Land-Banked Sites	This project will add 14 developed parks for active recreation to help meet the City's parks and open space goals.	2,892	Citywide
MC-PR-15004	East John Street Open Space Development	This project adds green, environmentally sensitive improvements in an existing park.	0	Summit AVE E/E John ST
MC-PR-31004	Golf Master Plan Implementation	This project includes new driving ranges, building replacements, perimeter trails and cart paths.	0	Citywide
MC-PR-12001	Green Space Acquisitions- 2008 Parks Levy	This project will acquire various new properties.	0	Citywide
MC-PR-16003	Hing Hay Park Development	This project adds .31 acres of parkland to an existing neighborhood park.	0	423 Maynard AVE S
MC-PR-15003	Jimi Hendrix Park Improvements	This project makes the park more inviting, usable, and environmentally friendly.	0	2400 Massachusetts ST
MC-PR-16004	Marra-Desimone Park Development	This project will provide community and recreation space to the 8.7 acre site.	0	9026 4th AVE S
MC-PR-14001	Neighborhood Park Acquisitions- 2008 Parks Levy	This project will acquire various new properties.	0	Multiple Locations

*Amounts in thousands of dollars

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Department of Parks and Recreation

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-PR-15001	Opportunity Fund Acquisitions- 2008 Parks Levy	This project will acquire various new properties.	0	Citywide
MC-PR-21001	Park Land Acquisition and Leverage Fund	This project will add acreage to Seattle's total park land acreage.	3,654	Citywide
MC-PR-15005	Rainier Beach Urban Farm and Wetlands Improvements	This project develops a working organic urban farm, wetlands, and related amenities that will be open to the public.	0	5513 S Cloverdale ST
MC-PR-16005	Victor Steinbrueck Park Renovation	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.	0	2001 Western AVE
MC-PR-13002	Washington Park Arboretum Improvements- 2008 Parks Levy	This project renovates park areas with new horticultural displays and trails.	0	2300 Arboretum DR E

Seattle Department of Transportation

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-TR-C037	23rd Avenue Corridor Improvements	This project will install road improvements and improve the efficiency of Seattle's transportation network and of the regional transit network.	6,941	23rd AVE S/E John ST/Rainier AVE S
MC-TR-C034	3rd Avenue Corridor Improvements	This project will increase the person-carrying capacity of Seattle's transportation network and of the regional transit network.	0	3rd AVE/S Jackson ST/Denny WAY
MC-TR-C072	Alaskan Way Main Corridor	The program will construct a new Alaskan Way surface street and public space.	45,975	Various

*Amounts in thousands of dollars

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Seattle Department of Transportation

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-TR-C066	Alaskan Way Viaduct Replacement	This project funds the City's involvement in the replacement of the Alaskan Way Viaduct and Seawall.	1,300	ALASKAN WY VI SB/BATTERY ST TUN OFF RP
MC-TR-C005	Aurora Rapid Ride Improvements	This project implements improvements for transit speed, reliability, access and convenience, consistent with the Transit Master Plan.	0	Various
MC-TR-C080	Ballard to Downtown High Capacity Transit and Ship Canal Crossing Project	This project will increase the person-carrying capacity of Seattle's transportation network and of the regional transit network	0	Downtown Ballard/Downtown Seattle
MC-TR-C062	Bike Master Plan - Protected Bike Lanes	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.	9,170	Citywide
MC-TR-C091	Bike Share Expansion	Expand the bikeshare system to 250 stations with 2,500 bikes.	0	Citywide
MC-TR-C044	Burke-Gilman Trail Extension	This project will construct three miles of new multi-use trail.	6,481	Various
MC-TR-C075	First Hill Streetcar	The project constructs a modern, low-floor streetcar system.	0	Various
MC-TR-C047	Freight Spot Improvement Program	This project will improve mobility. Specific projects and the corresponding impacts on capacity are still to be determined.	2,340	Citywide
MC-TR-C051	Madison Street Bus Rapid Transit	This project will increase the person-carrying capacity of Seattle's transportation network and of the regional transit network.	6,868	Madison ST/Alaskan WAY/Martin Luther King Junior WAY E
MC-TR-C083	Magnolia Bridge Replacement Project	This project will build a new bridge to current engineering standards to replace the existing bridge.	0	W Garfield St/15th Ave W/Thorndyke Ave W

*Amounts in thousands of dollars

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Seattle Department of Transportation

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-TR-C016	Mercer Corridor Project	This project will provide transportation improvements to enhance all modes of travel, including pedestrian mobility, and better utilize existing street capacity in the South Lake Union area.	0	Mercer St/Fairview Ave N/Dexter Ave N
MC-TR-C017	Mercer Corridor Project West Phase	The project will provide an east/west connection between I-5, SR99, and Elliott Ave W.	0	Mercer ST/Elliott AVE W/Dexter AVE N
MC-TR-C019	Neighborhood Traffic Control Program	This program will install traffic calming devices on neighborhood streets.	305	Citywide
MC-TR-C020	New Traffic Signals	This project will install new traffic signals to improve traffic flow, reduce the frequency and severity of traffic accidents, and support pedestrian activity.	825	Citywide
MC-TR-C030	Northgate Bridge and Cycle Track	This program will design and build pedestrian and bicycle improvements in order to increase safety and improve access to transit modes.	19,044	Multiple
MC-TR-C013	Roosevelt Multimodal Corridor	This project will increase the person-carrying capacity of Seattle's transportation network and of the regional transit network.	1,565	Eastlake AVE/Stewart ST/NE 65th ST
MC-TR-C028	S Lander St. Grade Separation	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.	35,052	S Lander St/1st Ave S/4th Ave S
MC-TR-C004	Sound Transit - East Link	This project will provide design review, permitting, and construction support services for the Sound Transit - East Link project.	70	Citywide
MC-TR-C027	Sound Transit North Link	Construct a 4.3-mile light rail line and three stations at Northgate, Roosevelt and University District.	310	Various

*Amounts in thousands of dollars

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Seattle Department of Transportation

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-TR-C029	Transit Corridor Improvements	This program implements projects that improve transit speed, reliability, access, and convenience, consistent with the Transit Master Plan.	10,823	Citywide
MC-TR-C064	Vision Zero	This project will upgrade existing signals and signs, and install new ADA ramps, and pedestrian safety improvements.	4,357	Citywide

Finance and Administrative Services

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-FA-ADAIMPCTY	ADA Improvements - Citywide	This project will not result in new or expanded facilities.	0	Multiple City facilities
MC-FA-BENSNDDBD G	Benaroya Hall Transforming Soundbridge	This project will provide City resources to fund a portion of the Benaroya Hall capital project to transform the Soundbridge learning space into OCTAVE 9.	0	1301 3rd Ave.
MC-FA-CHASDEV	Charles Street Campus Development	This project will provide assessment, work scoping, and predesign for the City's future development of some or all of the Charles Street Campus.	0	1030 7th Ave. S
MC-FA-CTYPDS	City Facilities Project Delivery Services	This ongoing program will provide pass-through budget authority for FAS to provide design and construction management services, as requested by City departments, at facilities that are neither owned, managed nor leased by FAS.	0	Multiple

*Amounts in thousands of dollars

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Finance and Administrative Services

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-FA- DRVCLNFLT	Drive Clean Seattle Fleet Electric Vehicle Infrastructure	This project will fund the design, permitting, and construction of electric vehicle charging stations in the Seattle Municipal Tower, SeaPark, and at multiple other City facilities and properties.	4,500	Multiple
MC-FA- SHELTERFA	FAS Shelter Facilities	This project will increase the supply of interim or “bridge” shelter and housing for people currently living unsheltered, by supporting costs related to acquiring or leasing property, as well as to design and construction of new facilities and improvements to existing facilities and properties.	0	800 Aloha ST
MC-FA- PSFSSLU	Fire Facilities South Lake Union	This project will provide for site evaluation and acquisition (and potential future design and construction) for a new Marine Emergency Response facility for a freshwater and land-based fire apparatus in the vicinity of the South Lake Union and Denny Triangle neighborhoods.	0	
MC-FA- FS31IMP	Fire Station 31 Improvements	This project will design, permit and construct an expansion totaling approximately 2,000 square feet to three apparatus bays at Fire Station 31.	0	1319 N Northgate Way
MC-FA- FFERPFS32	Fire Station 32	This project will replace the existing Fire Station 32 with a new 20,000 square foot, 3 story facility, adding approximately 11,500 square feet.	0	3715 SW Alaska St

*Amounts in thousands of dollars

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Finance and Administrative Services

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-FA-FS5	Fire Station 5	This project will provide a seismic and safety upgrade for Fire Station 5 and make functional improvements to the facility and building systems.	0	925 Alaskan Way
MC-FA-PRLWARNV C	Navigation Center	This project will fund capital improvements at the Pearl Warren building in support of the creation of a Navigation Center.	0	12th AVE S/12th AVE S
MC-FA-MUNICOUR T	Seattle Municipal Courts	This project will provide for operational and security improvements and repairs in the Seattle Justice Center (SJC).	140	600 5th AVE
MC-FA-SMTELRHB	Seattle Municipal Tower Elevator Rehab	This project will improve the operation, reliability, and system performance of the Seattle Municipal Tower (SMT) elevators. A 2018 preliminary engineering study is currently assessing the requirements of the improvements.	1,000	700 Fifth AVE
MC-FA-SMTIDFINF	Seattle Municipal Tower IDF Infrastructure Upgrades	This project will provide electrical, cooling, and fire separation upgrades for 15 existing Intermediate Distribution Frame (IDF) rooms in the Seattle Municipal Tower (SMT).	0	700 Fifth AVE

Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-ZS8426	Advanced Metering Infrastructure	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	5,756	Citywide

*Amounts in thousands of dollars

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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

**Amounts in thousands of dollars*

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 they are no longer being manufactured. SCL would have to acquire used or refurbished replacement meters from other utilities or companies, with the risk that availability will be reduced over time.

B. Replace current electro-mechanical meters on an accelerated schedule using commercially available digital meters without communication capabilities. This option carries significant capital costs for meters, although it does not require the communications and IT infrastructure. It provides limited benefits, primarily through increased meter accuracy, but provides severely limited benefits compared to AMI deployment.

C. Deploy AMI on a limited basis to Commercial and Industrial customers, plus a limited number of small services with access problems. Partial implementation would require reduced capital costs but substantially the same investment.

MC-CL- ZT8307	Alaskan Way Viaduct and Seawall Replacement -	Rationale: The Alaskan Way Viaduct replacement includes	20,423	SR 99 / Battery St
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**Amounts in thousands of dollars*

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Utility Relocs

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

**Amounts in thousands of dollars*

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 provide for increased reliability and capacity for our customers. For example, work in the south end will include system improvements that will increase feeder capacity and reliability for Port customers. Undergrounding of transmission lines near Broad Sub are being done as part of an overall SDOT street improvement with costs shared based on a negotiated MOA with SDOT. The return of Aurora, north of Harrison Street to a city street, and the decommissioning of the Battery Street Tunnel provides an opportunity to extend ducts and vault across Aurora to help provide system capability to the NODO area.

**Amounts in thousands of dollars*

Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL- XB6493	Boundary Powerhouse Generator Step-up Transformer Replacement	Rationale: Design to begin in 2010. Closeout in 2017. First transformer 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.	7,674	10382 Boundary Rd, Metaline, WA 99153
MC-CL- YN8203	Broad Street Substation - Network	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	3,627	319 6th AVE N

*Amounts in thousands of dollars

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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 feeders incrementally, as little as possible and as close to near-term load requirements as possible. 4. Increase capacity of network feeders to the full limit of the substations capability to deliver power. 5.

**Amounts in thousands of dollars*

Appendix A: New or Expanded Capital Facilities

		Add measures that improve system 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.		
MC-CL-ZL8403	Citywide Undergrounding Initiative - City Light	Rationale: No Rationale Provided. Alternative(s): No Alternatives Provided.	10	System Wide
MC-CL-ZO8430	Creston-Nelson to Intergate East Feeder Installation	Rationale: No Rationale Provided. Alternative(s): No Alternatives Provided.	1,178	Tukwila
MC-CL-YN8404	Denny Substation - Network	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	5,695	Valley Street/Denny Ave

**Amounts in thousands of dollars*

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this project is a partner in that effort. Because existing City Light substations cannot accommodate the new network feeders, this project requires the construction of a new North Downtown substation in a three to five year period, proposed as project 7757, North Downtown Substation Development. This network 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 customers in the area, which is not necessary and expensive.

MC-CL- YS7757	Denny Substation Development	Rationale: The key premise of the North Downtown capacity plan is preparedness and flexibility to respond to future growth as it occurs and to provide the operational flexibility to operate the electrical system to serve new development and existing load. The estimates assume that the transmission and distribution getaways into North Downtown Substation	0 System Wide
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**Amounts in thousands of dollars*

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will be underground. However, the figures in this project do not provide for undergrounding existing overhead circuits in the neighborhood. See project 8404, North Downtown System Network, which will construct the underground network that links the customers to the substation. City Light expects that the current and planned development of the North Downtown district requires a 200 MVA substation in the area. The factors determining the timing of this substation include actual and anticipated load growth in the North Downtown Area, and the demand for power from other substations that could possibly serve the area. Alternative(s): Updated by Michael Clark 6/10/11: SCL System Planning Group is working with a consultant to validate existing SCL Service Area Loads, perform a 10yr & 20yr forecast for entire SCL Service area, and prepare small area load forecast for the North Downtown service area, with specific recommendations regarding development of a NODO Substation and NODO Network to provide service to this area. The alternatives for the NODO Substation will be: 1. Do nothing. 2. Transfer load to adjacent substations. 3. Reinforce Broad Substation. 4. Construct new North Downtown Substation with Radial or Network Distribution System, Voltage Level (13.8kV or 26kV), and Transmission Alternatives. SCL System Planning Group anticipates making formal recommendations regarding NODO Substation in QTR3

**Amounts in thousands of dollars*

Appendix A: New or Expanded Capital Facilities

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MC-CL- YT7125	Denny Substation Transmission Lines	Rationale: No Rationale Provided. Alternative(s): No Alternatives Provided.	2,850	System Wide
MC-CL- YD9307	Distribution Area Communications Networks	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. Maintenance 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.	2,622	Citywide

**Amounts in thousands of dollars*

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL- YD9966	Distribution Management System	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.	944	City Wide
MC-CL- XF9101	Equipment Fleet Replacement	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	7,178	System Wide

*Amounts in thousands of dollars

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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 diesel 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

**Amounts in thousands of dollars*

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, heavy and light fleet, on a plan spread over 7 or more years (a \$30 million backlog currently on a \$130 million fleet) A second plan would be to not purchase fleet vehicles. This option would result in paying both higher maintenance costs for worn out vehicles and higher rental costs both for specialized vehicles and daily use vehicles currently at \$2 million annually. It also has safety ramifications when considering malfunctions and inopportune breakdowns. A third plan would be to continue to not address the back log but replace on an as needed basis. This plan requires more rental costs and time loss due to equipment down time. It also does not address the need to be more fuel efficient and environmentally friendly. This plan to replace only as needed would be less reliable for tracking or budgeting. Address the back log through a seventh year or longer plan.

MC-CL- YN8407	First Hill - Network Load Transfer	Rationale: No Rationale Provided. Alternative(s): No Alternatives Provided.	896	1100 Madison St.
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**Amounts in thousands of dollars*

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-XP6470	Generation Federal Reliability Standards Improvements	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.	11	500 Newhalem Creek Rd, Marblemount, WA 98267
MC-CL-YS7756	Interbay Substation - Development	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	29	17th Ave West/West Bertona St

*Amounts in thousands of dollars

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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

**Amounts in thousands of dollars*

Appendix A: New or Expanded Capital Facilities

MC-CL-ZS8365	Large Overhead and Underground Services	<p>option - constructing a station at Interbay to serve the growing load in that part of the service territory.</p> <p>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.</p> <p>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.</p>	4,278	System Wide
MC-CL-YN8202	Massachusetts Street Substation - Networks	<p>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</p>	4,223	1555 Utah Ave S

**Amounts in thousands of dollars*

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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.

**Amounts in thousands of dollars*

Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-ZS8366	Medium Overhead and Underground Services	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.	11,784	System Wide
MC-CL-ZS8054	Meter Additions	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	2,235	System Wide

*Amounts in thousands of dollars

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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 electro-mechanical 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 over 30 years old. Increased future utility costs due to replacing obsolete meters at an accelerated pace with higher labor and material costs. 2. Continue 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.

MC-CL- YR8429	Mobile Workforce Implementation	Rationale: No Rationale Provided. Alternative(s): No Alternatives Provided.	1,136	Citywide
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**Amounts in thousands of dollars*

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-ZO8383	Neighborhood Voluntary Undergrounding Program	<p>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.</p> <p>Alternative(s): No Alternatives Provided.</p>	15	System Wide

*Amounts in thousands of dollars

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-ZS8405	Network Additions and Services - Denny	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.	8,013	Valley Street/Denny Ave

*Amounts in thousands of dollars

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-ZS8363	Network Additions and Services: Broad Street Substation	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.	7,150	319 6th AV N
MC-CL-ZS8364	Network 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.	3,373	1555 Utah AV S
MC-CL-YN8129	Network Hazeltine Upgrade	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	552	System Wide

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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 ranges from \$7 million to \$17 million, depending on communications option selected. This excludes developmental costs. 4. Buy any upgrades 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

**Amounts in thousands of dollars*

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, review the Hazeltine program and determine if more significant upgrades are feasible. Presently, this is the recommended action and funding level for 2007 and 2008. The 2009 and beyond dollars are expected expenditures for the significant Hazeltine upgrades, if approved.

MC-CL- XF9103	Office Furniture and Equipment Purchase	<p>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.</p>	1,105	System Wide
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**Amounts in thousands of dollars*

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-ZT8369	Overhead and Underground Relocations	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 proposed by outside (non-City Light) agencies. Some 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.	3,983	System Wide

*Amounts in thousands of dollars

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL- YR8355	Overhead Customer Driven Capacity Additions	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.	5,055	System Wide
MC-CL- YR8356	Overhead System Capacity Additions	Rationale: This project adds capacity to the distribution system to maintain the reliability level for the existing customers on the system and accommodate the 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.	2,530	System Wide

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-WF9970	PeopleSoft Reimplementation - City Light	Rationale: The City manages the PeopleSoft financial system and City Light needs to be involved in the configuration and implementation in order to ensure the new implementation meets City Light's business needs. The City and its departments have used PeopleSoft as its financial system since 1998, with the last software upgrade done in 2006. Vendor support for the City's current version of PeopleSoft expired on December 31, 2011. Upgrading to the most current version offered by the vendor ensures vendor support through 2021. Alternative(s): No Alternatives Provided.	0	System Wide
MC-CL-YR8452	Pole Attachments	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.	6,518	System Wide

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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 all of this construction work could be outsourced to electrical

**Amounts in thousands of dollars*

utility construction companies. This alternative presents obstacles like logistics, compatible parts, quality control, and required electrical reviewers. These challenges negate any cost savings and sometimes take longer to construct.

**Amounts in thousands of dollars*

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New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL- XP6385	Power Production - Network Controls	<p>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.</p> <p>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.</p> <p>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.</p>	1,267	500 Newhalem Creek Rd, Marblemount, WA 98267

*Amounts in thousands of dollars

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Appendix A: New or Expanded Capital Facilities

MC-CL- YD9202	Security Improvements	<p>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.</p> <p>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.</p> <p>Option 2, Centralized Security System: Seattle City Light installs security enhancements to delay,</p>	2,337	System Wide
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**Amounts in thousands of dollars*

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Appendix A: New or Expanded Capital Facilities

		<p>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.</p>		
MC-CL-ZS8367	Small Overhead and Underground Services	<p>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.</p>	5,591	System Wide
MC-CL-XP6600	SMT AutoLab	<p>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.</p>	242	System Wide

**Amounts in thousands of dollars*

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-ZT8475	Sound Transit - City Light System Upgrades	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.	0	City Wide
MC-CL-ZT8450	Sound Transit Light Rail East Link - City Light	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	150	I-90/International District Station/I-90 Bridge

*Amounts in thousands of dollars

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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 on an MOA regarding SCL cost reimbursement. It is anticipated that 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.

**Amounts in thousands of dollars*

Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-YS7751	Substation Capacity Additions	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.	2,174	System Wide
MC-CL-XF9161	Substation Comprehensive Improvements	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.	262	System Wide

*Amounts in thousands of dollars

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Seattle City Light

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-CL-YS7755	Substations Demand Driven Improvements	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.	5	System Wide
MC-CL-YR8360	Underground Customer Driven Capacity Additions	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.	2,981	System Wide
MC-CL-YN8201	Union Street Substation Networks	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	2,558	1312 Western AV

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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 re-conductor 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

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load requirements of the SAM/WaMu and Four Seasons projects. This critical project 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 reliability of the network system from its present level, subjecting it to more lengthy 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 incrementally, as little as possible and as close to near-term load requirements as possible. This is no longer feasible as the next increment of feeder capacity additions reach their final capacity targets. 4. Increase capacity of network feeders to the full limit of the substations capability to deliver power. 5. Add measures that improve system 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 Public Utilities

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Seattle Public Utilities

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-SU- C4102-DWF	Alaskan Way Viaduct & Seawall - DWF	This project will relocate, replace and protect drainage and wastewater facilities affected by the replacement of the Alaskan Way Viaduct and Seawall with a new seawall and transportation facility.	13,529	SR 99 / Battery St
MC-SU- C5407	Asset Information Management	N/A	3,081	Various
MC-SU- C3812	Broadview Long-Term Plan	This program addresses neighborhood drainage and wastewater problems to improve system capacity or increase the existing level of service.	4,750	Broadview
MC-SU- C3611	CSO Facility Retrofit	This project will retrofit, upgrade, and modify existing Combined Sewer Overflow reduction facilities.	15,022	Various
MC-SU- C5402	Customer Contact & Billing	N/A	3,250	N/A
MC-SU- C3802	Drainage Capacity Program	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.	2,179	Various
MC-SU- C5403	Enterprise Information Management	N/A	1,300	Various
MC-SU- C3610	Green Stormwater Infrastructure Program	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.	2,193	Citywide
MC-SU- C4116-DWF	Heavy Equipment Purchases - DWF	This project will replace existing heavy equipment and acquire new equipment.	2,376	Various

*Amounts in thousands of dollars

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Seattle Public Utilities

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-SU- C4116-SWF	Heavy Equipment Purchases - SWF	This project will replace existing heavy equipment and acquire new equipment.	1,768	Various
MC-SU- C4116-WF	Heavy Equipment Purchases - WF	This project will replace existing heavy equipment and acquire new equipment.	3,183	Various
MC-SU- C4108-DWF	Integrated Control Monitoring Program - DWF	This program will upgrade the City's Supervisory Control and Data Acquisition (SCADA) computer system.	250	Various
MC-SU- C4108-WF	Integrated Control Monitoring Program - WF	This program will upgrade the City's Supervisory Control and Data Acquisition (SCADA) computer system.	360	Various
MC-SU- C5404	IT Infrastructure	N/A	1,537	N/A
MC-SU- C3604	Long Term Control Plan	This project will determine size and location of all future CSO control facilities within the City.	1,200	Various
MC-SU- C4101-DWF	Meter Replacement - DWF	This program replaces failing or obsolete water meters.	561	Citywide
MC-SU- C4119-DWF	Move Seattle - DWF	This program will fund projects for drainage and wastewater utility improvements and relocations associated with SDOT's "Move Seattle" program.	28,170	Various
MC-SU- C4119-WF	Move Seattle - WF	This program will fund projects for water utility improvements and relocations associated with SDOT's "Move Seattle" program.	17,563	Various
MC-SU- C1133	Multiple Utility Relocation	N/A	500	Citywide
MC-SU- C4106-DWF	Operational Facility - Construction - DWF	This program will renovate, rehabilitate, and replace existing buildings and construct new facilities at various locations to address deficiencies and functional changes in SPU's Lines of Business.	27,344	Citywide

*Amounts in thousands of dollars

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Project No.	Project Title	Capacity	2019*	Location
MC-SU- C4106-SWF	Operational Facility - Construction - SWF	This program will renovate, rehabilitate, and replace existing buildings and construct new facilities at various locations to address deficiencies and functional changes in SPU's Lines of Business.	607	Citywide
MC-SU- C4106-WF	Operational Facility - Construction - WF	This program will renovate, rehabilitate, and replace existing buildings and construct new facilities at various locations to address deficiencies and functional changes in SPU's Lines of Business.	5,289	Citywide
MC-SU- C4105-WF	Operations Control Center - WF	This program will improve facilities at the Operations Control Center.	1,750	2700 Airport Way S
MC-SU- C4123-DWF	Other Major Tran Projects - DWF	This program will relocate, replace and protect drainage and wastewater infrastructure affected by major transportation projects.	750	Various
MC-SU- C4123-WF	Other Major Tran Projects - WF	This program will relocate, replace and protect water infrastructure affected by major transportation projects.	500	Various
MC-SU- C3708	Outfall Rehabilitation Program	N/A	1,551	Various
MC-SU- C5405	Project Delivery & Performance	N/A	2,050	N/A
MC-SU- C3703	Pump Station & Force Main Improvements	This program will provide wastewater pump station improvements, upgrades, repairs and rehabilitation.	15,585	Various
MC-SU- C1504	Regional Water Conservation	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.	1,098	Citywide and Regional

*Amounts in thousands of dollars

2019 - 2024 Adopted Capital Improvement Program

Seattle Public Utilities

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-SU-C3609	S Henderson CSO Storage	This project will construct or modify facilities to manage Combined Sewer Overflow control volumes totaling approximately 26 million gallons. Estimates are from the Draft CSO 2010 Plan Update.	29	S Henderson St.
MC-SU-C3804	Sanitary Sewer Overflow Capacity	This project will add capacity to the existing sanitary sewer collection system to improve service and accommodate growth.	3,303	Various
MC-SU-C5406	Science & System Performance	N/A	1,655	N/A
MC-SU-C1505	Seattle Direct Water Conservation	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.	732	Citywide and Direct Service
MC-SU-C4113-DWF	Security Improvements - DWF	This program will provide increased security and protection at SPU facilities.	210	Citywide
MC-SU-C4113-SWF	Security Improvements - SWF	This program will provide increased security and protection at SPU facilities.	165	Citywide
MC-SU-C3503	Sediment Remediation - DWF	N/A	3,636	Various
MC-SU-C3806	South Park Stormwater Program	New PS and conveyance improvements increase capacity of piped drainage systems and reduce flooding; the WQF will treat up to 67 MG/yr of runoff.	5,407	698 S Riverside DR/Holden/Austin
MC-SU-C2302	South Transfer Station Rebuild	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.	1,919	8100 2nd AVE S

*Amounts in thousands of dollars

2019 - 2024 Adopted Capital Improvement Program

Seattle Public Utilities

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-SU-C1134	Tank Improvements	N/A	2,476	Citywide
MC-SU-C1308	Tolt Bridges	Not applicable.	1	Tolt River Watershed
MC-SU-C1603	Upland Reserve Forest Restore	N/A	83	Cedar River Watershed
MC-SU-C1112	Water Infrastructure-New Hydrants	This project will improve fire protection by increasing the number of fire hydrants in the city.	13	Citywide
MC-SU-C1111	Water Infrastructure-Water Main Extensions	This project will install approximately 8,000 feet of new watermains per year.	879	Citywide

Seattle Center

New or Expanded Capital Facilities

Project No.	Project Title	Capacity	2019*	Location
MC-SC-S0501	Lot 2 Development	This project adds a 10,500 square foot skatepark.	0	5th Ave N/Republican St

*Amounts in thousands of dollars

2019 - 2024 Adopted Capital Improvement Program

DEPARTMENT OF PARKS AND RECREATION

Project ID: MC-PR-21002
Project Title: Major Projects Challenge Fund
Location: Citywide
2019 Adopted Budget (000's): \$1,723
Description: This ongoing project provides funding to leverage community-generated funding for renovation or development of large projects of Parks' facilities where other City funding is unavailable, often times due to the magnitude of the project. These projects will require matching funds, so the leveraging will stretch the City's funding, and more great community-generated projects can be accomplished. The community will benefit from new and/or improved facilities that can better accommodate current and projected park and recreation needs and demands. This project is part of the Metropolitan Parks District measure put before voters in 2014.

Project ID: MC-PR-21005
Project Title: Smith Cove Park Development
Location: W Galer ST/23rd AVE W
2019 Adopted Budget (000's): \$2,171
Description: This project, funded by the MPD, develops the 4.9 acre waterfront portion of Smith Cove Park located just west of Pier 91 on Elliott Bay. The park will be developed following a planning and design process for the site. These amenities may include paths, landscaping, waterfront access points, a play area, and related improvements. Some improvements will also be made to the existing part of Smith Cove Park (west of this site), currently used for sports such as soccer. The improved park will provide waterfront access and ADA accessibility, provide enhanced opportunities for active recreation, increase environmental-sensitivity, and make the park inviting and usable for more people.

Project ID: MC-PR-21006
Project Title: Aquarium Expansion
Location: 1483 Alaskan WAY
2019 Adopted Budget (000's): \$2,325
Description: The Seattle Aquarium is owned by Seattle Parks and Recreation and operated by the non-profit Seattle Aquarium Society (SEAS). SEAS is planning a major expansion to the Aquarium's existing footprint to add new programming and visitor capacity. This project will provide a new 'Ocean Pavilion' that will integrate with improvements made by The Office of the Waterfront along the Central Waterfront. SEAS also intends to make improvements to piers 59 and 60 to improve exhibit space and operations efficiency. Design and construction of the project is led by SEAS and coordinated with City investments by the Parks Department and Office of the Waterfront. This project is part of the overall waterfront improvement program and appropriates City matching funds for SEAS' project. Funding depicted in the table below represents committed funding for design. The City has committed to

Appendix B: Capital Projects passing the \$5 million threshold with the 2019 Adopted allocation.

provide up to \$34 million to SEAS for design and construction, contingent upon provision of a detailed funding plan for review by the City by 2018.

Project ID: MC-PR-21009
Project Title: Athletic Field Improvements
Location: Various
2019 Adopted Budget (000's): \$600
Description: This project is an ongoing program designed to improve Seattle Athletic Fields. Funding for these improvements is provided by various sources including Athletic Field revenues.

Project ID: MC-PR-41040
Project Title: Lake City Community Center Improvements
Location: 12531 28th Avenue NE
2019 Adopted Budget (000's): \$2,000
Description: This project provides for an architectural and engineering study to identify code compliance and design needs and cost estimates, and for implementation of the study to renovate the Lake City Community Center. Depending on the study results, specific renovations may include Americans with Disabilities Act accessibility compliance elements such as an elevator for access to the second floor, new windows and/or doors to the rear patio, signage, finishes, and related work. The renovations will improve access to the facility for all users, and make it more inviting and comfortable. This project also includes resources to support design and partial construction of new recreation spaces at the Community Center and other related work.

FINANCE AND ADMINISTRATIVE SERVICES

Project ID: MC-FA-DRVCLNFLT
Project Title: Drive Clean Seattle Fleet Electric Vehicle Infrastructure
Location: Multiple
2019 Adopted Budget (000's): \$4,500
Description: This project funds FAS's capital work efforts towards meeting the Drive Clean Seattle (DCS) initiative, a comprehensive transportation electrification strategy to transition Seattle's transportation sector from reliance on fossil fuels to the maximal use of clean, carbon-neutral electricity. Work at city facilities in 2019 and 2020 will include, but is not limited to, the design, permitting, and construction of 150 electric vehicle charging stations at the City-owned SeaPark location, as well as the development of charging stations at multiple other City facilities and properties, to provide capacity for the conversion of City fleet to electric vehicles.

Project ID: MC-FA-SMTCHLRPL
Project Title: Seattle Municipal Tower Chiller Plant Replacement
Location: 700 Fifth AVE

Appendix B: Capital Projects passing the \$5 million threshold with the 2019 Adopted allocation.

2019 Adopted

Budget (000's): \$6,500

Description: This project replaces the chiller plant in the Seattle Municipal Tower (SMT). The project will require a multi-year execution plan to allow for permitting, design, procurement and construction to occur during the windows of opportunity when cooling is not required. This highly technical, complex construction effort is a once-in-a generation endeavor. With a dwindling supply of spare parts for maintenance and repairs, it is no longer feasible to defer this critical work, and delaying the project would put FAS at risk of not being able to provide essential cooling to City of Seattle offices and other building tenants. Project costs shown here are exclusive of \$1 million expended on preliminary work on this project in 2018. Those funds are included in the Asset Preservation - Schedule 1 Facilities project (MC-FA-APSCH1FAC).

SEATTLE CENTER

Project ID: MC-SC-S0301

Project Title: Parking Repairs and Improvements

Location: Seattle Center Campus

2019 Adopted

Budget (000's): \$6,500

Description: This ongoing project provides for the repair and improvement of Seattle Center's parking facilities. Typical improvements may include, but are not limited to, seismic upgrades, concrete repairs, garage resealing, elevator renovation and repair, signage and lighting improvements, installation of emergency phones, and installation of electronic parking access and revenue control systems.

SEATTLE CITY LIGHT

Project ID: MC-CL-XB6353

Project Title: Boundary Powerhouse - Unit 54 Generator Rebuild

Location: 10382 Boundary Rd, Metaline, WA 99153

2019 Adopted

Budget (000's): \$11,036

Description: This project provides rewinding and refurbishing of the Boundary Powerhouse Unit 54 generator, which is part of a programmatic series of projects to maintain and extend the useful life of the Utility's aging generators. 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: MC-CL-XS6373

Project Title: Ross Dam - AC/DC Distribution System Upgrade

Location: Milepost 128 State Highway 20

2019 Adopted

Budget (000's): \$1,248

Appendix B: Capital Projects passing the \$5 million threshold with the 2019 Adopted allocation.

Description: This project upgrades aging AC electrical distribution system at Ross Dam with a new electrical distribution system. It installs conduit, ducting, distribution panels and wire. It improves the 4 kV system, improves lighting, and provides improvements on top of the dam including a center substation room, emergency generator, valve houses, and a 130-volt battery bank. New conduit and conductors improve reliability of spillgate operations and other dam operations requiring electric power. New electrical equipment, new lighting, and the addition of emergency lighting allow staff greater operational flexibility, safety, and efficiency.

Project ID: MC-CL-XS6520

Project Title: Skagit Facilities Plan

Location: Newhalem Creek Rd, Marblemount, WA 98267

2019 Adopted

Budget (000's): \$4,110

Description: 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: MC-CL-XS6540

Project Title: Skagit - Boat Facility Improvements

Location: Newhalem Creek Rd, Marblemount, WA 98267

2019 Adopted

Budget (000's): \$1,586

Description: 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: MC-CL-XS6986

Project Title: Skagit - Relicensing

Location: Newhalem Creek Rd, Marblemount, WA 98267

2019 Adopted

Budget (000's): \$6,448

Description: This ongoing project provides support of the relicensing activities for the Skagit River Hydroelectric Project including support of staff, environmental studies, documentation, and consultation needed to submit an application to relicense the project. Relicensing work will begin in 2019. The current Federal Energy Regulatory Commission (FERC) license for the Skagit Project expires in 2025, and the license application is due for submission to FERC in May 2023.

Project ID: MC-CL-YD9969

Project Title: Enterprise Software Solution Replacement Strategy

Appendix B: Capital Projects passing the \$5 million threshold with the 2019 Adopted allocation.

Location: Multiple
2019 Adopted Budget (000's): \$9,147
Description: This project upgrades or replaces components of the Enterprise Solution Portfolio for the Utility as prescribed by the preferred vendor, Oracle, or other vendor deemed more appropriate, which will maintain enterprise resources that benefit all customers in the City Light service area.

Project ID: MC-CL-ZT8471
Project Title: Sound Transit Lynnwood - City Light
Location: Multiple
2019 Adopted Budget (000's): \$2,469
Description: This project supports Sound Transit's Lynnwood Link, which will extend from the Northgate Transit Center at 5th Ave NE & NE 100th Street to our service area boundary at NE 200th Street, near the I-5 Right of Way. This project will include 100 blocks of relocations, a significant fraction of which will convert lines from overhead to underground. The project will install two feeders for each of the light rail line's traction power stations and upgrade the radial system's capacity where needed to serve the new load. The low and medium power service connections for the line's stations will be handled through the existing service projects.

SEATTLE DEPARTMENT OF TRANSPORTATION

Project ID: MC-TR-C012
Project Title: Center City Gateway and South Michigan Street Intelligent Transportation Systems (ITS)
Location: S Spokane ST/Western AVE/E Marginal Way
2019 Adopted Budget (000's): \$1,827
Description: The project will install traffic cameras, upgraded signals, vehicle detection devices and fiber communication in the Center City Gateway ITS and South Michigan Street ITS projects. A robust and reliable Intelligent Transportation System ensures that all modes of transportation can move through the City in a safe and sustainable manner.

Project ID: MC-TR-C053
Project Title: Rainier/Jackson Multimodal Corridor
Location: Rainier Ave/Jackson Street
2019 Adopted Budget (000's): \$2,750
Description: This project enhances transit speed and reliability, as well as improving the bus rider experience along a critical transit corridor. The project will upgrade bus stops and add transit signal priority at intersections, improve facilities for people who walk along the corridor, leverage paving investments and extend the useful life of the existing roadway.

Appendix B: Capital Projects passing the \$5 million threshold with the 2019 Adopted allocation.

Project ID: MC-TR-C063
Project Title: Bike Master Plan - Greenways
Location: Citywide
2019 Adopted Budget (000's): \$4,970
Description: This ongoing program creates routes on residential streets that are optimized for safer and more comfortable walking and biking for people of all ages and abilities. Typical improvements include curb ramps, speed humps, crosswalks, median islands, shared lane markings, stop signs, traffic signals, pavement and sidewalk repair, and wayfinding signs. The goals of the program are to design streets with lower vehicle speeds and volumes; to increase the number of people walking and biking on residential streets; and to improve walking and biking access to schools, trails, parks, transit and neighborhood businesses.

Project ID: MC-TR-C081
Project Title: Route 48 South Electrification
Location: Multiple
2019 Adopted Budget (000's): \$6,097
Description: This project will begin design of transit-related elements from Rainier Avenue South to NE 50th Street. The project includes two elements: 1) electrification of two gaps in the electric trolley network in order to convert King County Metro's Route 48 South to electric trolley bus operation and 2) transit operational, facility and access improvements along the two segments of Route 48 South. Elements could include bus stop improvements, thicker pavement at bus stops, upgrades to passenger amenities, and access improvements for pedestrians and cyclists connecting to bus stops.

SEATTLE INFORMATION TECHNOLOGY

Project ID: MC-IT-C9301
Project Title: Public Safety Tech Equipment
Location: 700 5th Ave
2019 Adopted Budget (000's): \$7,050
Description: This project funds the upgrades and replacement of hardware for the City of Seattle's Public Safety departments. These equipment upgrades will support the ongoing efforts to implement more modern, integrated solutions that will lead to safer, faster, and better incident resolution.

SEATTLE PUBLIC UTILITIES

Project ID: MC-SU-C1128
Project Title: Distribution System Improvements
Location: Citywide
2019 Adopted

Appendix B: Capital Projects passing the \$5 million threshold with the 2019 Adopted allocation.

Budget (000's): \$3,500

Description: 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: MC-SU-C1208

Project Title: Cathodic Protection

Location: Citywide

2019 Adopted

Budget (000's): \$4,646

Description: This ongoing project installs corrosion protection systems that prevent external corrosion of water transmission pipelines located in Seattle and throughout King County. The cathodic protection systems extend the life of buried pipelines made of ductile iron, steel, and concrete cylinder pipe.

Project ID: MC-SU-C1505

Project Title: Seattle Direct Water Conservation

Location: Citywide and Direct Service

2019 Adopted

Budget (000's): \$732

Description: This ongoing project provides water use efficiency resources to the City's low-income customers to implement water conservation measures authorized by Ordinance 120532, adopted in 2001, and supplements funding provided under SPU's Regional Water Conservation project (C1504). Typical improvements consist of, but are not limited to, installing water-efficient fixtures, such as aerating showerheads and faucets, low water use toilets and efficient clothes washers.

Project ID: MC-SU-C1511

Project Title: Hatchery Works

Location: Cedar River Watershed

2019 Adopted

Budget (000's): \$5,500

Description: This ongoing project provides improvements to the sockeye salmon hatchery, including improvements to the Broodstock collection facility, improvements to the hatchery spring water pumps, improvements to adult holding ponds, and additions for water redundancy. These facilities are a requirement of the Landsburg Mitigation Agreement and the Muckleshoot Settlement Agreement.

Project ID: MC-SU-C2302

Project Title: South Transfer Station Rebuild

Location: 8100 2nd AVE S

2019 Adopted

Appendix B: Capital Projects passing the \$5 million threshold with the 2019 Adopted allocation.

Budget (000's): \$1,919

Description: This project transforms the existing South Recycling and Disposal Station to a recycling and reuse area. The existing transfer station building and associated facilities will be demolished and replaced with new recycling facilities, a reuse facility, parking and storage area for transfer trailers, and other solid waste facilities.

Project ID: MC-SU-C3314

Project Title: Creek Culvert Replacement Program

Location: Multiple

2019 Adopted

Budget (000's): \$2,379

Description: This ongoing program provides for the repair and replacement of stream culverts that are part of SPU's critical drainage infrastructure. Culverts will be repaired or replaced based on system failure risks and benefits of the project, including flooding, risk of failure, operations and maintenance needs and benefits.

Project ID: MC-SU-C4113-WF

Project Title: Security Improvements – WF

Location: Multiple

2019 Adopted

Budget (000's): \$1,425

Description: This ongoing project funds physical, integrated security system components on water infrastructure throughout the City. Components may include, but are not limited to, fences, gates, access control card readers, intercoms, lighting, door and hatch contacts, CCTV cameras, motion detection devices, and fiber and conduit.

Project ID: MC-SU-C4118-DWF

Project Title: 1% for Arts – DWF

Location: Multiple

2019 Adopted

Budget (000's): \$1,084

Description: This ongoing project provides the Drainage & Wastewater funding for Seattle Public Utilities' 1% for Arts contribution. Eligibility is determined at the individual project level, with payment occurring from this project. Funds contributed to the 1% for Art project allow the commission, purchase, and installation of art in City owned properties that is accessible to the public. The Municipal Arts Plan, which is prepared annually, describes the status of ongoing art projects and establishes the scope of work and allocations for new art projects.

Project ID: MC-SU-C5402

Project Title: Customer Contact & Billing

Location: NA

2019 Adopted

Budget (000's): \$3,250

Description: This ongoing project provides technology solutions and business application upgrades in support of SPU's Customer Contact Center and activities carried out by the Customer Service Branch. Planned projects include, but are not limited to,

Appendix B: Capital Projects passing the \$5 million threshold with the 2019 Adopted allocation.

enhancements to the New Customer Billing System and new technology solutions for enhanced customer contact management. This ongoing project is intended to enhance customer service, customer contact, and ensure accurate Utility billing.

Appendix C: REET II Funding Report

Section 3(a) – Project pages as shown in the 2019-2024 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 table identifies how revenues collected under RCW 82.46.035 were programmed during the prior two-year period, the 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. Anticipated spending for the periods 2020 and 2021 represents current projections and are subject to change based on actual revenues collected and to unanticipated asset preservation/major maintenance needs or changes in priorities. Not all anticipated revenues have been programmed in the CIP for 2021 and beyond to allow for addressing emergent needs that have yet to be identified.

Amounts are in thousands

Fund	Dept	Project Name *	Project ID *	2016 Adopted Budget	2017 Adopted Budget	2018 Adopted Budget	2019 Adopted Budget	2020 Endorsed Budget	2021 Projected Budget
Real Estate Excise Tax (REET II Capital Projects Fund (30020))									
	Department of Parks and Recreation								
		ADA Compliance - Parks	MC-PR-41031	-	-	-	2,000	1,000	-
		Aquarium - Pier 59 Piling Replacement and Aquarium Redevelopment Debt Service	MC-PR-31002	1,560	1,543	1,543	1,545	1,540	1,547
		Aquarium Expansion	MC-PR-21006	-	2,480	2,370	-	-	-
		Aquarium Major Maintenance Commitment	K732436	300	-	-	-	-	-
		Athletic Field Improvements	MC-PR-21009	-	2,647	1,566	-	-	-
		Ballfield Lighting Replacement Program	MC-PR-41009	-	100	500	-	-	500
		Ballfields - Minor Capital Improvements	MC-PR-41023	-	50	50	46	45	50
		Boiler and Mechanical System Replacement Program	MC-PR-41007	-	75	175	100	-	175
		Comfort Station Renovations	MC-PR-41036	-	300	-	-	-	660
		Community Center Rehabilitation & Development	MC-PR-41002	-	1,500	-	3,252	2,284	3,508
		Develop 14 New Parks at Land-Banked Sites	MC-PR-21003	-	-	-	-	1,300	-

Appendix C: REET II Funding Report

Fund	Dept	Project Name *	Project ID *	2016 Adopted Budget	2017 Adopted Budget	2018 Adopted Budget	2019 Adopted Budget	2020 Endorsed Budget	2021 Projected Budget
		Electrical System Replacement Program	MC-PR-41008	-	150	150	100	100	150
		Environmental Remediation Program	MC-PR-41016	-	100	100	100	100	100
		Gas Works Park - Remediation	MC-PR-31007	-	210	790	-	-	670
		Improve Dog Off-Leash Areas	MC-PR-51002	-	-	100	-	-	-
		Irrigation Replacement and Outdoor Infrastructure Program	MC-PR-41020	-	300	300	250	250	550
		Lake City Community Center Improvements	MC-PR-41040	-	-	3,000	2,000	4,000	-
		Lake Union Park Remediation	MC-PR-41043	-	3,600	-	-	-	-
		Landscape Restoration Program	MC-PR-41017	-	430	430	264	264	430
		Loyal Heights Community Center Renovation	MC-PR-41038	-	197	1,671	-	-	-
		Loyal Heights Playfield Turf Replacement	MC-PR-41048	-	-	2,385	-	-	-
		Magnuson Community Center Improvements	K732511	-	-	1,150	-	-	-
		Magnuson Park Athletic Field 12 Conversion	MC-PR-41064	-	-	-	-	-	7,522
		Major Maintenance Backlog and Asset Management	MC-PR-41001	-	-	-	4,808	4,854	4,962
		Neighborhood Capital Program	MC-PR-41015	207	59	90	498	-	-
		Neighborhood Response Program	MC-PR-41024	-	250	250	200	200	250
		Parks Central Waterfront Piers Rehabilitation	MC-PR-21007	-	470	10,150	730	1,987	-
		Pavement Restoration Program	MC-PR-41025	-	400	400	350	320	400
		Play Area Renovations	MC-PR-41039	488	-	-	-	-	1,000
		Play Area Safety Program	MC-PR-41018	-	150	150	75	75	150

Appendix C: REET II Funding Report

Fund	Dept	Project Name *	Project ID *	2016 Adopted Budget	2017 Adopted Budget	2018 Adopted Budget	2019 Adopted Budget	2020 Endorsed Budget	2021 Projected Budget
		Roof & Building Envelope Program	MC-PR-41027	-	350	350	250	250	350
		Seattle Asian Art Museum Renovation	MC-PR-11002	-	3,800	-	-	-	-
		Tennis & Basketball Court Renovation Program	MC-PR-41019	-	100	100	100	75	100
		Trails Renovation Program	MC-PR-41026	-	350	350	350	350	350
		Urban Forestry - Forest Restoration Program	MC-PR-41022	-	200	200	200	200	200
		Urban Forestry - Green Seattle Partnership	MC-PR-41012	-	1,700	1,700	1,700	1,700	1,700
		Urban Forestry - Tree Replacement	MC-PR-41011	-	95	95	95	95	95
		Utility Conservation Program	MC-PR-41010	-	250	250	200	200	250
		Victor Steinbrueck Parking Envelope	MC-PR-41044	-	500	3,000	-	-	-
		Zoo Major Maintenance	MC-PR-41005	-	-	-	1,938	1,938	2,037
		Yesler Crescent Improvements	MC-PR-21012	-	-	-	500	-	-
		South Park Campus Improvements	MC-PR-21013	-	-	-	1,800	-	-
		Athletic Field Replacements	MC-PR-41070	-	-	-	1,120	2,116	3,590
		Green Lake Community Center & Evans Pool Replacement	MC-PR-41071	-	-	-	500	500	-
		Queen Anne Turf Field Replacement	MC-PR-41072	-	-	-	-	3,000	-
Department of Parks and Recreation Total				2,555	22,356	33,365	25,071	28,743	31,296
Seattle Department of Transportation									
		23rd Avenue Corridor Improvements	MC-TR-C037	-	-	-	943	60	-
		3rd Avenue Corridor Improvements	MC-TR-C034	708	-	-	-	-	-
		ADA Improvements â€” SDOT	MC-TR-C069	432	-	-	-	-	-
		Alaskan Way Main Corridor	MC-TR-C072	1,840	-	-	-	-	-

Appendix C: REET II Funding Report

Fund	Dept	Project Name *	Project ID *	2016 Adopted Budget	2017 Adopted Budget	2018 Adopted Budget	2019 Adopted Budget	2020 Endorsed Budget	2021 Projected Budget
		Arterial Asphalt & Concrete Program Phase II	MC-TR-C033	-	450	-	450	-	-
		Arterial Major Maintenance	MC-TR-C071	-	62	500	2,450	2,500	-
		Bike Master Plan - Greenways	MC-TR-C063	-	-	-	550	-	-
		Bike Master Plan - Protected Bike Lanes	MC-TR-C062	100	-	-	-	-	-
		Bridge Load Rating	MC-TR-C006	300	-	500	-	-	-
		Bridge Painting Program	MC-TR-C007	2,135	2,135	2,135	2,135	2,135	2,135
		Bridge Rehabilitation and Replacement Phase II	MC-TR-C039	595	-	-	-	-	-
		Debt Service - CRF	MO-TR-D003	1,348	1,306	812	814	815	814
		Elliott Bay Seawall Project	MC-TR-C014	13,100	10,000	-	-	-	-
		Hazard Mitigation Program - Areaways	MC-TR-C035	329	330	331	332	333	334
		Hazard Mitigation Program - Landslide Mitigation Projects	MC-TR-C015	200	200	1,200	200	200	200
		Market to MOHAI	MC-TR-C095	-	-	500	-	-	-
		Neighborhood Parks Street Fund - Your Voice, Your Choice	MC-TR-C022	1,793	1,941	1,910	1,446	-	-
		Next Generation Intelligent Transportation Systems (ITS)	MC-TR-C021	800	-	-	987	-	-
		Non-Arterial Street Resurfacing and Restoration	MC-TR-C041	650	1,150	1,150	1,150	1,150	1,150
		Pavement Microsurfacing	MC-TR-C023	500	-	-	-	-	-
		Pedestrian Master Plan - Crossing Improvements	MC-TR-C061	49	49	-	-	-	-
		Pedestrian Master Plan - New Sidewalks	MC-TR-C058	-	500	-	888	-	11

Appendix C: REET II Funding Report

Fund	Dept	Project Name *	Project ID *	2016 Adopted Budget	2017 Adopted Budget	2018 Adopted Budget	2019 Adopted Budget	2020 Endorsed Budget	2021 Projected Budget
		Pedestrian Master Plan - Stairway Rehabilitation	MC-TR-C031	-	-	49	49	49	49
		Retaining Wall Repair and Restoration	MC-TR-C032	212	212	212	212	212	212
		S Lander St. Grade Separation	MC-TR-C028	-	5,000	-	369	5,248	-
		SDOT ADA Program	MC-TR-C057	-	-	-	2,300	2,500	-
		Sidewalk Safety Repair	MC-TR-C025	-	-	2,000	2,100	2,142	-
		Signal Major Maintenance	MC-TR-C026	1,013	-	-	-	-	-
Seattle Department of Transportation Total				26,104	23,335	11,299	17,375	17,345	4,905
Misc City Programs/Projects									
		StreetLighting	FG1	1,000					
		Debt Service - Capital Projects	FG2	2,752	1,306				
Misc City Programs/Projects Total				3,752	1,306				
Spending on Homelessness									
		Bridge Housing for Homelessness	HSD1			1,000			
		Low Income Housing Debt Service	HSD1				1,000		
Spending on Homelessness Total				-	-	1,000	1,000	-	-
Real Estate Excise Tax (REET II) Total				32,411	46,997	45,664	43,448	46,088	36,201

3(d) - The table below identifies the amounts and percentage of City resources allocated to capital projects.

Revenue Source	2018 \$ Amount	2018 %	2019 \$ Amount	2019 %
Real Estate Excise Tax II	45,664	4.1%	43,446	3.6%
Real Estate Excise Tax I	45,196	4.0%	42,590	3.5%
Federal Funds	38,824	3.5%	34,791	2.8%
King County Funding	12,076	1.1%	19,548	1.6%
Other City Funds	74,277	6.6%	79,973	6.5%
Other Local Govt	2,478	0.2%	10,253	0.8%
Private Funding	3,601	0.3%	6,689	0.5%
State Funding	12,455	1.1%	59,540	4.9%
Utility Funding	685,884	61.0%	709,294	58.1%
Bond Financed	54,567	4.9%	48,106	3.9%
Voter Approved Funds	149,135	13.3%	167,200	13.7%
Total	1,124,157	100.0%	1,221,430	100.0%