Seattle City Light

UPDATED OCTOBER 1, 2020

Broad Street Substation Inductor Project

PROJECT OVERVIEW

Seattle City Light is committed to producing and delivering environmentally responsible, safe, low-cost, and reliable power. As part of this commitment, we plan to make system improvements at the Broad Street Substation that will increase the reliability of our power grid. The Broad Street Substation distributes electricity to local neighborhoods and plays a role as a key facility for the transmission of high voltage electricity to the region.

Location of the Broad Street Substation.

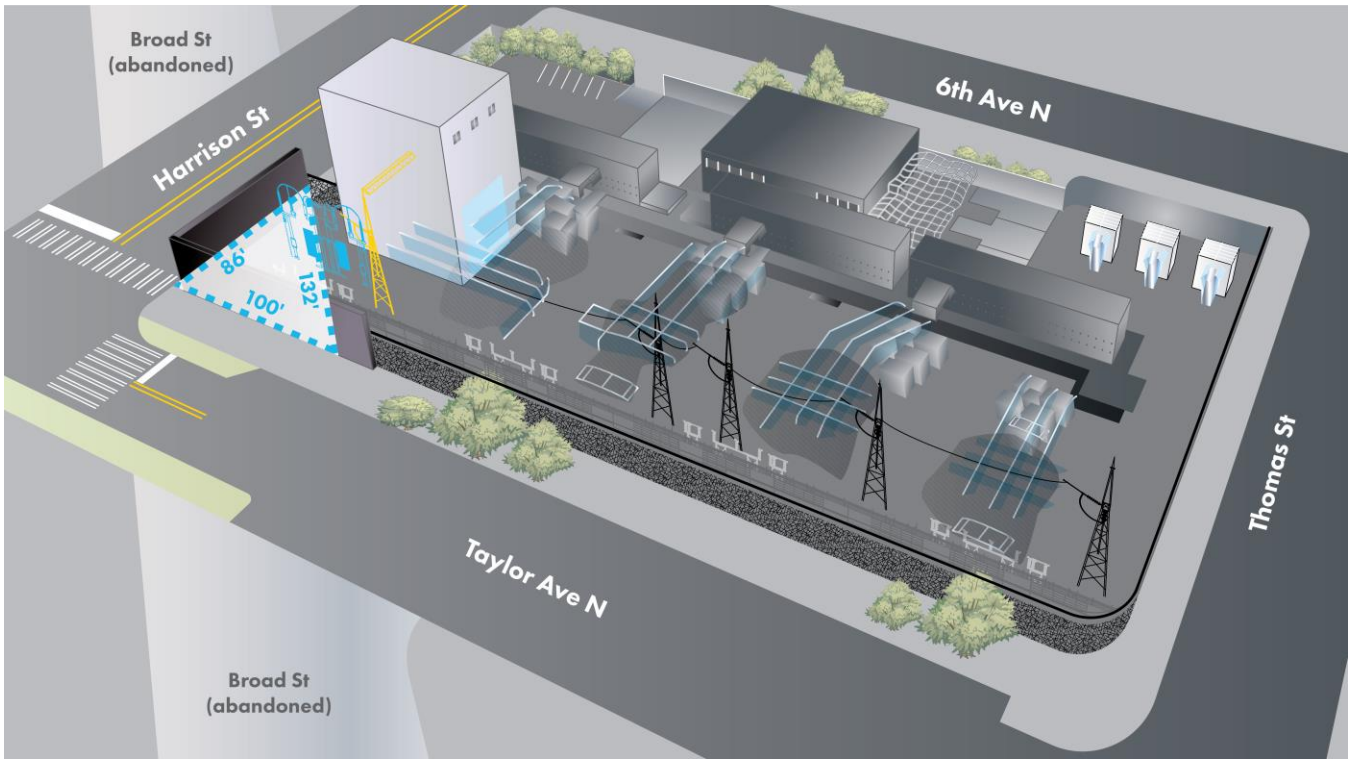
The grid in our area is an important part of the greater region's electrical grid. Working in conjunction with the Denny Substation, the improved Broad Street Substation will more reliably deliver power to customers.

NEED FOR IMPROVEMENT	NEW EQUIPMENT
Since the early 2000s, the transfer of electricity around the Puget Sound area has sometimes been limited due to congestion in this grid. Working together with the new Denny Substation, the new equipment at the Broad Street Substation will help to reduce congestion on the regional grid and upgrade the reliability of the electrical transmission system, lessening the risk of region-wide power outages in the future.	The new equipment at the Broad Street Substation will include the installation of inductors, which are electrical wire coils through which electric current passes. When installed on a transmission line, the inductor limits the flow of electricity on the transmission line, which balances the electrical load that travels through the regional grid.
BENEFITS	**FUNDING**
The improvements at the Broad Street Substation will benefit our community and City Light's customers. They will: • Increase system–wide reliability • Better enable power delivery from the Denny Substation	Bonneville Power Administration, Puget Sound Energy and Seattle City Light are equally responsible for covering the costs of the Broad Street Substation Inductor Project.

DESIGN OPTIONS

Seattle City Light evaluated two options for the installation of new electrical equipment based on their technical and engineering merits, costs, long-term benefits and flexibility. Both options were also reviewed by federal, state and local agencies to make sure they comply with its requirements and regulations.

The preferred option would expand the substation beyond its current fence line at its northwest corner. This option provides sufficient space for the new equipment and provides flexibility for future improvements. City Light also considered installing the new equipment within the existing substation fence line but determined that it would be technically infeasible, constrain future improvements, and require installation of new equipment above the current fence height.



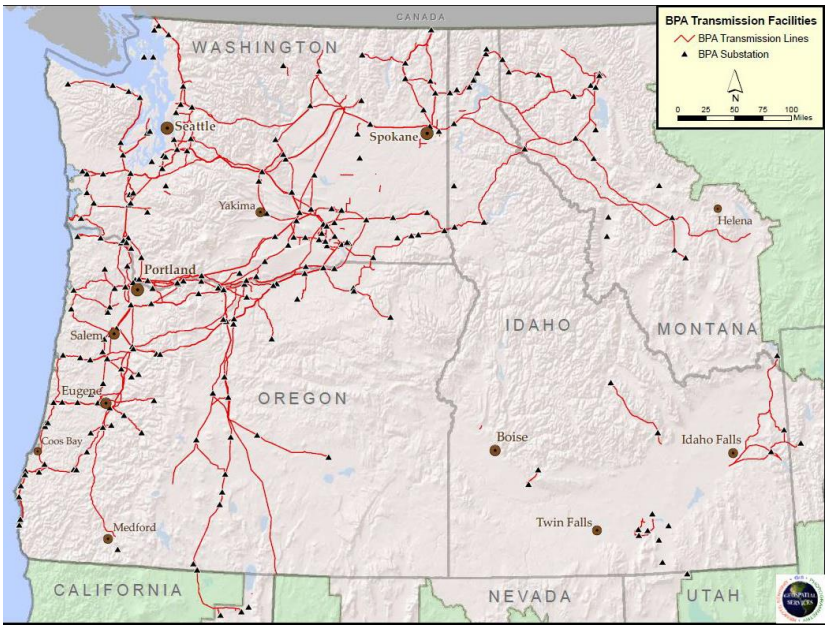
The preferred option requires the vacation of a portion of Broad Street near Harrison Street and Taylor Avenue N. As a result of the Alaskan Way Viaduct Replacement Project, a section of Broad Street between Mercer Street and 5th Avenue N has been permanently closed in order to reconnect the street grid across Aurora Avenue N. The Broad Street closure at Taylor Avenue N and Harrison Street effectively made a small triangular area at the northwest corner of the substation available for the new equipment. The area is large enough to accommodate the new equipment and City Light has designed the improvements to fit within that area and to integrate with the rest of the substation.

Street vacation refers to the process whereby a property owner (in this case, City Light) petitions City Council to acquire adjacent street right-of-way for use other than as a public roadway. For this project, the portion of Broad Street proposed for street vacation is a permanently closed road that is no longer in use and would be used for substation expansion.

The result of street vacation would be the transfer of ownership of a 4,303 square foot, triangle-shaped portion of Broad Street (near Harrison Street and Taylor Avenue N) from the Seattle Department of Transportation (SDOT) to Seattle City Light.

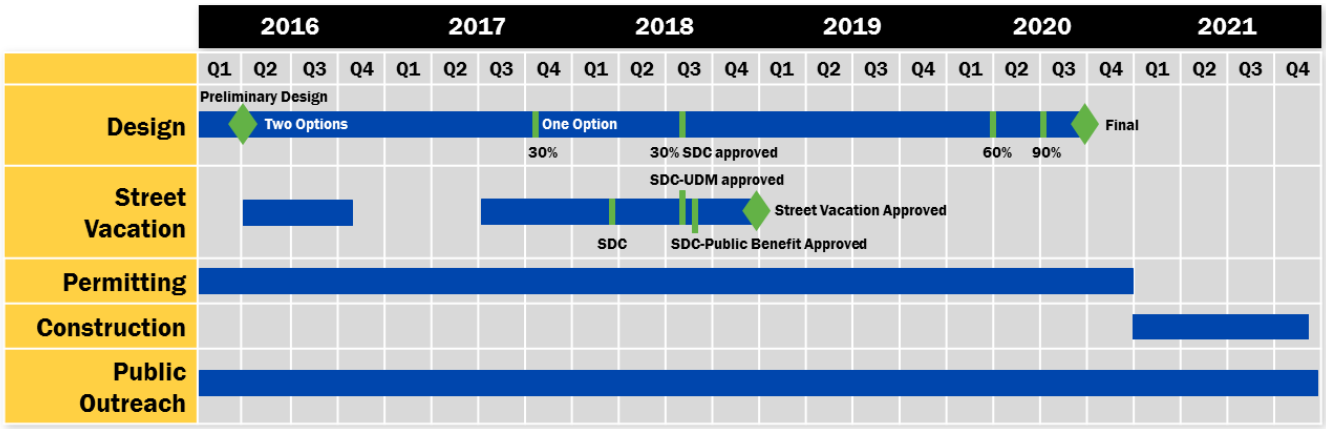
THE REGIONAL GRID

Seattle City Light has partnered with Puget Sound Energy and the Bonneville Power Administration to improve the reliability of the regional electric transmission grid. Since the early 2000s, the transfer of electricity around the Puget Sound area has sometimes been limited due to congestion in this grid. Along with other projects, The Broad Street Substation Inductor Project will reduce congestion and upgrade the reliability of the transmission system, lessening the risk of region-wide customer power outages in the future.



SCHEDULE

City Light plans to finalize the design for the project at the end of the fourth quarter of 2020 with the start of construction tentatively planned for the first quarter of 2021.



CONTACT US

For additional questions, please contact: **SCL_BroadSub@seattle.gov.**