City Council Agenda Item
Staff Report

CITY OF SAN BRUNO

DATE: February 8, 2022

TO: Honorable Mayor and Members of the City Council

FROM: Jovan Grogan, City Manager

PREPARED BY: Matthew Lee, Director

SUBJECT: Adopt Resolution Approving Amendment to the FY 2021-22 Capital Improvements Program to Include the Regulated Output Streetlight Replacement Project and Appropriating $500,000 from the General Fund Capital Reserve

BACKGROUND: On December 14, 2021, the City began experiencing streetlight outages in Rollingwood 1, 2 and 3 neighborhoods that affected 95 streetlights on the following streets: Arbor Ct, Birch Ct, Camellia Ct, Cottonwood Dr, Crestwood Dr, Elmwood Ct, Eucalyptus Dr, Evergreen Dr, Fleetwood Dr, Greewood Dr, Heather Ln, Maywood Dr, Oakmont Dr, Palm Ct, Pinecrest Dr, Rollingwood Dr, Sequoia Ave, Sherwood Dr, and Willow Wy. The lights within these neighborhoods are on a Regulated Output (RO) circuit that is powered by a transformer, which sends a higher voltage to all the streetlights within the circuit. A failure in the power source or the electrical wires can cause an entire string of lights to malfunction, similar to holiday lights. The City currently has 294 streetlights on eight (8) RO circuits.

Immediately after the initial outage was reported, City staff began to work closely with the City's electrical contractor and PG&E to investigate the cause of the power failure. The streetlight outage was determined to be caused by failure of the RO transformer and PG&E made repairs to the RO transformer on January 5, 2022. After the system was re-energized additional failures occurred at the spliced wire connections located at the base of multiple poles. Given the age of the system and the current condition of the electrical wires, staff determined that the best course of action was to examine and repair all wiring at the base of every pole.

The RO streetlights within the Rollingwood neighborhood are currently non-functional until all the splicing is replaced. The City has increased police patrols for the neighborhood during this outage. While it is unknown when the remaining RO transformers will fail, it will eventually happen given the service life of this system. There currently are no known manufacturers for these specific types of transformers anymore. There is a potential in a streetlight outage consisting of approximately 200 additional streetlights occurring within the Crestmoor, Mills Park and Monte Verde neighborhoods. A permanent solution that would involve replacement of the existing RO circuit to a more reliable parallel circuit to minimize future failures should be explored. Similar proposals to develop a more reliable parallel circuit streetlight system in the past were discussed and reported on in a November 10, 2015 report to City Council. The estimated cost at that time was $4M and it was stated that funding was not able to be identified. The total cost of the repairs today is unknown; however, a new cost estimate will be prepared during the design phase of the capital improvement project that is recommended to be funded in this staff report.

DISCUSSION: Due to the condition and service life of the antiquated RO system and the lack of any manufacturers for the transformer, it is in the best interest of the residents and the city to take steps towards moving to a parallel circuit system. Other cities along the Peninsula that inherited RO systems from PG&E in the past have systematically moved to parallel systems. It was assumed in 2015 the option of pursuing a parallel system was not feasible due to the lack of identified funding. Currently there is no identified funding for the full project, but in order to move forward, staff is requesting that council fund the design phase so that the parallel system can be designed and true engineering costs to replace the system can be determined. The scope of work for the Regulated Output Streetlight Replacement Project – Design Phase involves designing for the replacement of the existing RO circuit to a parallel circuit, assessment and replacement of defective streetlight poles within the RO circuit, coordination with PG&E for construction of new power sources, developing specifications for construction bidding, and providing support during the bidding and construction process. For the project schedule, staff estimates that it will take approximately twelve (12) months to complete the design scope of work.

While the project would design for the replacement of all eight RO streetlight circuits within the City, separate construction documents would be developed for each RO circuit. This approach allows for the replacement of each individual RO circuit to a parallel circuit as construction funding becomes available and identified.

FISCAL IMPACT: There is currently no allocation for this project in the adopted 2021-22 CIP Budget. Staff is requesting an allocation of $500,000 from the General Fund Capital Reserve to fund the design phase of this project. Sufficient funds exist in the General Fund Capital Reserve to fund the appropriation. During the design phase of the project, staff will also work with the City Council to identify and prioritize funding for the construction phase of the project.

ENVIRONMENTAL IMPACT: The proposed project qualifies for a categorical exemption per 15302 (Replacement or Reconstruction)

RECOMMENDATION: Adopt Resolution Approving Amendment to the FY 2021-22 Capital Improvements Program to Include the Regulated Output Streetlight Replacement Project and Appropriating $500,000 from the General Fund Capital Reserve to fund the design phase of the project.

ALTERNATIVES:
1. Allocate a smaller amount for the project and identify which neighborhood should be prioritized for replacement of RO circuit to parallel circuit.
2. Do not proceed with the project.

ATTACHMENTS:
1. Resolution
2. RO Streetlight Map
3. Attachment 3 - November 10, 2015 Report to Council - Regulated Output Streetlight Status Update