



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: JUNE 10, 2019

ITEM NO: 10

SUBJECT: LA COLINA SWITCHGEAR 3 AND 4 REPLACEMENT PROJECT - WORK ORDER NUMBER 1927285 IN THE AMOUNT OF \$480,000

ISSUE:

Approve Work Order Number 1927285 for the La Colina switchgear 3 and 4 replacement project in the amount of \$480,000.

RECOMMENDATION:

That the Board of Public Utilities approve Work Order No. 1927285 for La Colina switchgear 3 and 4 replacement project in the amount of \$480,000.

BACKGROUND:

Electrical substations (substations) are the joining of facilities between the distribution and transmission systems. Substations house critical equipment and infrastructure such as substation power transformers, switchgears, power circuit breakers, and protective relaying equipment. All this equipment within the substation boundaries is vital for the reliable and optimum operation of the electric grid.

Substation equipment must be upgraded periodically to meet increasing electric power demand, maintain safety, and improve system reliability. Several of the substation equipment in the Riverside Public Utilities (RPU) system have exceeded, or are reaching, the end of their design life. Replacement of failed equipment such as switchgears is very expensive and lengthy due to the design requirements and the complexity of the manufacturing process. The failure of a single unit can result in a significant impact on the electric system's reliability and the safety of employees and the public.



La Colina Switchgear 3 & 4

DISCUSSION:

RPU is committed to providing safe and reliable energy service for all customers, therefore, planned system improvements and equipment replacement are prudent and responsible measures to minimize the risk of prolonged power outages due to equipment failures and maximize system reliability. The La Colina Switchgears Numbers 3 and 4 have experienced several component failures and two (2) arc flash incidents. As part of the Department's effort to identify and replace aging infrastructure, RPU plans to replace these switchgears and protective relaying equipment at La Colina substation. Both switchgear and protective relaying equipment are approximately 56 years old and have exceeded their design life.

The project will be completed in two (2) phases. The first phase includes hiring a consultant firm from RPU's Electric consultant panel to develop the preliminary design plans and bid packages to replace the switchgear and the associate equipment and structures. RPU will select a firm to perform engineering services from the consultant panel through a competitive bidding process administered by the Purchasing Department.

Staff will return to the Board of Public Utilities in August 2020 to request an increase in the work order amount, and to award a design build agreement for phase two (2) of the project. The scope of the work for phase two (2) will include the procurement of all equipment and material, removal and installation of new switchgears and relays, related electrical and underground work, testing and commissioning of the new equipment.

The project/fiscal breakdown is as follows:

Project and Fiscal Breakdown		
Work Type	Performed By:	Amount (\$)
Project Management and Engineering	RPU	\$140,000
Design	Consultant	\$300,000
Contingency		\$40,000
Work Order Total:		\$480,000
Anticipated Start Date of phase 1:		August 2019
Anticipated Completion of phase 1:		April 2020

FISCAL IMPACT:

The total fiscal impact of phase one (1) of the \$480,000. Sufficient funds are available in the Fiscal Year 2019-20 budget in Public Utilities' Substation Bus Upgrade Account No. 6130100-470616.

Prepared by: George R. Hanson, Utilities Assistant General Manager/ Energy Delivery

Approved by: Todd M. Corbin, Utilities General Manager

Approved by: Al Zelinka, FAICP, City Manager

Approved as to form: Gary G. Geuss, City Attorney

Certifies availability
of funds: Brian Seinturier, Utilities Fiscal Manager

Attachment: Project Site Map