



RIVERSIDE PUBLIC UTILITIES

Board Memorandum

BOARD OF PUBLIC UTILITIES

DATE: FEBRUARY 26, 2018

ITEM NO: 9

SUBJECT: **ENGINEERING, DESIGN AND CONSTRUCTION LETTER AGREEMENT BETWEEN SOUTHERN CALIFORNIA EDISON COMPANY AND THE CITY OF RIVERSIDE FOR WORK ASSOCIATED WITH EXISTING METERING PULSE TOTALIZER AND CALIFORNIA INDEPENDENT SYSTEM OPERATOR METERING AT VISTA SUBSTATION - WORK ORDER NO. 1817274, FOR \$836,175**

ISSUES:

Recommend that the City Council approve the Engineering, Design and Construction Letter Agreement between Southern California Edison Company and the City of Riverside for work associated with existing metering pulse totalizer units and California Independent System Operator metering at Vista Substation; and, approve Work Order No. 1817274, for \$836,175.

RECOMMENDATIONS:

That the Board of Public Utilities:

1. Approve the capital expenditure of \$836,175 for Work Order No. 1817274;
2. Recommend that the City Council approve the Engineering, Design and Construction Letter Agreement with Southern California Edison Company for the work associated with existing metering pulse totalizer units and California Independent System Operator metering at Vista Substation in the amount of \$739,357.04; and
3. Recommend that the City Council authorize the City Manager, or his designee, to execute the Engineering, Design and Construction Letter Agreement with Southern California Edison Company, including making minor non-substantive changes, and to sign all documents necessary to complete the transaction for filing with the Federal Energy Regulatory Commission by Southern California Edison Company.

BACKGROUND:

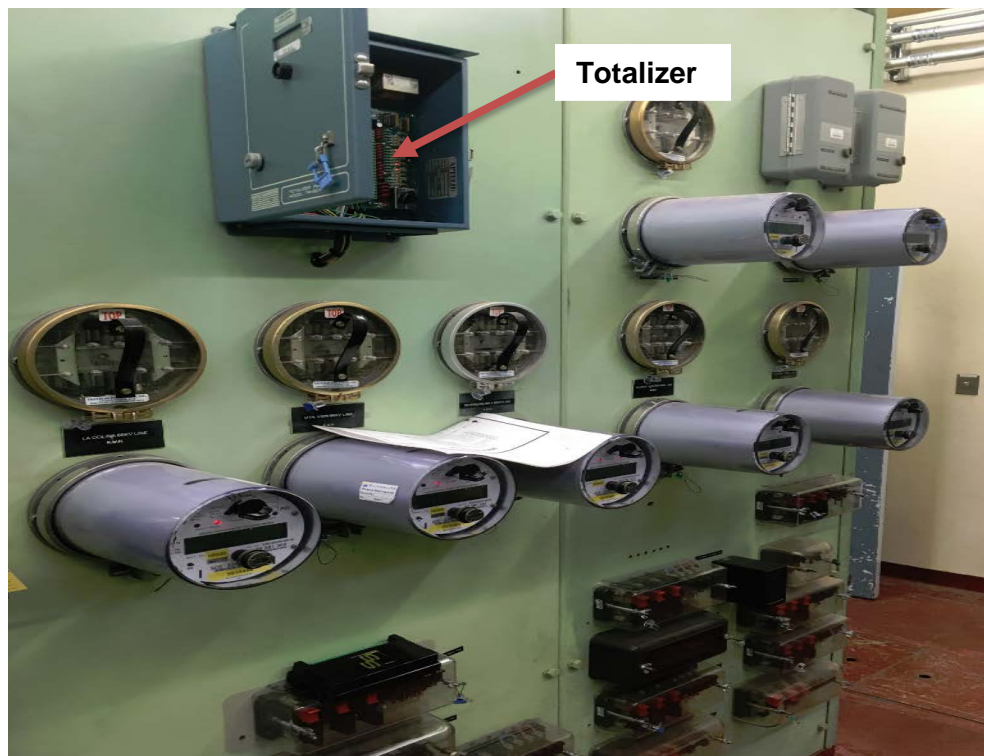
The City of Riverside's distribution system is primarily served through two 230/69kV transformers at the Vista Substation, which is owned and operated by Southern California Edison (SCE). The Vista substation is also City's only point of interconnection to the state grid, where the City transacts with the California Independent System Operator (CAISO) for wholesale power. There are seven 69kV transmission lines that transmit power from SCE's Vista Substation into Riverside. Each of the seven lines is individually metered at Vista Substation for billing and operational purposes. The total amount of power, in terms of both megawatt hours and coincidental electrical demand, is determined through metering pulse totalizers located at the Vista Substation.

Riverside Public Utilities (RPU) requires revenue-quality meter data from the Vista Substation for reporting to the CAISO. The Vista Substation is the point of interconnection between RPU and the CAISO controlled grid. RPU has a total of seven (7) CAISO Certified Revenue Quality Meters located at the Vista Substation. The CAISO relies on the quality of these meters to correctly bill RPU on the load consumed from the CAISO grid. As a CAISO Metered Entity, RPU is required to provide the CAISO with Revenue Quality Meter Data in accordance with Section 10 of the CAISO Tariff and Section 5 of the Metering Business Practice Manual. RPU is also required to maintain the CAISO metering facilities as well as repair defective equipment to continue to meet the standards prescribed in the CAISO Tariff and Business Practice Manuals. If a CAISO Metered Entity is unable to provide the CAISO with complete and accurate meter data, the entity will be subject to penalties and sanctions as specified in the CAISO Tariff Section 37.11 and Section 4 of the Metering Business Practice Manual.

On July 21, 2017, the metering pulse totalizer on the 69kV lines at Vista Substation that serve RPU failed. SCE met with RPU representatives to determine the scope of work, costs, and project schedule to replace the pulse totalizer unit. Since accurate metering at the Vista Substation is paramount to RPU's operation, staff agreed to pay SCE to perform the pulse totalizer replacement work in advance of this Engineering, Design and Construction Letter Agreement ("Letter Agreement") with SCE.

On August 19, 2017, SCE determined that a metering unit on the Mountain View-Vista 69 kV line at Vista Substation's 69 kV position 2 failed. SCE has determined that the existing three phase 69 kV metering unit must be replaced with a new set of three single-phase combined metering units. The seven original metering units were installed in the 1960's and have exceeded their expected design life. RPU has requested that SCE replace the failed metering unit. In addition, RPU has requested that SCE purchase and store one replacement metering set to be used in the event of a future failure.

SCE and RPU personnel have met and agreed on the specific scope of work for the replacement of the pulse totalizer, replacement of the failed metering unit, and the acquisition of spare metering units. This scope is designated as the "Vista Work" and is further described in Exhibit A in the attached Letter Agreement.



SEVEN (7) CAISO METERS AND TOTALIZER AT SCE VISTA SUBSTATION CONTROL BUILDING

The purpose of the Letter Agreement is to agree upon the terms pursuant to which SCE will perform the Vista Work, as follows:

1. SCE shall perform the scope of work identified in Exhibit A of the Letter Agreement, in accordance with Good Utility Practice and apply for any regulatory approvals that may be necessary for the construction, operation and maintenance of the Vista Work performed by SCE.
2. RPU shall pay all of SCE's charges and expenses for such scope of work identified in Exhibit A for the portions of the Vista Work performed by SCE. The charges and expenses incurred pursuant to this Letter Agreement shall include, without limitation, SCE's costs of SCE employees and contractors, including related overheads.

DISCUSSION:

RPU and SCE personnel have agreed on the following Vista Work to be performed by SCE:

1. Procuring four new replacement pulse totalizers;
2. Removing existing pulse totalizer and replacing with two new pulse totalizers, configuring new pulse totalizers with proper program, validating data with RPU and completing commissioning;
3. Performing complete testing and evaluation of new pulse totalizers as required;
4. Rewiring existing SCADA "Bitronics" meter associated with the Mountain View-Vista 69 kV line with voltage from one of the remaining 69 kV lines as a temporary metering solution until the permanent solution listed in items 5 and 6 can be completed;
5. Procuring two (2) sets of metering units (or a total of six combined current transformer (CT)/voltage transformer (VT) metering units) from vendor, within twenty-eight (28) weeks following execution of the Letter Agreement and receipt of payment from Riverside;
6. Replacing failed metering unit with one (1) set of new metering units (or three combined CT/VT metering units) to the Mountain View 69 kV line: work to be completed approximately two (2) weeks following completion of item 5 above;
7. Storing the spare set of metering units (the other three combined CT/VT metering units) for future use in the event of metering failure on other RPU 69kV lines.



69KV Metering PT – SCE Vista Substation

The estimated costs and schedule for the Vista Work is provided by SCE in the table below. The target completion date for this project is October 2018.

Work Element: Vista Work	Estimated Cost	One-Time Cost	ITCC	Total Payment	Estimated Schedule
Remove existing Totalizer units, procure and install new Totalizer units	\$44,894	\$11,939	\$9,876.68	\$66,709.68	Five (5) weeks from authorization to proceed *
Temporary Solution: Mountain View-Vista 69 kV metering unit	\$1,500	\$0.00	\$330	\$1,830.00	Within one (1) week following authorization to proceed*
Permanent Solution: Mountain View-Vista 69 kV metering unit. Remove existing metering units and Procure two metering units and install one metering unit and keep one metering unit as a future spare for RPU.	\$527,014	\$17,320	\$126,483.36	\$670,817.36	Within twenty eight (28) weeks following receipt of the executed Agreement and payment
Total Estimated Cost	\$573,408	\$29,259	\$136,690.04	\$739,357.04	

* Note: Due to the importance of this work, RPU agreed to allow SCE to perform this work prior to receipt of funds and RPU agreed to pay SCE following completion.

Accurate metering at the Vista Substation is paramount to RPU's operation. Without the totalizer and the Mountain View 69kV metering in service, RPU has had to perform a work-around and estimate the total electric load and energy consumed by the City from less accurate metering sources.

Executing this Letter Agreement and making required payments to SCE is necessary for SCE to commence procurement of the long-lead electric equipment and begin working on this project. Since the metering facilities are physically located within SCE's Vista Substation, RPU must coordinate this repair and upgrade effort with SCE.

The breakdown of the total capital expenditure on this project is as follows:

DESCRIPTION	AMOUNT
SCE Estimated Cost – based on the Letter Agreement	\$739,357.04
Project Management and Engineering	\$36,000
RPU Testing and Commissioning	\$21,000
Contingency (5%)	\$39,817.96
Work Order Total	\$836,175

Staff is working with SCE on a long term plan to address the replacement of the remaining metering units and will return to Board for approval at a future date.

FISCAL IMPACT:

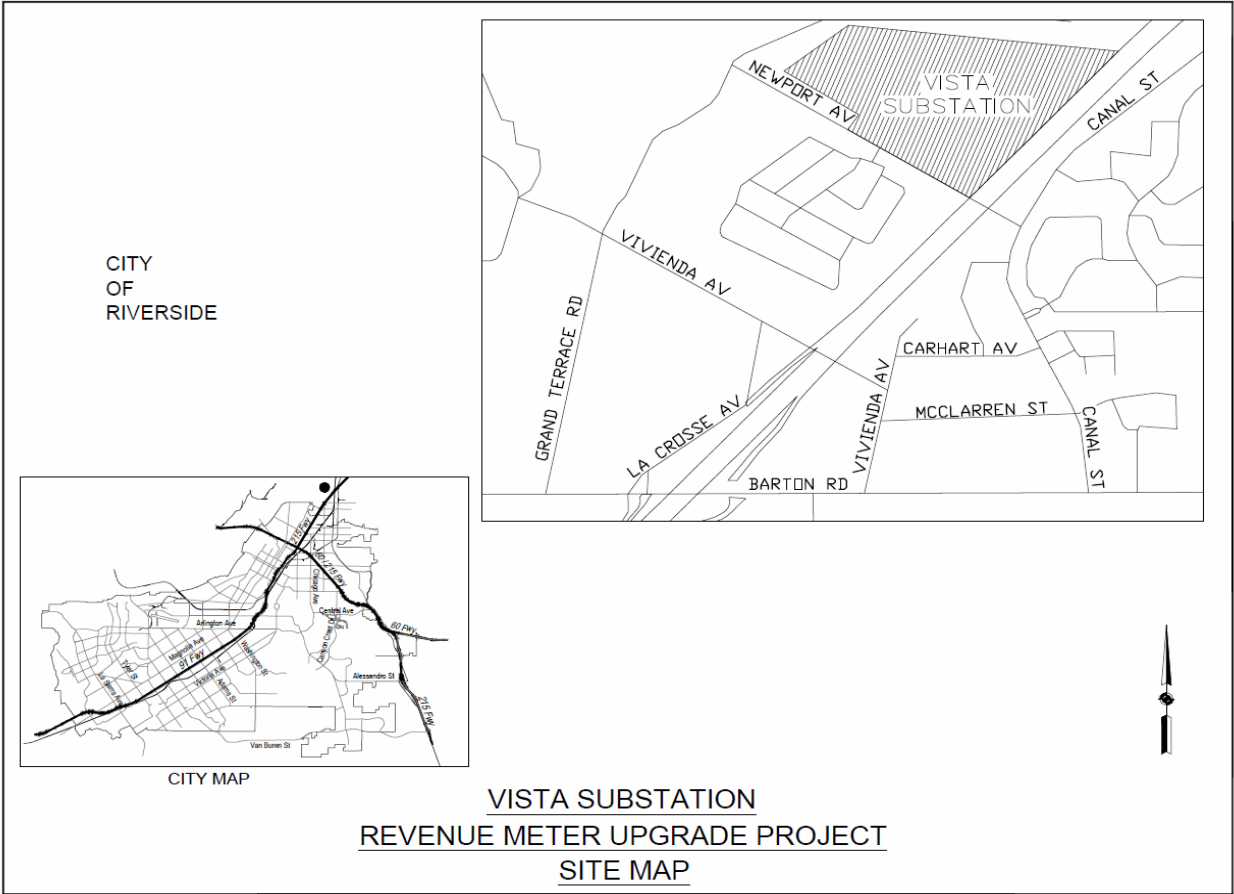
The total fiscal impact is \$836,175. Sufficient funds are available in Public Utilities' Electrical Substation Bus & Upgrades Capital Account No. 6130000-470616.

Prepared by: George R. Hanson, Utilities Assistant General Manager/Energy Delivery
Approved by: Todd Jorgenson, Utilities Interim General Manager
Approved by: John A. Russo, City Manager
Approved as to form: Gary G. Geuss, City Attorney

Certifies availability
of funds: Laura M. Nomura, Utilities Assistant General Manager/Finance

Attachments:

1. Engineering, Design and Construction Letter Agreement
2. Presentation



SITE MAP