



City Council Report

Date: August 31, 2020
To: City Council
Through: Kari Kent, Assistant City Manager
From: Beth Huning, City Engineer
Rob Kidder, Assistant City Engineer
Subject: Lewis East Substation Rebuild
City Project No. CP0461-0018
Council District No. 4

Purpose and Recommendation

The purpose of this report is to provide information to the Council concerning the selection of a Construction Manager at Risk (CMAR) for the proposed Lewis East Substation Rebuild project (Refer to Exhibit "A" for the project location).

Staff recommends that Council approve the selection of Builders Guild, Inc. (a Mesa business) as the CMAR for this project and award a Pre-Construction Services contract in the amount of \$75,189.

Background

The City's Energy Resources Department needs to replace the 45-year-old transformer and associated switchgear in the east bay of Lewis Substation with a new transformer and associated switchgear. The incoming voltage into the substation is 69 kilovolts (kV) and the transformer reduces the voltage to 12.47 kV. The age of the existing transformer and switchgear exceeds the expected life of such equipment and its replacement will help ensure that Mesa's electric service is safe, reliable, and efficient.

The City will upsize the existing 22.4 megavolt-amperes (MVA) transformer to a 28 MVA transformer to support downtown's growing electrical demand. The transformer and switchgear equipment are being purchased directly by the City through separate procurement processes. The City Council approved the transformer bid award (bid number 2020025) on December 9, 2019. The City Council also approved the switchgear bid award (bid number 2020036) on December 9, 2019.

In addition to the equipment replacement, portions of the substation facility will be rearranged to provide greater flexibility for routine maintenance, which may help minimize the impact on Mesa's electric customers in the event of electric system failures or disturbances. The rearrangement will necessitate site grading, new concrete pads to accommodate the larger substation transformer footprint, and other ancillary support structures.

Discussion

In November 2019, Staff received two "Statements of Qualifications" (SOQ) from contractors proposing to act as the CMAR for this project. Based on an evaluation of these SOQ's, Builders Guild Inc. was recommended as the most qualified CMAR. Staff has prepared a contract and negotiated the fee for the Pre-Construction Services contract. During the Pre-Construction Phase, Builders Guild will work closely with the project team to develop the project design, review the design for constructability, prepare cost estimates and develop the project schedule to develop a project phasing plan.

The last item developed during the Pre-Construction Phase will be the "Guaranteed Maximum Price" (GMP) for the project. This GMP will then be brought back to the Council for review and approval.

Once underway, construction of this project is anticipated to last approximately eight months. City electrical customers are not expected to experience any electrical outages due to this rebuild project. While minor traffic control may be required in the immediate vicinity of Lewis East Substation to facilitate the delivery of large equipment, impacts to the surrounding neighborhoods are expected to be minimal. Engineering Public Relations will be engaged to keep all residents informed of any impacts they might experience during construction.

Alternatives

An alternative to the approval of this Pre-Construction Services contract for the selected CMAR would be to construct this project using the traditional Design/Bid/Build method. This is not recommended due to the need for the additional services provided by a CMAR contractor during the design phase. The proposed Lewis East Substation Rebuild project will require extensive coordination between the contractor, equipment manufacturers, design consultant, and the City of Mesa to effectively phase the construction of the rebuild.

Another alternative is to not perform the work. This is not recommended because the Lewis East Substation supports roughly one-eighth of the electric demand of City electric customers and serves as a critical backup to the other electrical substations. The failure to replace equipment of this age could result in a loss of the entire substation bay, burdening the remaining substations, and increasing the likelihood of significant electrical

system outages.

Fiscal Impact

This pre-construction services contract is in the amount of \$75,189.

This project is funded by 2014 Electric bonds.

Coordinated With

The Energy Resources Department concurs with this recommendation.