

EXECUTIVE BRIEF REGULAR MEETING

AGENDA DATE: February 16, 2021

DEPARTMENT: Electric Utility

TITLE:

Ratification of Capital Project and Emergency Purchase Order(s) for the replacement of the Power Plant Unit GT2/S5 138kV underground cable

SUMMARY:

Ratification of Capital Project and Emergency Purchase Order(s) for the replacement of the GT2/S5 138kV underground cable in the amount not to exceed \$400,000

BACKGROUND AND JUSTIFICATION:

On December 23, 2020 the City experienced a momentary fault on the electrical transmission system. The City's electrical utility staff in conjunction with NuCAT Corporation immediately began system testing and conducted fault analysis to determine the cause and location of the fault. Further testing and investigation determined the cause of the fault to be isolated to a section of direct buried underground 138kV cable between the GT2/S5 step-up transformer and the Main-Yard Substation that is believed to date back to the mid-1970s when the unit was constructed. Due to the faulted cable the GT2/S5 unit is currently on a forced outage and unavailable to operate. The GT2/S5 unit is therefore unavailable for use in meeting the electric utility's capacity obligations and incurring incremental capacity charges, nor is the unit available to support the electric utility in the event of a transmission tie line outage.

The electric utility team immediately began working with contractors, material vendors and engineering firms to replace the faulted 138kV cable. The scope of work for this project consists of the following; engineering review and installation in concrete of (3) new underground conduits from the GT2/S5 step-up transformer to the main-yard substation, procurement and installation of approximately 2,100 LF of 138kV rated cable plus a dedicated ground wire, installation of cable terminations and reconnection to the GT2/S5 step-up transformer and breaker. Conduit for fiber optic cable will be installed along the cable route during to take advantage of the open excavation.

Currently work is approximately 60% complete; contractors have completed installation of underground conduits, new cable & cable terminations procured and scheduled to ship-end of February and engineering team has completed design of cable support & termination brackets. Cable installation and terminations are scheduled to begin the first week of March with testing, commissioning and in-service expected to be completed by second week of March.

MOTION:

Move to ratify/not ratify Capital Project and Emergency Purchase Order(s) for the replacement of the GT2/S5 138kV underground cable in the amount not to exceed \$400,000.

ATTACHMENT(S):

Fiscal Impact Analysis
Summary of Costs for 138kV GT2 S5 Cable Replacement

FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2021	2022	2023	2024	2025
Capital Expenditures	\$400,000	0	0	0	0
Operating Expenditures	0	0	0	0	0
External Revenues	0	0	0	0	0
Program Income	0	0	0	0	0
In-kind Match	0	0	0	0	0
Net Fiscal Impact	\$400,000	0	0	0	0
No. of Addn'l Full-Time Employee Positions	0	0	0	0	0

B. Recommended Sources of Funds/Summary of Fiscal Impact:

Account Number	Account Description	Project Number	FY21 Budget	Current Balance	Agenda Expenditure	Balance
421-6034-531-63.15	Improve Other than Build / Infrastructure	SH2106	\$400,000	\$400,000	-\$400,000	\$ 0