EXECUTIVE BRIEF
REGULAR MEETING

AGENDA DATE: June 15, 2021 **DEPARTMENT:** Electric Utility

TITLE:

Task Order No.4 with Power Engineers, Inc., to provide engineering design and construction support services for the City's 26kV distribution under-build circuit on the new 138kV FP&L Tie-Line

SUMMARY:
Task Order No. 4 authorizes Power Engineers Inc., to provide engineering design and construction support services for the City's 26kV distribution under-build circuit on the new 138kV FP&L Tie-Line in the amount not to exceed $327,350. This project has been identified as an element of the City's electric utility System Hardening and Reliability Improvement Project (SHRIP) and for which bonds were sold in November 2020.

BACKGROUND AND JUSTIFICATION:

The City previously issued a Request for Qualifications (RFQ 18-302) to provide letters of interest and Professional Qualifications from consulting firms to develop alternatives for the City that improve electric transmission system reliability and electric supply economics. Power Engineers Inc., was selected under RFQ 18-302, Electric Transmission and Generation Options, to provide professional services.

On, December 13th, 2018, the City Commission approved Task Order No. 2 to Power Engineers to evaluate options for a second 138kV Transmission Tie-Line to the Florida Power & Light ("FPL") electric transmission system. Power Engineers evaluated several conceptual options and routes to bring an additional high voltage electrical transmission tie-line to the City as part of the City's System Hardening and Reliability Improvement Program (SHRIP).

Ensuing discussions with FP&L in regards to alternative tie-line routing options resulted in an agreement with FP&L to provide a connection between the City's electric transmission system and the FP&L electric transmission system at the City's Canal Substation on Davis Road. The agreement with FP&L involves the City constructing and owning a new 138kV switching station at the City's existing Canal Substation site to provide a point of interconnection for the FPL electric transmission system. Concurrently FPL will build, own, and then operate the extension of their electric transmission system connecting to the Canal Substation switching station.

Power Engineers was recently tasked by the City Commission to complete the design of the City's 138kV switching station. Likewise, Power Engineers has also been selected by FP&L to complete the design of their new 138kV FP&L tie-line to the point of interconnection with the City's electric utility system at Canal Substation 138kV switching station.

Under Task Order No. 4, Power Engineers will complete engineering design of City's existing 26kV distribution circuits along the FPL tie-line route within the City's electrical service area in a manner that coordinates the design with FP&L's new 138kV tie-line. Such coordination will minimize duplication of infrastructure and reduce overall project costs. At locations where an FP&L transmission pole and City's distribution pole may overlap, the City's electric utility will

instead “under-build” or “attach” its electric distribution facilities to the FP&L transmission pole. The intermediate or mid-span poles for electric distribution between the FP&L transmission poles will be evaluated, hardened and aligned to meet the City’s electric utility design standards. Additional scope of work under Power Engineers Task Order No. 4 includes development of transmission line under-build & distribution engineering and construction standards, coordination of street-lighting requirements with FP&L, Palm Beach County and Florida Department of Transportation, permitting efforts, preparation of material lists, issuing of construction drawings and engineering support during construction. Construction of the City’s under-build circuits will be completed during the same timeframe as the installation of the new FP&L 138kV tie-line.

The new interconnection at the Canal Substation will provide the City’s electric utility an additional source of 138kV electric power from the FP&L electric transmission system, will provide greater reliability of service to our customers, and improved resiliency to storm events for the under-build circuits. The time-line for design supports a targeted in-service date of December 2022. The costs associated with this Task Order No. 4 are not to exceed $327,350.

MOTION:

Move to approve/disapprove Task Order No. 4 to Power Engineers, Inc. to provide engineering design and construction support services for the City’s 26kV distribution under-build circuits on the new 138kV FP&L Tie-Line at a cost not to exceed $327,350.

ATTACHMENT(S):

Fiscal Impact Analysis
Power Engineers Task Order No.4 – 138kV T-Line Distribution Underbuild Design

FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	**2021**	**2022**	**2023**	**2024**	**2025**
Capital Expenditures	$327,350	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	$327,350	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: Funds have been identified in account No. 421-6034-531-63.15, Project No. SH2135.

Account Number	Account Description	Project Number	FY21 Budget	Current Balance	Agenda Expenditure	Balance
421-6034-531-63.15	Improve Other than Build / Infrastructure	SH2135	$350,000	$350,000	$327,350	$22,650