TEXAS MUNICIPAL POWER AGENCY

BOARD OF DIRECTORS MEETING

VIA VIDEO CONFERENCE CALL

THE PRESIDING OFFICER WILL BE IN ATTENDANCE AT, AND MEMBERS OF THE PUBLIC MAY ATTEND, THE FOLLOWING LOCATION:

BTU
205 E 28th STREET
BRYAN, TX 77803

Thursday, October 28, 2021
9:30 AM

Preliminary matters:

- Call to order
- Public comments

The following matters are scheduled for discussion and for possible action:

1. Resolution No. 2021-10-1, amending the FY2022 Annual Transmission System Capital Budget by appropriating funds for the Spencer Interchange to Industrial Substation Transmission Line Reconstruction Project; and resolving matters incidental and related thereto.

2. Adjourn.

October 28, 2021

AGENDA ITEM NO. 1

SUBJECT: Resolution No. 2021-10-1, amending the FY2022 Annual Transmission System Capital Budget by appropriating funds for the Spencer Interchange to Industrial Substation Transmission Line Reconstruction Project; and resolving matters incidental and related thereto.

DISCUSSION: Due to an expected increase in retail load in the service area of Denton Municipal Electric ("DME"), the ½ mile 138 kV transmission line between Spencer Interchange and Industrial Substation needs to be increased in capacity to meet the requirements of contingency planning criteria. The Project involves the replacement of three poles, the addition of two poles, and reconductoring of the line. If approved, the Project will be constructed by DME pursuant to the Transmission Operator, Maintenance, and Construction Services Agreement between TMPA and the City of Denton.

The Resolution appropriates $1,722,803 for this project.

BACKUP MATERIAL: Spencer Int to Industrial TML Reconstruction Capital Proposal

ACTION REQUESTED: Consideration and action on Resolution No. 2021-10-1.

RESOLUTION NO. 2021-10-1

A RESOLUTION BY THE BOARD OF DIRECTORS OF THE TEXAS MUNICIPAL POWER AGENCY ("AGENCY") AMENDING THE FY2022 ANNUAL TRANSMISSION SYSTEM CAPITAL BUDGET BY APPROPRIATING FUNDS FOR THE SPENCER INTERCHANGE TO INDUSTRIAL SUBSTATION TRANSMISSION LINE RECONSTRUCTION PROJECT; AND RESOLVING MATTERS INCIDENTAL AND RELATED THERETO.

WHEREAS, in order to meet the requirements of contingency planning criteria, it is necessary to reconstruct and increase the capacity of the Spencer Interchange to Industrial Substation 138 kV line (the "Spencer Interchange to Industrial Substation Transmission Line Reconstruction Project" or "Project");

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE TEXAS MUNICIPAL POWER AGENCY:

1. That the above recitals are true and correct;

2. That the FY2022 Annual Transmission System Capital Budget is amended by appropriating $1,722,803 for the Project;

3. That it is officially found and determined that notice of this meeting of the Board of Directors of the Agency was given as required by law.

PASSED AND APPROVED THIS 28TH DAY OF OCTOBER 2021.

Kean Register, President
Board of Directors
Texas Municipal Power Agency

ATTEST:

Tom Jefferies, Secretary
Board of Directors
Texas Municipal Power Agency

TEXAS MUNICIPAL POWER AGENCY
CAPITAL PROPOSAL

PROJECT TITLE:			PROJECT MANAGER:	DATE:
Spencer Int to Industrial TML Reconstruction			Mark Zimmerer	September 20, 2021
PROJECT NO.	**RISK LEVEL:**	**RISK TYPE:**	**FERC ACCOUNT:**	**FUNDING:** ☐ Rate ☑ Debt

SCHEDULE DATES

START DATE: November 2021			**ESTIMATED IN-SERVICE DATE:** May 2022		
☑ **Capital**			☐ **Annual Need** ☑ **One Time Need** ☐ **Cyclical Need**	Capital Plan Year: 2022	
Total Cost: $1,722,803	FY21: $ 0	FY22: $ 1,722,803	FY23:	FY24:	FY25:

DESCRIPTION OF PROJECT:

Reconstruction of the TMPA 138kV transmission line from Spencer Interchange to Industrial Substation originally built in the 1980s and is about ½ mile long.

This project includes replacing all three existing tubular galvanized steel transmission poles, 795MCM Drake conductor, static wire, and necessary insulators and hardware along an approximately ½ mile route. Two additional transmission poles will be installed outside of Spencer Interchange and Industrial to alleviate stress on the existing line deadend structures inside the substations.

This line section will be rebuilt using double circuit poles but only one circuit will be installed (similar to other TMPA rebuilds in the Denton area). The second circuit will resolve overloads to other transmission lines in the area and will be installed at a later time when the transmission planning studies determine it is needed. No distribution underbuild is included. The existing transmission line will be reconstructed in the same alignment and no new easements will be required.

DME plans to start material procurement and reconstruction as soon as TMPA approval is determined. DME plans to rebuild this line before May 2022.

PROJECT BENEFITS & JUSTIFICATION (OUTCOME):

The transmission line needs to be upgraded to provide the capacity needed to meet the requirements of contingency planning criteria. Studies show the transmission line overloaded due to single contingency (N-1) and multiple contingencies(A-1 + N-1 and G-1 + N-1). The worst overload for these contingencies is %129 in Summer 2022.

The existing transmission line has a rating of 218MVA. The reconstructed transmission line will be rebuilt with bundled suwannee conductor and will have a rating of 700MVA.

TEXAS MUNICIPAL POWER AGENCY
CAPITAL PROPOSAL

BACKGROUND:

This line section was built in the 1980s using steel monopoles and has a capacity of 218MVA. This line section has not been modified since the original construction. The existing steel monopoles are structurally inadequate for the bundled conductor required to increase line capacity.

ALTERNATIVES:

1. Only reconductor line. Maximum rating gained from reconductoring is less than 350MVA due to existing steel pole stress limitations and will not meet the required rating.
2.
3.

COST/BENEFIT WORKSHEET

ECONOMIC ASSESSMENT:

Costs: Current Year Only

TMPA Labor Hours =			**Benefits:$/Year**
TMPA Labor	**$**		**Reliability -**
Materials	**$**	754,053	**Capability -**
Contract Services	**$**	888,750	**Labor Savings -**
Engineering Consultant	**$**	60,000	**Heat Rate Improvement -**
Misc. Expenses	**$**	20,000	**Non Labor O&M Savings -**
Labor Loadings (50%)	**$**		**Total Benefit $**
TOTAL	**$**	1,722,803	**Cost / Benefit =**

Estimation Levels:
P1 = Budget/Preliminary
P2 = Conceptual
P3 = Detail Design

Estimated life of asset: 50 years

Staff will measure improvement of completed project: ☐ Yes ☐ No

Level of Estimate: P1 ☐ **P2** ☑ **P3** ☐

Over $100K in professional services: ☐ Yes ☑ No

Is land acquisition or right of ways procurement required: ☐ Yes ☑ No

TEXAS MUNICIPAL POWER AGENCY
CAPITAL PROPOSAL

ASSUMPTIONS:

Estimated breakdown as follows:

Conductors - $78,000
OPGW - $22,500
Hardware - $100,000
Anchor Cages - $156,267
Poles - $397,286
Total Material - $754,053

DME Labor - $20,000
Total Misc Expenses - $20,000

Contractor Expense - $888,750
Consulting Services - $60,000

Project Total - $1,722,803

SIGNATURES			
Project Manager:	Mark Zi	**Date:**	10-21-2021
Supervisor:		**Date:**	10-21-21
Division Manager:		**Date:**	
General Manager:	Bob Kuhn	**Date:**	10/21/21