



RFP 8582

Substation Power Transformers

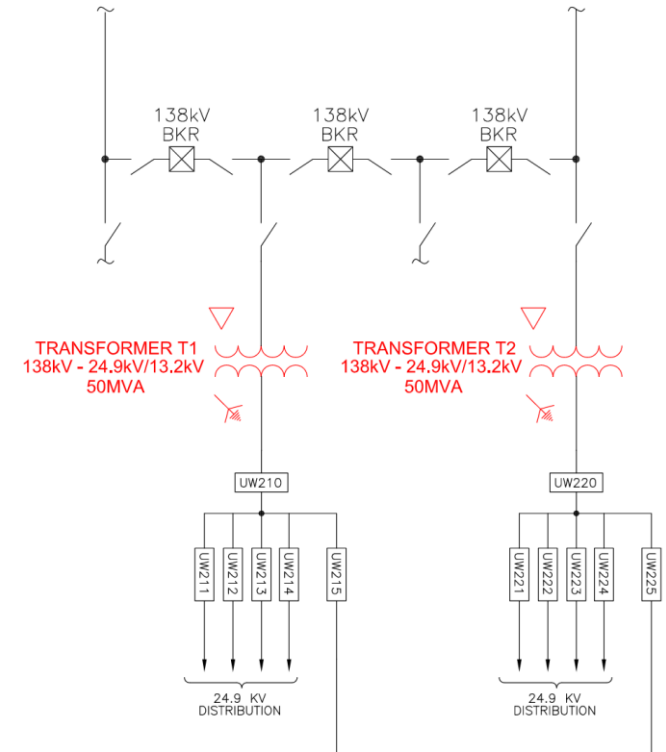
ID 24-2576

Mark Zimmerer, P.E.
Electric Engineering Supervisor
Denton Municipal Electric
01-14-2025



Substation Power Transformers

- Substation power transformers convert voltage from the transmission level (138,000 volts) to the distribution level (24,900 volts or 13,200 volts) to serve customers.
- Power transformers are the largest and most expensive equipment in electric utility substations.
- Dimensions, weight, sound levels, losses, reliability, and location of manufacture are all considered when selecting acceptable transformers.



CIP Projects

- **Approved CIP Projects:**
 - **Underwood Substation** – 2 power transformers required.
 - **Jim Christal Substation** – 1 power transformer required.
 - **Southwest Substation** – 2 power transformers required.
 - **Fort Worth Substation** – Replace 2 existing transformers to provide increased capacity load growth in South Denton.



Request for Proposals:

RFP 8582 was advertised to provide Substation Power Transformers and spare replacement parts.

The proposals were evaluated on:

- Delivery (25%)
- Compliance with Specifications (25%)
- Probable Performance (20%)
- Price (30%)

Projected Power Transformer Costs			
Description	Quantity	Price	Extended Cost
Power Transformer - 25/33/50/56 MVA, 3PH, 60Hz. 138kV Delta to 24.9kV x 13.2kV	7	\$2,688,200.00	\$18,817,400.00
Price to meet 65dB requirement	7	\$143,000.00	\$1,001,000.00
Load Tap Changer on Secondary Winding	7	\$223,800.00	\$1,566,600.00
Fiber Optic Temperature Probe	7	\$20,000.00	\$140,000.00
Increased Corrosion Resistance	7	\$15,000.00	\$105,000.00
Qualitrol TM8 Online Gas Monitoring Device	7	\$129,600.00	\$907,200.00
Estimated Transformer Total		\$3,219,600.00	\$22,537,200.00
Spare Parts			
Description	Quantity	Price	Extended Cost
High Voltage Bushing	3	\$11,250.00	\$33,750.00
Low Voltage Bushing	3	\$7,500.00	\$22,500.00
High Voltage Arrester	3	\$4,500.00	\$13,500.00
Low Voltage Arrester	3	\$2,250.00	\$6,750.00
Fan Assembly	3	\$3,000.00	\$9,000.00
Spare Parts Total			\$85,500.00

Transformer & Spare Parts Total	\$22,622,700.00
10% Contingency	\$2,262,270.00
Total Costs with Contingency (rounded to nearest \$10,000)	\$24,890,000.00

Recommendation

- WEG Transformers USA LLC is the highest evaluated proposal.
- DME recommends award of a contract with WEG Transformers USA LLC , for the purchase of substation power transformers for Denton Municipal Electric, in a three (3) year, with the option for two (2) additional one (1) year extensions, in the total five (5) year not-to-exceed amount of \$24,890,000.

Questions?