



Legislation Details (With Text)

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Title: Approve the award of Bid 22-307, Tollway Substation 138-34.5 kV Power Transformers, to Wesco for an amount not to exceed \$9,448,984 plus a 3% contingency

Sponsors:

Indexes:

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Attachments:

| Date | Ver. | Action By | Action | Result |
|-----------|------|--------------|----------|--------|
| 5/16/2023 | 1 | City Council | approved | Pass |

CITY COUNCIL AGENDA ITEM

ACTION REQUESTED:

Approve the award of Bid 22-307, Tollway Substation 138-34.5 kV Power Transformers, to Wesco for an amount not to exceed \$9,448,984 plus a 3% contingency

DEPARTMENT: Electric Utility

SUBMITTED BY: Brian Groth, Director

BOARD/COMMISSION REVIEW:

N/A

BACKGROUND:

Substation transformers are one of the most important components in the City's electric system. Thirty-seven active transformers at the substations serve over 62,000 customer meters, resulting in one of the highest customer to equipment ratios from a reliability standpoint. The 138kV transformers on the electric system have a footprint that is 20' long x 20' wide and they can be 20' tall and weigh in at over 150,000 pounds of steel, copper, and oil. Substation transformers are designed for a 30-year usage life. Properly maintained units that are not regularly overloaded, can continue to serve for many additional years.

The City's Electric Utility (DPU-E) has a multi-faceted, multi-year project approach to improve system reliability at the Tollway substation on Shuman Blvd. The project includes the procurement of a new transformer to relieve a unit (30XA) built in 1971 from serving load on a daily basis.

Due to an increase in transformer procurement lead times from one to three years, it is necessary to procure an additional 138kV to 34.5kV transformer to serve as a strategic spare for the transformers of this type (20XC, 30XD, and 70XD). Being without one of the above-mentioned transformers for

three years would almost certainly result in reduced system reliability and would force the remaining units to carry much higher loads resulting in a reduction of their useful lives.

In January 2023, the DPU-E issued Bid 22-307, Tollway Substation 138-34.5 kV Power Transformers, to purchase two substation power transformers. One of the transformers will be installed at the Tollway substation and the other transformer will be stored as a strategic spare to support three other aging units.

DISCUSSION:

| | | | |
|---------------------|-----------|---------------------|----|
| Advertisement Date: | 1/12/2023 | Notices Sent: | 98 |
| Opening Date: | 3/24/2023 | Planholders: | 28 |
| | | Proposals Received: | 4 |

Bids were received from the following vendors:

| Vendor Name | Proposed Cost |
|--------------------------------------|----------------------|
| OTC Services/UUSCO of Illinois | Non-Responsible |
| WEG Transformers USA/PowerOne | Non-Responsible |
| Virginia Transformer Corp/HiReli LLC | Non-Responsible |
| Hitachi/WESCO | \$9,448,984 |

DPU-E Engineering, supported by its consultant, Sargent and Lundy, developed a technical specification for a 138kV to 34.5kV substation transformer. The specification was bid and four responses were received.

Three of the bids were deemed as non-responsible. One of the bidders specialized in rebuilding/repairing transformers and had never built a unit of this size. One of the bidders did not meet the specification requirement for the unit to be built in the United States. One of the bidders was deemed as non-responsible due to previous major quality issues that DPU-E experienced on units purchased from them in the past.

Hitachi/Wesco provided a responsive and responsible bid. The plant in South Boston, Virginia, recently purchased by Hitachi from ABB, is a well-established factory that has made many of these sized units in the last five years, including units for ComEd and a neighboring utility. DPU-E has eight ABB units that have served without quality or workmanship issues. Hitachi/Wesco included three main technical exceptions with their bid submission. DPU-E staff and procurement held a conference with the vendor to address the exceptions and determined they are in compliance in all three. There are no technical exceptions to the bid.

The contract does not specify a contract completion date because production and delivery lead times continue to be unpredictable. It is expected that the transformers will be delivered 128 weeks from date of award.

FISCAL IMPACT:

CIP #: EU086

Work related to EU086 is budgeted in the below Infrastructure account. While \$2,000,000 is budgeted for EU086 in 2023, it is likely an invoice for these transformers will not be received for at least two years given the 128-week lead time. Staff will ensure the appropriate amount is budgeted in future years to accommodate the cost of these transformers.

| Account Number | Fund Description | Total Budget Amount |
|-----------------|------------------|---------------------|
| 40251300-551502 | Electric Utility | TBD |
| | | |

*Per Council directive, contingency on construction projects is set at 3% on projects over \$500,000 and 5% on projects under \$500,000.