



## Legislation Text

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**File #:** 19-754, **Version:** 1

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### **CITY COUNCIL AGENDA ITEM**

#### **ACTION REQUESTED:**

Approve the award of Cooperative Procurement 19-233, Transformer Remanufacturing and Tap Changer Board Replacement, to WESCO for an amount not to exceed \$141,596

**DEPARTMENT:** Electric Utility

**SUBMITTED BY:** Lucy Podlesny, Director

#### **BOARD/COMMISSION REVIEW:**

N/A

#### **BACKGROUND:**

The Electric Utility has 37 power transformers at its 16 electrical substations. While the input and output voltage of these transformers vary depending on the substation and the customer(s) that are being fed from the station, the purpose of these transformers is the same: to convert high voltage to a lower voltage that is more suitable for distribution to the Utility's customers.

The Utility performs monthly substation inspections and bi-annual oil analyses of its transformers in addition to specialized testing to reduce the likelihood of premature transformer failure. During a recent inspection, it was determined that there was a potential problem with one of the transformers at the Pebblewood substation.

Previously, the Electric Utility contracted with ABB, the transformer's manufacturer, to drain the oil from the load tap changer (LTC), a device that regulates the output voltage of the transformer and perform a visual and mechanical inspection. This analysis was completed in June and the final determination was that a barrier board, which ensures separation of the LTC and main tank oil, was leaking.

To ensure the reliability of this transformer, the barrier board must be replaced. The process to replace the barrier board includes draining the LTC and main tank oil, replacing the barrier board, processing the removed oil to remove contaminants and moisture introduced while draining the tank and finally filling and testing the transformer and LTC. If this barrier board is not replaced, it is very likely the transformer will fail due to the lowered levels of oil in the main transformer tank and the dirty LTC oil mixing with main tank oil.

#### **DISCUSSION:**

The Electric Utility is recommending the use of NPPGov cooperative contract #VH1199 with WESCO replace the barrier board and all gaskets and seals along with oil processing and testing. Under the cooperative contract, WESCO has partnered with various manufacturers to provide products and

product related services. One of WESCO's partners is ABB, Inc, the manufacturer of the Westinghouse transformer that needs to be repaired at the Pebblewood substation. WESCO will partner with ABB to complete the scope of work to replace the load tap changer board. ABB has the expertise and experience to perform this repair, oil processing and final testing. They also have direct access to any spare parts that may be needed once the oil is drained and a full analysis of the transformer main tank is made.

This transformer is 33 years old and is in otherwise good health. Testing and past experience indicates that that this transformer should last many more years if properly maintained. On the other hand, a new transformer of this capacity and voltage level would cost approximately \$1,200,000 plus installation labor costs. The cost to repair this component is fiscally responsible and should allow this transformer to be useful to the Utility for many years to come.

**FISCAL IMPACT:**

CIP #:EU22

The cost for transformer remanufacturing and tap changer board replacement is budgeted in the Infrastructure account listed below. The total amount budgeted for Infrastructure in the Electric Utility Fund is \$10,214,000, with \$150,000 identified for Substation Emergency Repair/Replacement Items. As result, the requested award of \$141,596 is within budget.

Account Number	Fund Description	Total Budget Amount
40251300-551502	Electric Utility	\$10,214,000