

## **PUBLIC UTILITIES BOARD AGENDA ITEM**

### **AGENDA INFORMATION SHEET**

**AGENDA DATE:** January 8, 2018

**DEPARTMENT:** Utilities

**CM:** Todd Hileman, 349-8560

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#### **SUBJECT**

Consider recommending adoption of an ordinance approving a contract for the supply of Wärtsilä Gas Engine Lubrication Oil and Cooling System Glycol for the Denton Energy Center; providing for the expenditure of funds therefor; and providing an effective date (IFB 6632-awarded to the lowest responsive bidder for each line item, Reeder Distributors, Inc. for gas engine lubrication oil in the not-to-exceed amount of \$330,030 and O'Rourke Dist. Co., Inc. dba O'Rourke Petroleum for cooling system glycol (antifreeze) in the not-to-exceed amount of \$79,953 for a total award not-to-exceed \$409,983).

#### **BACKGROUND**

The Denton Energy Center (DEC) is an approved CIP project for DME. The project will provide power at times that renewable energy sources are not readily available and/or when power is needed for support of the regional electric grid. The DEC is a component of the City of Denton's future commitment to providing the citizens of Denton with 70+ percent of electricity from renewable sources of energy. The solicitation included two different products used by the engines, lubrication oil and cooling system glycol.

##### **Item 1 – Wartsila Gas Engine Lubrication Oil**

The first item was for lubrication oil. The DEC's 12 Wärtsilä engines require an initial quantity of lubrication oil to fill each engine. The plant's lubrication system has a total volume of 46,131 gallons with each engine holding approximately 3,850 gallons of oil. The plant also has 12,000 gallons of oil storage on site which resides within a containment area. The oil is primarily used to lubricate the internal moving parts of the engines; with a secondary function to provide supplemental cooling of the pistons, rods and crank shafts. This initial quantity of oil will fill all engines and the oil storage tanks. Just like a typical car engine, the Wärtsilä engines will consume a small of quantity of lubrication oil during normal operations. The stored oil will be utilized by maintenance staff to keep the engines lubrication oil at optimum levels.

Wärtsilä has a list of 11 validated engine oils, of which three are readily available in the United States (U.S.) (See Exhibit 3). Use of a validated oil is required to maintain the manufacturers' engine warranty. Wartsila does not allow mixing of different engine oils. Once the engines are filled with a specific lube oil product, only that product can be used. To switch products, the entire plant lube oil system volume must be drained and the fluids disposed of in a proper manner. This

constraint on engine oil cross mixing, and the regional availability of validated oils, is the justification for Wärtsilä not supplying the engines first fill of lube oil.

The Invitation for Bid (IFB) was advertised in accordance with the City of Denton's Materials Management procedures seeking manufacturer validated products. IFBs were sent to 120 prospective suppliers of these items. In addition, specifications were placed on the Materials Management website for prospective suppliers to download and advertised in the local newspaper. Seven distributors submitted responsive bids. All three readily available U.S. validated brands were represented, with the low bid being \$5.79 per gallon for the Chevron product, and with the high bid coming in at \$7.39 per gallon for the ExxonMobil product. The average price per gallon for all bids was \$6.54 (Exhibit 2).

It was determined that the low bid submitted by Reeder Distributors, Inc. met the product specifications and requirements contained in the bid documents.

#### Item 2 – Wartsila Cooling System Glycol

The second component of IFB 6632 was the supply of Monopropylene Glycol (MPG) for the plants cooling system. MPG is a chemical compound that is mixed with the plant's cooling system water to lower the freeze point of the system. In common terms, MPG is the antifreeze compound that keep the exposed portions of the plant's cooling system from freezing. The exposed sections of the system will be protected against prolonged temperatures at or above 15° Fahrenheit. MPG was selected over the alternate compound of Ethylene Glycol (EG) since MPG is much less toxic.

This part of the IFB was also advertised in accordance with City of Denton Materials Management procedures. Invitation for Bids were sent to 120 prospective suppliers of these items. In addition, specifications were placed on the Materials Management website for prospective suppliers to download and advertised in the local newspaper. Seven distributors submitted responsive bids. The manufacturer was required to calculate the quantity of their product that is required to bring the freeze point of 51,590 gallons of water down to 15°F. The low bid from O'Rourke Petroleum Products, was 8,700 gallons at \$9.19 per gallon for a total cost of \$79,953.00. The high bid came in at 10,318 gallons at \$16.75 per gallon for a total cost of \$172,825.60. The average cost for all bids was \$132,844.12.

It was determined that the low bid submitted by O'Rourke Dist. Co., Inc. dba O'Rourke Petroleum met the product specifications and requirements contained in the bid documents.

#### **PRINCIPAL PLACE OF BUSINESS**

Reeder Distributors, Inc.  
Fort Worth, TX

O'Rourke Dist. Co., Inc dba O'Rourke Petroleum  
Fort Worth, TX

#### **RECOMMENDATION:**

DME recommends awarding IFB 6632, Line Item 1, gas engine lubrication oil to Reeder Distributors, Inc. in the total not-to-exceed amount of \$126,033. DME recommends awarding IFB 6632, Line item 2, Monopropylene (antifreeze) to O'Rourke Dist. Co., Inc. dba O'Rourke Petroleum, in the total not-to-exceed amount of \$79,953.

**PRIOR ACTION/REVIEW (Council, Boards, Commissions):**

None.

**FISCAL INFORMATION:**

The purchases will be funded with bond funds from Denton Municipal Electric project account #603995601.

**DATE SCHEDULED FOR COUNCIL APPROVAL:**

January 9, 2018

**EXHIBITS:**

Exhibit 1: Agenda Information Sheet

Exhibit 2: Bid Tabulation

Exhibit 3: Wärtsilä Validated Engine Lubrication Specifications

Exhibit 4: Ordinance

Exhibit 5: Staff Presentation

Respectfully submitted:  
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