



Memorandum

MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT

Reviewed by:  for General Manager

Date: 3/15/19

DATE: March 15, 2019
 TO: General Manager
 FROM: Director of Engineering & Compliance/District Engineer
 SUBJECT: Approve Purchase of Biogas Conditioning Equipment

RECOMMENDATION: That the Board award a contract to Unison Solutions, Inc. of Dubuque, IA for the California Energy Commission (CEC) Grant project equipment supply in the amount \$2,908,025 (Bid Items 1, 3, 4, 5, 6, 8, and 9) excluding Sales Tax (estimated at \$230,000) and Shipping Charges (estimated at \$50,000).

BACKGROUND

On July 16, 2016, the CEC released a notice of Grant Funding Opportunity GFO-15-606 Community-Scale and Commercial-Scale Advanced Biofuels Production. At that time, staff together with Cornerstone Environmental Group-Tetra Tech (CEG-TT) began development of conceptual project scoping and preparation of a pre-application submittal in the Community-Scale project category (public project). On August 24, 2016, Staff together with CEG-TT submitted the pre-application to CEC with the interest to be selected as a qualified submittal to gain eligibility to prepare a final application. On October 4, 2016, the CEC posted the results of the pre-application process and provided notice that the District's pre-application was selected as being eligible to submit a full grant application for consideration of final selection. At their regularly scheduled meeting on October 21, 2016, the District's Board of Director's approved the proposal by CEG-TT to assist Staff's preparation of the full grant application.

On November 14, 2017, the District's full grant application was submitted to the CEC proposing an estimated \$3,647,989 project to convert biogas to a compressed natural gas (CNG) transportation fuel project. The District proposed to treat biogas generated by existing permitted operations in order to produce a renewable natural gas (RNG) that can be compressed and used as a CNG fuel for motorized vehicles. A biogas treatment system would be used to remove most of the non-methane constituents in the biogas in order to produce RNG. The biogas will be collected from existing permitted operations that could include a) LFG biogas from the Landfill, b) biogas from the Dry AD system, and c) biogas from the M1W regional wastewater treatment plant, or a combination of two or more of these existing biogas sources. The RNG produced will be directed to the District's CNG fueling facility located at the Franchise Truck Yard which then can be used by both the District's CNG fueled vehicles and the franchise waste collection trucks (currently GreenWaste Recovery's vehicles).

On February 17, 2017, the CEC posted results of the full grant application process which indicated that the District's project was one of six projects approved for grant funding. At that time, the District's project was the only project not awarded funding.

On December 7, 2017, the California Energy Commission (CEC) announced as part of their Second Revised Notice of Proposed Award - GFO-15-606 - Community-Scale and Commercial-Scale Advanced Biofuels Production Facilities that the Monterey Regional Waste Management District had been approved for a matching funds Grant Award of \$1,816,800 Grant to convert biogas to a CNG transportation fuel (\$3,647,989 project estimate). On

March 23, 2018, the Board approved the CEC Grant Award and initiated the project's design, permitting, and construction development. The selection of the equipment, which is the subject of this Staff Report, is a critical element of the design and permitting process.

DISCUSSION

The CEC has approved a \$1,816,800 matching funds grant award to the District associated with the overall project cost estimate of \$3,647,989. Based on the District's grant submittals for the project, the equipment has been defined as the primary project element that will receive the matching funds for the Grant. On January 21, 2019 an RFP was issued to known equipment suppliers in the biogas conditioning industry and included Air Liquide, DMT, and Unison Solutions, Inc. Air Liquide contacted the District on January 22, 2019 to indicate that they were declining to participate in the equipment bid solicitation for the project. On January 26, 2019 the District issued the public legal notice in the Monterey Herald soliciting equipment supply bids for the project. A mandatory pre-bid teleconference was held on January 29, 2019 and was attended by DMT/Weiss Construction Company LLC and Unison Solutions, Inc. representatives. On February 14, 2019 the District received two bids for the project's equipment supply; one from Unison Solutions, Inc. and one from Weiss Construction Company LLC. The Weiss Construction Company LLC bid is a consortium of several parties inclusive of DMT. The bids received are summarized in the table below and are also presented in the attachments to this Staff Report.

NAME OF BIDDER	BID AMOUNT
Unison Solutions, Inc.	\$ 1,967,475
Weiss Construction Co. LLC	\$ 5,862,108

The apparent low bid is the Unison Solutions, Inc. bid. Additionally, it is the only bid that is generally consistent with the approved budget for this project. The major difference between the two bids is that the apparent low bid is for a single membrane system while the second bid is for a two-membrane system with a 300 MMBTu/day capacity. The equipment specifications of the bid solicitation cited a single membrane system with LFG recirculation as the minimum acceptable system and did not require a two-membrane system. The single membrane system produces a smaller quantity of the process methane gas quality (60-70% efficiency typical) compared to the two-membrane system (95-98% efficiency typical). The differences in the initial purchase costs of the two bids will also result in a difference in annual O&M costs of the two systems.

Also included in the bid solicitation was an alternate bid item for the hydrogen sulfide (H₂S) cleanup system to have a capacity of 2,500 standard cubic feet per minute (scfm) as opposed to a 400 scfm capacity cited in the Base Bid specification. Refer to Bid Item #6 in the Unison Solutions, Inc. bid for this bid alternate. The bid alternate will address the landfill's near-term total gas flow quantity to remove hydrogen sulfides for compliance with the daily emission limit of sulfur oxides (SO₂) and will replace the temporary treatment system that is currently installed at the landfill. Staff recommends that this bid alternate be adopted as it will result in one H₂S treatment system for the landfill as opposed to two H₂S treatment systems if the 400 scfm Base Bid item was adopted. This means adopting Bid Item #6 (\$1,450,750) and deleting Bid Item #7 (\$355,875).

A second bid alternate, Bid Item #3 (\$17,600) for a "shelf spare" compressor, was solicited to be an alternate to Bid Item #2 (\$178,175) which is an installed redundant (e.g., backup) compressor that would be available if the main compressor unit failed or required maintenance. Given the climatic setting of the project and the relatively low cost of obtaining a "shelf spare" compressor that can be stored indoors and be available onsite when a compressor recommends adopting Bid Item #3 (\$17,600) and deleting Bid Item #2 (\$178,175). By adopting the bid alternates defined as Bid Items #3 and #6, and deleting Base Bid Items #2 and #7, the Unison Solutions, Inc. alternate bid amount is \$2,908,025 (Bid Items 1, 3, 4, 5, 6, 8, and 9). This amount does not include Sale Tax or Shipping Charges that are preliminarily estimated at \$230,000 and \$50,000, respectively.

FINANCIAL IMPACT

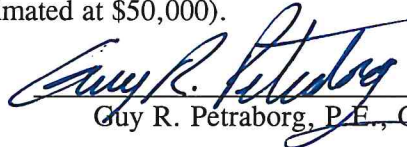
Funds for the overall project are budgeted in the current FY18/19 budget (\$500k net of Grant Fund reimbursement) and will also be required in both the FY19/20 and FY20/21 budgets (previously estimated at \$1 million and \$300k, respectively, in the 5-Year Plan and net of the \$1,816,800 Grant Funds). The cost of the grant equipment is reimbursed by the grant funds retroactively during the duration of the project via periodic progress payment reimbursement. Thus, the District will need to first incur the cost of the equipment (~\$2.9 million) before receiving reimbursement of the expenditure. If the Unison Solutions, Inc. alternate bid of \$2,908,025 is selected by the Board, the contract would likely define four (4) progress payments each at 25% of the contract value (\$727,006.25 gross; \$363,503.13 net of Grant Fund reimbursement) with the first occurring this fiscal year (FY18/19), two progress payments in FY19/20 (\$1,454,012.50 gross; \$727,006.25 net of Grant Fund reimbursement); and the last progress payment in FY20/21. Grant fund reimbursement will be applied for from the CEC at the time of each progress payment. Receiving Grant Fund reimbursement is anticipated to generally occur within 90 days (approximately 60 days after the District's progress payment to the contractor).

STRATEGIC PLAN

The District's involvement in the CEC Grant Award process fits under several general policy directives cited in the District's "Pillars of Sustainability" plan. Principally under the Community and Environment pillars which speak to the protection of Public Health and the Environment whereby the project will reduce permitted emissions from the District's operations by transforming biogas to an RNG which then in turn is used in CNG fueled vehicles to reduce emissions in the community's transportation element. A net negative GHG emission reduction results from the conversion of the biogas to a CNG transportation fuel. It is also in the Community's interests that close to half of the project costs will be from grant funding and not District's funds.

CONCLUSION

Staff respectfully recommends that the Board approve award of contract to Unison Solutions, Inc. of Dubuque, IA for the CEC Grant project equipment supply in the amount \$2,908,025 (Bid Items 1, 3, 4, 5, 6, 8, and 9) excluding Sales Tax (estimated at \$230,000) and Shipping Charges (estimated at \$50,000).



Guy R. Petrabor, P.E., G.E.