

**SANTA BARBARA COUNTY
BOARD AGENDA LETTER**



Clerk of the Board of Supervisors
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Santa Barbara, CA 93101
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Agenda Number:

Prepared on: 3/2/04
Department Name: PW/Laguna Sanitation District
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TO: Board of Directors
Laguna County Sanitation District

FROM: Phillip M. Demery
Director, Public Works Department

STAFF CONTACT: Mark A. Schelich, Deputy Director
Martin J. Wilder, District Manager, x8750

SUBJECT: Micro Turbine Cogeneration Project - Fourth Supervisorial District

Recommendation(s):

That the Board of Directors:

- A. Find that it is in the best interest of the Laguna County Sanitation District to enter into energy services agreements (separate design and construction agreements with US Energy Services, Inc. (not a local vendor) to provide an energy conservation facility; and;
- B. Find that the anticipated cost to the Laguna County Sanitation District for electrical energy provided under this energy services agreements will be less than the anticipated marginal cost of electrical energy that would have been consumed by the Laguna County Sanitation District in the absence of this contract; and;
- C. Award and authorize the chair the execute the an energy services agreement with US Energy Services, Inc. (not a local vendor) in the amount of \$303,176.00 for the design of a micro turbine energy conservation facility for the period of April 1, 2004 through May 15, 2004, and;
- D. Award and authorize the chair the execute the an energy services agreement with US Energy Services, Inc. (not a local vendor) in the amount of \$752,520.00 for the construction of a micro turbine energy conservation facility for the period of May 15, 2004 through October 1, 2004, and;

- E. Authorize and direct the Laguna County Sanitation District to obtain and purchase the necessary payment and performance bonds for the construction related costs pursuant to the conditions in the energy services agreement relating to construction in an amount not to exceed \$20,000.00.

Alignment with Board Strategic Plan:

The recommendation(s) are primarily aligned with Goal No. 1, "An Efficient Government Able to Anticipate and Respond Effectively to the Needs of the Community," and Goal No. 2, "A Safe and Healthy Community in Which to Live, Work, and Visit."

Executive Summary and Discussion:

The Laguna County Sanitation District wastewater reclamation plant utilizes an anaerobic digester to stabilize sludge by decomposing matter. Methane gas is a product of this process. A small amount of methane is used to burn the boiler (to heat the digester) while the rest is flared. The plant has recently increased its power needs with improvements needed to comply with Regional Water Quality Control Board permit requirements.

To more effectively address the increased power needs, the District met with U.S. Energy representatives to investigate the possibility of using the methane gas produced by the digester to generate electricity with micro turbines. Their recommendation is to utilize two (2) 30kW methane fueled and three (3) 60kW natural gas fueled microturbines to provide approximately 35% of the plant power needs. This equates to an approximate power cost savings of \$188,302 annually. The heat generated from the micro turbines would be used to heat the digester while the existing boiler and flare would be used as a backup heating and gas wasting system. The combination of methane and natural gas microturbines would also provide a failsafe power source during power outages thereby keeping essential facilities in use and would maximize the energy rebate available through the California Public Utilities Commission's (CPUC) Self Generation Incentives Program. The project cost is \$1,065,696.00 (\$752,520.00 for installation and \$313,176.00 for design). The energy rebate through the CPUC is \$270,000.00. The net cost to the District is therefore \$795,696.00 for design and installation. In addition, payment and performance bonds required pursuant to Section 201209(b) of the Public Contracts Code are estimated to cost \$15,320.00.

The project was presented to the Debt Advisory Committee (DAC) on November 5, 2003. Based on the proposed payback period of less than five (5) years, the DAC recommended financing the project from existing certificates of participation (COPs) at a rate of approximately 2.7% as preferred to outside financing of 3.75%. The COP financing was authorized by the board on December 9, 2003. The revenue to finance the debt service will come from the savings in energy costs. U.S. Energy, Inc. further guarantees that the energy savings will cover the total project cost.

The board further approved on January 6, 2004, the project and Notice of Exemption pursuant to the County's California Environmental Quality Act (CEQA) guidelines and authorized the Public Works Director to negotiate the energy services agreements with U.S. Energy Services, Inc. pursuant to Section 4217.10 et. seq. of the California Government Code. This section of the Government Code requires the public agency to make the above findings in order to enter in to the agreements. This action requests execution of the agreement.

Mandates and Service Levels:

There are no changes to service levels with this action.

Fiscal and Facilities Impacts:

Funding is available through a COP and CPUC rebate. Present year revenues will fund payment and performance bonding. Budget revision will be prepared when COP proceeds are known. Debt service will be made with existing revenues being redirected from power cost savings.

Special Instructions:

Two originals of each agreement (design agreement and installation agreement) have been executed. Please retain one original of each agreement for the Clerk of the Board records, and return the other original of each agreement along with a certified copy of the minute order to the Solid Waste & Utilities Division, attention Sheila Engellenner in Santa Maria, extension 8750.

Concurrence:

Debt Advisory Committee (with respect to project financing)
County Counsel
Auditor-Controller