



Council Meeting: January 27, 2009

SUBJECT: Award of a Contract for the Installation of an Alternative Monitoring System at the Water Pollution Control Plant (F0812-40) and Approval of Budget Modification No. 24

REPORT IN BRIEF

Approval is requested for the award of a contract in the amount of \$129,122 to Advanced Engine Technologies Corporation (AETC) of San Leandro to furnish and install an Alternative Monitoring System on the Caterpillar diesel engines at the Power Generation Facility (PGF) at the Water Pollution Control Plant. Approval is also requested for Budget Modification No. 24 to provide funding for this project.

BACKGROUND

The City of Sunnyvale Water Pollution Control Plant (WPCP) operates and maintains a Power Generation Facility (PGF). The PGF, which was placed into service in 1997, converts landfill gas, digester gas and air-blended natural gas to electricity using two Caterpillar engines. The electricity is then used to power the WPCP, with a nominal excess amount sold to the grid.

City staff has been working with the Bay Area Air Quality Management District to renew the City's Clean Air Act Title V permit for the PGF. Under the previous permit requirements, the PGF's engines were tested annually to confirm compliance with emission standards for nitrogen oxides, carbon monoxide, carbon dioxide and organic carbons. The new permit includes stricter requirements mandating the installation of a system with continuous monitoring and alarms at set points to allow operator intervention prior to exceeding acceptable emission limits as set by the BAAQMD, and require the ability to store operational data for reporting purposes.

DISCUSSION

AETC was recommended by the engine manufacturer (Caterpillar), and uses a proprietary technology in their Alternative Monitoring System (AMS). Additionally, the City has used AETC in the past to help tune and adjust the PGF engines to meet air quality and operational requirements.

The scope of this project will be to furnish a complete turnkey monitoring solution. The design will be based upon an evaluation of the existing system which will define the necessary computer hardware and software requirements, and map engine performance to set the appropriate emission alarm levels.

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Included in the project is training for staff and a one year service contract to ensure a smooth implementation through set up, training, and data analysis, and regulatory audit assistance services.

Section 2.08.070 of the Purchasing Ordinance provides for exceptions to the competitive bidding process in the case of sole source goods and services. Sole source is defined in Section 2.08.030 as where the City's requirements can be met solely by a single patented, copyrighted or proprietary article or process available from a single source. The AMS system from AETC is proprietary and the City will have to sign a licensing agreement as part of the contract award.

FISCAL IMPACT

Staff originally anticipated that these changes could be implemented with the upcoming FY 2009/2010 budget. However, as the new permit allows for only a 90 day implementation period, staff is recommending adoption of Budget Modification No. 24 to allow initiation of the work as soon as possible to comply with the permit requirements.

Project costs are as follows:

Turnkey AMS monitoring system	\$117,384
Project contingency (10%)	\$11,738
Total cost	\$129,122

The total initial project cost is approximately .5% of the total revenue requirement of the Wastewater Management Fund and can be absorbed in the current year by reserves and accounted for in the FY 2009/2010 Utility Rate process. Staff will evaluate the need to continue the service contract beyond the first year. Should this be the case, an additional expense of \$15,000 per year will be requested in the Wastewater Management Program's operating budget for FY 2010/2011. Finally ongoing software and hardware maintenance expense of approximately \$5,000 per year will also need to be included in the FY 2009/2010 wastewater equipment replacement schedule in the Wastewater Management Fund. All project and on-going costs will be funded within the Wastewater Management Fund and therefore has no impact on the City's General Fund.

Staff recommends approval of Budget Modification No. 24 to appropriate \$129,122 from the Wastewater Management Fund Rate Stabilization Reserve to a new project to fund the Alternative Monitoring System.

BUDGET MODIFICATION NO. 24
FISCAL YEAR 2008/2009

	Current	Increase (Decrease)	Revised
Wastewater Management Fund			
Expenditures:			
New Project – Power Generation Facility Emissions Alternative Monitoring System	\$0	\$129,122	\$129,122
Reserves:			
Rate Stabilization Reserve	\$9,547,031	(\$129,122)	\$9,417,909

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's Web site.

RECOMMENDATION

It is recommended that Council:

1. Award a contract, in substantially the same form as the attached draft Purchase order and in the amount of \$117,384, to Advanced Engine Technologies Corporation (AETC) to furnish and install an Alternative Monitoring System on the Caterpillar diesel engines at the Power Generation Facility;
2. Approve a project contingency in the amount of \$11,738; and
3. Approve Budget Modification No. 24.

Reviewed by:

Mary J. Bradley, Director, Finance
 Prepared by: Pete Gonda, Senior Management Analyst

Reviewed by:

Cuong Nguyen
Director, Information Technology

Reviewed by:

Marvin Rose,
Director, Public Works

Approved by:

Gary M. Luebbers
City Manager

Attachments

- A. Draft Purchase Order



ORDERED FROM 12675 - 001 (510) 614-6340 Advanced Engine Technologies Corp 464 McCormick St San Leandro CA 94577	ORDER DATE 12/16/2008	BILL TO: City of Sunnyvale Finance Department Accounts Payable PO Box 3707 Sunnyvale, CA 94088-3707
	DELIVERY DATE 02/06/2009	
	PAYMENT TERMS N/30	
	BID NO/RFQ NO	
DELIVER TO PW/WPCP - Maintenance 1444 Borregas Ave Sunnyvale CA 94089 Phone: (408) 730-7713	FOB POINT DEST	FREIGHT CHARGES Destination, freight included in price
	REQ. NO RQ004271	REQUISITIONER: JBESOYAN
	CHARGE/OBJ CODE(S): 344310 5300 \$117,384.00	

ITEM	DESCRIPTION	QTY	UNIT	UNIT COST	TOTAL
1	Purchase order to furnish and install an Alternate Monitoring System (AMS) for the Caterpillar diesel engines located at the Power Generation Facility in the Water Pollution Control Plant in accordance with your attached Proposal dated November 2008 and Attachments 1 and 2 as follows: City Contact: Dan Hammons, PW/Environmental Services (408) 730-7287 All invoices to show this order number Purchase Requisition # RQ004271 Vendor Contact: Greg Besouri Awarded by Council 1/27/2009 Report to Council (RTC) No. _____	1.00	DLR	\$117,384.0000	\$117,384.00

Amount does not reflect applicable taxes.				
TOTAL				\$117,384.00



BUYER:

Gakle, David

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