

Agenda Report

July 30, 2012

TO: Honorable Mayor and City Council
THROUGH: Municipal Services Committee (July 24, 2012)

FROM: Water and Power Department

SUBJECT: AUTHORIZATION TO ENTER INTO A CONTRACT WITH WOOD GROUP GTS – POWER SOLUTIONS FOR PROVIDING LABOR AND MATERIALS TO REPAIR GAS TURBINE UNIT GT-1 AT THE GLENARM POWER PLANT

RECOMMENDATION:

It is recommended that the City Council:

1. Find that entering into a contract with Wood Group GTS – Power Solutions (Wood Group) for the proposed work herein is exempt from the California Environmental Quality Act (“CEQA”) in accordance with CEQA Guidelines Section 15301, Existing Facilities; and Section 15302, Replacement or Reconstruction; and
2. Authorize the City Manager to enter into a contract with Wood Group to repair gas turbine Unit GT-1 (“GT-1”) at the Glenarm Power Plant for an amount not-to-exceed \$13,228,515 without competitive bidding (City Charter Section 1002 (C), contracts for labor, material, supplies or services available from only one vendor), and grant an exemption from the Competitive Selection and Purchasing Ordinance pursuant to Pasadena Municipal Code Section 4.08.049 (B), contracts for which the City’s best interests are served; and,
3. Authorize additional appropriation of \$5.3 million for Fiscal Year 2013 to the Power Fund Capital Improvement Budget Number 3182 GT-1 and GT-2 Renewals, Replacements and Improvements with funds to be provided by reimbursement from insurance proceeds.

MUNICIPAL SERVICES COMMITTEE RECOMMENDATION:

On July 24, 2012, the Municipal Services Committee recommended that the City Council adopt the proposed contract.

BACKGROUND:

On May 4, 2010, the power turbine of GT-1 gas turbine had a catastrophic mechanical failure and the unit caught on fire. The damage rendered GT-1 inoperable. After the GT-1 incident, PWP evaluated twelve options ranging from repairs to replacement to

make up for the lost energy source (Exhibit1). Out of the short listed options covered within the terms of the insurance policy, the repair option was found to be the most cost efficient and acceptable to PWP and the insurance company.

GT-1 was insured for risk of physical damage with Lexington Insurance Company of London, United Kingdom ("Lexington"). On August 10, 2010, Lexington made a partial payment to Pasadena Water & Power ("PWP") for \$6,314,042 (after applying a \$100,000 deductible) to cover initial expenses for the repair of GT-1 as well as business loss. Lexington asked PWP to manage studies, permits, approvals and repairs, as necessary, on a cost reimbursable basis. As PWP's expenditures get closer to the initial payment of \$6,314,042, it will seek timely payments from Lexington so that PWP does not expend its own funds. In addition, the City will obtain Lexington's approval before making payments to contractor's invoices. PWP prepared and obtained a new air quality permit from the South Coast Air Quality District ("SCAQMD") on March 1, 2012. The air quality permit is a prerequisite to any repairs. Concurrently, PWP, in consultation with Lexington, was negotiating contract terms with Wood Group. The repair time is estimated to be about six months. The proposed contract has been approved by Lexington.

The power turbine that was damaged beyond repair is no longer manufactured. Wood Group, the successor to the original manufacturer of the damaged power turbine, is the only known firm that can provide a replacement power turbine with substantially similar operational and emissions characteristics. A substantially similar power turbine replacement is necessary to comply with the SCAQMD air quality permit limits. Hence, PWP and Lexington have collectively determined that Wood Group is in the best position to perform the repair work. Wood Group would also use subcontractors to repair other damaged parts.

Wood Group's proposed contract dated July 16, 2012 contains fixed price terms for turbine repairs, and time and material based work related to other damaged parts such as generator and selective catalytic reduction ("SCR") system. The firm price of \$9,004,573 includes the following: (i) supply and install refurbished power turbine, power turbine output shaft, exhaust plenum, and turbine base assembly; (ii) supply and install power turbine lube oil system; (iii) overhaul the existing engine; (iv) repair or replace burned cables, hoses, and other damaged turbine accessories within the gas turbine enclosure; and (v) furnishing of technical field support for the startup of GT-1.

Wood Group proposes to approach the SCR repair in two phases. Phase 1 includes SCR repair and adjustments to the system. In the event that emission limits on the air permit are not met after the Phase 1 work, Wood Group will commence the Phase 2 work that includes design and furnishing of new SCR systems and upgrade of the control system. The Wood Group proposal includes a guarantee for the air permit

emission limits but does not provide a guarantee for performance and noise limits. If performance and noise limits are not met, PWP will negotiate with Lexington for cash settlement and/or reimbursement for corrective work.

To ensure that GT-1 is repaired to pre-incident operational condition, the City will contract with independent contractors to test air emissions, noise and overall performance. These contract amounts fall in \$12,000 to \$36,500 range and will be approved by staff pursuant to the City purchasing policies. These costs will be reimbursed by Lexington. The sales tax for the equipment estimated to be approximately \$436,196 will be remitted by the City to the State of California and in turn reimbursed by Lexington. The PWP in-house labor costs, such as project management, logistical support, electrical and mechanical work will be tracked through internal accounts for this project and will be reimbursed by Lexington.

The following table summarizes the total estimated costs to complete the repairs associated with the recommended contract:

Contract with Wood Group	FY 2013
Fixed Price to Repair GT-1	\$9,004,573
Reimbursable Expense- Electric Generator	\$665,658
Reimbursable Expense – Phase 1 SCR	\$750,000
Reimbursable Expense – Phase 2 SCR	\$1,907,735
Contingency	\$900,549
Sub-Total	\$13,228,515
Additional Project Cost	
Contract for regulatory emission test	\$36,500
Contract for noise acceptance test	\$21,000
Contract for performance acceptance test	\$12,000
Sales Tax	\$436,196
Internal Labor	\$86,237
Completed Contract Services	\$83,886
Expenses approved by Insurance up to May 1, 2012	\$732,116
Sub-Total	\$1,407,935
Total Fiscal Impact	\$14,636,450

COUNCIL POLICY CONSIDERATION:

This project is consistent with the 2012 Energy Integrated Resource Plan update and supports the City Council Strategic Goal to improve, maintain, and enhance public facilities and infrastructure. It also supports the Public Facilities Element of the General Plan by maintaining public facilities to enhance the quality of life of the community.

ENVIRONMENTAL ANALYSIS:

The repair of GT-1 has been determined to be categorically exempt in accordance with CEQA Guidelines Sections 15301, Existing Facilities and 15302, Replacement and Reconstruction. These exemptions allow for the maintenance, repair, minor alteration, etc. of existing facilities (including publically owned utilities that involves negligible or no expansion of use) and the replacement and reconstruction of existing facilities and structures, including utility systems where the replacement structure/facility will have substantially the same purpose and capacity. There will be no expansion of use or capacity as a result of the required repairs and maintenance on the existing GT-1 unit.

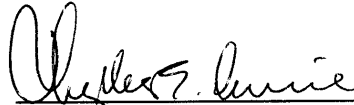
FISCAL IMPACT:

The total fiscal impact of this action is \$14,636,450. Following approval of the recommendation to authorize additional appropriation, there will be sufficient appropriations in the Power Fund Capital Improvement Budget Number 3182 GT-1 and GT-2 Renewals, Replacements & Improvements to cover anticipated expenditures.

Funding for this action will be addressed by the utilization of \$6,314,042 received from Lexington in FY 2011 as partial insurance payment and held in the Power Fund Capital Reserve, and the utilization of the balance of the insurance payments in the amount of \$8,322,408 expected from Lexington. Pending receipt of the balance of insurance payments from Lexington, PWP will advance funds from the unrestricted Power Fund Capital Reserve for work approved by Lexington. PWP will ensure timely reimbursement from Lexington to limit its advance payment and exposure.

It is anticipated that the entire cost of \$14,636,450 will be spent in FY 2013. There are no other anticipated impacts to other operational programs or capital projects as a result of this action.

Respectfully submitted,

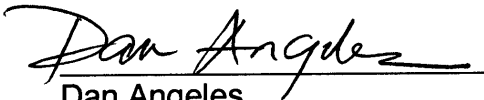


PHYLLIS E. CURRIE

General Manager

Water and Power Department

Prepared by:



Dan Angeles

Principal Engineer

Power Supply Business Unit

Approved by:



MICHAEL J. BECK

City Manager

Attachment: Exhibit 1

Exhibit 1: OPTIONS with GT-1 REPLACEMENT/REPAIR

OPTIONS with GT-1 REPLACEMENT/REPAIR		
	Options (based on cost, heat rate, reliability, and unit trip risk)	Total Estimated Cost
1	Repair existing GT-1	\$15M
2	Replace existing GT1 Engine with same capacity GE engine (LM 2500)	\$32 M
3	Replace existing GT1 & GT2 with same capacity GE gas turbine (LM 2500).	\$64 M
4	Replace existing GT1 with GE engine (LM 2500) and install heat recovery steam generator. Send the produced steam to the steam engine of the presently planned combined cycle installation (LM 6000PG + ST)	\$170 M
5	Install two GE gas turbines (LM 6000PC) and one steam turbine in combined cycle mode instead of the one gas turbine and one steam turbine in combined cycle mode as originally planned. Decommission GT1 & GT2.	\$206 M
6	Install one combined cycle plant (LM 6000PG + ST). Modify existing GT3 & GT4 to install Heat Recovery Steam Generator on each unit and send the steam to the steam turbine of the new combined cycle plant.	\$196 M
7	Install one 100 MW GE Gas Turbine in simple cycle mode (LMS 100). Decommission GT1 and continue operating GT2	\$121 M
8	Install one 100 MW GE Gas Turbine in combined cycle mode. Decommission GT1 & GT-2.	\$166 M
9	Install one 100 MW GE gas turbine in simple cycle mode (LMS 100). Replace existing GT1 with new GE gas turbine in simple cycle mode and decommission GT2.	\$148 M
10	Install two GE gas turbine (LM 2500+G4) with one steam turbine on combined cycle mode. Decommission GT1 and continue operating GT2.	\$177 M
11	Continue with the installation of planned combined cycle (LM 6000PG + ST). Decommission GT-1 and continue to operate GT2.	\$116 M
12	Continue with the installation of planned combined cycle (LM 6000PG + ST). Replace existing GT1 & GT2 with one GE Simple Cycle gas turbine (LM 6000PG).	\$196 M

**Disclosure Pursuant to the
City of Pasadena Taxpayer Protection Amendment
Pasadena City Charter, Article XVII**

Contractor/Organization hereby discloses its trustees, directors, partners, officers, and those with more than 10% equity, participation, or revenue interest in Contractor/Organization, as follows:

(If printing, please print legibly. Use additional sheets as necessary.)

1. Contractor/Organization Name:
Wood Group Power Solutions Inc

2. Type of Entity:
 non-government nonprofit 501(c)(3), (4), or (6)

3. Name(s) of trustees, directors, partners, officers of Contractor/Organization:

Mark Dobler
James McGlothlin
Michael Kunick
Kevin Sutcliffe
Tom Adams

4. Names of those with more than a 10% equity, participation or revenue interest in Contractor/Organization:

Prepared by: Michael Kunick

Title: Chief Financial Officer

Phone: 281 776-5802

Date: May 22, 2012

TAXPAYER PROTECTION AMENDMENT

Under the provisions of the City of Pasadena Taxpayer Protection Amendment ("Taxpayer Protection Act"), the Contractor/Organization will be considered a "recipient of a public benefit." The full provisions of the Taxpayer Protection Act are set forth in Pasadena City Charter, Article XVII. Under the Taxpayer Protection Act, City public officials who approve this Contract are prohibited from receiving gifts, campaign contributions or employment from Contractor for a specified time. This prohibition extends to individuals and entities that are specified and identified in the Taxpayer Protection Act and includes Contractor/Organization and its trustees, directors, partners, corporate officers and those with more than a 10% equity, participation, or revenue interest in Contractor/Organization. Contractor/Organization understands and agrees that: (A) Contractor/Organization is aware of the Taxpayer Protection Act; (B) Contractor/Organization will complete and return the forms provided by the City in order to identify all of the recipients of a public benefit specified in the Taxpayer Protection Act; and (C) Contractor/Organization will not make any prohibited gift, campaign contribution or offer of employment to any public official who approved this Contract.