

Agenda Report

TO: City Council
THROUGH: Municipal Services Committee

DATE: January 28, 2002

FROM: City Manager

SUBJECT: Authorization To Amend Contracts For Major Inspection And Overhaul Of Unit B-3 Turbine-Generator At The Broadway Plant And Amend CIP To Transfer Funds From The B-2 Selective Catalytic Reduction System Project To The B-3 Major Overhaul Project.

RECOMMENDATION:

It is recommended that the City Council:

- 1) Authorize the City Manager to increase the amount of Services Contract No. 17,818 with Irwin Industries, Inc. for providing field-service personnel for Unit B-3 turbine-generator overhaul at the Broadway Plant from \$270,000 to a not-to-exceed amount of \$410,000. The proposed contract amendment is exempt from competitive bidding pursuant to City Charter Section 1002 (f), contracts for professional or unique services;
- 2) Authorize the City Manager to increase the amount of Purchase Order No. 14,394 with Siemens Westinghouse Power Corporation for furnishing turbine parts and providing a technical field adviser for Unit B-3 turbine-generator overhaul at the Broadway Plant from \$660,000 to a not-to-exceed amount of \$1,310,000. The proposed contract amendment is exempt from competitive bidding pursuant to City Charter Section 1002 (f), contracts for professional or unique services, and exempt from Competitive Selection Process of the Affirmative Action in Contracting Ordinance pursuant to Pasadena Municipal Code Subsection 4.09.060 (c), contracts for which the City's best interests are served; and
- 3) Approve a journal voucher transferring \$790,000 from Budget Account No. 3157, Electric System Capital Improvement Program, B-2 Selective Catalytic Reduction System project, and appropriating it to Budget

Account No. 3132, Electric System Capital Improvement Program, B-3 Major Overhaul.

BACKGROUND:

On October 15, 2001, the City Council authorized the City Manager to enter into contracts without formal bidding with Irwin Industries, Inc. and Siemens Westinghouse Power Corporation for Unit B-3 turbine-generator overhaul at the Broadway Plant. The contract with Irwin Industries was done through competitive selection process by issuing an RFP for providing field-service personnel. The contract with Siemens Westinghouse for furnishing turbine parts and providing a technical field adviser was exempt from competitive bidding because the design and turbine material composition are proprietary, and only Siemens Westinghouse staff are qualified to perform the turbine-generator overhaul work.

The Agenda Report for the original contracts indicated that if abnormal damage to critical components was discovered during the inspection of the unit, staff would reassess the economics and request authorization from the City Council for necessary repairs under a separate Agenda Report. During the inspection of the disassembled Unit B-3 steam turbine, it was discovered that several critical components of the unit are badly damaged. Out of the nineteen rows of rotating blades in the high-pressure turbine, twelve rows have sustained severe erosion and thinning of material. It was also observed that a foreign object apparently damaged two rows of the stationary turbine blades. To preclude premature failure of turbine blades as a result of metal loss, the twelve rows of rotating blades need to be replaced. As for the stationary turbine blades, only the damaged blades will be replaced. With these types of repairs, it is anticipated that the Unit B-3 steam turbine will regain its lost efficiency and make the unit more reliable for continued operation.

The high-pressure rotor assembly that holds the turbine blades and stationary blade sub-assembly will be shipped to Siemens' repair facility in Perris, California. It is expected that the blade replacement work will take approximately three months. As a consequence of this additional blade work, the overhaul completion date will be extended from March to June 2002.

The original contracts for the overhaul of Unit B-3 steam turbine were for amounts of \$270,000 for Irwin Industries and \$660,000 for Siemens Westinghouse. The additional turbine blade work will require an extension of the services of Irwin's personnel by about three months at an additional cost of \$140,000. As for Siemens Westinghouse, the additional cost of materials and labor for the turbine blade replacement is estimated at \$650,000. The total amount for both amended contracts will be \$1,720,000.

The approved \$1,000,000 FY2002 capital budget for this project will need to be increased by \$790,000 to fund the additional requested expenditures for these contracts, as summarized in the following table:

| Vendor | Approved | Requested | Increase |
|----------------------|------------------|------------------|-----------------|
| Irwin Industries | 270,000 | 410,000 | 140,000 |
| Siemens Westinghouse | 660,000 | 1,310,000 | 650,000 |
| Other Misc. Vendors | 70,000 | 70,000 | 0 |
| Total Budget | 1,000,000 | 1,790,000 | 790,000 |

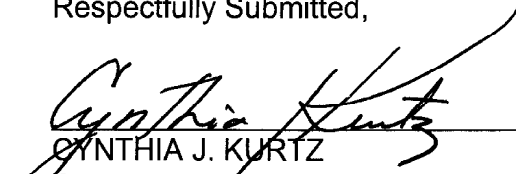
The additional expense for these repairs is appropriate and necessary. Unit B-3 has played an important role in providing reliable and economic energy to serve Pasadena. Due to its lower costs and emissions, it has been the preferred source of power and averaged over 7,000 hours of operation in the last two years. For the next several years this unit will continue to be operated in this capacity, producing significantly lower emissions and will be relied on heavily until the two new combustion turbines are completed in 2003. Based on an assessment of projected energy market conditions, Unit B-3 is expected to generate \$500,000 to \$1,000,000 in value to Pasadena's electric customers from reduced purchased power costs and wholesales sales of energy and ancillary services. The unit plays a significant strategic role in the City Council-approved Power Resource Plan in serving intermediate loads and system reliability for the next ten years.

If these repairs are not performed at this time, B3 could be reassembled and operated for up to two years with a marginally acceptable risk of blade failure. However, the proposed repair work would need be performed prior to the next scheduled overhaul for the unit, resulting in added costs and potential maintenance scheduling conflicts with other generation related projects in the approved Strategic Resource Plan.

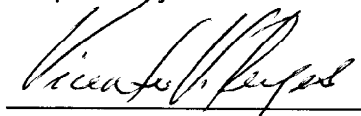
FISCAL IMPACT:

The approved FY 2002 funding of \$1,000,000 for B-3 Major Overhaul, Budget No. 3132, requires additional funds of \$790,000 to complete the overhaul work. The required additional funds of \$790,000 will be transferred from FY 2002 Budget No. 3157, Capital Improvement Program for B-2 Selective Catalytic Reduction (SCR) project. These funds will not be needed for the SCR project due to a change in work scope for that project.


Respectfully Submitted,


CYNTHIA J. KURTZ
City Manager


Prepared by:


VICENTE V. REYES
Principal Mechanical Engineer
Power Supply Business Unit

Concurrence:


ERIC R. KLINKNER
Business Unit Director
Power Supply Business Unit

Approved by:


PHYLLIS E. CURRIE
General Manager
Pasadena Water and Power