FOR BOARD ACTION

Agenda Item#

7

Meeting Date:

5/31/05

SUBJECT:

SLP Unit No. 1 Turbine Generator Overhaul

Power Generation Services - Purchase Order No. 10139 Change Order No. 1

PREPARED BY:

Wally Schlink, Director of Power Resources

ITEM DESCRIPTION:

SLP Unit 1 turbine generator was scheduled for a major maintenance overhaul beginning February 21, 2005. The purpose of the inspection was to confirm machine physical integrity and to return the unit to an as-designed condition and efficiency. The inspection and the resultant repairs are industry standards and are required by our insurance carrier and by prudent utility practices. The schedule was established to have the unit available for the summer generation season. The unit was last overhauled in 1992.

At the regularly scheduled January 2005 meeting, the Utility Board approved a Purchase Order agreement with Power Generation Services to provide professional services to perform technical assistance, craft support, testing services and shop repairs to the turbine generator components. The agreement identified a firm work scope for previously identified requirements and a second work scope based on RPU staff expectations of required repairs. The Board approved these work scopes for a total amount not to exceed \$250,000.

Actual conditions found on disassembly required some significant repairs to components that were not anticipated in the original work scope. Additionally, overtime for the technical assistance and craft personnel was required to meet unit return to service obligations, as well as shipping costs to transport components to the appropriate facilities for repairs to take place, some emergency work to Unit 2 and sales tax on the job. These additions to the original scope are being presented as a change order to the original purchase order.

RPU staff has closely directed and monitored the scope and cost of the work being performed and assures that they are necessary and required for the unit to be returned to service in a safe, reliable and efficient condition. Funds for this change order are identified from the approved 2005 Capital & Major Maintenance Budget.

UTILITY BOARD ACTION REQUESTED:

Staff recommends that the Board approves a change order to Purchase Order agreement No. 10139 with Power Generation Services Inc. to provide services and materials for the SLP Unit 1 Turbine Generator Overhaul in the amount of \$65,000. The revised amount of the purchase order agreement is \$315,000 which includes a contingency of \$1,336.52 in case a small revision is required.

General Manager

Date

ROCHESTER PUBLIC UTILITIES

SLP Unit NO. 1 Turbine Generator Overhaul Cost Matrix

| Item / | T COSt Water X | |
|--------|------------------------------------|------------------------|
| Quote | 1 | |
| Number | Description | Commitment |
| Number | Description | |
| | Partial firm contract payment | 33,153.45 15,564.00 |
| | Partial firm contract payment | |
| · | Partial firm contract payment | 23,643.00 |
| | Final firm contract payment | 31,133.00 |
| 2 | Reconcile periphery cracks | 1,500.00 |
| 3 | Repair crack & tie wire | 750.00 |
| 4 | Erosion shields on 42 row | 33,120.00 |
| 5 | Straighten Curtis blades | 1,650.00 |
| 6 | T1 Bearing journal | 3,250.00 |
| 7 | T2 Bearing journal | 3,250.00 |
| 8 | 1-24 interstage seals | 32,400.00 |
| 9 | Oil pump seal ring | 1,075.00 |
| 10 | low speed balance turbine | 3,500.00 |
| 12 | T3 Bearing journals | 3,250.00 |
| 13 | T4 Bearing journals | 3,250.00 |
| 17 | Balance piston seal strips | 2,850.00 |
| 18 | HP Nozzle | 13,800.00 |
| 19 | T1 Bearing rebabbit | 3,500.00 |
| 20 | T2 Bearing rebabbit | 3,700.00 |
| 21 | T3 Bearing rebbabit | 3,700.00 |
| 22 | T4 Bearing rebabbit | 3,700.00 |
| 26 | 2 oil deflector | 1,250.00 |
| 27 | 3 oil deflector | 1,250.00 |
| 28 | oil pump impeller seal ring | 2,750.00 |
| 29 | aux oil pump bearing | 875.00 |
| 30 | oil pump seal rings | 2,750.00 |
| 31 | bolts, seal pieces, etc | 4,650.00 |
| 32 | N1 & N2 Rotor Seal Strips | 5,675.00 |
| | Bearing Pedestal Oil Rings | 4,250.00 |
| 33 | | 3,500.00 |
| 34 | Balance Generator Field | 4,990.00 |
| 36 | Intermediate Nozzle Repair | 3,563.00 |
| 2215 | HP Nozzle Plate Removal | 3,545.67 |
| 1 | Shipping Charges | |
| | T2 Bearing Integral Oil Seal Teeth | 1,320.00 1,320.00 |
| | T3 Bearing Integral Oil Seal Teeth | 1,320.00 |
| | T4 Bearing Integral Oil Seal Teeth | |
| | Servo Piston Ring | 250.00 |
| | TA Extra time 2/28/2005 | 3,027.92 |
| | TA Extra time 3/5/2005 | 3,784.90 |
| | TA Demob Travel Time | 704.00 |
| | TA Extra time 4/23/2005 & remob | 5,639.78 |
| | TA Extra time 4/30/2005 | 5,490.78 |
| | Unit 2 Extra work 4/30/2005 | 1,513.96 |
| | Substinance 4/30/2005 | 100.00 |
| | Unit 2 Extra work 5/7/2005 | 10,905.52 |
| | Substinance 5/7/2005 | 500.00 |
| | Sales Tax | 16,999.50 |

TOTAL

\$ 313,663.48



RESOLUTION

| BE IT RESOLVED by the Public Utility Board of the City of Rochester, to approve Change Order No. 1 to Purchase Order agreement No. 10139 with Power Generation Services Inc. to provide services and materials for the SLP Unit 1 Turbine Generator Overhaul in the amount of \$65,000. The revised amount of the purchase order agreement is \$315,000 which includes a contingency of \$1,336.52 in case a small revision is required. | | |
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| Passed by the Public Utility Board of the City of Rochester, Minnesota, this 31st day of May 2005. | | |
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| President | | |

Secretary