

## FOR BOARD ACTION

Agenda Item # 6.b.

Meeting Date:

1/31/06

**SUBJECT:**

SLP Unit 4 Turbine Generator Overhaul

**PREPARED BY:**

Wally Schlink, Director of Power Resources

**ITEM DESCRIPTION:**

SLP Unit 4 turbine generator is scheduled for a major maintenance overhaul beginning March 3 through April 28, 2006. The purpose of the inspection is to confirm machine integrity and to return the unit to as-designed condition and efficiency. The inspection is an industry standard and is 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 2000.

The bid specification was developed in two workscopes. Workscope I is comprised of the work that is known and identified. Firm bids were requested for Workscope I. The second workscope is comprised of a list of repairs that are anticipated and most likely will be encountered when the machine is disassembled and inspected. The second workscope is a mixture of firm bids and estimates as the work is not defined or the extent of damages known prior to disassembly.

Bid specifications packages were distributed to fourteen turbine generator repair firms for the Unit 4 turbine generator overhaul. On January 24, 2006 six bid packages were received for the project. One bid package from Keystone Specialties Turbine Service did not contain the required bid bond and the bid package was returned unopened. The remaining five packages that were submitted on time, with the required bid bond and were considered and evaluated.

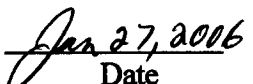
Power Generation Services Inc. is the lowest evaluated bidder on Workscope I and the lowest bidder when the estimates of required work from Workscope II are evaluated. Staff estimates that the balance of work can be completed on a not to exceed basis of the total approved funds. All bidders submitted hourly rates for various disciplines as part of the bid package for extra work.

Attached is a matrix comparing the bid packages for the combined workscopes. This is an approved 2006 Capital and Major maintenance budget item.

**UTILITY BOARD ACTION REQUESTED:**

Staff recommends that the Board rejects the bid package from Keystone Specialty Turbine Services as non-compliant and approves a purchase order agreement with Power Generation Services Inc. to provide services and materials for the SLP Unit 4 Turbine Generator Overhaul as defined in the specification. The purchase order agreement will be for a firm price for Workscope I of the specification, and identified Workscope II items as determined by staff. The total amount is not to exceed \$383,441 which includes a 20% contingency.

  
General Manager

  
Date

**ROCHESTER PUBLIC UTILITIES**

**BID EVALUATION - UNIT 4 TURBINE OVERHAUL**

	Elliot	Turbocare	Keystone Specialty Turbine Service	Power Generation Services	Millineum	General Electric
<b>WORKSCOPE I</b>						
Grit Blasting	11,277.00	13,687.00		10,300.00	25,981.00	13,300.00
NDE	4,366.00	13,625.00		7,300.00	23,680.00	8,400.00
Generator Testing	9,552.00	21,875.00		14,700.00	30,430.00	55,800.00
Steam Path Audit	18,604.00	18,750.00		15,000.00	18,750.00	26,000.00
Alignment	-	-		-	33,600.00	3,500.00
Technical Assistance	57,226.00	55,800.00		52,750.00	92,200.00	46,850.00
Craft Support	117,325.00	99,000.00		86,650.00	96,964.00	86,850.00
			No Bid Bond - Bid Package Returned			
<b>WORKSCOPE I TOTAL</b>	218,350.00	222,737.00		186,700.00	321,605.00	240,300.00

<b>WORKSCOPE II</b>						
Weld repair & blending - 1st stage	4,828.00	4,760.00		5,250.00	20,950.00	8,400.00
Weld repair & blending - intermediate	3,885.00	4,760.00		5,250.00	20,975.00	8,400.00
Weld repair & blending - diaphragms	68,800.00	76,160.00		41,600.00	21,000.00	113,600.00
Weld repair & blending - rotor	8,550.00	4,760.00		4,524.00	24,500.00	6,800.00
Silver Solder - L-0	4,300.00	4,760.00		5,250.00	700.00	6,875.00
Balance - Turbine rotor	8,280.00	16,500.00		3,500.00	18,680.00	3,000.00
6" bearing	3,318.00	4,350.00		3,820.00	2,850.00	3,000.00
12" bearing	5,350.00	4,590.00		4,840.00	4,100.00	4,100.00
2 each - 11" bearing	9,200.00	8,176.00		8,600.00	7,600.00	3,450.00
thrust bearing	4,825.00	11,150.00		9,800.00	3,800.00	7,500.00
H2 seals	14,250.00	8,000.00		-	4,500.00	15,400.00
Micro finish bearing journals	6,160.00	2,380.00		3,700.00	40,700.00	6,500.00
Balance - generator rotor	8,280.00	-		3,500.00	18,850.00	-
Turbine run out data	3,200.00	3,248.00		-	1,000.00	2,000.00
Spill Strip per diaphragm	50,000.00	33,600.00		23,200.00	24,800.00	24,000.00
Additional Transportation				10,000.00		
			No Bid Bond - Bid Package Returned			
<b>WORKSCOPE II TOTAL</b>	203,226.00	187,194.00		132,834.00	215,005.00	213,025.00

<b>PACKAGE TOTAL</b>	\$ 421,576.00	\$ 409,931.00	No Bid Bond - Bid Package Returned	\$ 319,534.00	\$ 536,610.00	\$ 483,326.00
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\* Adjusted for evaluation purposes to 40 technician hours  
 \* Adjusted for evaluation purposes to 40 technician hours  
 \* Adjusted for evaluation purposes to 16 diaphragms  
 \* Adjusted for evaluation purposes to 40 technician hours  
 \* Adjusted for evaluation purposes to 40 technician hours

\* Adjusted for evaluation purposes for 4 rings

\* Adjusted for 16 stages



## **POWER GENERATION SERVICE, INC.**

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**Bruce E. Roth**  
Sales Manager

January 24, 2006

Rochester Public Utilities  
Materials Manager  
4000 East River Road NE  
Rochester, MN 55906-2813

Subject: SLP Unit No. 4 Turbine Generator Overhaul  
PGS Quotation #2995

Power Generation Service, Inc. (PGS) is pleased to provide this quotation and have another opportunity to work with your Rochester Public Utilities' (RPU) personnel. As you know, PGS has recently provided inspection and repair services during the Silver Lake Power Plant (SLP) Units #1, 2, & 3 turbine-generator overhauls. We believe these projects exceeded management expectations and that we delivered a cost effective and value added service for your organization. If awarded the contract for this maintenance overhaul, we know that the PGS team will again perform the job safely, with quality work, and within your outage timeframe.

As in the past, PGS will support the Unit #4 overhaul with both of our facilities and engineering support. Some additional points to keep in mind as you evaluate the quotations for the upcoming overhaul are as follows:

- PGS can provide full service project management for your outage. This includes a pre-outage meeting, parts planning and procurement support, coordination of outage vendors/contractors, specialized engineering services for inspection or repair evaluation, repair recommendations, start-up support, a post-outage meeting and the commitment of our management team to support RPU's outage needs. This single contact accountability ensures seamless project implementation resulting in superior communication, reduced project costs, and quicker return to service of your equipment.
- The Technical Field Advisors (TFA) at PGS have many years of project management and supervisory experience refurbishing General Electric steam turbine-generators similar to your equipment. The person assigned to the project will have the technical expertise necessary to safely and efficiently overhaul your unit without the need to contract for additional Turbine Engineering Services. Our TFA's are also very familiar with your facility and personnel that should facilitate good communications and teamwork at your site. TFA "Short Form" Resumes are enclosed in Quotation Tab Section 5 for your review and complete work histories are available upon request.
- Our modern 25,000 square foot shop facility in Anoka, MN is located within a short drive of your power plant and is fully prepared for a quick turn-a-round of any equipment or parts repair. Our technicians are experienced in all aspects of steam path service and repairs including; diaphragm refurbishment, nozzle partition weld repair, rotating blading replacement or "blending", stellite strip replacement, bearing inspection and re-babbiting, hydrogen seal refurbishment, and low speed balancing of turbine and generator rotors.
  - Note: If awarded this project, we plan on shipping the turbine and generator rotors to the PGS Anoka, MN facility for the journal grinding, turbine rotor run-out data and the low speed balancing. The shipping cost to transfer the rotors, or additional steam path components if necessary, to the PGS Anoka, MN facility is itemized separately in the RPU Bid Form enclosed in Quotation Tab Section 2. In the event either rotor exceeds the twenty (20) ton capacity of the PGS Anoka, MN overhead crane, we plan on performing the rotor work at the Silver Lake Plant on a "time and material" basis or at a mutually agreed upon price.

- Our skilled workforce will be provided by Millwright Local Union 548 (Southern Minnesota). These craftsmen will be paid at the applicable 100% wage rate to ensure we have the critical skills necessary for a quality, short cycle outage. Millwrights from this Local Union are frequently employed by PGS at turbine overhauls throughout the country.
- Turbine Masters, Inc., Tahlequah, OK, will perform the grit blast cleaning and non-destructive examinations at the Silver Lake Plant site. This Company has extensive experience and has earned an excellent reputation in the power generation industry throughout the country.
- Mr. Bruce Schumacher from Great Plains Technical Services, Mandan, ND will perform the generator electrical testing and inspection. Mr. Schumacher has significant experience serving the power generation industry throughout the upper Midwest and he also performed these testing and inspection services during the SLP Unit #1 and #2 outages.
- E Squared Power Systems, Inc., Littleton, CO will be performing the inspection, cleaning and calibration of the regulators, current transformers, meters, and static excitation control system identified in the work scope. This Company has an excellent reputation and demonstrated field expertise in the General Electric Generator Control and Protections Systems for customers throughout the United States.
  - Note: The price for this service is included in the RPU Bid Form, Workscope I, Line Item 3 – “Generator Testing”.
- PGS Technology Manager, Troy Gehrett, will perform the steam path audit in conjunction with Bill Sanders Turbo-Technic Services, Aurora, Ontario, Canada. Mr. Sanders has over 40 years experience and is a nationally recognized steam path expert. He has been working with Mr. Gehrett on steam path audits for the past four (4) years, including the previous audits for SLP Units #1, 2, & 3. A sample steam path audit is included for your review in Tab Section 4 of this quotation.
- In response to Technical Specification Workscope I, Item 5, PGS will provide tight wire alignment equipment and supervision as part of the base quotation for Technical Assistance. As an option for your consideration, we can also offer weekly rental for an Electronic Radial Alignment Gauge (ERAG) unit to perform this service.

This quote is valid for ninety (90) days, unless extended in writing by the undersigned. Our quotation is conditional on acceptance of Power Generation Service Terms and Conditions of Sale or as agreed upon. Terms of payment are net thirty (30) days after schedule delivery unless negotiated otherwise.

The PGS Team looks forward to working again with the Silver Lake Plant personnel on this project. Please call me at 763-421-1104 if you have any questions on this quotation submittal.

Sincerely,



Bruce Roth  
Sales Manager

Cc: Carl Challgren – PGS Anoka Office  
Pat Estabrook – PGS Mandan Office

**BID PACKAGE SUMMARY SHEET**

**RE: SLP UNIT NO. 4 TURBINE GENERATOR OVERHAUL**

**BIDDER** Power Generation Service, Inc.

**WORKSCOPE I - Based on technical specification**

1. Grit Blasting	\$ <u>10,300.00</u>
2. Non-Destructive Testing (Level II Technicians)	\$ <u>7,300.00</u>
3. Generator Testing	\$ <u>14,700.00</u>
4. Steam Path Audit	\$ <u>15,000.00</u>
5. Alignment "Tite Wire" Method	\$ <u>Included in Item #6</u>
6. Technical Assistance	\$ <u>52,750.00</u>
7. Craft Support	\$ <u>86,650.00</u>
<b>WORKSCOPE I TOTAL</b>	\$ <u>186,700.00</u>

**WORKSCOPE II - Based on technical specification**

1. Weld repair & blending - 1 <sup>st</sup> stage nozzle	\$ <u>5,250.00</u>
2. Weld repair & blending - Intermediate nozzle	\$ <u>5,250.00</u>
3. Weld repair & blending - diaphragms	\$ <u>2,600.00 Each</u>
4. Weld repair & blending - rotor buckets	\$ <u>3,770.00</u>
5. Application & blending - silver solder/ last stage	\$ <u>3,770.00</u>
6. Low speed balance - turbine rotor	\$ <u>3,500.00</u>
7. Restore bearings	\$ <u>3,820.00</u>
1 each - 6.000"	\$ <u>8,600.00</u>
2 each - 11.000"	\$ <u>4,840.00</u>
1 each - 12.000"	\$ <u>9,800.00</u>
(Includes active and inactive thrust bearings) 1 each thrust bearing	\$ <u>Included in Work Scope I</u>
8. Hydrogen Seals	\$ <u>Item #7</u>
9. Micro finish bearing journals	\$ <u>3,700.00 per journal</u>
10. Low speed balance - generator rotor	\$ <u>3,500.00</u>
11. Turbine rotor run out data	\$ <u>Included in Work Scope II</u>
12. Spill strip replacement - \$ per diaphragm	\$ <u>Item #6</u>
	\$ <u>1,450.00</u>

**\*\* Component Shipping to PGS Anoka, MN is excluded from above pricing: Estimated round trip is \$2,500.00 per occurrence**



**POWER GENERATION SERVICE, INC.**

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1160 McKinley Street  
Anoka, MN 55303  
United States of America  
(763) 421-1104  
Fax # (763) 421-3451

January 24, 2006

Rochester Public Utilities  
4000 E. River Road N.E.  
Rochester, MN 55904

Re: RFQ for SLP Unit #4 Turbine Generator Overhaul

PGS Quote #2995

Power Generation Service, Inc. (PGS) is pleased to offer the following proposal for the above noted request. The following are clarifications of the offerings for workscope items and related costs.

**WORKSCOPE II**

- 1) Weld repair & blending – 1<sup>st</sup> stage nozzle: The cost is based on 1 PGS technician, estimated working 3 days on-site. Cost for mobilization/de-mobilization, subsistence charges, equipment rental charges, etc. have been included in the quoted amount.  
FIRM PRICE QUOTE \$5,250.00
- 2) Weld repair & blending – intermediate nozzle: The cost is based on 1 PGS technician, estimated working 3 days on-site. Cost for mobilization/de-mobilization, subsistence charges, equipment rental charges, etc. have been included in the quoted amount.  
FIRM PRICE QUOTE \$5,250.00
- 3) Weld repair & blending – diaphragm: The work is anticipated to consist of welding and blending of light damage found to the diaphragm stages. PGS anticipates that the work will be performed at its Anoka, MN repair facility. (Note: Cost related to the shipment of the turbine components is discussed later in this quotation.)  
FIRM PRICE QUOTE \$2,600.00 per diaphragm stage
- 4) Straighten and dress – rotor buckets: The cost is based upon an estimated 32 hours of technician work for the blade work. PGS anticipates that the work will be performed at its Anoka, MN repair facility. (Note: PGS does not normally recommend weld repairs of turbine rotor blading. Cost related to the shipment of the turbine components is discussed later in this quotation.)  
FIRM PRICE QUOTE \$3,770.00
- 5) Application & blending – silver solder / last stage:  
PGS anticipates that the work will be performed at its Anoka, MN repair facility. (Note: Cost related to the shipment of the turbine components is discussed later in this quotation.)  
FIRM PRICE QUOTE \$3,770.00

- 6) Low speed balance – turbine rotor: The turbine rotor will be balanced in accordance with ISO Standard 1940/G2. PGS anticipates that the work will be performed at its Anoka, MN repair facility. (Note: Cost related to the shipment of the turbine components is discussed later in this quotation.)

FIRM PRICE QUOTE \$3,500.00

- 7) Restore bearings:

1 each - 6.000"	FIRM PRICE QUOTE	\$3,820.00
2 each - 11.000"	FIRM PRICE QUOTE	\$8,600.00
1 each – 12.000"	FIRM PRICE QUOTE	\$4,840.00
Thrust bearings	FIRM PRICE QUOTE	\$9,800.00

(includes active & inactive)

- 8) Hydrogen seals: The work for this item does not anticipate any machining requirement. The cost for the work for this item has been included in the quoted pricing for Workscope I - Item #7.

- 9) Turbine and Generator Rotors - Micro finish bearing journals: PGS anticipates that the work will be performed at its Anoka, MN repair facility. (Note: Cost related to the shipment of the turbine components is discussed later in this quotation.)

FIRM PRICE QUOTE \$3,700.00 each journal

- 10) Low speed balance – generator rotor: The generator field rotor will be balanced in accordance with ISO Standard 1940/G2. PGS anticipates that the work will be performed at its Anoka, MN repair facility. (Note: Cost related to the shipment of the turbine components is discussed later in this quotation.)

FIRM PRICE QUOTE \$3,500.00

- 11) Turbine run-out data: This work will be performed in concurrence with balancing operations. The cost is included in rotor balance work (see item #'s 6 & 10 above).

- 12) Spill strip replacement: The price for the work includes for removal and replacement of the spill strips only. Quotation for new spill strips will be provided separately upon request. PGS anticipates that the work will be performed at its Anoka, MN repair facility. (Note: Cost related to the shipment of the turbine components is discussed later in this quotation.)

FIRM PRICE QUOTE \$1,450.00 per diaphragm stage

Trucking related costs: Round trip shipment of turbine/generator components to PGS repair facility and return to SLP will be \$2,500.00 (each occurrence), exclusive of specialty handling at the site. (Note: PGS assumes that the weight of the Generator Field is not in excess of 20 tons.)

In the case additional work is identified during the inspection process, PGS will either provide quoted pricing or perform the work on a time, material, and equipment rental basis, as further agreed upon by the parties. (See attached PGS repair group Time, Material, and Equipment Rental rate sheets).

If you have any questions or require further information with regard to this or other matters please contact us.

Sincerely,  
Scott Hughes  
Customer Service Manager  
Power Generation Service

**RESOURCE**  
**ORGANIZATION CHART**  
**Quote #2995**

**Rochester Public Utility, SLP Unit 4, 8 Week Outage**  
**Outage Dates: March 6, through April 28, 2006**

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**Personnel Supplied by Power Generation Service, Inc.**

**WEEK No's. 1 Thru 8**  
**March 6, 2006 Through April 28, 2006**

**DAY-SHIFT**

**1 - TFA**  
**1 - MILLWRIGHT FOREMAN**  
**3 - MILLWRIGHTS**

**8 HOURS PER DAY - 5 DAYS PER WEEK**  
**NO HOLIDAYS**

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# RPU, Silver Lake, Unit No. 4 2006 Outage

ID	Task Name	Duration	Start	Finish	March							April			May					
					2/26	3/5	3/12	3/19	3/26	4/2	4/9	4/16	4/23	4/30						
1	<b>MOBILIZE</b>	10 hrs	Mon 3/6/06	Tue 3/7/06																
2	Travel	10 hrs	Mon 3/6/06	Tue 3/7/06																
3	<b>TURBINE</b>	290 hrs	Tue 3/7/06	Wed 4/26/06																
4	Remove Turbine Lagging	6 hrs	Tue 3/7/06	Tue 3/7/06																
5	Remove Insulation	8 hrs	Wed 3/8/06	Wed 3/8/06																
6	Remove Steam Inlet Pipe Bolting	8 hrs	Wed 3/8/06	Wed 3/8/06																
7	Remove Pedistol Covers	6 hrs	Wed 3/8/06	Wed 3/8/06																
8	Split Coupling	6 hrs	Wed 3/8/06	Thu 3/9/06																
9	Unbolt / Remove U/H Shell	24 hrs	Wed 3/8/06	Fri 3/10/06																
10	Chart Rotor Cir. (As Found)	8 hrs	Mon 3/13/06	Mon 3/13/06																
11	Remove U/H 1 & 2 Brgs.	4 hrs	Tue 3/14/06	Tue 3/14/06																
12	Rig and Remove Rotor	4 hrs	Tue 3/14/06	Tue 3/14/06																
13	Flip U/H Shell	8 hrs	Wed 3/15/06	Wed 3/15/06																
14	Remove U/H Diaphragms	6 hrs	Thu 3/16/06	Thu 3/16/06																
15	Remove L/H Diaphragms	6 hrs	Thu 3/16/06	Fri 3/17/06																
16	Inspect Nozzle (In Place)	14 hrs	Fri 3/17/06	Tue 3/21/06																
17	Remove Steam Packing	10 hrs	Tue 3/21/06	Wed 3/22/06																
18	Blast Clean Rotor	20 hrs	Mon 3/20/06	Wed 3/22/06																
19	Blast Clean Diaphragms	20 hrs	Thu 3/23/06	Mon 3/27/06																
20	NDE Rotor	4 hrs	Tue 3/28/06	Tue 3/28/06																
21	NDE Diaphragms	4 hrs	Wed 3/29/06	Wed 3/29/06																
22	NDE Misc. Components	8 hrs	Wed 3/29/06	Thu 3/30/06																
23	Make Necs. Repairs	10 days	Thu 3/30/06	Thu 4/13/06																
24	Inspect Brgs.	4 hrs	Thu 4/13/06	Thu 4/13/06																
25	Inspect Oil Deflectors	6 hrs	Fri 4/14/06	Fri 4/14/06																
26	Inspect Turning Gear	24 hrs	Fri 4/14/06	Tue 4/18/06																
27	Clean Turbine Components	4 days	Fri 4/14/06	Wed 4/19/06																
28	Install L/H Diaphragms	6 hrs	Mon 4/3/06	Tue 4/4/06																
29	Diaphragm Aling.	16 hrs	Tue 4/4/06	Thu 4/6/06																
30	Install L/H Brgs.	2 hrs	Thu 4/6/06	Thu 4/6/06																
31	Install Rotor	6 hrs	Thu 4/6/06	Fri 4/7/06																
32	Chart Rotor Cir. (As Left)	8 hrs	Fri 4/7/06	Mon 4/10/06																



# RPU, Silver Lake, Unit No. 4 2006 Outage

ID	Task Name	Duration	Start	Finish	Calendar											
					March	April			May							
					2/26	3/5	3/12	3/19	3/26	4/2	4/9	4/16	4/23	4/30		
65	Remove Generator Field	6 hrs	Mon 3/20/06	Mon 3/20/06												
66	Test Generator	48 hrs	Wed 3/29/06	Thu 4/6/06												
67	Inspect 3 & 4 Brgs.	4 hrs	Wed 3/29/06	Thu 3/30/06												
68	Clean Generator	20 hrs	Mon 4/3/06	Wed 4/5/06												
69	Inspect Gen. Oil Deflectors	2 hrs	Thu 3/30/06	Thu 3/30/06												
70	Inspect H2 System	12 hrs	Fri 3/31/06	Mon 4/3/06												
71	Clean H2 Coolers (In Place)	20 hrs	Wed 4/5/06	Fri 4/7/06												
72	Assemble H2 Coolers	10 hrs	Fri 4/7/06	Mon 4/10/06												
73	Install Field	6 hrs	Tue 4/11/06	Wed 4/12/06												
74	Install End Bells	25 hrs	Wed 4/12/06	Mon 4/17/06												
75	<b>START UP</b>	<b>8 hrs</b>	<b>Fri 4/28/06</b>	<b>Fri 4/28/06</b>												
76	Unit on Turning Gear	8 hrs	Fri 4/28/06	Fri 4/28/06												
77	Unit On Line	0 hrs	Fri 4/28/06	Fri 4/28/06												



**POWER GENERATION SERVICE, INC.**

1160 McKinley Street  
Anoka, MN 55303  
United States of America  
(763) 421-1104  
Fax # (763) 421-3451

**TIME AND MATERIAL RATES**  
**EFFECTIVE: July 1, 2005**  
**TURBINE TECHNICAL REPAIR DIVISION**

Confidential Quotation # 2995

DATED: January 24, 2006

**LABOR RATES**

	STRAIGHT TIME	OVER TIME
TECHNICIAN	\$ 99.50	\$149.25
WORK LEADER TECHNICIAN	\$113.00	\$169.50
SUPERVISOR	\$132.00	\$198.00
TECHNICAL FIELD ASSISTANT	\$132.00	\$198.00
CRAFTSMAN	\$ 91.00	\$136.50

Note: SPECIALIZED ENGINEERING QUOTED UPON REQUEST

- STRAIGHT TIME:** 1st 8 hours Monday through Friday  
**OVER TIME:** Over 8 Monday through Friday / All hours Saturday, Sunday, and Holidays
- PRIORITY SERVICE:** Priority Service to satisfy urgent needs and which cause disruption to PGS normal manufacturing and production process: 30% of labor charge
- TRAVEL TIME:** To and from job site:  
Monday through Friday, Regular Shift: \$ 85.00/hr  
Saturday, Sunday, Holidays & Travel done after having worked or traveled longer than an 8 hour shift: \$ 100.00/hr
- PER DIEM:** \$165.00/day
- SHOP SUPPLIES:** Rags, gases, degreaser, lubricants, gloves, shields, expendables; & etc.; Environmental and hazardous waste fees: 4.75% of labor charge

**TIME AND MATERIAL RATES**

**TURBINE TECHNICAL REPAIR DIVISION**

**Page 2 of 2**

<b><u>MATERIALS:</u></b>	Including abrasives, burrs, sand blasting material, welding rod, metals, purchased parts and services, & etc.;		Cost + 20%
<b><u>SHIPPING &amp; TRANSPORTATION:</u></b>			Cost + 10%
<b><u>SHOP VEHICLES:</u></b>	Used for travel to and from site And / or delivery of parts; Fuel surcharge will be applied as required:	Small truck- Large truck-	\$ 70.00/day + .70/mile \$ 92.00/day + \$1.10/mile
<b><u>RENTAL VEHICLES:</u></b>			Cost + 10%
<b><u>AIR FARE:</u></b>			Cost + 10%
<b><u>EQUIPMENT RENTAL OF COMPANY EQUIPMENT:</u></b>			Per equipment rental list
<b><u>EQUIPMENT RENTAL OF OTHER EQUIPMENT:</u></b>			Cost + 10%

**TIME AND MATERIAL RATE CLARIFICATIONS**

- \* Minimum billing is \$500.00. Minimum billing for on-site work will be four (4) hours for each worker including travel and work time regardless of actual time worked. Over four (4) hours up to eight (8) hours will be billed at eight (8) hours.
- \* Travel time is added to work time to determine when overtime or premium time begins. The day of the week a shift starts determines whether it is a Monday through Friday, Saturday, etc. shift.
- \* There shall be a work leader assigned for each shift of 1 to 4 employees in each work specialty, i.e.; welding, machining, etc. There shall be an additional work leader assigned for each additional 1-4 employees per shift per work specialty. There shall be a shift supervisor assigned for each shift on which there are nine (9) or more employees.
- \* Supervisors time shall be allocated to each job based on actual time devoted to engineering work, scope definition, methods determination, quality control, and specialized labor on the job.
- \* Any delays not caused by, or beyond the control of PGS, will be charged at the above Time and Material rates.
- \* For each day a person is on-site (or in shop for "DEDICATED RESOURCE PROJECTS") performing or available to perform, "Time and Material" work, a minimum of eight hours shall be charged.
- \* If the work situation does not allow a full eight consecutive hours of rest time after a period of twelve hours of combined work and travel has been accomplished, the hours worked after the shortened rest period will be charged at the Premium time rate.
- \* Cancellation Charges up to the anticipated project costs may be invoiced to the customer in the event the customer cancels the work subsequent to an authorization to proceed with the work.

When PGS personnel working on a quoted project are requested by the Customer to also perform work on a Time and Material project a separate time record will be maintained. Applicable per diem or expenses will be charged on a daily basis if personnel work in excess of one half day on the Time and Material project.



**POWER GENERATION SERVICE, INC.**

1160 McKinley Street  
Anoka, MN 55303  
(763) 421-1104  
Fax # (763) 421-3451

**TURBINE TECHNICAL REPAIR DIVISION**  
**EFFECTIVE: 08/04**  
**EQUIPMENT RENTAL RATES**

Confidential Quotation # 2995

Dated: January 24, 2006

<b><u>ON-SITE EQUIPMENT DESCRIPTION</u></b>	<b><u>DAILY RATE</u></b>	<b><u>PREP &amp; RETURN FEE</u></b>
<b><u>MILLING EQUIPMENT</u></b>		
PORTABLE MILLING HEAD (VARIOUS)	100 to 250	271
<b><u>TURNING EQUIPMENT</u></b>		
PORTABLE LATHE	850	2167
COMBINATION LATHE/BALANCER	1200	2167
<b><u>BALANCING EQUIPMENT</u></b>		
PORTABLE LOW SPEED BALANCER/LATHE	1200	2167
DYNAMIC BALANCE INSTRUMENT	150	90
VIBRATION ANALYZER INSTRUMENT	150	90
<b><u>BORING EQUIPMENT</u></b>		
HYDRAULIC POWER UNIT & BORING BAR (VARIOUS)	150 to 450	722
VERTICAL BORING MACHINE	250	722
<b><u>DRILLING EQUIPMENT</u></b>		
MAGNETIC DRILL BASE:	40	90
LAMINA DRILL:	110	226
<b><u>GRINDING EQUIPMENT</u></b>		
HYDRAULIC GRINDER UNIT:	75	226
TOOL POST GRINDER:	25	90
<b><u>GENERAL TOOLING</u></b>		
GANG BOX:	100	722
TURBINE TECHNICIAN REPAIR BOX:	35	90
<b><u>WELDING EQUIPMENT</u></b>		
WELDING MACHINE:	30	90
TIG WELDER:	45	90
FLOW METER SHIELDS:	25	90
PORTABLE STRESS RELIEF OVEN	800	903
STRESS RELIEF CONTROL CENTER & ELEMENTS	800	361

**TURBINE TECHNICAL REPAIR DIVISION**

**EQUIPMENT RENTAL RATES**

<b><u>ON-SITE EQUIPMENT DESCRIPTION</u></b>	<b><u>DAILY RATE</u></b>	<b><u>PREP &amp; RETURN</u></b>
<b><u>SPECIALIZED EQUIPMENT</u></b>		
VALVE LAPPING MACHINE:	165	316
RADIUS CUTTER:	35	90
HILTI GUN:	50	90
DRILL SHARPENER:	50	90
TURBINE COVER PUNCH PRESS:	75	90
<b><u>PRECISION SLIDES</u></b>		
MASTER SLIDE (VARIOUS)	75 to 150	181

**NOTES:**

- LISTED PRICING FOR 1st UNIT ONLY, ADDITIONAL UNITS QUOTED UPON REQUEST.
- CONSUMEABLE MATERIALS AND TOOLING ARE NOT INCLUDED AND WILL BE CHARGED AT COST + 20%.
- SPECIAL FIXTURES ARE NOT INCLUDED AND WILL BE MANUFACTURED ON A TIME AND MATERIALS BASIS OR QUOTED AS REQUIRED.
- EXCEPT AS OTHERWISE PROVIDED, EQUIPMENT RENTAL CHARGES BEGIN ON THE DAY THE EQUIPMENT LEAVES THE SHOP, AND ARE CHARGED THROUGH THE DAY THE EQUIPMENT IS RECEIVED BACK AT THE SHOP.
- SHIPPING CHARGES FOR EQUIPMENT ARE NOT INCLUDED IN THE PRICING. SHIPPING CHARGES WILL BE APPLIED BY QUOTATION OR ON A COST + 10% BASIS.



## **RESOLUTION**

**BE IT RESOLVED** by the Public Utility Board of the City of Rochester, Minnesota, to reject the bid package from Keystone Specialty Turbine Services for non-compliance with all of the terms of the bid specifications.

**BE IT FURTHER RESOLVED** by the Public Utility Board to approve a purchase order agreement with Power Generation Services, Inc., for

**Silver Lake Plant Unit 4 Turbine Generator Overhaul  
As Defined in the Specification**

The amount of the agreement not to exceed **THREE HUNDRED EIGHTY-THREE THOUSAND FOUR HUNDRED FORTY-ONE AND NO/100 (\$383,441.00)** which includes a 20% contingency, and Power Generation Services, Inc. being lowest responsible bidder.

Passed by the Public Utility Board of the City of Rochester, Minnesota, this 31<sup>st</sup> day of January, 2006.

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**President**

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**Secretary**