

**Listing of Potential Unit P5 & P6 Impeller and Stator Equipment for John W. Keys III Pump-Generating Plant Modernization Project, Grand Coulee Power Office, Washington
April 2012**

List of Equipment and Major Work Potentially Included in Solicitation(s)			
Equipment Type	Quantity [Each, LF, lump sum]	Size (Each)	Features
<i>Pump Equipment</i>			
Model Test	1 LS	---	Design, build and test model
Pump Impeller	2	56,200 lbs	Stainless Steel, ASTM A743 CF3
Coupling Bolts	28	80 lbs	ASTM A193 B7
Coupling Nuts	28	10 lbs	ASTM A194 2H
Stationary Wear Ring - Upper	2	1,070 Lbs	Aluminum Bronze, ASTM B271 – UNS 95500
Stationary Wear Ring - Lower	2	1,050 lbs	Aluminum Bronze, ASTM B271 – UNS 95500
Stationary Wear Ring – Upper Spare (OPTION)	1	1,070 Lbs	Aluminum Bronze, ASTM B271 – UNS 95500
Stationary Wear Ring – Lower Spare (OPTION)	1	1,050 lbs	Aluminum Bronze, ASTM B271 – UNS 95500
Motor Guide Bearing Evaluation	2 LS	Shop Services	Inspect and evaluate the Babbitt, prepare report; includes upper, lower and thrust bearings
Mechanical Seal	2 LS	---	WPR Type; shaft Diameter 27.5 inches; P1-P4 are Sterling Seal
Headcover Studs - Outer	144	3.5 lbs	ASTM A193 B7; 1.625-in Dia x 6-in Length
Headcover Nuts - Outer	144	4 lbs	ASTM A194 2H; 1.625-in Dia
Headcover Studs - Inner	48	3.5 lbs	ASTM A193 B7; 1.625-in Dia x 6-in Length
Headcover Nuts - Inner	48	4 lbs	ASTM A194 2H; 1.625-in Dia
Restistance Temperature Detector - RTDs	2 LS	100 ohms, 3 lead, platinum	Pump Guide Bearing – 2; Pump Guide Bearing Oil Basin – 1; Thrust Bearing – 2; Upper Motor Guide Bearing – 4; Lower Motor Guide Bearing – 2; Thrust Bearing Pot – 1; Lower Guide Bearing Pot - 1
Liquid Tight Flexible Metal Conduit	2 LS	20 lf	Flexible conduit
Thrust Bearing Cooling Water Piping System	2 LS	8 lf	Replace and redesign thrust bearing cooling water system at pot; Copper tubing, ASTM B88, Type K Annealed; Fittings ASME B16.18 or ASME B16.22
Coatings	2 LS	---	Sandblast and Paint metal surfaces: headcover, suction tube, spiral case, pit liner, etc.
Disassembly of Unit	2 LS	Onsite Services	Pre-shut down readings, disassembly of Pump and Motor
Onsite Machining	2 LS	Onsite Services	Machine with boring bar mating flanges in pit.

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