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		
Pump Equipment					
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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Reassembly of Unit	2 LS	Onsite Services	Assembly of new equipment and alignment of Pump and Motor		
Rebabbitt Bearings - OPTION	LS	Shop Services	Option to rebabbitt: Pump Guide Bearing, Upper Guide Bearing, Lower Guide Bearing, Thrust Bearing. Range from a total of 500 lbs to 5000 lbs.		
Rehabilitate Thrust Runner and Cone	LS	Shop Services	Machine to proper dimensions. Weight is 7000 lbs.		
Motor Equipment					
Stator Windings (270 coils per motor)	2 LS	50 MVA, 13.6 KV, 200 RPM Units	Design, factory testing, installation, and field testing of stator windings for two motors. This work includes removal of existing windings from the two motors.		
Stator Cores (Core Height 59 inches, Bore Diameter 217.5 inches)	2 LS	50 MVA, 13.6 KV, 200 RPM Units	Design, factory testing, installation, and field testing of stator cores for two motors. This work includes removal of existing cores for the two motors.		
Refurbish field poles (36 poles per motor)	2 LS	50 MVA, 13.6 KV, 200 RPM Units	Remove and ship field poles to factory for refurbishment and testing. Ship field poles to site for installation and testing. This work will include balancing the two units.		

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