

**PROFORMA FOR PRICE BID** of “Refer ANNEXURE-A,SI-I”.-

1. Name of the firm :
2. Name of the Proprietor :
3. Address and Contact Numbers:

**PRICE BID FOR DISMANTLING OF 1X30 MW STEAM TURBINE AND RE-ASSEMBLING OF TURBINE AFTER REPAIR” AT SHYAM, JAMURIA SITE****A) DISMANTLING WORKS**

<b>1.01.00 DISMANTLING OF TURBINE, PACKING &amp; LOADING FOR DISPATCH TO BHEL HYDERABAD</b>				
<b>S.NO.</b>	<b>Description</b>	<b>NO OF ITEMS</b>	<b>Item Wt. (In KG)</b>	<b>Total Wt. (In KG)</b>
1.01.01	Outer Casing Upper Part	1	8500	8500
1.01.02	Outer Casing Lower Part	1	7000	7000
1.01.03	Steam Chamber Assembly	1	700	700
1.01.04	Guide Blade Carriers (5 GBC's) & steam glands	5	1000	5000
1.01.05	Exhaust hood Upper Part	1	5000	5000
1.01.06	Exhaust hood Lower Part	1	11000	11000
1.01.07	Rear Bearing Housing Assembly	1	2500	2500
1.01.08	Front Bearing Housing Assembly	1	2600	2600
1.01.09	Parting plane bolts (M56, M72, M80 & M90), 36 bolts	1	500	500
1.01.10	Rotor Assembly	1	5000	5000
1.01.11	Stop valves assy.	1	700	700
1.01.12	Gov. System assy.	1	1000	1000
1.01.13	Piping, support, insulation, misc. items etc.	1	5000	5000
Total Wt.				54500
Rate/Kg				<b>16</b>
<b>Table 1.01.00</b>				<b>872000</b>

<b>1.02.00 LOCAL / FIELD MOUNTED INSTRUMENTS</b>					
<b>SL.NO.</b>	<b>DESCRIPTION</b>	<b>UNIT</b>	<b>QTY</b>	<b>RATE</b>	<b>AMOUNT</b>
1.02.01	Vibration, Key Phasor & Eccentricity probes	NOS	6	<b>1795</b>	10770
1.02.02	RTDS	NOS	10	<b>1436</b>	14360
1.02.03	PRESSURE GAUGE	NOS	8	<b>574</b>	4592
1.02.04	TEMPERATURE GAUGE	NOS	2	<b>861</b>	1722
1.02.05	PRESSURE SWITCHES	NOS	6	<b>1077</b>	6462
1.02.06	PRESSURE TRANSMITTER	NOS	2	<b>1795</b>	3590
1.02.07	AXIAL PROBES	NOS	2	<b>1795</b>	3590
1.02.08	SPEED PROBES	NOS	6	<b>1795</b>	10770
<b>Table 1.02.00</b>					<b>55856</b>

**Note: List of activities involved in dismantling works as per Annexure-1**

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**B) ASSEMBLY WORKS****1.03.00 ASSEMBLY OF TURBINE AFTER REPAIR INCLUDING PRE-COMMISSIONING AND COMMISSIONING ACTIVITIES**

S.NO.	Description	NO OF ITEMS	Item Wt.	Total Wt. (In KG)
1.03.01	Outer Casing Upper Part	1	8500	8500
1.03.02	Outer Casing Lower Part	1	7000	7000
1.03.03	Steam Chamber Assembly	1	700	700
1.03.04	Guide Blade Carriers (5 GBC's) & steam glands	5	1000	5000
1.03.05	Exhaust hood Upper Part	1	5000	5000
1.03.06	Exhaust hood Lower Part	1	11000	11000
1.03.07	Rear Bearing Housing Assembly	1	2500	2500
1.03.08	Front Bearing Housing Assembly	1	2600	2600
1.03.09	Parting plane bolts (M56, M72, M80 & M90), 36 bolts	1	500	500
1.03.10	Rotor Assembly	1	5000	5000
1.03.11	Stop valves assy.	1	700	700
1.03.12	Gov. System assy.	1	1000	1000
1.03.13	Piping, support, insulation, misc. items etc.	1	5000	5000
<b>Total Wt.</b>				<b>54500</b>
<b>Rate/Kg</b>				<b>16</b>
<b>Estimate Table 1.03.00</b>				<b>872000</b>

**1.04.00 LOCAL / FIELD MOUNTED INSTRUMENTS**

SL.NO.	DESCRIPTION	UNIT	QTY.	RATE	AMOUNT
1.04.01	Vibration, Key Phasor & Eccentricity probes	NOS	6	1795	10770
1.04.02	RTDS	NOS	10	1436	14360
1.04.03	PRESSURE GAUGE	NOS	8	574	4592
1.04.04	TEMPERATURE GAUGE	NOS	2	861	1722
1.04.05	PRESSURE SWITCHES	NOS	6	1077	6462
1.04.06	PRESSURE TRANSMITTER	NOS	2	1795	3590
1.04.07	AXIAL PROBES	NOS	2	1795	3590
1.04.08	SPEED PROBES	NOS	6	1795	10770
<b>Table 1.04.00</b>					<b>55856</b>

**Note: List of activities involved in Assembly works as per Annexure-1**

**1.05.00 Material Unloading and stacking**

SL.NO.	DESCRIPTION	UNIT	QTY.	Rate (In Rs.)	Total Amount
1.05.01	Mechanical Items	Ton	55	2200	121000
<b>1.05.00 Total =</b>					<b>121000</b>

Signature and Stamp of the tenderer

## SUMMARY SHEET

### A) DISMANTLING WORKS

<b>1.01.00</b>	<b>DISMANTLING OF TURBINE, PACKING &amp; LOADING FOR DISPATCH TO BHEL HYDERABAD (1.01.01 to 1.01.13)</b>	<b>872000</b>
<b>1.02.00</b>	<b>LOCAL / FIELD MOUNTED INSTRUMENTS (1.02.01 to 1.02.08)</b>	<b>55856</b>

### B) ASSEMBLY WORKS

<b>1.03.00</b>	<b>ASSEMBLY OF TURBINE AFTER REPAIR INCLUDING PRE-COMMISSIONING AND COMMISSIONING ACTIVITIES (1.03.01 to 1.03.13)</b>	<b>872000</b>
<b>1.04.00</b>	<b>LOCAL / FIELD MOUNTED INSTRUMENTS (1.04.01 to 1.04.08)</b>	<b>55856</b>
<b>1.05.00</b>	<b>Material Unloading and stacking (1.05.01 )</b>	<b>121000</b>
<b>GRAND TOTAL = Rs.</b>		<b>1976712</b>
<b>% Change on Total Amount</b>		
In figure		
In words		

**Note: The above rates are exclusive of GST, which is to be paid extra as applicable**

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**Annexure-1****LIST OF ACTIVITIES FOR DISMANTLING AND REASSEMBLY OF 30 MW TURBINE AT SHYAM JAMURIA**

	<b>DISMANTLING OF TURBINE</b>
<b>Sl.No.</b>	<b>Activities</b>
	Start of turbine dismantling
1	Dismantling of turbo supervisory instrumentation of turbine
2	Removal of turbine insulation
2A	Measure the distance between outer casing front DRP to any machined surface of the FBP for reference.
3	MS inlet flange opening and other steam lines dismantling
4	Outer casing parting plane bolts heating & loosening
5	Exhaust flange opening (Ensure locking of bellows before opening)
6	Removal of Rear bearing Housing inlet & drain lube oil lines
7	Dismantling of front & rear bearing covers, bearing upper half & other internals.
8	Dismantling of servomotor, ESV
9	Coupling guard dismantling and coupling.
10	All parting plane bolts to be removed, cleaned & preserved
11	Measure & record rotor alignment values
12	Lifting of outer casing Upper half.
13	Dismantling & removal of upper halves of casing internals(GBCs and Steam Chamber)
14	Opening of valve chamber cover & other governing components
15	Lifting of rotor
16	Dismantling & removal of lower halves of casing internals(GBCs and Steam Chamber)
17	Removal of radial, axial keys of casing
18	Removal of casing & exhaust hood holding down bolts, exhaust hood axial keys, feather keys b/w base plate & hood
19	Packing and despatching of outer casing U/H & L/H, all GBCs, front and rear steam gland, steam chamber upper half and all casing parting plane bolts.

	<b>REASSEMBLY OF TURBINE</b>
<b>Sl. No.</b>	<b>Activities</b>
1	Checking & cleaning of all steam lines, if required
2	Placement of turbine casing B/H, levelling, setting reference dimensions, pedestal level checks
3	Placement & fixing of RBH and bearings
4	Placement of rotor and centering
5	Turbine Casing centering, assembly of radial & axial keys
6	Rotor removal
7	Internals casing placement (all GBCs and Steam Chamber)
8	GBC parting plane levelling/alignment setting
9	Placement of rotor and preliminary alignment check
10	Vertical float checking (includes assy of GBCs Upper halves)
11	GBCs steam flow path checking and record of radial clearances
12	Rotor axial float checks (with & without thrust bearing, adjust shims in thrust bearing if any)
13	Adjustment of left / right clearances and thorough cleaning of internals. Assembly of all casing internals, Steam Chamber and their locking
14	Assembly of valve chamber cover, ESV, spring, yoke and servomotor
15	Placement of outer casing U/H, assy of parting plane bolts

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16	Casing parting plane bolts heating and tightening
17	Restoration of MS line, Exhaust hood, extraction line & casing drain
18	Outer casing centering check
19	Turbine centering and alignment
20	Final boxing up of bearing with all turbovisory instruments
21	Coupling assembly
22	Assembly of pedestal covers, coupling guards
23	Assembly of lube oil inlet lines
24	Oil flushing
25	Temporary thermal insulation
26	Calibration of control valve and restart

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