

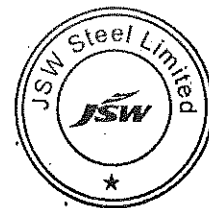


Summary of TRT ( O & M )Cost-2011-12

Sl.No	Cost Head	Total Cost (Cr.)	Ref
1	Operational Cost(including utilities)	2.460 ✓	Annexure 1
2	Maintenance Cost(Including Spares & Services)	0.000 ✓	
	a) Electrical	0.544 ✓	Annexure 2
	b) Mechanical	1.058 ✓	Annexure 3
3	Manpower Cost	0.643 ✓	Annexure 4
4	Administrative Cost	0.250 ✓	
	Total (in Rs Crores)	4.955 ✓	

Dharmaveera Gangadhrappa  
(Sr.Manager BF-TRT IV-Operations)

P. Rajashekhar  
(AVP BF#4 Project)



CA - Atebetwar 41290  
(Checked by Utility & Accounts)

Annexure 1				
Operational Cost ( Incl. Utilities)-TRT IV				
Cost Head	Operational Cost	Qty Consumed	Unit Cost (Rs/ CUM)	Cost ( Crore Rs)
	a) Power Consumption to run oil pumps& cooling water pumps & CT fans(KWH/hr)	105	3.5	0.32 ✓
	b) Utilities			
	1) Nitrogen( CUM/hr)	800	3.00	2.07 ✓
	2) Water ( CUM/hr)	13	6.50	0.07 ✓
	<b>Total (in Rs Crores)</b>			<b>2.46</b>

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**Annexure 2**

<b>TRT SYSTEM SPARES COST-(Electrical &amp; Instrumentation)</b>				
<b>SL NO.</b>	<b>EQUIPMENT</b>	<b>SUPPLIER</b>	<b>VALUE(Rs.)</b>	<b>Status</b>
1	HT PANELS SPARES	ABB	372600	Purchased
2	SYNCHRONIZIN G CHECK RELAY	ANDRITZ HYDRO PVT. LTD.	341000	Purchased
3	VIBRATION DETECTING INSTRUMENTS	BENTLY NEVADA	1236924	Purchased
4	INSTRUMENTS	SHAANXI BLOWER GROUP	1262196	Purchased
5	RTD	RADIX	43748	Purchased
6	VERABAR	CHANDAK INSTRUMENTS PVT. LTD.	311550	Purchased
7	PNEUMATIC VALVES	KOSO	150040	Purchased
8	MOTORISED VALVES	SUDE	145911	Purchased
9	BYPASS VALVE POSITIONER	CAMERON	58400	Purchased
10	PRESSURE SWITCH	WIKA	134900	Purchased
11	PRESSURE TRANSMITTER	YOKOGAWA	385920	Purchased
12	NUMERICAL RELAYS	SCHNIDER ELECTRIC	1000000	Purchased
<b>Total (in Rs.)</b>			<b>5443189</b>	

*OK*

## Annexure 3

## Cost of Mechanical Maintenance-TRT

Sl.No	Job Description	UOM	Qty	Unit Rate (In Rs)	Cost Rs
1	Repair of Rectangular Bellow	No	1.00	180,000.00	180,000.00
2	Inspection & Repair of Turbine Thrust Bearing	No	1.00	174,720.00	174,720.00
3	Replacement of TRT Outlet Bellow				
	a) Cost of Bellow	No	1.00		2,521,000.00
	b) Cost of Execution	No	1.00		475,000.00
	c) Dismantling and erection of Piping DN 2200MM Qty 700 Inch Mtr	Inch Mtr	700.00	60.00	42,000.00
4	Rotor Overhauling cost	No	1.00	1,045,590.00	1,045,590.00
5	Replacement of Carbon Seal Rings				
	a) Cost of Seal	Set	1.00	353,637.50	353,637.50
	b) Cost of Execution	Set	1.00	113,750.00	113,750.00
6	Replacement of Shaft Sleeves				
	a) Cost of sleeve	Set	1.00	337,687.00	337,687.00
5	Filter Replacement				
	a) Lube Oil Filters	No	10.00	6,778.84	67,788.40
	b) Power Oil Filters	No	6.00	3,838.05	23,028.30
	c) Guide Vane Filters	No	12.00	3,838.05	46,056.60
6	Oil Consumption.	Ltr	2,765.00	92.80	256,592.00
7	Consumables				
	a) Cotton Waste	Kg	500.00	14.00	7,000.00
	b) Marking Cloth	Sq.Mtr	200.00	12.00	2,400.00
8	Other Consumables(Diesel, Welding Electrodes,Petrol,RTV compound Etc)				30,000.00
9	Filter Paper for ELC				
	a) ELC machine-50LPM	Set	4.00	2,500.00	10,000.00
	b) ELC machine-100LPM	Set	4.00	4,775.00	19,100.00
	Sub Total (A)				5705350
10	Replacement of Lub Oil	Ltr	6,000.00	100.00	600,000.00
11	Replacement of Power Oil	Ltr	1,000.00	100.00	100,000.00
12	Replacement of Redial Bearing	No	2.00	3,500,000.00	7,000,000.00
13	Replacement of Thrust Bearing	No	1.00	3,500,000.00	3,500,000.00
14	Replacement of Seal kit for DN1600 & DN 800 bypass valve	Set	2.00	295,052.00	295,052.00
15	Replacement of Gear MOP Coupling	No	1.00	50,000.00	50,000.00
16	Replacement of OIL mist Fan	No	1.00	80,000.00	80,000.00
17	Replacement of Seal ring for Servo motor	set	1.00	168,000.00	168,000.00
18	Replacement of Oil cooler gasket	No	4.00	37,420.00	37,420.00
19	Replacement of coupling bolts	set	1.00	292,500.00	292,500.00
20	Need based contract				2,503,410.00
	for 1 year service & spares value			Sub Total (B)	4,875,461.00
Total (In Rs.)					10580811

**Annexure 4**  
**Manpower Cost-TRT**

**1. MAN POWER LIST FOR TRT. (JSW Rolls )**

Sl.No	E Code.	Name	Grade	CTC/Month (in Rs.)	Section
1	32897	Mr.DHARMAVEERA	L12	104770 ✓	TRT4
2	42292	Mr.SIDDAPPA TELI	L10	77466 ✓	TRT4
3	32155	Mr.SRINIVASARAO KUMBA	L09	52544 ✓	TRT4
4	32643	Mr.MOHANABABA BOTCHA	L09	52800 ✓	TRT4
5	34365	Mr.SRINIVASARAO NARISSETTY	L09	48615 ✓	TRT4
6	32770	Mr.A SATISH ACHA	L09	49186 ✓	TRT4
7	29909	Mr.P C NAGARAJU	L09	77000 ✓	TRT4
8	30322	Ms SANCHARI MUKHERJEE	L09	78000 ✓	TRT4
9	27022	Mr.BASHA HUSSAIN SAB	L11	100000 ✓	TRT4
10	42607	Mr.B PRATHAP	L08	40000 ✓	TRT4
11	43402	Mr. JAGAMOHAN SAHU	L08	41000 ✓	TRT4
12	42389	Mr.RAGHAVENDRA TRIPATHI	L08	42000 ✓	TRT4
13	35077	Mr.SURESHA L	L09	70000 ✓	TRT4
14	41855	Mr. ABHISHEK KUMAR	L08	40000 ✓	TRT4
15	41975	Mr.RANJIT KUMAR	L08	40000 ✓	TRT4
16	43436	Mr.GOWTHAM KUMAR GEDDADI	L08T	39000 ✓	TRT4

		Sub Total per month for TRT	952381
A	Cost of JSW Manpower / TRT(yly)	Rs	5714286 ✓

<b>2. Out sourcing contract technicians for TRT</b>			
	RTS enterprise	Rs/Month	60000

B	Cost of Out source Manpower / TRT	720000
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<b>Total (in Rs) A+B</b>		<b>6434286</b> ✓
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