



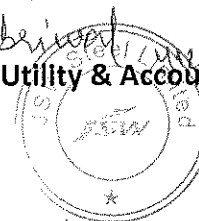


Summary of TRT ( O & M ) Cost-2012-13			
Sl.No	Cost Head	Total Cost (Cr.)	Ref
1	Operational Cost(including utilities)	2.464 ✓	Annexure 1
2	Maintenance Cost(Including Spares & Services)		
	a) Electrical	0.599 ✓	Annexure 2
	b) Mechanical	1.362 ✓	Annexure 3
3	Manpower Cost	0.624 ✓	Annexure 4
4	Administrative Cost	0.250 ✓	
	<b>Total (in Rs Crores)</b>	<b>5.299 ✓</b>	

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

  
P. Rajashekhar  
(AVP BF#4 Project)

C.A.   
(Checked by Utility & Accounts)



**Annexure 1**

<b>Operational Cost ( Incl. Utilities)</b>		<b>TRT4</b>		
<b>Cost Head</b>	<b>Operational Cost</b>	<b>Qty Consumed</b>	<b>Unit Cost (Rs/ CUM)</b>	<b>Cost ( Crore Rs)</b>
	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>

## Annexure 2

TRT SYSTEM SPARES COST-(Electrical & Instrumentation)			
SL NO.	EQUIPMENT	Value (Rs.)	REMARKS
1	HT PANELS SPARES	0	HT Panel ACB&relay testing and calibration 2) Relacement of 2 runs of faulty HT cable
2	GENERATOR	0	Generator Terminal Bus Bar Modification
3	GENERATOR AIR COOLER	0	Flange type Level Transmitter replaced with new one
4	TURNING GEAR	0	Lever Limit switch replaced with new one
5	I/L GOOGLE VALVE	0	Motor rewinding
6	UPS	25000	AMC
7	BATTERY AND BATTERY CHARGER PANEL	25000	AMC
8	PLC PANEL	50000	Conversion of UPS Power supply redundancy system
9	GENERATOR	100000	Testing by External party
10	AVR	150000	Retrofitting of AVR with ABB make,as the existing AVR required spares are not available and no service support from OEM
11	OPERATOR STATION(HMI)	100000	2 Nos operating station to be replaced with new one
12	VIBRATION DETECTING INSTRUMENTS	100000	Calibration and testing of vibration instruments by M/s Bently Nevada
13	HT PANELS SPARES	372600	ABB
14	SYNCHRONIZING CHECK RELAY	341000	ANDRITZ HYDRO PVT. LTD.
15	VIBRATION DETECTING INSTRUMENTS	1236924	BENTLY NEVADA
16	INSTRUMENTS	1262196	SHAANXI BLOWER GROUP
17	RTD	43748	RADIX
18	VERABAR	311550	CHANDAK INSTRUMENTS PVT. LTD.
19	PNEUMATIC VALVES	150040	KOSO
20	MOTORISED VALVES	145911	SUDE
21	BYPASS VALVE POSITIONER	58400	CAMERON
22	PRESSURE SWITCH	134900	WIKA
23	PRESSURE TRANSMITTER	385920	YOKOGAWA
24	NUMERICAL RELAYS	1000000	SCHNIDER ELECTRIC
TOTAL (In Rs)		5993189	

Annexure 3				
Cost of Mechanical Maintenance-TRT				
Sl.No	Job Description	Qty	Unit Rate (In Rs)	Cost Rs
1	Oil mist fan replaced	1	92,800.00	92,800.00
2	Filter Replacement			
	a) Lube Oil Filters	10.00	6,778.84	67,788.40
	b) Power Oil Filters	6.00	3,838.05	23,028.30
	c) Guide Vane Filters	12.00	3,838.05	46,056.60
3	Oil Consumption.	1,830.00	100.00	183,000.00
4	Consumables			
	a) Cotton Waste	500.00	14.00	7,000.00
	b) Marking Cloth	200.00	12.00	2,400.00
5	Other Consumables(Diesel, Welding Electrodes,Petrol,RTV compound Etc)			30,000.00
6	Filter Paper for ELC			
	a) ELC machine-50C	4.00	2,500.00	10,000.00
	b) ELC machine-100LP	4.00	4,775.00	19,100.00
	<b>Sub Total (A)</b>			<b>481,173.30</b>
7	Replacement of Lub Oil	6,000.00	100.00	600,000.00
8	Replacement of Power Oil	1,000.00	100.00	100,000.00
9	Replacement of Redial Bearing	1.00	3,500,000.00	3,500,000.00
10	Replacement of Thrust Bearing	2.00	3,500,000.00	7,000,000.00
11	Replacement of lube oil. System valves	1.00	383,380.00	383,380.00
12	Replacement of AOP pump spares	1.00	127,600.00	127,600.0
13	Replacement of MOP Spares	1.00	66,700.00	66,700.0
15	Replacement of Seal ring for Servo motor	1.00	194,880.00	194,880.0
16	Replacement of Oil cooler gasket	1.00	37,420.00	37,420.0
17	Replacement of coupling bolts	1.00	292,500.00	292,500.0
18	Need based contract			834,470.00
	for 1 year service & spares value		<b>Sub Total (B)</b>	<b>13,136,950.00</b>
		Total (in Rs.)		<b>13,618,123.30</b>

**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	30995	Krishna Desai	L10	64746 ✓	TRT 4
2	41905	Chetan Hitnalli	L8	39849 ✓	TRT 4
3	32155	Mr.SRINIVASARAO KUMBA	L09	63265 ✓	TRT 4
4	32643	Mr.MOHANABABA BOTCHA	L09	57978 ✓	TRT 4
5	34365	Mr.SRINIVASARAO NARISSETTY	L09	56567 ✓	TRT 4
6	32770	Mr.A SATISH ACHA	L09	57978 ✓	TRT 4
7	29909	Mr.P C NAGARAJU	L09	63284 ✓	TRT 4
8	41967	Pavan Kumar	L09	43851 ✓	TRT 4
9	27022	Mr.BASHA HUSSAIN SAB	L12	98268 ✓	TRT 4
10	42607	Mr.B PRATHAP	L08	38735 ✓	TRT 4
11	43402	Mr. JAGAMOHAN SAHU	L08	43804 ✓	TRT 4
12	42389	Mr.RAGHAVENDRA TRIPATHI	L08	39166 ✓	TRT 4
13	35077	Mr.SURESHA L	L09	67551 ✓	TRT 4
14	27546	Basalingappa Silvantar	L11	92717 ✓	TRT 4
15	26856	Mr MAHESH M. H.	L08	60296 ✓	TRT 4
16	46192	Ashish	L08T	31306 ✓	TRT 4
Sub Total per month TRT				919361 ✓	
A Manpower / TRT(yly)			Rs	5516166 ✓	

**2. Out sourcing contract technicians for each TRT's**

	RTS enterprise	Rs/Month	60000
--	----------------	----------	-------

**B Source Manpower / TRT**

**720000**

**Total (in Rs.) A+B**

**6236166**