

# **TENDER SPECIFICATION**

## **BHEL PSSR SCT 2080**

**for**

**Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit- 3 & 4 (Main plant) and identified BOP areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT, TSGENCO, Telangana**

## **VOLUME –II**

## **PRICE BID**



**BHARAT HEAVY ELECTRICALS LIMITED**

(A Government of India Undertaking)

Power Sector – Southern Region

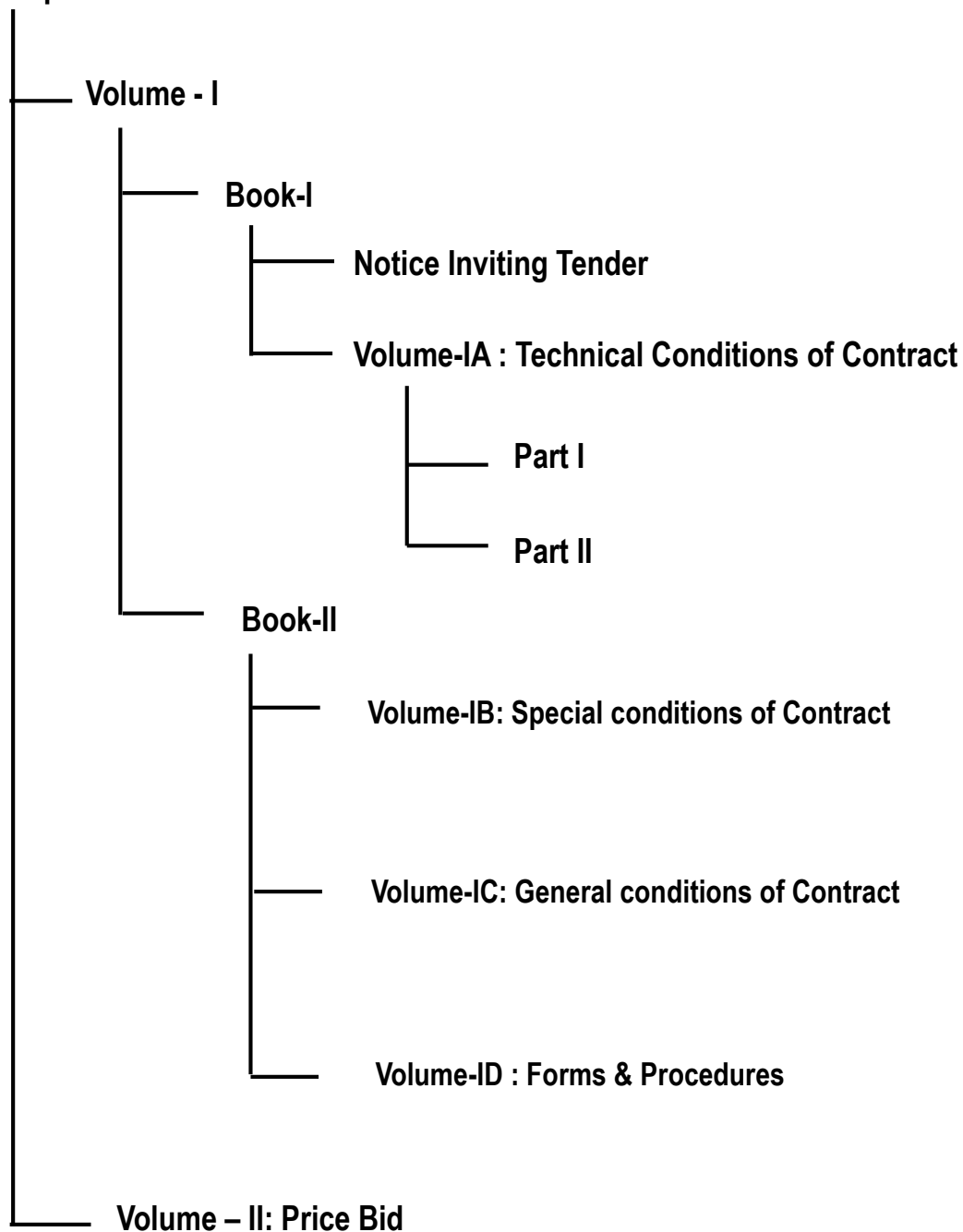
BHEL Integrated Office Complex,

TNEB Road, Pallikaranai,

Chennai - 600100

**TENDER SPECIFICATION CONSISTS OF**

**Tender Specification**



## PRICE BID

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**PART A**

**Instruction to Bidders:**

1. The quantity indicated in the BOQ in Part C of Price Bid is approximate only and is liable for variation. Payment will be as per actual quantity executed and as certified by BHEL Engineer.
2. Tenderers are requested to affix their company seal and authorized signature in all pages.
3. Bidders shall quote 'Total Amount' in the format enclosed as a separate Excel File in BHEL NIC e-Procurement portal for the subject tender and upload the same under 'Packet details - > Tender covers -> Finance '(Cover Type Description – Price Bid)" and same shall be taken into account for evaluation and awarding and hence, shall be complete in all respect for the full scope of work defined in specification and in accordance with terms & conditions of the tender. Any other entry elsewhere in the price bid shall be treated as Null and Void. Quoting of rates in any other form/formats will not be entertained.
4. The above mentioned 'Total amount' is for the entire Bill of Quantity (BOQ) given in Part -C of the Price Bid.
5. BHEL has pre-fixed the weightages for the amount of individual items of Bill of Quantity with respect to the 'Total Amount' in Part C of Price Bid.
6. Based on the pre-fixed weightages, the amount for the individual items of the Bill of Quantity shall be arrived at. This amount shall be rounded off to the nearest rupee.
7. Based on the quantities of individual item and the amount arrived in Sl. No: 6 above, unit rate of individual items shall be derived. This unit rate shall be rounded off to four decimal places.
8. Bidders to note that this is an item rate contract. Payment shall be made for the actual quantities of work executed as certified by BHEL Engineer.

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
I	ERECTION AND COMMISSIONING OF LOCAL/FIELD MOUNTED INSTRUMENTS	--		
B.1.1	PD Type Mass flow meter in HFO,LDO/HSD & HFO return line with mounting flanges, electronics amplifier box, inter connecting cabling, etc.	SET	6	.0001083
A.9.1, A.9.2, A.9.4, B.14.1 .4, B.14.1 .5, D.3.14 , E.1.3, G.5.3, G.6.2, G.7.5	Pressure Transmitters / DP Transmitters / DP Type flow transmitters	Nos	1,360	.010496
A.9.3, A.9.5, B.14.1 .3, E.1.7	Level Transmitter (Guided Wave/Ultrasonic Type) along with accessories	Nos	149	.0051365

**Part C : Bill of Quantities**

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**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.9.7, A.9.8, B.1.2, B.6.1, B.14.1 .1, C.1.1, D.3.2, D.3.13 , E.1.1, E.1.2, E.4.1, G.5.2, G.6.1, G.7.6, G.11.3 , K.1.2, K.2.2, K.3.16 , K.5.10 , K.5.11	Pressure / DP Gauge/Reverse Rotation Indicators	Nos	1,600	.0094566
K.5.1	Pressure Gauge with Switches	Nos	92	.0005775

**Part C : Bill of Quantities**

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BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and  
Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power  
Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.9.10 , B.1.3, B.6.3, B.14.1 .7, C.1.2, D.3.4, D.3.7, D.3.11 , E.1.11 , E.4.4, E.5.3, G.5.5, G.6.4, G.7.4, G.11.2 , G.11.4	Temperature Gauge	Nos	801	.006759
A.9.11 , B.1.5	Level Gauge	Nos	4	.0000788

**Part C : Bill of Quantities**

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**at 5 X 800 MW Yadadri TPS**

<b>Ref.No.</b>	<b>Description</b>	<b>Unit of Measurement</b>	<b>Qty.</b>	<b>Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount</b>
A.9.9, B.1.4, B.6.2, B.6.16 , B.6.18 , D.3.1, D.3.16 , E.1.4, K.1.1, K.2.1	Pressure / Differential Pressure Switch / Temperature Switch	Nos	708	.0054295
A.9.12 , B.6.17 , B.14.1 .2, E.3.2, E.4.2, G.5.6, G.11.1	Level Switches (RF/Float/Capacitance/Conductivity type) along with accessories	Nos	138	.0029609



**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.9.6, B.1.6, B.14.1 .6, B.14.1 .15, D.3.3, D.3.8, D.3.12 , E.1.5, E.2.1, E.3.1, G.5.4, G.6.3, G.7.1, G.7.2	Temperature Elements(RTD/Thermocouple with Thermowell) / Flow Elements	Nos	1,502	.0110784
A.9.14	E/P Coverters; I/P Converters,	Nos	62	.0004088
D.3.15 , E.1.10 , G.7.7	Position Transmitters	Nos	40	.0003429
B.6.19	ERV Controller with Pressure Switch App.Dimension(mm): 400x350x190; App.Wt: 10 kg	SET	8	.000345
B.1.7	FSSS Local Oil Gun Maintenance Switch Box	Nos	36	.0004717

**Part C : Bill of Quantities**

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**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
B.1.8	H.E.A Exciter Box with Accessories	SET	32	.0007339
B.1.9	Flame Scanner Head Assembly with accessories	SET	64	.0014396
B.5.2	Feeder Coal Flow Assembly flange mounted with Electronics	SET	16	.0011377
B.6.4, B.6.5, B.6.6, B.6.7, B.6.8, B.6.9, D.3.9, E.1.6, G.2.1	MTM T/C (Route Length 8 to 18 MM) - 8MM OD	Nos	578	.0093098
B.6.10 , B.6.11 , B.6.12 , B.6.13 , B.6.14	MTM T/C (Route Length 20 to 28 MM) - 8MM OD	Nos	480	.0139504
B.6.15	MTM T/C (Route Length 30 to 40 MM) - 8MM OD	Nos	24	.0007104

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
D.3.5, G.5.1	Flow Switch/Flow meter/Flow Indicator/Vacuum Switch	Nos	12	.0001427
D.3.6	GO No GO Switch	Nos	4	.0001678
D.3.10	On/Off Switch Box including light assembly and interconnecting heat resistant cable	SET	4	.0000884
E.2.2, E.4.3, G.11.5	Thermowells (Screwed & Welded)	Nos	108	.0003996
E.1.8, G.7.8	Speed Measuring Loop/Speed Probe/Speed Sensor	Nos	24	.0001665
B.14.1 .16, J.1.1	Flow Transmitters (Other than DP type)	Nos	54	.0017211
B.11.1 .1, B.11.1 .2, B.11.1 .3	Air Filter Regulator-1/4	Nos	64	.0002751

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
B.14.1 .8, B.14.1 .9, B.14.1 .10,	Analyzers (Ammonia Leak Detection/Density/pH/Conductivity)	Nos	20	.0005896
E.1.9	Proximeter Units, Local Field Cable etc. for Governing Sytem	SET	80	.0006672
C.1.3	Averaging Pitot Tube	SET	6	.0001495
A.28.6	Fire protection switches & Emergency Push Buttons	Nos	16	.0003189
II	ERECTION AND COMMISSIONING OF SPECIAL INSTRUMENTS	--		
A.10.1 , A.10.2 , B.14.1 .11	High Temp/Low Temp O2 Analyzer	SET	30	.0051772
A.10.5 , D.1.1	Opacity Monitor	SET	10	.0023766
A.10.6	SOX/NOX/CO (Combined) Analyzer	SET	2	.0013962

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.10.3 , A.10.4 , A.10.7 , A.10.8 , B.14.1 .12, B.14.1 .13, B.14.1 .14	CO/Velocity/HF/Mercury/NOX/SOX/NH3 Analyzer	SET	42	.0258067
A.11.1 , A.11.2 , A.11.6 , A.11.7	SWAS System	SET	2	.0039542
III	ERECTION AND COMMISSIONING OF UPS/BATTERY & BATTERY CHARGER	--		
A.13.1	2X180 kVA UPS	SET	3	.0047753
A.13.9	2X10 / 2X20 kVA UPS	SET	1	.0007738

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A.13.1 8.1	1 kVA/1.5 kVA/3 kVA/ 5kVA UPS	Nos	5	.0000452
A.13.8 , A.13.1 6	Lead Acid Plante Battery: (1285AH-360V)/(220AH-220V)- made up of two banks of 110 cells each	SET	5	.0057169
K.6.1, K.6.2, K.6.3, K.6.4, K.6.5	Diesel Engine Batteries 6 cells of 12 V each	SET	6	.0003742
A.13.2 , A.13.1 0	ACDB	Nos	6	.0021187
A.13.1 7	Power Distribution Board	Nos	2	.0001607
IV	ERECTION AND COMMISSIONING OF CONTROL PANELS	--		
B.2.1, B.2.2	ASLD Panel Assy along with loose supplied items such as sensors, amplifiers, PSU, JB, Cables,etc	SET	2	.0008764

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
D.2.1, D.2.2, D.2.3, D.2.4, D.2.5, D.2.6	ALCS Panels with controllers, Electronic Sensors, Interfacing box & Cables, etc.	SET	2	.0009739
A.9.13	Coal bunker Level Monitoring System panel with accessories	SET	16	.0025525
B.3.1	Furnace Camera CCTV head assembly panel with air filter regulators, hose, remote control box, 24	SET	4	.0006805
G.1.1	Moisture Measurement System panel with controller and accessories	SET	4	.0005572
G.1.2	Generator end Vibration Monitoring Cabinet with cables, monitors and accessories	SET	2	.0002763
G.1.3	Grounding Brush Monitor (Wall mounted)	SET	2	.0001272
G.1.4	H2 Gas Analyzer Cabinet	SET	4	.0004502
A.8.1	HART Management System panel and loose items	SET	2	.0013365
A.20.1 , A.20.2 , A.20.4 , A.20.5	Master Slave Clock System Panel with accessories, 42 U Panel, GPS Antennal, GPS Receiver	SET	1	.0000922

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.20.3	Slave Clock (RS 485 based)/NTP Based	Nos	45	.0012589
B.5.1	Gravimetric Feeder Remote Power Cabinet	Nos	16	.0022833
A.13.7 , A.13.1 5	Battery Health Monitoring System Panels	Nos	6	.0005856
A.7.2, E.5.1	TSI System for BFP Drive Turbine / Main Turbine Complete Sensors and Assembly Items	SET	6	.0024429
A.12.1 .3, A.12.2 .3, A.12.3 .3	VMS Panels - Single Bay	Nos	7	.0006977
A.12.1 .4	VMS Panels - Three Bay	Nos	2	.000527



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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.7.1, A.12.1 .2, A.12.2 .2, A.12.3 .2, B.1.10	19	SET	44	.0141354
B.10.2	Pulveriser Dynamic Classifier - VFD Panel	Nos	16	.0026857
A.6.0. 2.1, A.6.0. 2.2, A.6.0. 2.3	Network Panels	Nos	10	.0006009
A.6.0. 2.4	Network Enclosures with without Ethernet Switches	Nos	6	.0002095
V	ERECTION AND PLACEMENT OF DCS PANEL	--		
A.2.1, A.3.1, A.3.2, A.4.1, A.6.1, A.6.3	Suit of One Cubicles	Nos	23	.000874

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A.1.1, A.1.2, A.2.2, A.3.3, A.3.4, A.4.2, A.6.2	Suit of Two Cubicles	Nos	25	.0015038
A.1.3, A.2.3, A.3.5, A.3.6, A.4.3, A.5.1	Suit of Three Cubicles	Nos	27	.00267
A.1.4, A.2.4, A.3.7, A.3.8	Suit of Four Cubicles	Nos	39	.0041796
A.1.5	Suit of Five Cubicles	Nos	4	.0005472
VI	TESTING & COMMISSIONING OF DCS PANELS	--		

**Part C : Bill of Quantities**

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.2.1. 1, A.3.1. 1, A.3.2. 1, A.4.1. 1, A.6.1. 1, A.6.3. 1	Suit of One Cubicles	Nos	23	.0013111
A.1.1. 1, A.1.2. 1, A.2.2. 1, A.3.3. 1, A.3.4. 1, A.4.2. 1, A.6.2. 1	Suit of Two Cubicles	Nos	25	.0022558

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.1.3. 1, A.2.3. 1, A.3.5. 1, A.3.6. 1, A.4.3. 1, A.5.1. 1	Suit of Three Cubicles	Nos	27	.0040047
A.1.4. 1, A.2.4. 1, A.3.7. 1, A.3.8. 1	Suit of Four Cubicles	Nos	39	.0062689
A.1.5. 1	Suit of Five Cubicles	Nos	4	.0008208
VII	INSTALLATION AND COMMISSIONING OF HMI SYSTEM,STATION LAN, OFFICE WAN WITH COMPLETE ACCESSORIES FOR CCR&BOP	--		

**Part C : Bill of Quantities**

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.12.1 .6, A.22.1 .4, A.22.1 .5, A.22.2 .3, A.22.3 .3, A.22.4 .3, A.22.5 .3, A.22.6 .3	Printers (Laser Jet/DotmatrixA4/A3/COLOUR/BW)	Nos	21	.0004883
A.21.1 , A.21.2 , A.21.3	Large Video Screen (67-80	SET	21	.0134616
K.4.11	Video Wall	SET	2	.0015385

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Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.12.1 .5, A.22.1 .1, A.22.1 .2, A.22.1 .3, A.22.2 .1, A.22.2 .2, A.22.3 .1, A.22.3 .2, A.22.4 .1, A.22.4 .2, A.22.5 .1, A.22.5 .2, A.22.6 .1, A.22.6 .2	OVS with Monitor/Servers/Stations/User PC	Nos	65	.0025543

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K.4.7, K.4.8, K.4.9, K.4.10 , K.4.11	Software Cofiguration/Establishment of Network Connectivity	Nos	9	.0001114
VIII	INSTALLATION OF FURNITURES	--		
A.25.1 , A.25.2	Unit Operator Desk-8 Section with Accessories	SET	3	.0026364
A.25.1 9	Operator Desk-6 Section with Accessories	SET	1	.0006111
A.25.3	Operator Desk-3 Section with Accessories	SET	1	.0003581
A.25.4	Operator Desk-2 Section with Accessories	SET	6	.0016244

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site  
BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and  
Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power  
Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.23.1 , A.23.2 , A.23.3 , A.25.5 , A.25.6 , A.25.7 , A.25.8 , A.25.9 , A.25.1 1, A.25.1 2, A.25.1 3, A.25.1 4, A.25.1 5, A.25.1 6	Computer Table/Printer Table/Chairs	SET	516	.0298611



**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.25.1 0	PC/Server Rack	SET	4	.0003811
A.25.1 7, A.25.1 8	Almirah/Safety Locker	SET	4	.0001033
IX	INSTALLATION OF C&I BENCH FOR CALIBRATION INSTRUMENTS	--		
A.24.1 .1, A.24.2 .1	Electronic Test Bench	SET	1	.0040743
X	ERECTION AND COMMISSIONING OF JB/PUSH BUTTONS	--		

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site  
BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and  
Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power  
Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.12.1 .1, A.12.2 .1, A.12.3 .1, A.17.1 , A.17.2 , A.17.3 , A.17.4 , A.17.5 , A.17.6 , A.17.7 , A.17.8 , A.20.1 3, B.9.1, B.9.2, B.9.3, B.9.4,	Junction Boxes 6 way to 128 way	Nos	1,403	.0169614

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
B.9.5, B.9.6, B.10.3 , B.14.3 .1, B.14.3 .2, B.14.3 .3, B.14.3 .4, B.14.3 .5, E.3.3, E.6.7, G.10.1 , G.10.2				
B.14.4 .1, B.14.4 .2, G.10.3	Push Button Station	Nos	54	.0003746
XI	ERECTION AND COMMISSIONING OF LIE/LIR	--		

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
E.6.1, E.6.2, E.6.3, E.6.4	Local Gauge Boards	SET	20	.00149
A.14.1 , A.14.2 , A.14.3 , B.10.1 , B.14.6 .1	Local Instrument Enclosure	SET	196	.0147891
A.14.4 , A.14.5 , A.14.6 , A.14.7 , E.6.5, E.6.6, G.8.1, G.8.2	Local Instrument Rack	SET	208	.0144856

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
XII	ERECTION AND COMMISSIONING OF PNEUMATIC POWER CYLINDERS (ON/OFF & REGULATING TYPE)	--		
B.4.1	SADC	SET	264	.0121861
B.4.2, B.4.3	PA/ID/FD Blade Pitch & other Control Dampers	SET	44	.0041281
B.4.4, B.4.5	Hot Air/Cold Air/FD Fan Regulating Dampers	SET	32	.0034106
B.4.6	Dynavane Filter Pressure Control Damper with SMART positioner	SET	2	.0001862
E.3.4	Solenoid Opeated Valves	SET	16	.0000868
E.2.3, K.1.3, K.2.3	Solenoid Valves	Nos	262	.0016893
XIII	LAYING OF POWER CABLES	--		
A.13.3 , A.13.4	UN 0000 - Uninyvin- Equivalent: 1Cx109 Sqmm Cu	Mtrs	3,600	.0024179
A.13.1 1, A.13.1 2	UN 4 - Uninyvin- Equivalent: 1Cx21.5 Sqmm Cu	Mtrs	220	.0000833
XIV	TERMINATION OF POWER CABLES	--		

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.26.1 , A.26.2	UN 0000 - 1CX109 SQMM CU	Nos	80	.0001631
A.26.3 , A.26.4	UN 4 - 1CX21.5 SQMM CU	Nos	6	.0000071
XV	LAYING AND TERMINATION OF CONTROL CABLES	--		
K.1.5, K.2.5, K.5.13	2CX1.5 SQMM/2CX2.5 SQMM	Mtrs	8,040	.0009818
A.15.4 .1, A.20.7 , B.7.11 , B.7.21 , B.14.2 .7, G.4.1, K.3.18 , K.3.19	3CX2.5 SQMM/4CX2.5 SQMM/4CX6 SQMM	Mtrs	201,195	.0270258

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.15.4 .2, B.7.12 , B.7.13 , B.7.22 , B.14.2 .8	5CX2.5 SQMM/7CX2.5 SQMM	Mtrs	29,860	.0043756
B.7.14 , B.7.15 , B.14.2 .9, B.14.2 .10	9CX2.5 SQMM/10CX2.5 SQMM/12CX2.5 SQMM	Mtrs	17,800	.0032605
XVI	LAYING AND TERMINATION OF INDIVIDUAL & OVERALL SHIELDED (TYPE G/F), TWISTED PAIR, ARMOURED/UNARMOURED CABLES	--		

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.15.1 .1, A.15.1 .3, A.15.2 .1, A.15.3 .1, A.15.3 .6, A.20.8 , B.7.1, B.7.2, B.7.6, B.7.7, B.7.17 , B.7.23 , B.7.24 , B.14.2 .4, B.14.2 .11, G.13.1 .1,	2PX0.5 SQMM/ 2TX0.5SQMM/ 2PX1.5SQMM/ 2PX1.31SQMM/ 2PX16AWG KX/G CABLE	Mtrs	322,454	.0393764



**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site  
BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and  
Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power  
Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

<b>Ref.No.</b>	<b>Description</b>	<b>Unit of Measurement</b>	<b>Qty.</b>	<b>Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount</b>
G.13.1 .5, J.3.1				

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.15.1 .2, A.15.2 .2, A.15.3 .2, A.15.3 .3, A.15.5 .1, A.15.5 .2, B.7.3, B.7.8, B.7.18 , B.7.20 , B.14.2 .1, B.14.2 .5, B.14.2 .12, E.8.1, G.13.1 .2, G.13.1	4PX0.5 SQMM/ 6PX0.5SQMM F/G CABLE	Mtrs	528,174	.0709477

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
.6, G.13.2 .1, J.2.1, J.3.2				
A.15.2 .3, A.15.3 .4, A.15.5 .3, B.7.4, B.7.9, B.7.19 , B.14.2 .2, B.14.2 .6, G.13.1 .3, G.13.2 .2, J.2.2, J.3.3	8PX0.5 SQMM CABLE	Mtrs	505,735	.0988125

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.15.3 .5, B.7.5, B.7.10 , B.7.16 , B.14.2 .3, G.13.1 .4, J.2.3, J.3.4	12PX0.5 SQMM/ 12PX1.31 SQMM KX CABLE	Mtrs	99,740	.0231415
J.2.4	20PX0.5SQMM	Mtrs	19,200	.0044548
A.12.1 .7, A.12.2 .5, A.12.3 .5, A.15.5 .4, A.20.9	CAT-6 UTP CABLES/Ethernet Cables	Mtrs	31,160	.0022831

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.13.5 , A.13.6 , A.13.1 3, A.13.1 4, A.20.6	RS-485/RG-58 CABLE	Mtrs	21,930	.0050882
A.15.5 .6, K.4.2, K.4.5	HDPE Conduits for laying OFC Cables	Mtrs	20,640	.016635
A.12.2 .4, A.12.3 .4, A.15.5 .5, A.20.1 0, K.3.20 , K.4.1, K.4.4	Laying of Optical Fibre Cable	Mtrs	80,340	.0166782

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.15.5 .7, A.20.1 1, K.3.21 , K.4.3, K.4.6	Splicing of Optical Fibre Cable	Nos	660	.0018859
K.3.11	Laying and Termination of Special Cable-OLHS Cables	Mtrs	60,000	.0161192
XVII	ERECTION OF CABLE TRAYS WITH/WITHOUT COVER	--		
A.16.1 , A.16.3 , B.8.1, B.14.5 .1, E.8.2, K.3.24	PERFORATED CABLE TRAYS 50 MM WIDE	Mtrs	13,560	.0152341

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.16.2 , A.16.4 , B.8.2, B.14.5 .2, K.3.23	PERFORATED CABLE TRAYS 100 MM WIDE	Mtrs	19,800	.0280474
B.8.3, E.8.3	PERFORATED CABLE TRAYS 150 MM WIDE	Mtrs	7,590	.0122345
K.3.22	PERFORATED CABLE TRAYS 200 MM WIDE	Mtrs	200	.000276
K.5.14	PERFORATED CABLE TRAYS 300 MM WIDE	Mtrs	60	.0000879
A.28.2	Duct Tray - 60x60x1000 mm	Mtrs	216	.0002664
A.28.3	Duct Tray - 180x100x1000 mm	Mtrs	146	.0003209
A.28.4	Duct Tray - 250x100x1000 mm	Mtrs	180	.0006638
XVIII	FABRICATION AND INSTALLATION OF GI FLATS	--		
B.14.8 .1	Earth Flat (50x6)	Mtrs	250	.0002076
B.14.8 .2	Earth Wire 1.219 mm GI	Mtrs	700	.0000684

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
XIX	FABRICATION AND INSTALLATION OF STRUCTURAL STEEL	--		
A.28.1 , B.12.1 , B.14.7 .1, E.5.2, E.7.1, G.10.4	STRUCTURAL STEEL (ISMC/ISMB/ANGLE etc)	MT	47	.0105473
A.28.5	Assembly and Installation of Mountig frames	Nos	20	.0043473
XX	ERECTION AND TESTING OF IMPULSE PIPES CS/AS/SS , INSTRUMENT VALVES AND FITTINGS	--		
A.11.3	AS pipes 2	Mtrs	280	.0010907



**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site  
BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and  
Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power  
Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.18.1 , A.18.2 , A.18.3 , A.18.4 , A.18.5 , A.18.6 , A.18.7 , A.18.8 , A.18.9 , B.11.2 .1, B.11.2 .2, B.11.2 .3, B.11.2 .4, B.11.2 .5,	AS tubes upto 1	Mtrs	55,590	.1432346

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site  
BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and  
Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power  
Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

<b>Ref.No.</b>	<b>Description</b>	<b>Unit of Measurement</b>	<b>Qty.</b>	<b>Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount</b>
B.11.2 .6, B.11.2 .7, G.9.5, G.9.6, G.9.7, G.9.8, G.9.9				
E.7.2, G.9.1, G.9.3, G.9.4	CS tubes upto 1	Mtrs	4,740	.00984
G.9.2	CS pipes above >2	Mtrs	160	.0009984

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
A.11.5 , B.11.1 .4, B.11.1 .5, B.11.1 .6, B.11.1 .7, B.14.9 .1, E.7.3, E.7.4	SS tubes upto 1	Mtrs	12,880	.0092798
A.11.4	SS pipes 2	Mtrs	120	.0001539
A.19.1 , A.19.2 , A.19.3	Instrument Valves and Accessories	Nos	46	.0001073
XXI	ERECTION AND TESTING OF HOSES, TUBES & GI PIPES	--		
A.20.1 2	Flexible GI Conduits	Mtrs	500	.0003847

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
B.11.1 .8, B.11.1 .9, B.11.1 .10	1/4,1/2,1 INCH TEFLON HOSE 1MTR/2MTR/3MTR LONG	Nos	316	.0003859
B.12.2	1/2	Mtrs	2,430	.00273
XXII	COMMISSIONING OF THE FOLLOWING ERECTED BY MECHANICAL AGENCY	--		
B.13.9	Burner Tilt Shear Pin Failure Indication JB with accessories	Nos	32	.0017139
B.14.1 0.4, C.2.1, E.9.5, E.9.11 , E.9.12 , G.12.4 , G.12.8 , G.12.9 , J.4.1	Control Valves with Smart positioner/AFR/Air Lock valves etc for LO TCV, Gland Steam Inlet/Sootblower, Dump,etc applications	SET	321	.0036102

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
H.1.4, H.1.5, H.1.6	HT Drives (11 kV/3.3 kV)	Nos	74	.0018552
D.4.5	Field Instruments (Level Gauges/Pressure/DP/Temperature Gauges)	Nos	48	.0004173
B.13.1 , B.13.7 , G.12.6	Limit Switches/Level Switches	Nos	304	.0012919

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2080 for Erection, Testing & Commissioning including Handling of materials at site BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Control and Instrumentation (C&I) works for Unit 3 & 4 (Main plant) and indentified BOP Areas of 5 x 800MW Yadadri Thermal Power Plant at Veerlapalem Village, Dameracherla Mandal, Nalgonda DT TSGENCO, Telangana**

**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
B.13.3 , B.13.4 , B.13.5 , B.14.1 0.1, B.14.1 0.2, B.14.1 0.3, C.2.2, C.2.3, D.4.1, E.9.2, E.9.4, E.9.6, E.9.7, E.9.8, G.12.2 , G.12.1 8, H.1.3, J.4.2	LT Unit Directional/Bi-Directional drives of various applications	Nos	812	.0069807
B.13.2	Motor Starter Panels	SET	2	.0000324

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**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
B.13.6 , D.4.2	Pneumatic Actuators for Dampers	Nos	88	.0079801
D.4.6, H.1.1	RTDs/Thermowells of various drives	Nos	1,634	.0054074
B.13.8 , D.4.3, G.12.7	Solenoid Valves for different applications like Corner Station valves, Regulating valves, etc.	Nos	552	.0049073
XXIII	REMOVAL, CALIBRATION & RE-FIXING OF INSTRUMENTS ERECTED BY OTHER AGENCIES	--		
G.12.5	Field Instruments (Transmitters)	Nos	38	.0003689
H.1.2	Field Instruments (Temperature Gauges)	Nos	92	.0007819
G.3.1, G.7.3	Field Instruments (Temperature Elements)	Nos	294	.0009406
D.4.4, D.4.7, D.4.8, D.4.9, E.9.1, E.9.3, G.12.1 1	Lub Oil System/Oil Centrifuge Unit/Lub Oil skid/Main Oil Tank	SET	42	.0020377

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**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
G.12.3	Oil Centrifuge Unit	SET	4	.0003217
J.4.3, J.4.4, J.4.5, J.4.6	Dosing Skid (Oxygen, Ammonia, NaOH,Hydrazine)	SET	10	.0005294
E.9.9	Hydraulic Coupling of MDBFP	SET	2	.0002975
G.12.1	Condenser Vacuum Pump	SET	4	.0003276
B.13.1 0	Gravimetric Feeder comprising of Feeder mounted C&I equipment	SET	16	.0011348
G.12.1 0	Governing System Control Rack	SET	4	.0005842
E.9.10	Governor Console Board	SET	4	.0004876
B.10.4 , B.10.5 , G.12.1 2	HP/LP Bypass/HWL-1&2/MEFCV control valve skid instrumentation	SET	6	.0006738
G.12.1 3, G.12.1 4	Seal Oil Rack / Stator water rack	SET	4	.0004625



### Part C : Bill of Quantities

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**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
G.12.1 5, G.12.1 6	Seal Oil Level / PrTxr Instrument Rack / Stator Water DP Instrument Rack	SET	4	.000493
G.12.1 7	H2 Dryer Unit	SET	2	.0001591
A.27.1	Transducers-Voltage/Current/Frequency output 4-20 mA	Nos	50	.0006527
XXIV	REMOVAL, CALIBRATION & RE-FIXING OF INSTRUMENTS FOR ACID CLEANING	--		
J.5.1	Temp. Gauges	Nos	4	.0000298
J.5.2	Pressuer Gauges	Nos	4	.0000306
J.5.3	Thermocouple Stem type and MTM	Nos	16	.0000344
J.5.4	Junction Boxes	Nos	6	.0000722
XXV	ERECTION AND COMMISSIONING OF FDA/FPS/IGES SENSORS/SWITCHES/DEVICES	--		
K.3.3	Multisensor Detectors	Nos	2,040	.0017687
K.1.6, K.2.6, K.3.4, K.3.6, K.3.8	Air Sampling/Probe/IR (Air Burge)/QB Detectors	Nos	11,122	.0195575

**Part C : Bill of Quantities**

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**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
K.3.7, K.3.9	Beam Detectors/IR (Flame) Detectors	Nos	20	.0001756
K.5.7, K.5.8, K.5.9	Special Switches-Abort/Pneumatic/Manual	Nos	36	.0001262
K.5.2, K.5.3, K.5.4, K.5.5, K.5.6	Sensitive Device-Release Device/Disable device	Nos	96	.0004209
XXVI	ERECTION AND COMMISSIONING OF FDA/FPS/IGES - LOCAL CONTROL PANELS	--		
K.1.4, K.2.4	Deluge Valve Control Panels	Nos	252	.0044282
K.3.1, K.3.2, K.5.12	Fire Alarm/Repeater/Gas Release Panels	SET	14	.0012297
XXVI I	ERECTION AND COMMISSIONING OF FDA/FPS/IGES - SPECIAL EQUIPMENTS	--		
K.3.14	Hooter Strobes	Nos	200	.0008768

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**at 5 X 800 MW Yadadri TPS**

Ref.No.	Description	Unit of Measurement	Qty.	Weightage for amount of each item (Nearest to the 7 decimal points) w.r.t the total amount
K.3.12 , K.3.13 , K.3.15	Modules/Controllers	Nos	986	.0173263
XXVI II	ERECTION AND COMMISSIONING OF FDA/FPS/IGES - MISCELLENEOUS EQUIPMENTS	--		
K.3.10	Manual Call points	Nos	340	.0059746
K.3.17	EXIT/WARNING Signs	Nos	200	.0003517
XXIX	MISCELLENEOUS ITEMS	--		
L.1	Treated Earth pit of CI pipe 3000 m long with funnel and accessories including all civil works in hardrock by drilling, filling of earth pit with alternate layer of chrcoal & salt as per IE specification and making of brick chamber, with both side plastering, supply and fixing of manhole CI cover plate/RCC Slab etc. complete as per IS 3043 (only 100 mm CI pipe shall be supplied by BHEL). If desired resistivity is not achieved then Bentonite mix to be used by the contractor. Supply of Bentonite mix is in the scope of bidder.	Nos	50	.005232
<b>TOTAL Weightage</b>				1.0