

# **TENDER SPECIFICATION BHEL PSSR SCT 2005**

**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 LT Electrical works for Package- A (Unit-1 & 2) and Package-B (Unit-3 & 4) 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**

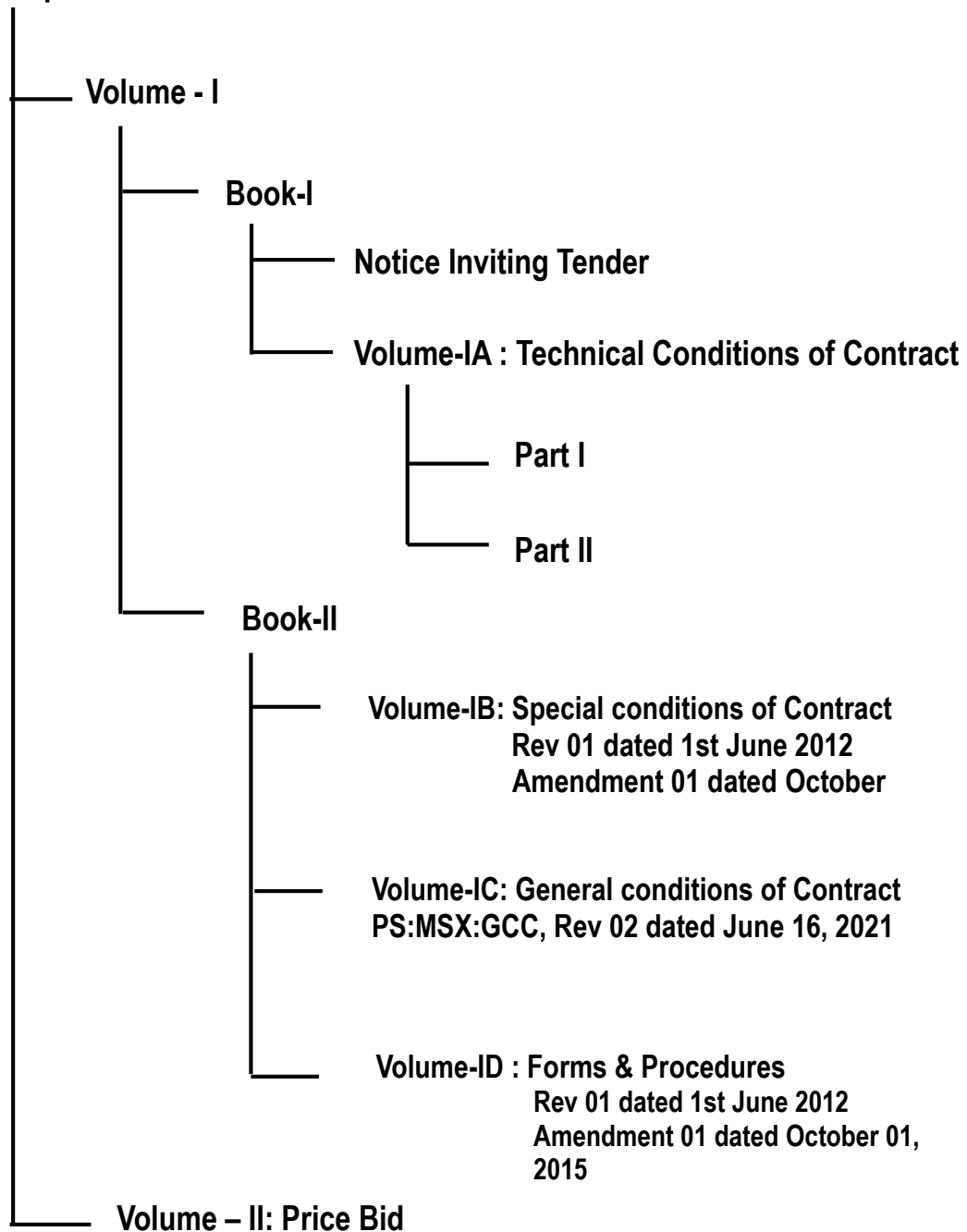
(A Government of India Undertaking)

Power Sector – Southern Region

Tek Towers, No.11, Old Mahabalipuram Road,  
Okkiyam Thoraipakkam, Chennai - 600097

**TENDER SPECIFICATION CONSISTS OF**

**Tender Specification**



## PRICE BID

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## **PART A**

### **Instruction to Bidders:**

1. Bill of Quantities for package A is indicated as “Part C: Bill of Quantities, Tender Specification BHEL:PSSR:SCT:2005 Package-A (Unit 1 & 2)” and Bill of Quantities for package B is indicated as “Part C: Bill of Quantities, Tender Specification BHEL:PSSR:SCT:2005 Package-B (Unit 3 & 4)”.
2. Tenderers are requested to affix their company seal and authorized signature in all pages.
3. Bidders shall quote ‘Total Amount for Package A’ only 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 L1 Bidder will be considered for award of Package A. Successful bidder of Package A shall not be considered for Package B.
5. BHEL may award the contract for Package B to the next lowest bidder in the order of competitiveness (ie. L2, L3 and so on till H1 in that order) if they match their total amount quoted with the total amount as accepted by BHEL for awarded Package-A. However, BHEL reserves the right to not award Package B in the above manner at its sole discretion, without furnishing any reason to the Bidders.
6. The above mentioned ‘Total Amount’ shall be for the entire Bill of Quantity (BOQ) given in Part-C of the Price Bid of each package.
7. BHEL has pre-fixed the weightages for the amount of individual items of Bill of Quantity of each package with respect to the ‘Total Amount’ in respective Part C of Price Bid.
8. Based on the pre-fixed weightages, the amount for the individual items of the respective Bill of Quantity shall be arrived at. This amount shall be rounded off to the nearest rupee.
9. Based on the quantities of individual item and the amount arrived in Sl. No: 8 above, unit rate of individual items shall be derived. This unit rate shall be rounded off to four decimal places.
10. 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 at the unit rate arrived at as per Sl No.9 above

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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 LT SWITCHGEAR / MCC / PMCC / ACDB / DCDB PANELS	--		
F.1.1, F.1.2, F.1.3 & F.1.4	220 V MAIN DCDB (1FA/2FA/3FA/4FA) App. Dimension in mm (LxHxD): 19000 x 2425 x 1300, No. of Panels: 23 & No. of Shipping Sections: 12	Set	2	.0071769
F.2.1, F.2.12 , F.2.17 , F.2.22	415V UNIT TURBINE VALVE DB (1KA/2KA/3KA/4KA), rating 250A, App. Wt (in kg) 16250, App. Dimension in mm (LxHxD): 21250 X 2425 X 900, No. of Panels: 25 & No. of Shipping Sections: 13	Set	2	.0079432
F.2.2, F.2.13 , F.2.18 , F.2.23	415V UNIT BOILER VALVE & DAMPER DB (1HA/2HA/3HA/4HA), rating 250A, App. Dimension in mm (LxHxD): 19550 X 2425 X 900, No. of Panels: 23 & No. of Shipping Sections: 12	Set	2	.0073077
F.2.3, F.2.14 , F.2.19 , F.2.24	415V UNIT BOILER ACDB (1HB/2HB/3HB/4HB), rating 630A, App. Dimension in mm (LxHxD): 10700 X 2425 X 1300, No. of Panels: 13 & No. of Shipping Sections: 7	Set	2	.0039248

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
F.2.4, F.2.15 , F.2.20 , F.2.25 & F.3.50	415V ESP & ID FAN AREA DB (1HD/2HD/3HD/4HD) /RAW WATER STAGE-II (0WF), rating 400A, App. Dimension in mm (LxHxD): 5100 X 2425 X 900, No. of Panels: 6 & No. of Shipping Sections: 3	Set	2	.0019063
F.2.5, F.2.16 , F.2.21 , F.2.26	415V UNIT SERVICE ACDB (1QA/2QA/3QA/4QA), rating 630A, App. Dimension in mm (LxHxD): 12400 X 2425 X 1300, No. of Panels: 15 & No. of Shipping Sections: 8	Set	2	.0046351
F.2.7, F.2.8, F.2.9 & F.2.10	NDCT ACDB (1/2/3/4) Approximate Dimension in mm (LxHxD): 1700 x 2425 x 900, No. of Panels: 2 & No. of Shipping Sections: 1	Set	2	.0006354

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
F.3.1, F.3.26 , F.3.34 , F.3.52 F.3.2, F.3.27 , F.3.35 , F.3.53	415V UNIT BOILER & TURBINE SERVICE PMCC (1DA/2DA/3DA/4DA) &(1DB/2DB/3DB/4DB), rating 3200/4000A, App. Dimension in mm (LxHxD): 23750/23950 X 2425 X 900, No. of Panels: 28/30 & No. of Shipping Sections: 14/15	Set	4	.0178302
F.3.3, F.3.28 , F.3.36 , F.3.54	415V UNIT EMERGENCY MCC (1DG/2DG/3DG/4DG), rating 3200A, App. Wt (in kg) 21750, App. Dimension in mm (LxHxD): 24700 X 2425 X 1600, No. of Panels: 30 & No. of Shipping Sections: 15	Set	2	.0092329
F.3.4, F.3.29 , F.3.37 , F.3.55	415V VENTILATION MCC (1TA/2TA/3TA/4TA), rating 1000A, App. Wt. (in kg) 13500, App. Dimension in mm (LxHxD): 16300 X 2425 X 1300, No. of Panels: 17 & No. of Shipping Sections: 9	Set	2	.006093

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
F.3.5, F.3.30 , F.3.38 , F.3.56	415V ESP AC & VENT MCC (1TB/2TB/3TB/4TB), rating 400A, App. Wt (in kg) 6750, App Dimension in mm (LxHxD): 8550 X 2425 X 900, No. of Panels: 9 & No. of Shipping Sections: 5	Set	2	.0031959
F.3.6, F.3.31 , F.3.39 , F.3.57	415V STATION SERVICE PMCC (0DA/0DC/0DE/0DH), rating 4000A, App. Wt (in kg) 8950, App. Dimension in mm (LxHxD): 11000 X 2425 X 1600, No. of Panels: 12 & No. of Shipping Sections: 6	Set	2	.0041117
F.3.7, F.3.32 , F.3.40 , F.3.58 , F.3.4 9 & F.3.43	415V STATION SERVICE PMCC (0DB/0DD/0DF/0DJ),COMPRESSOR HOUSE STAGE-II MCC (0SG) & CPU STAGE-II MCC (0WB), rating 4000A/1000A/630A, App. Dimension in mm (LxHxD): 12800/12900/13350 X 2425 X 1600/1300, No. of Panels: 14/11/14 & No. of Shipping Sections: 7/6/7	Set	2	.004878



## Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
F.3.8, F.3.33 , F.3.41 , F.3.59	415V MISC SERVICES MCC (0QA/0QB/0QC/0QD), rating 630A, App. Wt. (in kg) 13950, App. Dimension in mm (LxHxD): 17500 x 2425 x 1300, No. of Panels: 21 & No. of Shipping Sections: 11	Set	2	.0066163
F.3.9	415V AUX BOILER PMCC (0DR), rating 1600A, App. Dimension in mm (LxHxD): 14500 X 2425 X 1600, No. of Panels: 18 & No. of Shipping Sections: 9	Set	1	.00271
F.3.10 & F.3.16	415V FO FORWARDING STAGE-I PMCC (0SC) & CLARIFIED STAGE-I PMCC (0DP) , rating 1600A/4000A, App.Dimension in mm (LxHxD): 18600/18650 x 2425 x 1300/1600, No. of Panels: 21/22 & No. of Shipping Sections: 11	Set	2	.0069526
F.3.11 , F.3.25 , F.3.42 , F.3.47 , F.3.48 ,	415V CPU STAGE-I MCC (0WA) / ADMIN BUILDING PMCC (0DS) / FO FORWARDING STAGE-II PMCC (0SD) / SERVICE BUILDING STAGE-II PMCC (0DX) / CLARIFIED STAGE-II PMCC (0DW) , rating 630A/1600A/1000A/4000A, Approximate Dimension in mm (LxHxD): 15250/15500/15400/15500/15300 x 2425 x 1300, No. of Panels: 16/17/18/19 & No. of Shipping Sections: 8/9/9/10	Set	2	.0057003
F.3.12 , F.3.44 ,& F.3.46	415V DM STAGE-I PMCC (0DM)/DM STAGE-II PMCC (0DU)/CWT STAGE-II PMCC (0DV), rating 4000A, Approximate Dimension in mm (LxHxD): 23400/23600 X 2425 X 1600, No. of Panels: 27 & No. of Shipping Sections: 14	Set	1	.0043735

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

#### 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
F.3.13 , F.3.45 & C.1.3	415V PTP STAGE-I & II PMCC (0WC & 0WD)/SOOT BLOWER MCC, rating 4000/3200A, Approximate Dimension in mm (LxHxD): 22600/22100 x 2425/2550 x 900/1000, No. of Panels: 27/26 & No. of Shipping Sections: 14/13	Set	3	.0093281
F.3.14	415V CWT STAGE-I PMCC (0DN), rating 4000A, App. Dimension in mm (LxHxD): 25000 x 2425 x 1600, No. of Panels: 29 & No. of Shipping Sections: 15	Set	1	.0046725
F.3.15	415V SERVICE BUILDING STAGE-I PMCC (0DQ), rating 2500A, App.Dimension in mm (LxHxD): 17050 x 2425 x 1600, No. of Panels: 19 & No. of Shipping Sections: 10	Set	1	.003196
F.3.17	COMPRESSOR HOUSE STAGE-I MCC (0SF), rating 630A, App. Dimension in mm (LxHxD): 11350 x 2425 x 1300, No. of Panels: 13 & No. of Shipping Sections: 7	Set	1	.0021213
F.3.18 & F.3.24	RAW WATER STAGE-I MCC (0WE) & FIRE WATER MCC (0SH), rating 400/250A, Approximate Dimension in mm (LxHxD): 6800 x 2425 x 900, No. of Panels: 8 & No. of Shipping Sections: 4	Set	2	.0025792
F.3.20 & F.3.51	415V AIR CONDITIONING MCC (0TA & 0TB), rating 1600A, Approximate Dimension in mm (LxHxD): 16650 X 2425 X 1300, No. of Panels: 18 & No. of Shipping Sections: 9	Set	1	.0031119
F.3.21	415V H2 GENERATION MCC (0SB), rating 630A, Approximate Dimension in mm (LxHxD): 8600 x 2425 x 1300, No. of Panels: 9 & No. of Shipping Sections: 5	Set	1	.0016073
B.8.1, B.8.2	AUXILIARY CONTROL BOARD (ACP) & LT MAINT SWITCH BOARD (LTMSB) , rating 630A/4000A, Approximate Dimension in mm (LxHxD): 12125/12650 x 2425 x 1300, No. of Panels: 14/15 & No. of Shipping Sections: 7/8	Set	16	.0354846
II	ERECTION AND COMMISSIONING OF 415 V LT NON-SEGREGATED PHASE BUSDUCT	--		

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
F.4.1 to F.4.16 , F.4.21 to F.4.49	415 V, LT NSPBD TYPE BUSDUCT 4000A,3200A,2500A,1600A & 1000A	Mtrs	96	.0032464
III	LAYING OF LT POWER CABLES 1.1 kV, XLPE INSULATED, GALVANISED STEEL ARMOURED SINGLE/ MULTICORE CABLES FRLS (Al/Cu CABLES)	--		
A.1.1, A.1.13 , A.3.1	1C-400 Sq. mm / 3C-150 sq.mm	Mtrs	83,200	.0346936
A.1.2	1C-630 sq.mm	Mtrs	61,400	.028081
A.1.3, A.1.5, A.1.9, A.1.20	1C-35 sq.mm / 2C-10 sq.mm / 3C-10 sq.mm / 4C-10 sq.mm	Mtrs	161,600	.0239111
A.1.4 & A.1.7	1C-120 sq.mm / 2C-50 sq.mm	Mtrs	4,400	.0011245
A.1.6, B.1.4, C.3.1	2C-25 sq.mm / 3C - 16 Sq.mm	Mtrs	51,200	.0068871

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.1.10 & A.1.16	3C-25 sq.mm / 3.5C-25 sq.mm	Mtrs	101,200	.0204191
A.1.11 , B.1.3, A.1.17 , A.1.8, A.3.2	3C-50 sq.mm / 3.5C-50 sq.mm / 2C-95 sq.mm (Cu)	Mtrs	71,000	.0162357
A.1.12 & A.1.18	3C-95 sq.mm / 3.5C-95 sq.mm	Mtrs	30,400	.0085873
A.1.14 & A.1.19	3C-185 sq.mm (Al)	Mtrs	8,800	.0037879
A.1.15 , B.1.1, B.1.2, A.3.3	3C-240 sq.mm / 3.5C-240 Sq.mm / 2C-150 Sq.mm	Mtrs	107,600	.0303946
IV	END TERMINATION OF LT POWER / CONTROL CABLES - 1.1 kV, XLPE INSULATED, GALVANISED STEEL ARMoured SINGLE/ MULTICORE CABLES FRLS (Al/Cu CABLES)	--		

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.5.1	1C-400 Sq. mm (Al)	Nos.	768	.0027996
A.5.2	1C-630 sq.mm (Al)	Nos.	820	.0040811
A.5.3	1C-35 sq.mm (Al)	Nos.	108	.0000479
A.5.4	1C-120 sq.mm (Al)	Nos.	28	.000096
A.5.5	2C-10 sq.mm (Al)	Nos.	172	.0003123
A.5.6	2C-25 sq.mm (Al)	Nos.	124	.0002535
A.5.7	2C-50 sq.mm (Al)	Nos.	32	.0000758
A.5.8	2C-95 sq.mm (Al)	Nos.	28	.0000817
A.5.9	3C-10 sq.mm (Al)	Nos.	1,608	.0007138
A.5.10	3C-25 sq.mm (Al)	Nos.	1,080	.0023389
A.5.11 , B.4.3	3C-50 sq.mm (Al)	Nos.	304	.0010468
A.5.12	3C-95 sq.mm (Al)	Nos.	364	.0010674
A.5.13	3C-150 sq.mm (Al)	Nos.	160	.0011579
A.5.14	3C-185 sq.mm (Al)	Nos.	76	.00055
A.5.15	3C-240 sq.mm (Al)	Nos.	216	.0017869

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.5.16	3.5C-25 sq.mm (Al)	Nos.	272	.0006805
A.5.17	3.5C-50 sq.mm (Al)	Nos.	512	.0014945
A.5.18	3.5C-95 sq.mm (Al)	Nos.	44	.0001539
A.5.19	3.5C-185 sq.mm (Al)	Nos.	44	.0003563
A.5.20	4C-10 sq.mm (Al)	Nos.	272	.0001207
B.4.1	3.5C-240 Sq.mm (Al)	Nos.	32	.0003091
B.4.2	2C-150 Sq.mm (Al)	Nos.	1,176	.0034801
B.4.4, C.5.1	3C - 16 Sq.mm (Al)	Nos.	560	.0014689
A.6.1	1C-400 sq.mm (Cu)	Nos.	184	.0006707
A.6.2	2C-95 sq.mm (Cu)	Nos.	108	.0003152
A.6.3	3C-240 sq.mm (Cu)	Nos.	16	.0001324
V	LAYING AND TERMINATION OF LT POWER/CONTROL CABLES 1.1 kV, XLPE INSULATED, GALVANISED STEEL ARMoured SINGLE/ MULTICORE CABLES FRLS (CU CABLES)	--		

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.2.1, B.2.2, E.17.2  , A.2.2, A.3.5, B.2.1, B.3.1, B.3.2, C.2.1, C.4.1, E.17.3	2C - 2.5 sq.mm / 3C - 2.5 sq.mm / 4C x 2.5 sqmm	Mtrs	680,000	.0823221
A.2.3, A.3.4, A.4.1, C.4.2, A.4.2, A.4.3, C.4.3	2C - 6 sq.mm / 5C - 2.5 sq.mm / 5C - 4 sq.mm / 7C - 2.5 sq.mm	Mtrs	354,800	.0477253
A.4.4, E.17.1  , B.3.3, C.4.4, C.4.5	12C - 2.5 sq.mm / 10C - 2.5 Sq.mm / 9C-2.5 Sq.mm	Mtrs	191,600	.02835
E.17.4	24 pair x 0.5 sqmm (Cu)	Mtrs	100	.0000282

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
VI	ERECTION OF PRE FABRICATED CABLE TRAYS AND ACCESSORIES LIKE BEND, TEE, ELBOW, CROSS & REDUCERS ETC.	--		
A.7.1 & B.5.1	600 mm wide-Cable Tray Ladder Type	Mtrs	67,583	.0872717
A.7.2 & B.5.2	450 mm wide-Cable Tray Ladder Type	Mtrs	5,426	.0043792
A.7.3 & B.5.3	300 mm wide-Cable Tray Ladder Type	Mtrs	19,826	.0248018
A.7.4 & B.5.4	150 mm wide-Cable Tray Ladder Type	Mtrs	21,336	.0157849
A.7.5	600 mm wide-Cable Tray Perforated Type	Mtrs	22,800	.0371095
A.7.6	450 mm wide-Cable Tray Perforated Type	Mtrs	880	.0008996
A.7.7	300 mm wide-Cable Tray Perforated Type	Mtrs	9,200	.0122515
A.7.8	150 mm wide-Cable Tray Perforated Type	Mtrs	5,680	.0042022
A.7.9	100 mm wide-Cable Tray Perforated Type	Mtrs	4,000	.0019908
VII	INSTALLATION OF HOT DIP GALVANIZED STEEL FLATS	--		



**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.9.1 & B.7.1	GS FLAT 75 X 10 mm (6 kg/m)app	Mtrs	21,200	.0293723
A.9.2 & B.7.2	GS FLAT 50 X 6 mm (2.5 kg/m) app	Mtrs	37,600	.0343923
A.9.3	GS FLAT 25 X 6 mm (1.2 kg/m) app	Mtrs	3,200	.0026257
A.9.4	GS FLAT 25 X 3 mm (0.6 kg/m) app	Mtrs	666	.0005465
A.9.5 & B.7.3	GS WIRE 3.15 DIA 8 SWG (0.131 kg/m) app	Mtrs	39,106	.0021041
A.11.1	GS Rod 20 mm dia LONG 1000 mm vertical air termination, Test links (150 x 25 x 6), Flexible copper conductor, 50mm GI class C pipe 3 mtr long	set	120	.0050378
VIII	FABRICATION & ERECTION OF STRUCTURAL STEEL	--		
A.8.1, A.8.2, A.8.3, A.8.4, B.6.1, B.6.2, B.6.3	Structural Steel (ISMC, ISMB, ISA, etc)	MT	366	.0766884
IX	ERECTION, TESTING & COMMISSIONING OF 220 V DC BATTERY AND BATTERY CHARGER	--		

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

#### 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.10.1	220 V DC Batteries - 324 Cells (3x108)	set	4	.0044337
A.10.2	Float cum Boost battery charger panel and accessories	set	10	.0044738
X	ERECTION AND COMMISSIONING OF DIESEL GENERATOR SET	--		
E.1, E.2, E.3, E.4, E.5, E.6, E.7, E.9, E.10, E.11, E.12, E.13, E.14, E.15, E.16	2000 KVA (e) 1500 RPM 415 V 0.8 pf (lag) DG set with panels and all accessories (i.e all items mentioned in BOQ Ref) app.	set	3	.015547
E.8	Acoustic enclosure with lighting fixtures to meet the noise requirement for one DG (Dismantling type). Approx size 10mx3mx2.5m (h). App.Wt. 5000 kg.	set	3	.0013948
XI	ERECTION AND COMMISSIONING OF CONTROL PANEL SYSTEM	--		
B.9.1	ALI Control Panel with ALI controllers and Intelli Relay Cards	set	8	.0008961
B.9.2	Electronic Controller Panel (ECP) with ARECA controllers, firing cards, interfacing cables, FR modules and cutout plates	set	160	.0159952

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

#### 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.10.3	ALI with probe head assembly, sensor processor unit and accessories	set	160	.0026515
B.10.4 & B.10.5	IOS System & Data Logger System with Industrial Grade Computers and accessories	set	4	.0005145
B.10.6 & B.10.7	ALI Signal Cables with GI conduits	Set	7,600	.0008178
C.1.1	DC Scanner fan starter panels	Set	2	.0001996
C.1.2	Furnace temp. panel	set	4	.0003329
D.1, D.2, D.3, D.4, D.5, D.6 & D.8.1	DC Emergency Lube Oil Pump starter panels / Starter Cabinet for DC jacking oil motor / Starter Cabinet for DC seal oil motor / Generator Instrument Cabinet / Gas Analyzer Cabinet / Generator End Winding vibration monitoring cabinet / DC Starter panels /	Nos.	14	.0028704
XII	ERECTION OF JUNCTION BOXES / PUSH BUTTON STATIONS	--		

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.10.1 , F.5.1, F.5.2, F.5.3, F.5.4 & F.5.5	Local Start Stop Pushbuttons	Nos.	1,568	.0115582
B.10.2 , B.10.8 , B.10.9	Junction Boxes for ESP applications	Nos.	330	.0036754
XIII	COMMISSIONING OF THE FOLLOWING ERECTED BY MECHANICAL/OTHER CONTRACTOR	--		
A.12.1 , A.12.2 , A.12.3 , A.12.4 , A.12.5	Local Control Panels of Dosing Systems & FOPH	Nos.	12	.0003562

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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 & B.11.2	High Voltage Rectifier Transformers- 95 kV, 1200 mA & Disconnecting Switches	set	160	.0118694
B.11.3	Geared Motors for rapping System	Nos.	336	.0017039
B.11.5 & B.11.6	Heating Elements for Hoppers//Shaft Insulators/Support Insulators & Thermostats for Hopper	Nos.	4,800	.0162707
B.11.7	Interlocks ESP panels/field with Master keys	set	160	.004595
B.11.4	Hoist/Cranes/Monorail	set	8	.0002625
A.12.6	LT Unidirectional & Bidirectional drives (0.2 kW to 110 kW)	Nos.	1,800	.0170697
D.7.1, D.8.2.1, D.8.2.2	Lube Oil Purification Equipment / Governor Console Board	Nos.	6	.0003713
XIV	ERECTION OF MISCELLANEOUS ITEMS	--		
A.9.6	Flexible braided copper conductor with copper clamp for gate earthing	Nos.	30	.0000807
F.5.6 & F.5.7	AC/DC Fuse DB	Nos.	24	.0016016
F.5.8	Dataconcentrator Panels	Set	2	.0012401

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-A (Unit 1 & 2) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
XV	LAYING AND TERMINATION OF OFC CABLES	--		
F.5.9	OFC cable includes fixing of fibre optic components and termination kits LIU, face plates,cabinets,SC coupler,grounding etc	Mtrs	40,000	.0107611
F.5.10	Optical Fibre Plicing	Nos.	200	.0002879
<b>TOTAL Weightage</b>				1.0

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

#### 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 LT SWITCHGEAR / MCC / PMCC / ACDB / DCDB PANELS	--		
F.1.1, F.1.2, F.1.3 & F.1.4	220 V MAIN DCDB (1FA/2FA/3FA/4FA) App. Dimension in mm (LxHxD): 19000 x 2425 x 1300, No. of Panels: 23 & No. of Shipping Sections: 12	Set	2	.0071769
F.2.1, F.2.12 , F.2.17 , F.2.22	415V UNIT TURBINE VALVE DB (1KA/2KA/3KA/4KA), rating 250A, App. Wt (in kg) 16250, App. Dimension in mm (LxHxD): 21250 X 2425 X 900, No. of Panels: 25 & No. of Shipping Sections: 13	Set	2	.0079432
F.2.2, F.2.13 , F.2.18 , F.2.23	415V UNIT BOILER VALVE & DAMPER DB (1HA/2HA/3HA/4HA), rating 250A, App. Dimension in mm (LxHxD): 19550 X 2425 X 900, No. of Panels: 23 & No. of Shipping Sections: 12	Set	2	.0073077
F.2.3, F.2.14 , F.2.19 , F.2.24	415V UNIT BOILER ACDB (1HB/2HB/3HB/4HB), rating 630A, App. Dimension in mm (LxHxD): 10700 X 2425 X 1300, No. of Panels: 13 & No. of Shipping Sections: 7	Set	2	.0039248

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
F.2.4, F.2.15 , F.2.20 , F.2.25 & F.3.50	415V ESP & ID FAN AREA DB (1HD/2HD/3HD/4HD) /RAW WATER STAGE-II (OWF), rating 400A, App. Dimension in mm (LxHxD): 5100 X 2425 X 900, No. of Panels: 6 & No. of Shipping Sections: 3	Set	3	.0028595
F.2.5, F.2.16 , F.2.21 , F.2.26	415V UNIT SERVICE ACDB (1QA/2QA/3QA/4QA), rating 630A, App. Dimension in mm (LxHxD): 12400 X 2425 X 1300, No. of Panels: 15 & No. of Shipping Sections: 8	Set	2	.0046351
F.2.7, F.2.8, F.2.9 & F.2.10	NDCT ACDB (1/2/3/4) Approximate Dimension in mm (LxHxD): 1700 x 2425 x 900, No. of Panels: 2 & No. of Shipping Sections: 1	Set	2	.0006354



### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
F.3.1, F.3.26 , F.3.34 , F.3.52 F.3.2, F.3.27 , F.3.35 , F.3.53	415V UNIT BOILER & TURBINE SERVICE PMCC (1DA/2DA/3DA/4DA) & (1DB/2DB/3DB/4DB), rating 3200/4000A, App. Dimension in mm (LxHxD): 23750/23950 X 2425 X 900, No. of Panels: 28/30 & No. of Shipping Sections: 14/15	Set	4	.0178302
F.3.3, F.3.28 , F.3.36 , F.3.54	415V UNIT EMERGENCY MCC (1DG/2DG/3DG/4DG), rating 3200A, App. Wt (in kg) 21750, App. Dimension in mm (LxHxD): 24700 X 2425 X 1600, No. of Panels: 30 & No. of Shipping Sections: 15	Set	2	.0092329
F.3.4, F.3.29 , F.3.37 , F.3.55	415V VENTILATION MCC (1TA/2TA/3TA/4TA), rating 1000A, App. Wt. (in kg) 13500, App. Dimension in mm (LxHxD): 16300 X 2425 X 1300, No. of Panels: 17 & No. of Shipping Sections: 9	Set	2	.006093

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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
F.3.5, F.3.30 , F.3.38 , F.3.56	415V ESP AC & VENT MCC (1TB/2TB/3TB/4TB), rating 400A, App. Wt (in kg) 6750, App Dimension in mm (LxHxD): 8550 X 2425 X 900, No. of Panels: 9 & No. of Shipping Sections: 5	Set	2	.0031959
F.3.6, F.3.31 , F.3.39 , F.3.57	415V STATION SERVICE PMCC (0DA/0DC/0DE/0DH), rating 4000A, App. Wt (in kg) 8950, App. Dimension in mm (LxHxD): 11000 X 2425 X 1600, No. of Panels: 12 & No. of Shipping Sections: 6	Set	2	.0041117
F.3.7, F.3.32 , F.3.40 , F.3.58 , F.3.4 9 & F.3.43	415V STATION SERVICE PMCC (0DB/0DD/0DF/0DJ),COMPRESSOR HOUSE STAGE-II MCC (0SG) & CPU STAGE-II MCC (0WB), rating 4000A/1000A/630A, App. Dimension in mm (LxHxD): 12800/12900/13350 X 2425 X 1600/1300, No. of Panels: 14/11/14 & No. of Shipping Sections: 7/6/7	Set	3	.007317

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

#### 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
F.3.8, F.3.33 , F.3.41 , F.3.59	415V MISC SERVICES MCC (0QA/0QB/0QC/0QD), rating 630A, App. Wt. (in kg) 13950, App. Dimension in mm (LxHxD): 17500 x 2425 x 1300, No. of Panels: 21 & No. of Shipping Sections: 11	Set	2	.0066163
F.3.11 , F.3.25 , F.3.42 , F.3.47 , F.3.48 ,	415V CPU STAGE-I MCC (0WA) / ADMIN BUILDING PMCC (0DS) / FORWARDING STAGE-II PMCC (0SD) / SERVICE BUILDING STAGE-II PMCC (0DX) / CLARIFIED STAGE-II PMCC (0DW) , rating 630A/1600A/1000A/4000A, Approximate Dimension in mm (LxHxD): 15250/15500/15400/15500/15300 x 2425 x 1300, No. of Panels: 16/17/18/19 & No. of Shipping Sections: 8/9/9/10	Set	3	.0085504
F.3.12 , F.3.44 ,& F.3.46	415V DM STAGE-I PMCC (0DM)/DM STAGE-II PMCC (0DU)/CWT STAGE-II PMCC (0DV), rating 4000A, Approximate Dimension in mm (LxHxD): 23400/23600 X 2425 X 1600, No. of Panels: 27 & No. of Shipping Sections: 14	Set	2	.0087469
F.3.13 , F.3.45 & C.1.3	415V PTP STAGE-I & II PMCC (0WC & 0WD)/SOOT BLOWER MCC, rating 4000/3200A, Approximate Dimension in mm (LxHxD): 22600/22100 x 2425/2550 x 900/1000, No. of Panels: 27/26 & No. of Shipping Sections: 14/13	Set	3	.0093281

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

#### 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
F.3.20 & F.3.51	415V AIR CONDITIONING MCC (0TA & 0TB), rating 1600A, Approximate Dimension in mm (LxHxD): 16650 X 2425 X 1300, No. of Panels: 18 & No. of Shipping Sections: 9	Set	1	.0031119
B.8.1, B.8.2	AUXILIARY CONTROL BOARD (ACP) & LT MAINT SWITCH BOARD (LTMSB) , rating 630A/4000A, Approximate Dimension in mm (LxHxD): 12125/12650 x 2425 x 1300, No. of Panels: 14/15 & No. of Shipping Sections: 7/8	Set	16	.0354846
II	ERECTION AND COMMISSIONING OF 415 V LT NON-SEGREGATED PHASE BUSDUCT	--		
F.4.1 to F.4.16 , F.4.21 to F.4.49	415 V, LT NSPBD TYPE BUSDUCT 4000A,3200A,2500A,1600A & 1000A	Mtrs	84	.0028406
III	LAYING OF LT POWER CABLES 1.1 kV, XLPE INSULATED, GALVANISED STEEL ARMOURED SINGLE/ MULTICORE CABLES FRLS (Al/Cu CABLES)	--		
A.1.1, A.1.13 , A.3.1	1C-400 Sq. mm / 3C-150 sq.mm	Mtrs	83,200	.0346936
A.1.2	1C-630 sq.mm	Mtrs	61,400	.028081

### 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.1.3, A.1.5, A.1.9, A.1.20	1C-35 sq.mm / 2C-10 sq.mm / 3C-10 sq.mm / 4C-10 sq.mm	Mtrs	161,600	.0239111
A.1.4 & A.1.7	1C-120 sq.mm / 2C-50 sq.mm	Mtrs	4,400	.0011245
A.1.6, B.1.4, C.3.1	2C-25 sq.mm / 3C - 16 Sq.mm	Mtrs	51,200	.0068871
A.1.10 & A.1.16	3C-25 sq.mm / 3.5C-25 sq.mm	Mtrs	101,200	.0204191
A.1.11 , B.1.3, A.1.17 , A.1.8, A.3.2	3C-50 sq.mm / 3.5C-50 sq.mm / 2C-95 sq.mm (Cu)	Mtrs	71,000	.0162357
A.1.12 & A.1.18	3C-95 sq.mm / 3.5C-95 sq.mm	Mtrs	30,400	.0085873

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.1.14 & A.1.19	3C-185 sq.mm (Al)	Mtrs	8,800	.0037879
A.1.15 , B.1.1, B.1.2, A.3.3	3C-240 sq.mm / 3.5C-240 Sq.mm / 2C-150 Sq.mm	Mtrs	107,600	.0303946
IV	END TERMINATION OF LT POWER / CONTROL CABLES - 1.1 kV, XLPE INSULATED, GALVANISED STEEL ARMOURED SINGLE/ MULTICORE CABLES FRLS (Al/Cu CABLES)	--		
A.5.1	1C-400 Sq. mm (Al)	Nos.	768	.0027996
A.5.2	1C-630 sq.mm (Al)	Nos.	820	.0040811
A.5.3	1C-35 sq.mm (Al)	Nos.	108	.0000479
A.5.4	1C-120 sq.mm (Al)	Nos.	28	.000096
A.5.5	2C-10 sq.mm (Al)	Nos.	172	.0003123
A.5.6	2C-25 sq.mm (Al)	Nos.	124	.0002535
A.5.7	2C-50 sq.mm (Al)	Nos.	32	.0000758
A.5.8	2C-95 sq.mm (Al)	Nos.	28	.0000817
A.5.9	3C-10 sq.mm (Al)	Nos.	1,608	.0007138

### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.5.10	3C-25 sq.mm (Al)	Nos.	1,080	.0023389
A.5.11 , B.4.3	3C-50 sq.mm (Al)	Nos.	304	.0010468
A.5.12	3C-95 sq.mm (Al)	Nos.	364	.0010674
A.5.13	3C-150 sq.mm (Al)	Nos.	160	.0011579
A.5.14	3C-185 sq.mm (Al)	Nos.	76	.00055
A.5.15	3C-240 sq.mm (Al)	Nos.	216	.0017869
A.5.16	3.5C-25 sq.mm (Al)	Nos.	272	.0006805
A.5.17	3.5C-50 sq.mm (Al)	Nos.	512	.0014945
A.5.18	3.5C-95 sq.mm (Al)	Nos.	44	.0001539
A.5.19	3.5C-185 sq.mm (Al)	Nos.	44	.0003563
A.5.20	4C-10 sq.mm (Al)	Nos.	272	.0001207
B.4.1	3.5C-240 Sq.mm (Al)	Nos.	32	.0003091
B.4.2	2C-150 Sq.mm (Al)	Nos.	1,176	.0034801
B.4.4, C.5.1	3C - 16 Sq.mm (Al)	Nos.	560	.0014689
A.6.1	1C-400 sq.mm (Cu)	Nos.	184	.0006707

**Part C : Bill of Quantities**

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.6.2	2C-95 sq.mm (Cu)	Nos.	108	.0003152
A.6.3	3C-240 sq.mm (Cu)	Nos.	16	.0001324
V	LAYING AND TERMINATION OF LT POWER/CONTROL CABLES 1.1 kV, XLPE INSULATED, GALVANISED STEEL ARMOURED SINGLE/ MULTICORE CABLES FRLS (CU CABLES)	--		
A.2.1, B.2.2, E.17.2 , A.2.2, A.3.5, B.2.1, B.3.1, B.3.2, C.2.1, C.4.1, E.17.3	2C - 2.5 sq.mm / 3C - 2.5 sq.mm / 4C x 2.5 sqmm	Mtrs	733,200	.0887626
A.2.3, A.3.4, A.4.1, C.4.2, A.4.2, A.4.3, C.4.3	2C - 6 sq.mm / 5C - 2.5 sq.mm / 5C - 4 sq.mm / 7C - 2.5 sq.mm	Mtrs	366,800	.0493394



### Part C : Bill of Quantities

**Tender Specification BHEL:PSSR:SCT:2005 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 LT Electrical works for Package-B (Unit 3 & 4) of 5x800 MW Yadadri Thermal Power Plant at Veerlapalem Village, Damercherla Mandal, Nalgonda DT., TSGENCO, Telangana, India.**

**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.4.4, E.17.1 , B.3.3, C.4.4, C.4.5	12C - 2.5 sq.mm / 10C - 2.5 Sq.mm / 9C-2.5 Sq.mm	Mtrs	191,600	.02835
E.17.4	24 pair x 0.5 sqmm (Cu)	Mtrs	99	.000028
VI	ERECTION OF PRE FABRICATED CABLE TRAYS AND ACCESSORIES LIKE BEND, TEE, ELBOW, CROSS & REDUCERS ETC.	--		
A.7.1 & B.5.1	600 mm wide-Cable Tray Ladder Type	Mtrs	71,900	.0928464
A.7.2 & B.5.2	450 mm wide-Cable Tray Ladder Type	Mtrs	5,426	.0043792
A.7.3 & B.5.3	300 mm wide-Cable Tray Ladder Type	Mtrs	19,826	.0248018
A.7.4 & B.5.4	150 mm wide-Cable Tray Ladder Type	Mtrs	21,336	.0157849
A.7.5	600 mm wide-Cable Tray Perforated Type	Mtrs	22,800	.0371095

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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.7.6	450 mm wide-Cable Tray Perforated Type	Mtrs	880	.0008996
A.7.7	300 mm wide-Cable Tray Perforated Type	Mtrs	9,200	.0122515
A.7.8	150 mm wide-Cable Tray Perforated Type	Mtrs	5,680	.0042022
A.7.9	100 mm wide-Cable Tray Perforated Type	Mtrs	4,000	.0019908
VII	INSTALLATION OF HOT DIP GALVANIZED STEEL FLATS	--		
A.9.1 & B.7.1	GS FLAT 75 X 10 mm (6 kg/m)app	Mtrs	21,200	.0293723
A.9.2 & B.7.2	GS FLAT 50 X 6 mm (2.5 kg/m) app	Mtrs	37,600	.0343923
A.9.3	GS FLAT 25 X 6 mm (1.2 kg/m) app	Mtrs	3,200	.0026257
A.9.4	GS FLAT 25 X 3 mm (0.6 kg/m) app	Mtrs	666	.0005465
A.9.5 & B.7.3	GS WIRE 3.15 DIA 8 SWG (0.131 kg/m) app	Mtrs	39,106	.0021041
A.11.1	GS Rod 20 mm dia LONG 1000 mm vertical air termination, Test links (150 x 25 x 6), Flexible copper conductor, 50mm GI class C pipe 3 mtr long	set	120	.0050378
VIII	FABRICATION & ERECTION OF STRUCTURAL STEEL	--		

**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.8.1, A.8.2, A.8.3, A.8.4, B.6.1, B.6.2, B.6.3	Structural Steel (ISMC, ISMB, ISA, etc)	MT	366	.0766884
IX	ERECTION, TESTING & COMMISSIONING OF 220 V DC BATTERY AND BATTERY CHARGER	--		
A.10.1	220 V DC Batteries - 324 Cells (3x108)	set	4	.0044337
A.10.2	Float cum Boost battery charger panel and accessories	set	10	.0044738
X	ERECTION AND COMMISSIONING OF DIESEL GENERATOR SET	--		

### 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
E.1, E.2, E.3, E.4, E.5, E.6, E.7, E.9, E.10, E.11, E.12, E.13, E.14, E.15, E.16	2000 KVA (e) 1500 RPM 415 V 0.8 pf (lag) DG set with panels and all accessories (i.e all items mentioned in BOQ Ref) app.	set	3	.015547
E.8	Acoustic enclosure with lighting fixtures to meet the noise requirement for one DG (Dismantling type). Approx size 10mx3mx2.5m (h). App.Wt. 5000 kg.	set	3	.0013948
XI	ERECTION AND COMMISSIONING OF CONTROL PANEL SYSTEM	--		
B.9.1	ALI Control Panel with ALI controllers and Intelli Relay Cards	set	8	.0008961
B.9.2	Electronic Controller Panel (ECP) with ARECA controllers, firing cards, interfacing cables, FR modules and cutout plates	set	160	.0159952
B.10.3	ALI with probe head assembly, sensor processor unit and accessories	set	160	.0026515

**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.10.4 & B.10.5	IOS System & Data Logger System with Industrial Grade Computers and accessories	set	4	.0005145
B.10.6 & B.10.7	ALI Signal Cables with GI conduits	Set	7,600	.0008178
C.1.1	DC Scanner fan starter panels	Set	2	.0001996
C.1.2	Furnace temp. panel	set	4	.0003329
D.1, D.2, D.3, D.4, D.5, D.6 & D.8.1	DC Emergency Lube Oil Pump starter panels / Starter Cabinet for DC jacking oil motor / Starter Cabinet for DC seal oil motor / Generator Instrument Cabinet / Gas Analyzer Cabinet / Generator End Winding vibration monitoring cabinet / DC Starter panels /	Nos.	14	.0028703
XII	ERECTION OF JUNCTION BOXES / PUSH BUTTON STATIONS	--		

**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.10.1 , F.5.1, F.5.2, F.5.3, F.5.4 & F.5.5	Local Start Stop Pushbuttons	Nos.	1,568	.0115582
B.10.2 , B.10.8 , B.10.9	Junction Boxes for ESP applications	Nos.	330	.0036754
XIII	COMMISSIONING OF THE FOLLOWING ERECTED BY MECHANICAL/OTHER CONTRACTOR	--		
A.12.1 , A.12.2 , A.12.3 , A.12.4 , A.12.5	Local Control Panels of Dosing Systems & FOPH	Nos.	12	.0003562

**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.11.1 & B.11.2	High Voltage Rectifier Transformers- 95 kV, 1200 mA & Disconnecting Switches	set	160	.0118694
B.11.3	Geared Motors for rapping System	Nos.	336	.0017039
B.11.5 & B.11.6	Heating Elements for Hoppers//Shaft Insulators/Support Insulators & Thermostats for Hopper	Nos.	4,800	.0162707
B.11.7	Interlocks ESP panels/field with Master keys	set	160	.004595
B.11.4	Hoist/Cranes/Monorail	set	8	.0002625
A.12.6	LT Unidirectional & Bidirectional drives (0.2 kW to 110 kW)	Nos.	1,800	.0170697
D.7.1, D.8.2.1, D.8.2.2	Lube Oil Purification Equipment / Governor Console Board	Nos.	6	.0003713
XIV	ERECTION OF MISCELLANEOUS ITEMS	--		
A.9.6	Flexible braided copper conductor with copper clamp for gate earthing	Nos.	30	.0000807
F.5.6 & F.5.7	AC/DC Fuse DB	Nos.	24	.0016016
F.5.8	Dataconcentrator Panels	Set	2	.0012401

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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
XV	LAYING AND TERMINATION OF OFC CABLES	--		
F.5.9	OFC cable includes fixing of fibre optic components and termination kits LIU, face plates,cabinets,SC coupler,grounding etc	Mtrs	40,000	.0107611
F.5.10	Optical Fibre Plicing	Nos.	200	.0002879
<b>TOTAL Weightage</b>				1.0