

TENDER SPECIFICATION BHEL PSSR SCT 2112

For

Package-1:- Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-1 (Main plant) and identified BOP areas

Package-2:- Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-2 (Main plant) and identified BOP areas

**at 2 X 660 MW Udangudi Thermal Power Project, Kallamoli,
Tiruchendur Taluk, Tuticorin District, Tamil Nadu**

VOLUME –II PRICE BID

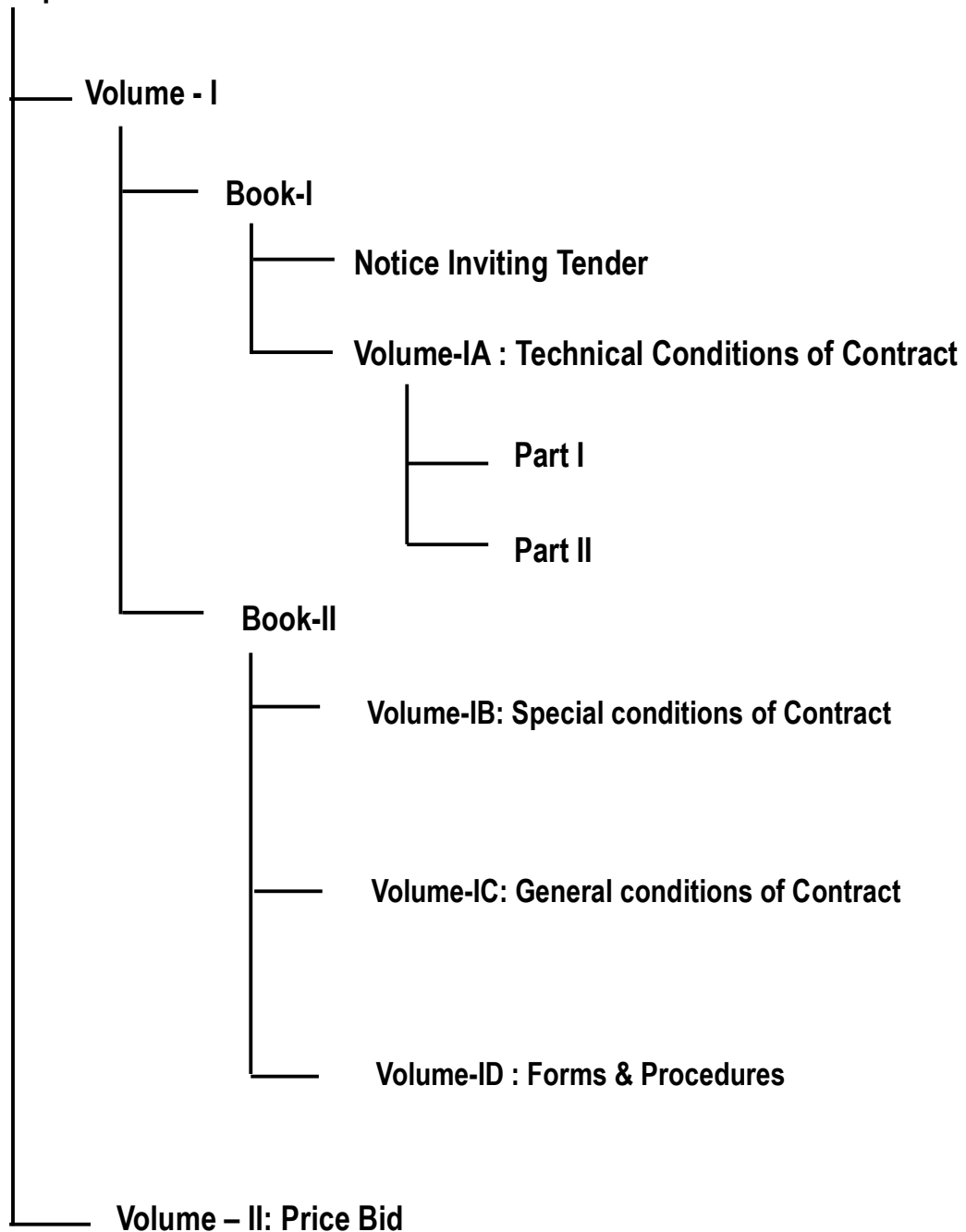


BHARAT HEAVY ELECTRICALS LIMITED

(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 B : Format for total amount (Enclosed as a separate Excel File in BHEL NIC e-Procurement portal for the subject tender)	(Separate Excel File)
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Part C: Bill of quantities with weightage for amount of each items with respect to the total quoted price for Package -2	09

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 for Package-1' 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 for Package-1' is for the entire Bill of Quantity (BOQ) for Package-1 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.
9. Bidders to refer Clause 35 - Mode of Award of Notice Inviting Tender (NIT).

PACKAGE -1**Part C : Bill of Quantities**

**Tender Specification for Erection, Testing & Commissioning including Handling of materials at
BHEL stores / storage yard, transporting to site of erection and supply &
application of final painting for Illumination works for Unit-1 (Main plant) and identified BOP areas
at Udangudi Thermal Power Station**

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
1.0	Lighting Luminaires (complete with accessories) including fixing of lighting lamps	--		
1.1	Type FC02 (LED)-40W LED TUBE LIGHT-Indoor-Surface/Hanging-Industrial type LED fixture suitable for conduit /surface/ suspended mounting, with integral driver aesthetically designed for Switchgear / Equipment room/ Staircase/ Corridor	Nos.	297	.0037958
1.2	Type FC06 (LED)-40W LED TUBE LIGHT-Indoor-Surface/Hanging-Industrial type LED fixture suitable for conduit /surface/ suspended mounting, with integral driver aesthetically designed for Switchgear / Equipment room/ Staircase/ Corridor	Nos.	878	.0112213
1.3	Type FC26 (LED)-40W LED RECESS 1X4 PANEL LIGHT (300mm x 1200mm)-Indoor-Recess-Panel (approx. 1200 mm X 300 mm) LED luminaire suitable for recess mounting in false ceiling with integral driver aesthetically designed for Control Room/ Office	Nos.	98	.0012525
1.4	Type FC81 (LED)-40W LED TUBE LIGHT-Indoor-Surface/Hanging-Corrosion proof, totally enclosed type LED fixture having integral driver	Nos.	136	.0017382
1.5	Type FC32 (LED)-40W LED TUBE LIGHT-Indoor-Surface/Hanging-Decorative, surface mounted LED fixture having integral driver	Nos.	153	.0019554
1.6	Type FC07 (LED)-14W LED SURFACE PANEL LIGHT,220V DC-Indoor-Surface-Industrial type LED fixture suitable for conduit/ surface/ suspended/ column mounting, having integral driver. Fixture shall operate on 220V DC input supply with necessary accessories like DC to AC convertor etc.	Nos.	141	.0018021
1.7	Type FC33 (LED)14W LED RECESS PANEL LIGHT,220V DC-Indoor-Surface-Decorative, recessed type LED fixture having integral driver. Fixture shall operate on 220V DC input supply with necessary accessories like DC to AC convertor etc.	Nos.	33	.0004218
1.8	Type FC34 (LED)14W LED BULKHEAD LIGHT,220V DC-Indoor-Hanging/Wall-Well glass, dust proof type LED fixture having integral driver. Fixture shall operate on 220V DC input supply with necessary accessories like DC to AC convertor etc.	Nos.	285	.0036425
1.9	Type SF63 (LED)-150W LED FLOOD LIGHT-Outdoor-High Mast/ Tower/Wall-Flood light, heavy duty type LED fixture	Nos.	97	.0019481

PACKAGE -1**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
1.10	Type SF64 (LED)-250W LED FLOOD LIGHT-Outdoor-High Mast/ Tower/Wall-Flood light, heavy duty type LED fixture	Nos.	103	.0023507
1.11	Type SF66 (LED)-400W LED FLOOD LIGHT-Outdoor-High Mast/ Tower/Wall-Flood light, heavy duty type LED fixture	Nos.	132	.0040971
1.12	Type SB11 (LED)-100W LED BAY LIGHT-Indoor/Outdoor-Hanging/Ceiling/Wall-Medium bay, Industrial type LED fixture	Nos.	95	.0023705
1.13	Type SB02 (LED)-150W LED BAY LIGHT-indoor/Outdoor- Hanging/Ceiling/Wall-High Bay Industrial type LED fixture	Nos.	206	.0047014
1.14	Type SB03 (LED)-200W LED BAY LIGHT-indoor/Outdoor- Hanging/Ceiling/Wall-High Bay Industrial type LED fixture suitable for turbine hall operating floor (mounting height > 10 m)	Nos.	58	.0018355
1.15	Type SS62 (LED)-100W LED STREET LIGHT-Outdoor-Pole mounting-Street light LED fixture	Nos.	501	.0082325
1.16	Type SS63 (LED)-150W LED STREET LIGHT-Outdoor-Pole mounting-Street light LED fixture	Nos.	447	.0073452
1.17	Type SW41 (LED)-45W LED WELL GLASS LIGHT-Outdoor/Semiclosed-Wall/Hanging-Well glass type, vapour proof LED fixture suitable for Boiler / ESP platforms	Nos.	4,320	.0630995
1.18	Type SW42 (LED)-70W LED WELL GLASS LIGHT-Outdoor-Wall/Hanging-Well glass type, vapour proof LED fixture suitable for Boiler / ESP platforms	Nos.	878	.0149618
1.19	Type MW96-Well glass, flame proof increased safety luminaire LED fixture having an integral driver suitable for division-2, Group IIA/IIB of hazardous areas	Nos.	187	.0034142
1.20	Type MW98-Well glass, flame proof increased safetyluminaire LED fixture having an integral driver suitable for division-2, Group IIC of hazardousareas (As per IS 2148 or class-I, Division-II as per NEC 70-428)	Nos.	21	.0003834

PACKAGE -1**Part C : Bill of Quantities**

**Tender Specification for Erection, Testing & Commissioning including Handling of materials at
BHEL stores / storage yard, transporting to site of erection and supply &
application of final painting for Illumination works for Unit-1 (Main plant) and identified BOP areas
at Udangudi Thermal Power Station**

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
1.21	Type FC30 (LED)-40W LED RECESS 2X2 PANEL LIGHT (600mm x 600mm)-Indoor-RecessPanel 600 mm X 600 mm LED luminaire suitable for recess mounting in false ceiling with integral driver aesthetically designed for Control Room/ Office	Nos.	682	.0087163
1.22	Downlighter (LED)-18W LED RECESS MOUNTED DOWNLIGHTER-Indoor-RecessRecessed Mounted Downlighter with Integral driver aesthetically designed for Control Room/Office	Nos.	216	.0027606
3.0	Switch boxes for individual control of circuits (Switchboards consisting of switch boxes, switches, switch plates and fixing accessories.)	--		
3.1	Type SWB1	Nos.	414	.0043463
3.2	Type SWB2	Nos.	187	.0017925
3.3	Type SWB3	Nos.	50	.0005706
3.4	Type SWB4	Nos.	35	.0004952
3.5	Type SWB5	Nos.	10	.0001415
4.0	Junction boxes	--		
4.1	Type JB-F	Nos.	8,743	.0558702
4.2	Type JB-FE	Nos.	76	.000555
5.0	Receptacles	--		
5.1	Type RA	Nos.	367	.0046905
5.2	Type RA (Flame proof)	Nos.	18	.0002465

PACKAGE -1**Part C : Bill of Quantities**

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BHEL stores / storage yard, transporting to site of erection and supply &
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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
5.3	Type RB	Nos.	652	.0101186
5.4	Type RC	Nos.	79	.0023466
5.5	Type RD	Nos.	2	.0000913
6.0	Fans	--		
6.1	Celling fans 1200 mm sweep	Nos.	122	.0014479
6.2	Pedestal Fan	Nos.	8	.0000949
7.0	Emergency lighting Units	--		
7.1	With Ni-Cd battery and 2x10W flurescent lamp	Nos.	48	.0005258
8.0	Flexible electrogalvanised conduit	--		
8.1	20 mm dia flexible electrogavanised PVC coated conduits, 1.6 mm thick	MTR	10,547	.0174049
9.0	24V supply module & lamps unit complete with all accessories	--		
9.1	Fix Type 24V supply modules	Nos.	8	.0001552
9.2	Portable Type 24V supply modules	Nos.	8	.0000803
9.3	Portable halogen lamp unit	Nos.	8	.0000438
9.4	5A, 24V industrial type unit	Nos.	65	.0007714
10.0	Ladder	--		

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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
10.1	Wheel mounted adjustable from 5M to 10M aluminium ladder	Nos.	1	.0000822
10.2	Free standing adjustable from 5M to 10M aluminium ladder	Nos.	2	.0001643
10.3	Step ladder (0.5M to 1.5M)	Nos.	2	.0000548
11.0	EXIT SIGN with lamp	Nos.	28	.0003323
12.0	Search light of halogen lamp	Nos.	9	.0000904
13.0	Lighting Distribution Board (LDB)	--		
13.1	AC LDB Type LDB-H (12)	--		
13.1.1	AC LDB Type LDB-H (12) without transformer (including cubicle suitable for 1 no. 100 KVA transformer) (app. Weight 1200 kg)	Nos.	13	.0048657
13.1.2	100 KVA transformer for housing in 13.1.1 (app. Weight 540 kg)	Nos.	13	.0029749
13.2	AC LDB Type LDB-F (8)	--		
13.2.1	AC LDB Type LDB-F (8) without transformer (including cubicle suitable for 1 no. 50 KVA transformer (app. Weight 1000 kg)	Nos.	3	.0013511
13.2.2	50 KVA transformer for housing in 13.2.1 (app. Weight 335 kg)	Nos.	3	.0006396
13.3	DC LDB Type LDB-D (12) (app. Weight 200 kg)	Nos.	2	.0005458
13.4	AC WDB Type WDB -H (12)	--		
13.4.1	AC WDB Type WDB-H (12) without transformer (including cubicle suitable for 1 no. 100KVA transformer) (app. Weight 1200 kg)	Nos.	4	.0014972
13.4.2	100 KVA transformer for housing in 13.4.1 (app. Weight 540 kg)	Nos.	4	.0010224

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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
14.0	Lighting Panels (LP)	--		
14.1	AC Normal / Emergency indoor Type LP-A(6) [with timer] (app. Weight 20 kg)	Nos.	19	.0014743
14.2	AC Normal / Emergency indoor Type LP-A(12) [without timer] (app. Weight 30 kg)	Nos.	24	.0018623
14.3	AC Normal / Emergency outdoor Type LP-A(12) [without timer] (app. Weight 30 kg)	Nos.	18	.0018897
14.4	AC Normal (Decorative) Type LP-A (12) (app. Weight 30 kg)	Nos.	13	.0013648
14.5	AC Normal/Emergency Indoor Type LP-A (18) [with timer] (app. Weight 50 kg)	Nos.	24	.0029578
14.6	AC Normal /Emergency outdoor Type LP-A (18) [without timer] (app. Weight 50 kg)	Nos.	19	.0023416
14.7	DC indoor Type LP-D (6) (app. Weight 20 kg)	Nos.	11	.0008535
14.8	DC Outdoor Type LP-D (6) (app. Weight 20 kg)	Nos.	7	.0005432
14.9	Street Lighting Type LP-S (6) (app. Weight 20 kg)	Nos.	23	.0021987
15.0	E&C of Poles	--		
15.1	Octagonal pole type PS-1 (9M)	Nos.	273	.0423676
15.2	Octagonal pole type PS-2 (11M)	Nos.	383	.0629352
15.3	Octagonal pole type PS-4 (11M)	Nos.	8	.0013876
15.4	Octagonal pole type PF-1 (9M)	Nos.	14	.0021727
15.5	Octagonal pole type PF-2 (9M)	Nos.	17	.0026383

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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
16.0	LIGHTING MAST OCTAGONAL SHAPE, TYPE LM30	NOS	4	.0126588
18.0	Conduits including laying of Wires (GI Wires, Cu PVC Wires, etc.)	--		
18.1	GI CONDUITS, 1.6MM THICK, 20MM DIA	MTR	130,500	.3772549
18.2	GI CONDUITS, 1.6MM THICK, 25MM DIA	MTR	27,500	.0828454
18.3	GI CONDUITS, 2.0MM THICK, 40MM DIA	MTR	9,500	.0303538
18.4	GI CONDUITS, 2.0MM THICK, 50MM DIA	MTR	700	.0022366
18.5	GI CONDUITS, 1.6MM THICK, EPOXY 20MM DIA	MTR	3,300	.009841
20.0	Fabrication Of J-Pole of 4.5 m height from 40mm dia Metal Conduits	Nos.	2,250	.0256752
21.0	Earth rods 40 mm dia of 3 m lenth each	Nos	667	.0278863
22.0	Earthflats	--		
22.1	GS FLAT 65 X 8 mm	MTR	417	.001104
22.2	GS FLAT 50 X 6 mm	MTR	834	.0017487
22.3	GS FLAT 25 X 6 mm	MTR	834	.0013324
22.4	GS FLAT 25 X 3 mm	MTR	1,250	.0019969
23.0	Structural Steel for supports (Angles,Channels,etc)	MT	5	.002367
24.0	Laying of Power Cables	--		

PACKAGE -1**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
24.1	3.5C-25sq.mm	MTR	14,300	.0062601
24.2	3.5C-50sq.mm	MTR	19,442	.0106204
24.3	3.5C-95sq.mm	MTR	6,834	.0042763
24.4	3C-95sq.mm	MTR	167	.0001045
24.5	3C-150sq.mm	MTR	850	.0007472
24.6	2C-95sq.mm	MTR	2,209	.0012067
25.0	Termination of Power cables	--		
25.1	3.5C-25sq.mm	Nos.	190	.0010352
25.2	3.5C-50sq.mm	Nos.	260	.0015428
25.3	3.5C-95sq.mm	Nos.	58	.0003706
25.4	3C-150sq.mm	Nos.	12	.0000767
25.5	3C-95sq.mm	Nos.	2	.0000128
25.6	2C-95sq.mm	Nos.	30	.0001917
26.0	LAYING AND TERMINATION OF LT POWER/CONTROL CABLES 1.1 kV, XLPE INSULATED, GALVANISED STEEL ARMOURED SINGLE/ MULTICORE CABLES FRLS (CU CABLES)	--		
26.1	3C-2.5 sqmm	MTR	500	.0001321
27.0	Construction of Treated Earthpits	--		

PACKAGE -1

Part C : Bill of Quantities

**Tender Specification for Erection, Testing & Commissioning including Handling of materials at
BHEL stores / storage yard, transporting to site of erection and supply &
application of final painting for Illumination works for Unit-1 (Main plant) and identified BOP areas
at Udangudi Thermal Power Station**

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
27.1	Treated Earth pits	SET	8	.0016782
TOTAL Weightage				0.9999996

PACKAGE -2

Part C : Bill of Quantities

Tender Specification for Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-2 (Main plant) and identified BOP areas

at Udangudi Thermal Power Station

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
1.0	Lighting Luminaires (complete with accessories) including fixing of lighting lamps	--		
1.1	Type FC02 (LED)-40W LED TUBE LIGHT-Indoor-Surface/Hanging-Industrial type LED fixture suitable for conduit /surface/ suspended mounting, with integral driver aesthetically designed for Switchgear / Equipment room/ Staircase/ Corridor	Nos.	297	.0037958
1.2	Type FC06 (LED)-40W LED TUBE LIGHT-Indoor-Surface/Hanging-Industrial type LED fixture suitable for conduit /surface/ suspended mounting, with integral driver aesthetically designed for Switchgear / Equipment room/ Staircase/ Corridor	Nos.	878	.0112213
1.3	Type FC26 (LED)-40W LED RECESS 1X4 PANEL LIGHT (300mm x 1200mm)-Indoor-Recess-Panel (approx. 1200 mm X 300 mm) LED luminaire suitable for recess mounting in false ceiling with integral driver aesthetically designed for Control Room/ Office	Nos.	98	.0012525
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1.5	Type FC32 (LED)-40W LED TUBE LIGHT-Indoor-Surface/Hanging-Decorative, surface mounted LED fixture having integral driver	Nos.	153	.0019554
1.6	Type FC07 (LED)-14W LED SURFACE PANEL LIGHT,220V DC-Indoor-Surface-Industrial type LED fixture suitable for conduit/ surface/ suspended/ column mounting, having integral driver. Fixture shall operate on 220V DC input supply with necessary accessories like DC to AC convertor etc.	Nos.	141	.0018021
1.7	Type FC33 (LED)14W LED RECESS PANEL LIGHT,220V DC-Indoor-Surface-Decorative, recessed type LED fixture having integral driver. Fixture shall operate on 220V DC input supply with necessary accessories like DC to AC convertor etc.	Nos.	33	.0004218
1.8	Type FC34 (LED)14W LED BULKHEAD LIGHT,220V DC-Indoor-Hanging/Wall-Well glass, dust proof type LED fixture having integral driver. Fixture shall operate on 220V DC input supply with necessary accessories like DC to AC convertor etc.	Nos.	285	.0036425
1.9	Type SF63 (LED)-150W LED FLOOD LIGHT-Outdoor-High Mast/ Tower/Wall-Flood light, heavy duty type LED fixture	Nos.	97	.0019481

PACKAGE -2**Part C : Bill of Quantities**

Tender Specification for Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-2 (Main plant) and identified BOP areas

at Udangudi Thermal Power Station

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
1.10	Type SF64 (LED)-250W LED FLOOD LIGHT-Outdoor-High Mast/ Tower/Wall-Flood light, heavy duty type LED fixture	Nos.	103	.0023507
1.11	Type SF66 (LED)-400W LED FLOOD LIGHT-Outdoor-High Mast/ Tower/Wall-Flood light, heavy duty type LED fixture	Nos.	132	.0040971
1.12	Type SB11 (LED)-100W LED BAY LIGHT-Indoor/Outdoor-Hanging/Ceiling/Wall-Medium bay, Industrial type LED fixture	Nos.	95	.0023705
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1.14	Type SB03 (LED)-200W LED BAY LIGHT-indoor/Outdoor- Hanging/Ceiling/Wall-High Bay Industrial type LED fixture suitable for turbine hall operating floor (mounting height > 10 m)	Nos.	58	.0018355
1.15	Type SS62 (LED)-100W LED STREET LIGHT-Outdoor-Pole mounting-Street light LED fixture	Nos.	501	.0082325
1.16	Type SS63 (LED)-150W LED STREET LIGHT-Outdoor-Pole mounting-Street light LED fixture	Nos.	447	.0073452
1.17	Type SW41 (LED)-45W LED WELL GLASS LIGHT-Outdoor/Semiclosed-Wall/Hanging-Well glass type, vapour proof LED fixture suitable for Boiler / ESP platforms	Nos.	4,320	.0630995
1.18	Type SW42 (LED)-70W LED WELL GLASS LIGHT-Outdoor-Wall/Hanging-Well glass type, vapour proof LED fixture suitable for Boiler / ESP platforms	Nos.	878	.0149618
1.19	Type MW96-Well glass, flame proof increased safety luminaire LED fixture having an integral driver suitable for division-2, Group IIA/IIB of hazardous areas	Nos.	187	.0034142
1.20	Type MW98-Well glass, flame proof increased safetyluminaire LED fixture having an integral driver suitable for division-2, Group IIC of hazardousareas (As per IS 2148 or class-I, Division-II as per NEC 70-428)	Nos.	21	.0003834

PACKAGE -2**Part C : Bill of Quantities**

Tender Specification for Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-2 (Main plant) and identified BOP areas

at Udangudi Thermal Power Station

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
1.21	Type FC30 (LED)-40W LED RECESS 2X2 PANEL LIGHT (600mm x 600mm)-Indoor-RecessPanel 600 mm X 600 mm LED luminaire suitable for recess mounting in false ceiling with integral driver aesthetically designed for Control Room/ Office	Nos.	682	.0087163
1.22	Downlighter (LED)-18W LED RECESS MOUNTED DOWNLIGHTER-Indoor-RecessRecessed Mounted Downlighter with Integral driver aesthetically designed for Control Room/Office	Nos.	216	.0027606
3.0	Switch boxes for individual control of circuits (Switchboards consisting of switch boxes, switches, switch plates and fixing accessories.)	--		
3.1	Type SWB1	Nos.	414	.0043463
3.2	Type SWB2	Nos.	187	.0017925
3.3	Type SWB3	Nos.	50	.0005706
3.4	Type SWB4	Nos.	35	.0004952
3.5	Type SWB5	Nos.	10	.0001415
4.0	Junction boxes	--		
4.1	Type JB-F	Nos.	8,743	.0558702
4.2	Type JB-FE	Nos.	76	.000555
5.0	Receptacles	--		
5.1	Type RA	Nos.	367	.0046905
5.2	Type RA (Flame proof)	Nos.	18	.0002465

PACKAGE -2**Part C : Bill of Quantities**

Tender Specification for Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-2 (Main plant) and identified BOP areas

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5.4	Type RC	Nos.	79	.0023466
5.5	Type RD	Nos.	2	.0000913
6.0	Fans	--		
6.1	Celling fans 1200 mm sweep	Nos.	122	.0014479
6.2	Pedestal Fan	Nos.	8	.0000949
7.0	Emergency lighting Units	--		
7.1	With Ni-Cd battery and 2x10W flurescent lamp	Nos.	48	.0005258
8.0	Flexible electrogalvanised conduit	--		
8.1	20 mm dia flexible electrogavanised PVC coated conduits, 1.6 mm thick	MTR	10,547	.0174049
9.0	24V supply module & lamps unit complete with all accessories	--		
9.1	Fix Type 24V supply modules	Nos.	8	.0001552
9.2	Portable Type 24V supply modules	Nos.	8	.0000803
9.3	Portable halogen lamp unit	Nos.	8	.0000438
9.4	5A, 24V industrial type unit	Nos.	65	.0007714
10.0	Ladder	--		

PACKAGE -2

Part C : Bill of Quantities

Tender Specification for Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-2 (Main plant) and identified BOP areas

at Udangudi Thermal Power Station

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
10.1	Wheel mounted adjustable from 5M to 10M aluminium ladder	Nos.	1	.0000822
10.2	Free standing adjustable from 5M to 10M aluminium ladder	Nos.	2	.0001643
10.3	Step ladder (0.5M to 1.5M)	Nos.	2	.0000548
11.0	EXIT SIGN with lamp	Nos.	28	.0003323
12.0	Search light of halogen lamp	Nos.	9	.0000904
13.0	Lighting Distribution Board (LDB)	--		
13.1	AC LDB Type LDB-H (12)	--		
13.1.1	AC LDB Type LDB-H (12) without transformer (including cubicle suitable for 1 no. 100 KVA transformer) (app. Weight 1200 kg)	Nos.	13	.0048657
13.1.2	100 KVA transformer for housing in 13.1.1 (app. Weight 540 kg)	Nos.	13	.0029749
13.2	AC LDB Type LDB-F (8)	--		
13.2.1	AC LDB Type LDB-F (8) without transformer (including cubicle suitable for 1 no. 50 KVA transformer (app. Weight 1000 kg)	Nos.	3	.0013511
13.2.2	50 KVA transformer for housing in 13.2.1 (app. Weight 335 kg)	Nos.	3	.0006396
13.3	DC LDB Type LDB-D (12) (app. Weight 200 kg)	Nos.	2	.0005458
13.4	AC WDB Type WDB -H (12)	--		
13.4.1	AC WDB Type WDB-H (12) without transformer (including cubicle suitable for 1 no. 100KVA transformer) (app. Weight 1200 kg)	Nos.	4	.0014972
13.4.2	100 KVA transformer for housing in 13.4.1 (app. Weight 540 kg)	Nos.	4	.0010224

PACKAGE -2**Part C : Bill of Quantities**

Tender Specification for Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-2 (Main plant) and identified BOP areas

at Udangudi Thermal Power Station

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
14.0	Lighting Panels (LP)	--		
14.1	AC Normal / Emergency indoor Type LP-A(6) [with timer] (app. Weight 20 kg)	Nos.	19	.0014743
14.2	AC Normal / Emergency indoor Type LP-A(12) [without timer] (app. Weight 30 kg)	Nos.	24	.0018623
14.3	AC Normal / Emergency outdoor Type LP-A(12) [without timer] (app. Weight 30 kg)	Nos.	18	.0018897
14.4	AC Normal (Decorative) Type LP-A (12) (app. Weight 30 kg)	Nos.	13	.0013648
14.5	AC Normal/Emergency Indoor Type LP-A (18) [with timer] (app. Weight 50 kg)	Nos.	24	.0029578
14.6	AC Normal /Emergency outdoor Type LP-A (18) [without timer] (app. Weight 50 kg)	Nos.	19	.0023416
14.7	DC indoor Type LP-D (6) (app. Weight 20 kg)	Nos.	11	.0008535
14.8	DC Outdoor Type LP-D (6) (app. Weight 20 kg)	Nos.	7	.0005432
14.9	Street Lighting Type LP-S (6) (app. Weight 20 kg)	Nos.	23	.0021987
15.0	E&C of Poles	--		
15.1	Octagonal pole type PS-1 (9M)	Nos.	273	.0423676
15.2	Octagonal pole type PS-2 (11M)	Nos.	383	.0629352
15.3	Octagonal pole type PS-4 (11M)	Nos.	8	.0013876
15.4	Octagonal pole type PF-1 (9M)	Nos.	14	.0021727
15.5	Octagonal pole type PF-2 (9M)	Nos.	17	.0026383

PACKAGE -2**Part C : Bill of Quantities**

Tender Specification for Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-2 (Main plant) and identified BOP areas

at Udangudi Thermal Power Station

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
16.0	LIGHTING MAST OCTAGONAL SHAPE, TYPE LM30	NOS	4	.0126588
18.0	Conduits including laying of Wires (GI Wires, Cu PVC Wires, etc.)	--		
18.1	GI CONDUITS, 1.6MM THICK, 20MM DIA	MTR	130,500	.3772549
18.2	GI CONDUITS, 1.6MM THICK, 25MM DIA	MTR	27,500	.0828454
18.3	GI CONDUITS, 2.0MM THICK, 40MM DIA	MTR	9,500	.0303538
18.4	GI CONDUITS, 2.0MM THICK, 50MM DIA	MTR	700	.0022366
18.5	GI CONDUITS, 1.6MM THICK, EPOXY 20MM DIA	MTR	3,300	.009841
20.0	Fabrication Of J-Pole of 4.5 m height from 40mm dia Metal Conduits	Nos.	2,250	.0256752
21.0	Earth rods 40 mm dia of 3 m lenth each	Nos	667	.0278863
22.0	Earthflats	--		
22.1	GS FLAT 65 X 8 mm	MTR	417	.001104
22.2	GS FLAT 50 X 6 mm	MTR	834	.0017487
22.3	GS FLAT 25 X 6 mm	MTR	834	.0013324
22.4	GS FLAT 25 X 3 mm	MTR	1,250	.0019969
23.0	Structural Steel for supports (Angles,Channels,etc)	MT	5	.002367
24.0	Laying of Power Cables	--		

PACKAGE -2

Part C : Bill of Quantities

Tender Specification for Erection, Testing & Commissioning including Handling of materials at BHEL stores / storage yard, transporting to site of erection and supply & application of final painting of Illumination works for Unit-2 (Main plant) and identified BOP areas

at Udangudi Thermal Power Station

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
24.1	3.5C-25sq.mm	MTR	14,300	.0062601
24.2	3.5C-50sq.mm	MTR	19,442	.0106204
24.3	3.5C-95sq.mm	MTR	6,834	.0042763
24.4	3C-95sq.mm	MTR	167	.0001045
24.5	3C-150sq.mm	MTR	850	.0007472
24.6	2C-95sq.mm	MTR	2,209	.0012067
25.0	Termination of Power cables	--		
25.1	3.5C-25sq.mm	Nos.	190	.0010352
25.2	3.5C-50sq.mm	Nos.	260	.0015428
25.3	3.5C-95sq.mm	Nos.	58	.0003706
25.4	3C-150sq.mm	Nos.	12	.0000767
25.5	3C-95sq.mm	Nos.	2	.0000128
25.6	2C-95sq.mm	Nos.	30	.0001917
26.0	LAYING AND TERMINATION OF LT POWER/CONTROL CABLES 1.1 kV, XLPE INSULATED, GALVANISED STEEL ARMOURED SINGLE/ MULTICORE CABLES FRLS (CU CABLES)	--		
26.1	3C-2.5 sqmm	MTR	500	.0001321
27.0	Construction of Treated Earthpits	--		

PACKAGE -2

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at Udangudi Thermal Power Station

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
27.1	Treated Earth pits	SET	8	.0016782
TOTAL Weightage				0.9999996