

**TENDER
SPECIFICATION
BHEL PSSR SCT 2268**

FOR

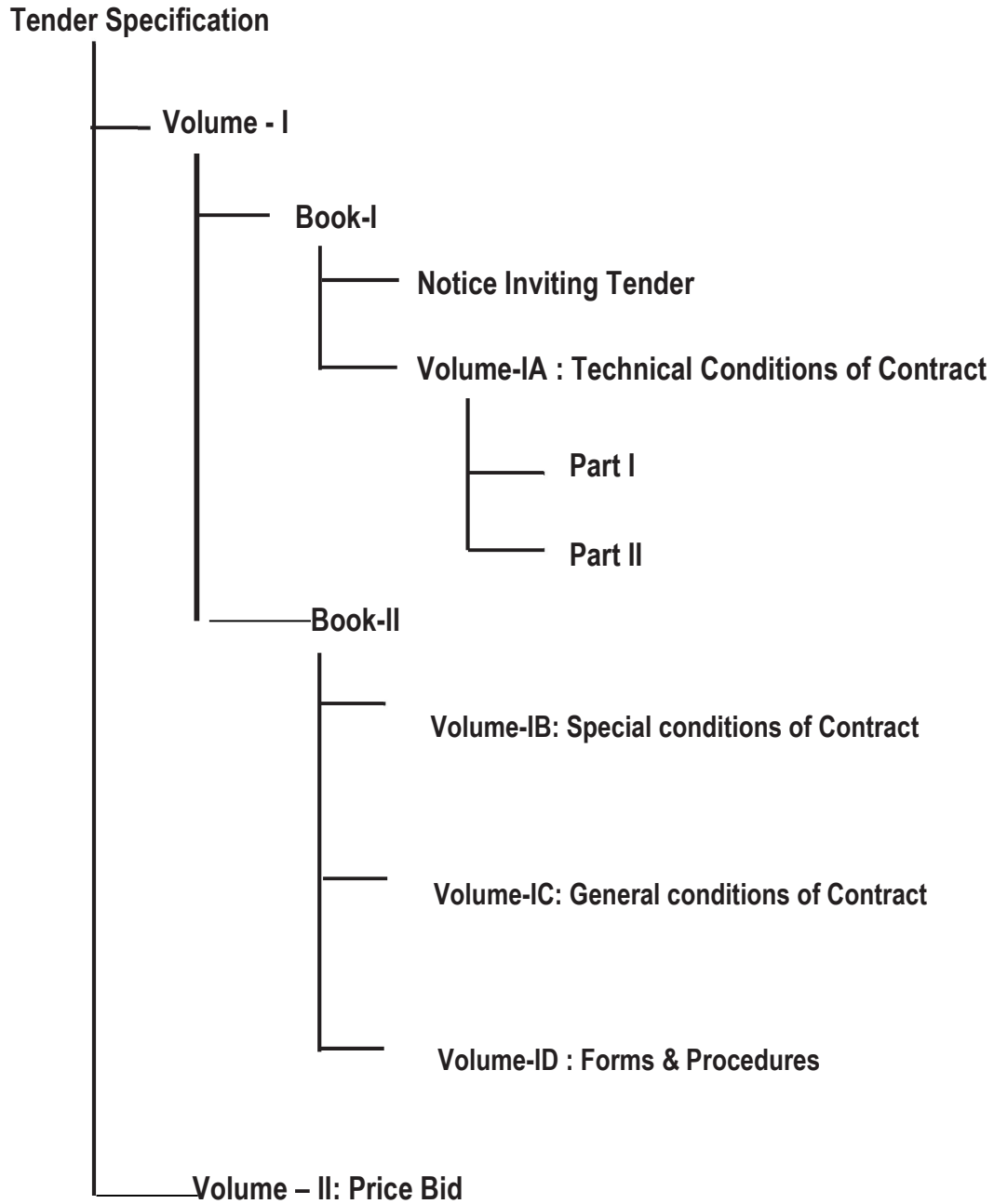
**Erection, Testing, Commissioning, Trial Operation & PG Test
of Dust Suppression and water package system of 2X660MW
Ennore SEZ Supercritical Thermal Power Project at Ash Dyke
of NCTPS, Tamilnadu**

**PRICEBID
VOLUME -II**



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



PRICE BID

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PRICE BID

PART A

Instruction to Bidders:

1. Bidders shall only quote “Total Lumpsum amount” in the format given in the price bid. The “Total Lumpsum amount” is for the entire scope of work. Payment will be as per actual quantity executed 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.
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 SI 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 at the unit rate arrived at as per SI No.7 above.

Part C : Bill of Quantities

**Tender Specification for Erection, Testing, Commissioning, Trial Operation and PG Test of Dust Suppression and water package system of 2X660MW Ennore SEZ Supercritical Thermal Power Project at Ash Dyke of NCTPS, Tamilnadu
at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS**

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.	Main Supply Item	--		
A1	Air Compressor with motor	--		
A1.A	Air Compressor with motor for DFDS system (PMH-1A)	Nos.	2	.0149172
A1.B	Air Compressor with motor for DFDS system (PMH-1B)	Nos.	2	.0386551
A1.C	Air Compressor with motor for DFDS system (PMHZ-1)	Nos.	2	.0149172
A2	Air Receiver with Accessories	--		
A2.A	Air Receiver for DFDS system (PMH 1B)	No.	1	.0045987
A2.B	Air Receiver for DFDS system (PMH-1A)	No.	1	.0037227
A2.C	Air Receiver for DFDS system (At ERH in PMH-1B)	No.	1	.0037227
A2.D	Air Receiver for DFDS system (At TT-9 in PMH-1B)	No.	1	.0016424
A2.E	Air Receiver for DFDS system (PMHZ-1)	Nos.	1	.0037227
A3	Centrifugal Pump with Motor	--		
A3.A	Centrifugal Pump with Motor for DFDS system (PMH-1A) Cap: 1.4cmh / Head: 60mwc	Nos.	2	.0003215
A3.B	Centrifugal Pump with Motor for DFDS system (PMH-1B) Cap: 3.25cmh / Head: 100mwc	Nos.	2	.0005404
A3.C	Centrifugal Pump with Motor for DFDS system (PMHZ-1) Cap: 9.2cmh / Head: 96mwc	Nos.	2	.0010047
A3.D	Centrifugal Pump with motor for PW system (PMH-1B) Cap: 5cmh / Head: 130mwc	Nos.	2	.0006595

Part C : Bill of Quantities

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at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS**

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
A3.E	Centrifugal Pump with Motor for PW system (PMH-1A) Cap: 10cmh / Head: 77mwc	Nos.	2	.0009833
A3.F	Centrifugal Pump with motor for PW system (PMHZ-1) Cap: 6cmh / Head: 80mwc	Nos.	2	.0005466
A4	Centrifugal Pump without Motor	--		
A4.A	Centrifugal Pump for SW system (PMH-1B) Cap: 17cmh / Head: 137 mwc	Nos.	2	.0074455
A4.B	Centrifugal Pump for SW system (PMH-1A) Cap: 33 cmh / Head: 99 mwc	Nos.	2	.0068323
A4.C	Centrifugal Pump for SW system (PMHZ-1) Cap: 47 cmh / Head: 99 mwc	Nos.	2	.0077958
A4.D	Centrifugal Pump for Stock Pipe DS system (PMH-1A) Cap: 43 cmh / Head: 150 mwc	Nos.	4	.0210225
A5	Motor for Centrifugal Pump	--		
A5.A	MOTOR for Centrifugal Pump for SW system (PMH-1B) - 15KW / 4P	Nos.	2	.0015854
A5.B	MOTOR for Centrifugal Pump for SW system (PMH-1A) - 18.5KW / 4P	Nos.	2	.0019358
A5.C	MOTOR for Centrifugal Pump for SW system (PMHZ-1) - 22 KW / 4P	Nos.	2	.0020847
A5.D	MOTOR for Centrifugal Pump for Stock Pipe DS system (PMH-1A) - 30KW / 4P	Nos.	4	.0049052
A6	Submersible Sump Pump with Motor & Pipe	--		
A6.A	Submersible Sump Pump with Motor for coal runoff pit system - Cap: 100cmh / Head:50 mwc	Nos.	2	.0061316
A6.B	Pipe for coal runoff pit system -125NB	Mtrs.	522	.0505249
A7	Duplex Strainer	--		

Part C : Bill of Quantities

**Tender Specification for Erection, Testing, Commissioning, Trial Operation and PG Test of Dust Suppression and water package system of 2X660MW Ennore SEZ Supercritical Thermal Power Project at Ash Dyke of NCTPS, Tamilnadu
at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS**

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
A7.A	Duplex Strainer (DFDSP -1A & 1B) -40	Nos.	2	.0009635
A7.B	Duplex Strainer (DFDSZP -1A) -65	No.	1	.0003942
A7.C	Duplex Strainer (PW1BP & PWZP)	Nos.	2	.0010511
A7.D	Duplex Strainer (PW1AP) - 65	Nos.	1	.0003942
A7.E	Duplex Strainer (SW - 1A,1B & SWZP)	Nos.	3	.0017081
A7.F	Duplex Strainer (SPDSP - 1A & 1B)	Nos.	2	.0017519
A8	Spray Nozzle (For DFDS)	--		
A8.A	Spray Nozzle (For DFDS)	Nos.	647	.0005667
A9	Sprinkler	--		
A9.A	Sprinkler for DS/SW/PW System	Nos.	76	.0014978
A10	Flexible Hose with Nozzle & adaptor	--		
A10.A	Flexible Hose with Nozzle & adaptor for SW system	Nos.	148	.0064819
A11	Quick Coupler with check Valve	--		
A11.A	Quick Coupler with check Valve for SW system & make up water for S/R	Nos.	174	.0015241
A12	Flow Control Unit (F.C.U) with Accessories	Nos.	58	.0050804
A13	Flow Control Unit (F.C.U-D) with Accessories	Nos.	29	.0025402
A14	Pressure Regulating Unit (PRU) with accessories	Nos.	18	.0011825

Part C : Bill of Quantities

**Tender Specification for Erection, Testing, Commissioning, Trial Operation and PG Test of Dust Suppression and water package system of 2X660MW Ennore SEZ Supercritical Thermal Power Project at Ash Dyke of NCTPS, Tamilnadu
at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS**

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
A15	Valve	--		
A15.A	SS, CI & GM Gate Valve	--		
A15.A .1	250 NB Gate Valve, SS 316L, CL-I	Nos.	1	.0008667
A15.A .2	125 NB Gate Valve, SS 316L, CL-I	Nos.	6	.0021414
A15.A .3	100 NB Gate Valve, SS 316L, CL-II	Nos.	2	.0006118
A15.A .4	80 NB Gate Valve, SS 316L, CL-II	Nos.	2	.0005098
A15.A .5	65 NB Gate Valve, SS 316L, CL-I	Nos.	1	.0002039
A15.A .6	32 NB Gate Valve, SS 316L, CL-II	Nos.	2	.0000357
A15.A .7	150 NB Gate Valve, CI , CL-I	Nos.	1	.0004334
A15.A .8	125 NB Gate Valve, CI , CL-I	Nos.	4	.0010401
A15.A .9	100 NB Gate Valve, CI , CL-I	Nos.	8	.0018355
A15.A .10	80 NB Gate Valve, CI , CL-I	Nos.	2	.0003059

Part C : Bill of Quantities

Tender Specification for Erection, Testing, Commissioning, Trial Operation and PG Test of Dust Suppression and water package system of 2X660MW Ennore SEZ Supercritical Thermal Power Project at Ash Dyke of NCTPS, Tamilnadu

at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS

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
A15.A .11	65 NB Gate Valve, CI , CL-I	Nos.	8	.0012236
A15.A .12	50 NB Gate Valve, GM , CL-I	Nos.	10	.0001784
A15.A .13	40 NB Gate Valve, GM , CL-I	Nos.	9	.0001239
A15.A .14	32 NB Gate Valve, GM , CL-I	Nos.	5	.0000459
A15.A .15	32 NB Gate Valve, GM , CL-II	Nos.	1	.0000092
A15.A .16	25 NB Gate Valve, GM , CL-I	Nos.	11	.0000673
A15.A .17	25 NB Gate Valve, GM , CL-II	Nos.	7	.0000428
A15.A .18	20 NB Gate Valve, GM , CL-I	Nos.	4	.0000244
A15.A .19	20 NB Gate Valve, GM , CL-II	Nos.	2	.0000122
A15.A .20	15 NB Gate Valve, GM , CL-I	Nos.	14	.0000714
A15.A .21	15 NB Gate Valve, GM , CL-II	Nos.	13	.0000663

Part C : Bill of Quantities

**Tender Specification for Erection, Testing, Commissioning, Trial Operation and PG Test of Dust Suppression and water package system of 2X660MW Ennore SEZ Supercritical Thermal Power Project at Ash Dyke of NCTPS, Tamilnadu
at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS**

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
A15.B	SS, CI & GM Globe Valve	--		
A15.B .1	100 NB Globe Valve, SS 316L, CL-II	Nos.	4	.0012236
A15.B .2	65 NB Globe Valve, SS 316L, CL-II	Nos.	76	.0193742
A15.B .3	32 NB Globe Valve, SS 316L, CL-II	Nos.	2	.000102
A15.B .4	125 NB Globe Valve, CI , CL-I	Nos.	2	.0004597
A15.B .5	100 NB Globe Valve, CI , CL-I	Nos.	2	.0004597
A15.B .6	80 NB Globe Valve, CI , CL-I	Nos.	2	.0003678
A15.B .7	80 NB Globe Valve, CI , CL-II	Nos.	2	.0003678
A15.B .8	65 NB Globe Valve, CI , CL-I	Nos.	1	.0001379
A15.B .9	50 NB Globe Valve, GM , CL-I	Nos.	3	.0000414
A15.B .10	32 NB Globe Valve, GM , CL-I	Nos.	107	.000787

Part C : Bill of Quantities

**Tender Specification for Erection, Testing, Commissioning, Trial Operation and PG Test of Dust Suppression and water package system of 2X660MW Ennore SEZ Supercritical Thermal Power Project at Ash Dyke of NCTPS, Tamilnadu
at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS**

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
A15.B .11	32 NB Globe Valve, GM , CL-II	Nos.	73	.0005369
A15.B .12	20 NB Globe Valve, GM , CL-I	Nos.	3	.0000165
A15.B .13	20 NB Globe Valve, GM , CL-II	Nos.	2	.000011
A15.C	GM Check Valve	--		
A15.C .1	50 NB Check Valve, GM , CL-I	Nos.	3	.0000414
A15.C .2	32 NB Check Valve, GM , CL-I	Nos.	6	.0000414
A15.C .3	15 NB Check Valve, GM , CL-I	Nos.	58	.0001333
A15.D	SS & CI Non Return Valve	--		
A15.D .1	100 NB Non Return Valve, SS 316L, CL-II	Nos.	4	.0012236
A15.D .2	125 NB Non Return Valve, CI , CL-I	Nos.	2	.0004597
A15.D .3	100 NB Non Return Valve, CI , CL-I	Nos.	3	.0006206
A15.D .4	80 NB Non Return Valve, CI , CL-I	Nos.	3	.0004137

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**Tender Specification for Erection, Testing, Commissioning, Trial Operation and PG Test of Dust Suppression and water package system of 2X660MW Ennore SEZ Supercritical Thermal Power Project at Ash Dyke of NCTPS, Tamilnadu
at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS**

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
A15.D .5	80 NB Non Return Valve, CI , CL-II	Nos.	3	.0004137
A15.E	CS Ball Valve	--		
A15.E .1	80 NB Ball Valve, CS, CL-I	Nos.	4	.0001772
A15.E .2	50 NB Ball Valve, CS, CL-II	Nos.	12	.0002126
A15.F	CI & GM Float Valve	--		
A15.F .1	125 NB Float Valve , CI , CL-I	Nos.	1	.0000443
A15.F .2	65 NB Float Valve , CI , CL-I	Nos.	1	.0000221
A15.F .3	40 NB Float Valve , GM , CL-I	Nos.	1	.0000133
A15.G	SS, CI & GM Motorised Butterfly Valve	--		
A15.G .1	250 NB Motorised Butterfly Valve, SS 316L, CL-I	Nos.	1	.0012746
A15.G .2	150 NB Motorised Butterfly Valve, CI , CL-I	Nos.	1	.0006202
A15.G .3	100 NB Motorised Butterfly Valve, CI , CL-I	Nos.	1	.0005316

Part C : Bill of Quantities

**Tender Specification for Erection, Testing, Commissioning, Trial Operation and PG Test of Dust Suppression and water package system of 2X660MW Ennore SEZ Supercritical Thermal Power Project at Ash Dyke of NCTPS, Tamilnadu
at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS**

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
A15.G .4	80 NB Motorised Butterfly Valve, CI , CL-I	Nos.	2	.0009746
A15.G .5	50 NB Motorised Butterfly Valve, GM , CL-I	Nos.	1	.0002879
A15.G .6	40 NB Motorised Butterfly Valve, GM , CL-I	Nos.	1	.0002658
A15.H	SS, CI & GM Pressure Relief Valve	--		
A15.H .1	32 NB Pressure Relief Valve, SS 316L	Nos.	2	.0000204
A15.H .2	65 NB Pressure Relief Valve , CI	Nos.	1	.0000221
A15.H .3	50 NB Pressure Relief Valve , GM	Nos.	1	.0000133
A15.H .4	32 NB Pressure Relief Valve , GM	Nos.	2	.0000177
A15.H .5	20 NB Pressure Relief Valve , GM	Nos.	5	.0000221
A15.I	Solenoid Valve - 65 NB	Nos.	76	.00202
A17	PVC Tank	--		
A17.A	PVC Tank 2500 Ltrs	Nos.	3	.00084
A17.B	PVC Tank 500 Ltrs	Nos.	12	.000672

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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
A18	MS-ERW Pipes (GI)-MEDIUM(M) & HEAVY(H)	--		
A18.A	MS-ERW Galvanised pipes (M)-15NB as per IS : 1239 (Part I)	Mtrs	2,454	.0143802
A18.B	MS-ERW Galvanised Pipes (M) -20NB as per IS : 1239 (Part I)	Mtrs	1,200	.0090328
A18.C	MS-ERW Galvanised pipes (M)-25NB as per IS : 1239 (Part I)	Mtrs	1,908	.0222705
A18.D	MS-ERW Galvanised pipes (M) -32NB as per IS : 1239 (Part I)	Mtrs	3,828	.0570824
A18.E	MS-ERW Galvanised pipes (M) -40NB as per IS : 1239 (Part I)	Mtrs	1,836	.0314892
A18.F	MS-ERW Galvanised pipes(M) -50NB as per IS : 1239 (Part I)	Mtrs	984	.0238147
A18.G	MS-ERW Galvanised pipes(H)-15NB as per IS : 1239 (Part I)	Mtrs	318	.0018634
A18.H	MS-ERW Galvanised pipes(H)-20NB as per IS : 1239 (Part I)	Mtrs	6	.0000451
A18.I	MS-ERW Galvanised pipes(H)-25NB as per IS : 1239 (Part I)	Mtrs	1,074	.0125359
A18.J	MS-ERW Galvanised pipes(H)-32NB as per IS : 1239 (Part I)	Mtrs	48	.0007158
A18.K	MS-ERW Galvanised pipes(H)-40NB as per IS : 1239 (Part I)	Mtrs	966	.0165678
A18.L	MS-ERW Galvanised pipes(H)-50NB as per IS : 1239 (Part I)	Mtrs	858	.0207652
A18.M	MS-ERW Galvanised pipes(H)-65NB as per IS : 1239 (Part I)	Mtrs	30	.0009261
A19	MS-Black Pipes-MEDIUM	--		
A19.A	MS-ERW Black pipes(M) -65NB as per IS : 1239 (Part I)	Mtrs	2,202	.0584386

Part C : Bill of Quantities

Tender Specification for Erection, Testing, Commissioning, Trial Operation and PG Test of Dust Suppression and water package system of 2X660MW Ennore SEZ Supercritical Thermal Power Project at Ash Dyke of NCTPS, Tamilnadu

at 2 X 660 MW - ENNORE SEZ SUPERCRITICAL THERMAL POWER PROJECT AT ASH DYKE OF NCTPS

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
A19.B	MS-ERW Black pipes(M) -80NB as per IS : 1239 (Part I)	Mtrs	1,416	.0488875
A19.C	MS-ERW Black pipes(M)-100NB as per IS : 1239 (Part I)	Mtrs	822	.0412733
A19.D	MS-ERW Black pipes(M) -150NB as per IS : 1239 (Part I)	Mtrs	18	.0014109
A20	Pipe :as per SS-316L, sch 10	--		
A20.A	SS-ERW Pipe-32 NB	Mtrs	6	.0000983
A20.B	SS-ERW Pipe-40 NB	Mtrs	12	.0002349
A20.C	SS-ERW Pipe-65 NB	Mtrs	2,304	.096265
A20.D	SS-ERW Pipe-80 NB	Mtrs	1,110	.0606558
A20.E	SS-ERW Pipe-100 NB	Mtrs	744	.0578468
A20.F	SS-ERW Pipe-125 NB	Mtrs	18	.0018952
A20.G	SS-ERW Pipe-250 NB	Mtrs	156	.0401333
A21	Pipe Fittings (MS, GI & SS) as per IS Standard	SET	1	.0095283
A22	Pipe Support	--		
A22.A	ISA 50X50X6	KG	1,500	.0061433
A22.B	ISMC 75	KG	6,000	.024573
A22.C	ISMC 100	KG	4,500	.0184298
A22.D	ISA 75X75X6	KG	184	.0007536

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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
A22.E	ISMC 150	KG	65	.0002662
A22.F	ISA 40X40X6	KG	230	.000942
A25	Hoist	--		
A25.1	Electric Hoist (within PMH-1, PMH-2, PMHZ-1)	Nos.	3	.0090218
A26	Sluice Gates for Coal Setting Pond	Nos.	5	.0128883
B01	Supporting struture	Kg	4,000	.0165158
B02	Nuts & bolts	Kg	2,020	.0118185
TOTAL Weightage				0.999999