



MAHAVITARAN
Maharashtra State Electricity Distribution Co. Ltd.
Maharashtra Undertaking
CIN: U40109MH2005SGC153645
413307.



MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LTD.

OFFICE OF THE DY. EXECUTIVE ENGINEER Govt.

Pandharpur Road, Opp. Market Yard, Sangola

Phone No. Office- 02187 (220224)

No - 2168
No - 21691

Dt. 8 NOV 2023

To,
Executive Engineer
M.S.E.D.C.L.
Pandharpur Division

Sub - Submission of Estimate H.T.Conn of M/s Ayush Paper Mills Partner Maruti R Wakhure

Please find enclosed for sanction as detailed below,

Name of Applicant - M/s Ayush Paper Mills Partner Maruti R Wakhure

Address - Gat No. 468 A/p Manjari Tal-Sangola Dist-Solapur

Load Applied for - HT Load CD 688 KVA

Work Involved - 33 KV Line - 02 km , 33 KV Metering

Documents enclosed -

- 1) Self Contained Note
- 2) Itemwise Estimate
- 3) Single Line Diagram w. r. to Point of Supply
- 4) % V.R.Calculation Sheet
- 5) Technical Feasibility Report in prescribed format

ADD E.E.

Dy. M(HR)

Dy. E.E. (Tech) For further needful pl.

Dy. (Tech)

Dy. (LPO)

Dy. (LPO)

Dy. (Estimate)

Dy. (M.T.)

Dy. (Filter)

File No.

22/11/23

11307

22/11/23

Dy. Ex. Engineer
M.S.E.D.Co.Ltd
SDN: - Sangola

Estimate for P.S. to 01 no Load Extn. of HT consumer M/S Ayush Paper Mills Partner Maruti R Wakhure A/p Manjari ,Tal;Sangola ,Dist;Solapur Under 1.3% DDF Scheme

Part (A) 33 KV HT LINE

Sr.No	Particulars	Unit	Qty.	Rate	Amount
1	RSJ 152x152, 11 m long	No.	34	24630.75	837445.50
2	RSJ 116x100, 10 m long	No.	4	13882.05	55528.20
3	MS Channel 100x50x6 mm	Kg.	264	69.93	18461.52
4	M.S.Channel 75x40x6 mm	Kg.	182	69.93	12727.26
5	33 KV Top Fitting	No.	28	515.70	14439.60
6	MS angle 50x50x6 mm	Kg.	108	69.93	7552.44
7	M.S. Flats(50 X 10mm)	Kg.	72	65.48	4714.20
8	33 kv Pin Insulators with G.I. Pins	No.	84	462.50	38850.08
9	Disc Insulator 11 KV 70 KN	No.	108	310.01	33481.38
10	G.I.Nut Bolts	Kg.	160	111.92	17906.40
11	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	36	369.91	13316.72
12	AAAC 100 mm2	Mtrs.	6300	66.69	420161.74
13	H.T.Stay Set	No.	12	807.30	9687.60
14	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	120	71.81	8617.50
15	G.I.Wire 8 SWG/ 6 SWG	Kg.	260	71.75	18655.00
16	Sleve Joints	No.	6	132.25	793.50
17	Danger Board in yard.	No.	34	57.50	1955.00
18	Earthing Sets H.T	No.	34	461.70	15697.80
19	Concreting ration 1:3:6	cmt.	35	3935.10	137728.50
20	G.I.Barbed Wire 'A' type.	Kg.	160	80.34	12854.00
21	Black bituminus paint	Ltr.	12	97.75	1173.00
22	Red Oxide Paint for 2 coats	Ltr.	40	97.75	3910.00
23	Aluminium Paint for 1 coat	Ltr.	18	129.95	2339.10
24	Sundries	LS	2	885.50	1771.00
25	DOG TO DOG or equivalent AAAC	No	0	642.38	0.00
Cost of material(A)					1689767.04

PART(B) DOUPLE POLE STRUCTURE(cut point) OF- 33 KV LINE USING13 M LONG RSJ POLE

S.N.	Description of Material	Unit	QTY	RT/U.Rs.	Amt Rs.
1	RSJ 152x152, 13 m long	No.	2	29108.70	58217.40
2	M.S. Flats(50 X 10mm)	Kg.	10	65.48	654.75
3	MS Channel-100x50x6 mm	Kg.	46	69.93	3216.78
4	MS angle 50x50x6 mm	Kg.	50	69.93	3496.50
5	33 kv guarding channel MS100x50	Kg.	80.00	69.93	5594.40
6	33 kv Pin Insulators with G.I. Pins	No.	3	462.50	1387.50
7	Strain Hardware for Dog0.1 or Equ.AAAC.	No.	6	369.91	2219.45
8	Disc Insulator 11 KV 70 KN	No.	18	310.01	5580.23
9	H.T.Stay Set	No.	4	807.30	3229.20
10	G.I.Stay Wire 7/4mm(8 SWG)	Kg.	20	71.81	1436.25
11	Earthing Sets H.T	No	2	461.70	923.40
12	G.I.Wire 8 SWG/ 6 SWG	kg.	6	71.75	430.50
13	G.I.Barbed Wire 'A' type.	kg.	7	80.34	562.36
14	Danger Board in yard.	No.	2	57.50	115.00
15	Black Bituminus Paint	Ltr.	1	97.75	97.75
16	Red Oxide Paint for 2 coats	Ltr.	3	97.75	293.25
17	Aluminium Paint for 1 coat	Ltr.	2	129.95	259.90
18	Concreting ration 1:3:6	Cmt.	2	3935.10	7870.20
19	Sundries	LS	1	885.50	885.50
Cost of material (B)					96470.32

PART(C) 33 KV FEEDER BAY (Outdoor)

Sr.No.	Description of Material	Unit	Qty.	Rate	Amt.
1	33 KV Lightning Arrestors (Station type)	Set	1	11296.50	11296.50
2	33 KV Isolators with EB (800 A)	Set	1	66228.00	66228.00
3	33 KV Isolators without EB (800 Amp.)	Set	1	60612.00	60612.00
4	33 KV VCB complete 1600 Amp (O.D.)	Set	1	225349.60	225349.60
5	CT 200-100/1-1 A , 33 KV	Nos.	3	28023.60	84070.80
6	C&R panel for 33 KV for feeder breaker	Nos.	1	61413.60	61413.60

7	Structure and foundation cables, clamps, painting etc.as per sheet (A+B+C+D+F)	L.S.	1	417074.12	417074.12
8	Marshalling Box	No	1	5783.40	5783.40
9	Earthing as per Sheet (E)	L.S.	1	16845.70	16845.70
Cost of material (C)					948673.73

PART (D) 33 Kv metering arrangement - Main & Check meters

1	33 KV metering Cubicle of 100/5 A	No.	1	95000.00	95000.00
2	XLPE Arm 11 KV cable ,3C /300sqmm	Rmt	50	1142.10	57105.00
3	33 KV Out door terminal for 3cx300 sqmm	NO	1	4525.00	4525.00
4	11 KV In door terminal for 3cx300 sqmm	NO	5	4525.00	22625.00
5	R.C.C. Pipwe 150mm -2m	No.	2	579.70	1159.40
6	RCC half round pipe (1 mtr)	No.	20	104.5	2090.00
7	Copper earthing Set for Kiosk	No.	9	7000	63000.00
8	Copper earthing strip.	Kg.	50	600	30000.00
9	Plinth, Metering room & Fencing etc.	LS	0	150000.00	0.00
10	Sand for cable laying	Cmt	5	6000.00	30000.00
					305504.40

Total estimated cost (A+B+C+D) Rs.


3040415.49


Supervision Charges 1.3 % on above Rs.	39525.40
Say recoverable Supervision Charges Rs.	39525
18.00 % GST on Supervision Charges Rs.	7114.57
Say GST Recoverable Rs.	7115

Details of estimate & recoverable charges -

Estimated Cost	Rs.	3040415.49
1.30 % Supervision Charges	Rs.	39525
18.00 % GST on Supervision	Rs.	7115

Executive Engineer
MSEDCL PPR DIVISION


Dy. Executive Engineer
MSEDCL Sangola SDN


Assistant Engineer
M.S.E.D.C.L. Sangola-R 2 Section.

Maharashtra State Electricity Distribution Co. Ltd.
Sangola Sub-division

Details in respect of Grid Connectivity at 33 kV level by Lilo at 33/11KV Manjari Sub-station

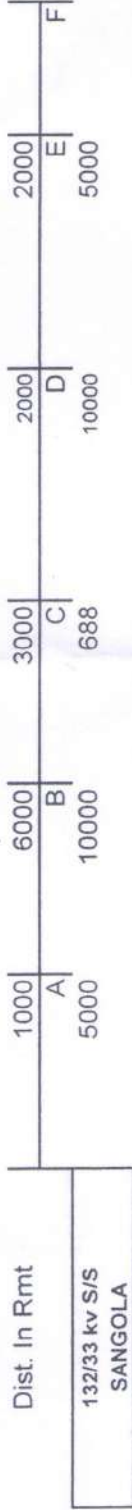
1	Name of HI Consumer	M/s Ayush Paper Mills Partner Maruti R Wakhure
	Location / Address	Gat no. 468 A/ P Manjari Lal Sangola
	Power required	CD-688 KVA
	Voltage level at which power is to be given	33 kV
	Particulars of S/s from where feeders to be taken	BY LILO AT 33/11 KV Manjari SS
	a) Name of S/s & District	132/33 kV Sangola Sub-station
	b) Existing T/F details (for each T/F)	Two nos Power T/F operating Parallel 1) 132/33 kV 50 MVA (BBI). 2) 132/33 kV 50 MVA (BBI).
	i) Voltage ratio & MVA rating	132/33kV & 100MVA
	ii) Simultaneous Max. load recorded (on secondary side in Amp) Last 06 Month	i).132/33 kV 50 MVA (BBL). Max load 38.59 MW, 702A, Dt.22.05.2023 at 07:00 hrs. ii) 132/33 kV 50 MVA (BBL) Max load 38.59 MW, 702A, Dt.22.05.2023 at 07:00 hrs.
5	c) Outgoing line details	1) 33 KV New Soot Mill 2) 33 KV Aandhalgaon 3) 33 KV Jawala 4) 33 KV Khardi 5) 33 KV Old Soot Mill 6) 33 KV Y Mangewadi 7) 33 KV Sangola 1 8) 33 KV Fabtech 9) 33 KV RYB
	ii) Size of conductor	0.1 ACSR
	iii) Max. Load recorded on the line in the last 6 months.	i) 33 KV New Soot Mill- Max Load:-3.14MW, 55A ii) 33 KV Aandhalgaon- Max Load:-17.89MW, 313A. iii) 33 KV Jawala - Max Load:-17.37MW, 301A iv) 33 KV Khardi - Max load 18.08MW, 335A. v) 33 KV Old Soot Mill - Max load 3.6MW, 63A. vi) 33 KV Y Mangewadi - Max load 21.83MW, 382A. vii) 33 KV Sangola 1 - Max load 9.31MW, 163A. viii) 33 KV Fabtech - Max load 4.06MW, 71A, ix) 33 KV RYB - Max load 10.51MW, 184A
	d) Details of the load shedding if any at the S/stn due to limitations in existing T/F capacity or line capacity	NIL
6	Details of relevant drawing enclosed a) Single line diagram (Drg No. to be stated)	NIL
	b) Switchyard plan (layant) (Drg. No. to be stated)	NIL
7	Estimated cost of the proposed work	NA
8	Load sanction letter (issued by MSEDC) reference -	
9	Whether work is being executed by MSEDC/MSFCL/ Consumer	NA
10	Whether payment has already been made by the consumer	
11	Whether metering (including CTs & PTs) are to be installed at sending end (EHV S/s)	No
12	whether the equipment / materials being procured by consumer / MSEDC. (when the works are not being executed by MSFCL) are in line with MSFCL'S latest specifications.	NA
13	Any other relevant information / remarks	There are 4 nos of substaion on 33 KV Khardi feeder emanating from 132 KV EHV Sangola namely 33/11 KV Manjari, 33/11 KV Shirbhavi, 33/11 KV Dhyati, 33/11 KV Sangola U.P.R Road substations. M/s Ayush paper mill gat no 468 Manjari Lal Sangola is proposed on 33 KV Khardi feeder by Lilo at 33/11 KV Manjari Substation. The said connection is feasible only after completion of new 33 KV link line proposed under RDSS scheme for intergration of substations on 33 KV Khardi feeder. Space for construction of new 33 KV bay is available at 33/11 KV Manjari substation

(Signature)  Engineer

Sangola Sub-division Sangola

% VR CALCULATION:

33 KV KHARDI Feeder Eminating from 132/33 kv SANGOLA S/S



Pro AYUSH
PAPER MILL

Conductor constant =

Size	0.02	0.03	0.04	0.05	0.06	0.075	0.1
Const.11KV	617	838	1029	1219	1322	1528	1807
Const.33KV	5533	7542	9261	10708	11898	13750	16267

Section	Km	KVA-DTC	KVA-KM	% V. R.
F- E	0	0	0	
E- D	2.00	5000	10000.00	
D- C	2	15000	30000	
C- B	3	15688	47064	
B- A	6	25688	154128	
A- S/S	1	30688	30688	
TOTAL	14		271880	15.04

Existing Conductor size 0.1 DOG (33 KV)

$$\%VR = \frac{\text{Actual MVA KM} \times 0.9}{\text{Conductor Constant}}$$

$$= 15.04223$$

Assitant ENGINEER
M.S.E.D.C.L.
SANGOLA R2-SECTION-OFFICE

Dy. ENGINEER
M.S.E.D.C.L.
SANGOLA SUB DIV

SELF CONTAINED NOTE

One no of application for H.T.Conn for a 688 KVA in r/o M/S Ayush Paper Mills Partner Maruti R Wakhure . at Gat No.468 Manjari Tal Sangola ,Dist:- Solapur has been received to this office forwarded by Sub-Division Office-Sangola for Feasibility & Preparing of Estimate

Further we have carried actual site survey alongwith the DYEE of Sangola Sub-Division, & representative of the applicant .

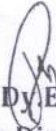
The applicant is going to construct of New paper Mill at this site. This consumer was before sanctioned at 11Kv Voltage level, but as now consumer has reapplied for 33Kv Level. The said estimate has been prepared 33 Kv line with 33Kv Bay at 33/11Kv Manjari SS (Making LILO Arrangement) is been prepared for said consumer. 33Kv Manjari ss is on 33Kv Khardi Feeder Emanating from 132/33Kv Sangola EHV SS. Presently there are 4 Nos Sub-Stations are on 33KV Khardi feeder. The Max.Load so far reached of 33Kv Khardi feeder is 335 Amp. Hence the Bifurcation of same feeder is been Proposed under RDSS SCHEME with New 33Kv Link Line

Hence Said estimate is been subjective Proposed against completion of work ,of 33Kv New Link Line Proposed under RDSS SCHEME for bifurcation of 33Kv Khardi feeder .As per applicant's requirement 33 KV line with bay At 33/11 KV Manjari SS is proposed.

Accordingly an estimate under 1.3% Supervision Charges DDF Scheme has been prepared, considering Applicants request on 33KV and as per Load applied for.



Assistant Engineer
S.O. Sangola R II



Dy. Ex. Engineer
Sub Division:-Sangola