

## **DISCOM's Guidelines & estimates for power transmission & connectivity**

Bharat Dynamics Limited (BDL), as proactive measure has asked Telangana State Southern Power Distribution Company Limited (TSSPDCL), the DISCOM of the area to conduct the feasibility cum estimation of transmission & evacuation of the proposed 5 MW (AC) Solar Plant at BDL Bhanur. Subsequently, SPDCL has assessed the feasibility of the Power evacuation of the proposed Plant and submitted the estimation to BDL, copy of the same is attached as Annexure-I.

This is further informed that;

- (i) Works with respect to Power Evacuation from proposed 5 MW (AC) Solar Power Plant including Transmission Line along with Connectivity/Termination & Metering at Nandigama Substation should comply with DISCOM's guidelines & acceptable to them for Synchronization with the State Grid.
- (ii) The cost mentioned in the document (Annexure-I) is an estimated cost based on assumptions & considerations of TSSPDCL, which may vary as per actual conditions.
- (iii) Fees & charges of DISCOM/State Authority mentioned in Annexure-I are as per current guidelines & are subject to change in future. In case of any change or introduction of any new fee/charge, bidders has to pay these charges as per the existing guideline as prevalent at the time of Execution.
- (iv) Route & distance considered for laying Transmission Line for power evacuation by TSSPDCL is based on their own assumptions, which may change. Bidders are advised to make their own assessment of route & distance of the Plant from Nandigama Substation.
- (v) Details provided in Annexure-I are just for information & reference only, neither BDL nor SECI holds any responsibility towards correctness & accuracy of same.



**SOUTHERN POWER DISTRIBUTION COMPANY OF TELANGANA LIMITED**

From:  
Chief General Manager/Comml.  
Ground Floor, Corporate Office,  
TSSPDCL, Mint Compound,  
Hyderabad.

To:  
M/s. Bharat Dynamics Ltd.  
Ministry of Defence,  
Bhanur(PO),  
Medak district -502 305.

Lr.No. CGM (Coml) / SE(C)/ DE(C)/ADE-III/D No. /416 /16-17, Dt. 4-08-2016.

Sir,

Sub:- TSSPDCL – Comml – Estimate for evacuation arrangements of power from 5 MW Solar Power Project proposed by M/s.Bharath Dynamics Ltd, Bhanur village of Isnapur Section in Patancheru mandal of Sangareddy Division in Medak district with a CMD of 70 KVA under HT Cat-II at 33 KV level for startup power and auxiliary consumption – Turnkey Approval – Reg.

Ref:- 1. SP.O.O.(Coml.) Ms.No.435/2016-17, dt.02.08.2016.  
2. WBS.No. B-2016-05-01-11-04-001  
3. Letter No.CGM(Comml&RAC)/SE(IPC)/F.SPP-2015/D.No.679/15, Dt.30.07.2015.

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Vide reference 1<sup>st</sup> cited, an estimate sanctioned for evacuation arrangements of power from 5 MW Solar Power Project proposed by M/s.Bharath Dynamics Ltd, Bhanur village of Isnapur Section in Patancheru mandal of Sangareddy Division in Medak district for an amount of Rs.2,57,30,755/-.

Vide reference 3<sup>rd</sup> cited, Supervision Charges are exempted for the estimates of Solar Power Projects Sanctioned after 01-06-2015 i.e., date of commencement of operation of Solar Policy-2015.

After careful examination, TSSPDCL is hereby accords approval for execution of works on turnkey basis for evacuation arrangements of power from proposed 5 MW Solar Power Project proposed by M/s.Bharath Dynamics Ltd, Bhanur village of Isnapur Section in Patancheru mandal of Sangareddy Division in Medak district subject to the following:

- An amount of Rs.84,000/- towards Development Charges (@ Rs. 1200/- per KVA), Rs.70,000/- towards Security Deposit (@ Rs.1000/- per KVA) & Rs.100/- towards "A" Form fee shall be collected for release of 1No. HT Service under HT Cat-II for a CMD of 70 KVA for auxiliary consumption of the Generator.

The work shall be carried out by the Generator/ Developer as per the conditions laid down in the annexure enclosed.

You are requested to contact the Superintending Engineer/Operation/ Medak for further process in the matter.

Yours faithfully,

*[Signature]*  
Chief General Manager/Commercial

Copy to:

The Superintending Engineer/Operation/Medak - for taking further necessary action.

Copy communicated to:

The Chief General Manager/Finance/TSSPDCL  
The Chief General Manager/P&MM/TSSPDCL  
The Chief General Manager/Operation/Ranga Reddy Zone.  
The Chief Engineer/Rural Zone/TSTRANSCO/220 KV Erragadda SS/GTCS Colony  
The Superintending Engineer/TL&SS/TSTRANSCO/Medak  
The Superintending Engineer/IPC & RAC/TSSPCL.  
The Divisional Engineer/Tech to CMD/TSSPDCL.

Copy submitted to:

The Director/Commercial/TSSPDCL.  
The Director/Finance/TSSPDCL.  
The Director/Operation/TSSPDCL.  
The Chief Engineer/ Planning, Commercial & Coordination/TSTRANSCO



## ANNEXURE

### General Terms & Conditions for Evacuation of Wind / Solar Power Turnkey Approval

1. Licensed Electrical Contractors as per Standards of TSSPDCL should execute the works under supervision of DISCOM officials.
2. The Materials used in the works should conform to TSSPDCL specifications.
3. In any unforeseen calamities / accidents occurred during the execution of the above work, the TSTRANSCO / Distribution Company shall not be held responsible for such incidents and consequential losses or damages.
4. The prospective Generator/ Developer shall maintain the 33 KV lines after completion in full shape as per PPA duly following the rules in vogue.
5. TSTRANSCO / Distribution company official shall take the works executed by the Generator/ Developer over by TSTRANSCO/Distribution Company only if they confirm to TSTRANSCO's specifications after statutory inspection. The defects if any pointed out shall be rectified by the Generator/ Developer at his cost.
6. If any difference of amount found after synchronization of lines, the difference of the amount shall be recovered from the Generator / Developer.

  
Chief General Manager, Commercial



# SOUTHERN POWER DISTRIBUTION COMPANY OF TS LIMITED

Estimate for erection of Dedicated 33KV line setting up of 5MW capacity solar power project by M/s. Bharath Dynamics Ltd., at Bhanur(V) of Isnapur section of Patancheru (M) of Sangareddy division of Medak circle  
- Reg.

Southern Power Distribution Company of Telengana Ltd.

Estimate for erection of Dedicated 33KV line for setting up of 5MW capacity solar power project by M/s. Bharath Dynamics Ltd. Bhanur(V), in Isnapur Section (Instructions issued by CGM(Comml&RAC), Patancheru(M) in Medak Dist.

## REPORT TO ACCOMPANY THE ESTIMATE

1. General: The proposal for erection of Dedicated 33KV line for setting up of 5MW capacity solar power project by M/s. Bharath Dynamics Ltd. Bhanur(V), in Isnapur Section (Instructions issued by CGM(Comml&RAC), Patancheru(M) in Medak Dist.

2. Point of supply: The proposal of supply from 33Kv Dedicated emanating from 33/11KV Nandigama SS.

3. Main Features: The proposal envisages the following:

- Erection of 33KV Metering Arrangements.
- Erection of 3no's 4 pole DP structure with RS Joist poles.
- Erection of 5.85KM 33KV line Double Circuit over 90 no's M+6 Towers.
- Erection of 1.69KM single circuit line over 26 no's RS Joist Poles with a span of 65mtrs.
- 33KV Bay at 33/11KV Nandigama SS.
- Providing of Standby, Main & Check Meters at both Consumer end and Sub-Station end.

4. Materials: As enclosed detailed estimate.

5. Justification: A service connection required for synchronization to solar power project. So that as per instructions of CGM(Comml&RAC) with Ref No: LR.No.CGM(Comml & RAC)/SE(IPC)/F.BDL/D.No.524/16,Dt:14.06.2016, hence estimate is prepared and submitted for earlier sanction.

<b>Division</b>	<b>: DE/OP/SANGAREDDY</b>	<b>Section</b>	<b>: AE ISNAPUR</b>
<b>Project Type</b>	<b>: Evacuation of Power for Solar &amp; Wind</b>	<b>Cost Center</b>	<b>: 105111401</b>
<b>Estimate No.</b>	<b>: B-2016-05-01-11-04-001</b>	<b>Estimate Description</b>	<b>: Estimate for erection of Dedicated 33KV</b>
<b>Network No.</b>	<b>: 4007201</b>	<b>Estimate Created Date</b>	<b>: 23.06.2016</b>
<b>Reservation No.</b>	<b>: 8001139381</b>	<b>Plant</b>	<b>: 1050</b>
<b>User Status</b>	<b>: SE NBGD</b>	<b>System Status</b>	<b>: CRTD AVAC</b>
<b>Estimate Approved date</b>	<b>:</b>	<b>Estimate Sanctioned By</b>	<b>:</b>

<b>Estimate Cost (Gross) :</b>		<b>25875759.20</b>
<b>Less Credits :</b>		<b>0.00</b>
<b>Estimate Cost (Net) :</b>		<b>25875759.20</b>
<b>10% Incidental Charges to be collected :</b>		<b>2481651.085</b>
<b>SL.No.</b>	<b>Proposals involves</b>	<b>Total in Rs.</b>
<b>1</b>	<b>10 - 1) Erection of Yard at Consumer premises</b>	<b>1648527.0545</b>





## SOUTHERN POWER DISTRIBUTION COMPANY OF TS LIMITED

2	30 - 2) Erection of 33KV line	20475349.265
3	50 - 3) Erection of 33KV Bay at Nandigama SS	3563450.2655
4	70 - 4) Shifting of Breaker in SS	188432.614

  
Chief General Manager  
Operation, Rangareddy Zone,  
TSSPDCL, Mint Compound, Hyd.



# SOUTHERN POWER DISTRIBUTION COMPANY OF TS LIMITED

Activity No : 10

Activity Description : 1) Erection of Yard at Consumer premises

S.No	Materials Code	Materials Text	Item Category	Quantity	Unit	Rate in Rs.	Amount in Rs.
1	LAS00004	33KV Lightning Arrestors Station Type	Stock item	12	EA	2,995.96	35,951.52
2	MIS50007	ACSR Conductor Zebra	Stock item	150.000	M	235.22	35,283.00
3	MST00012	MS Channel 100x50 mm	Stock item	500.000	KG	43.37	21,685.00
4	MST00014	MS Flat 50x6 mm	Stock item	200.000	KG	43.05	8,610.00
5	OTH10155	T clamps for 33kv Bay	Stock item	6	EA	500.00	3,000.00
6	ABS30004	33KV 800A D/B AB SWITCH WITH INSULATORS	Stock item	4	EA	42,000.00	168,000.00
7	BAT00026	24v 40AH Battery Charger	Stock item	1	EA	7,900.00	7,900.00
8	BNT00027	MS BOLTS & NUTS 5/8x2"	Stock item	100.000	KG	25.50	2,550.00
9	BXS00026	HT Pilfer proof Boxes	Stock item	3	EA	494.55	1,483.65
10	CBP00006	LT PVC Cu Contr Cable 10 Core 2.5 Sq. mm	Stock item	120.000	M	173.85	20,862.00
11	CBP00002	LT PVC Cu Contr Cable 4 Core 2.5 Sq. mm	Stock item	150.000	M	73.27	10,990.50
12	EMT00035	CI Earth Pipe 100 mm Dia 2.75 Mts Long	Stock item	3	EA	2,652.00	7,956.00
13	INS30007	33KV Polymer Insulators (B&S)	Stock item	12	EA	279.35	3,352.20
14	HWR00004	33KV Metal parts(B&S)	Stock item	12	SET	171.50	2,058.00
15	SSB10004	33KV Pad Clamps for Panther Conductor	Stock item	18	EA	162.69	2,928.42
16	SSB10025	T Clamps for Dog to Dog Conductor	Stock item	6	EA	84.66	507.96
17	SSB10056	Pad-clamp 3pairs bolt&nuts Panther cond	Stock item	6	EA	286.42	1,718.52
18	SSB10057	Pad-clamp 2pairs bolt&nuts Dog conductor	Stock item	18	EA	159.00	2,862.00
19	BRK30018	33KV 24VFDR VCB WITH DIFF.PROT,CTS&CRPNL	Stock item	1	EA	402,513.17	402,513.17
20	ITR30054	33KV Metering CT's 100/1A, 0.2S Class	Stock item	6	EA	16,753.11	100,518.66
21	ITR30061	33KV 1ph PTs, 10 VA Burden 0.2 Class	Stock item	6	EA	19,966.94	119,801.64
22	MHT30044	HT Tri Open Access 33KV 50/1 A IP:15min	Stock item	3	EA	125,000.00	375,000.00

**Material Cost** 1,335,532.24

S.No	Services Code	Services Text	Item Category	Quantity	Unit	Rate in Rs.	Amount in Rs.
1	SWR20671	Erect and commn of Battery charger etc,	—	1	EA	653.00	653.00
2		Con of Plinth for 33kv VCB 2.1X2.1X1.5m	—	6.615	M3	4,914.00	32,506.11
3	SWR10401	Erection of 33kv single phase PT s	—	2	SET	1,079.00	2,158.00
4	SWR10399	Erection of 33kv CT s	—	2	SET	1,079.00	2,158.00
5	SWR10396	Erect of 33kv LA stn type incl	—	4	SET	838.00	3,352.00





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		earthing					
6	SWR10392	Erection of 33kv ABSwitch incl earthing	—	4	EA	1,912.00	7,648.00
7	SWR20176	Erection of HT Trivector Meter	—	3	EA	1,000.00	3,000.00
8	SWR10460	Erection of 33kv VCB	—	1	EA	4,783.00	4,783.00
9	SWR10003	Labour and Transport Charges	—	1	LS	25,000.00	25,000.00
10	SWR10357	ERECT. OF LINES-Providing of earthing	—	3	EA	1,359.00	4,077.00
11	SWR20666	Laying 4 core/10 core, 2.5 sq.mm control	—	0.270	KM	13,000.00	3,510.00
12	SWR20178	Erect of HT Metering Box excl box cost	—	3	EA	200.00	600.00
13	SWR10919	Earthing for raisers of SS Flat 50x6 mm.	—	41.660	RMT	39.00	1,624.74
14	SWR10917	Labour for Fixing of all types of clamps	—	54	EA	63.00	3,402.00
15	SWR20052	Excavation of Pit for VCB	—	5.292	M3	315.00	1,666.98
<b>Service Cost</b>							96,138.83
<b>15% Service Tax on Labour &amp; Transport :</b>							14,420.82
<b>3 % S &amp; H Charges :</b>							28815.97
<b>3 % Contingencies on materials:</b>							40065.97
<b>10 % Estt. &amp; General Charges :</b>							133553.22
<b>Total :</b>							1648527.05

  
 Chief General Manager  
 Operation, Rangareddy Zone,  
 TSSPDCL, Mint Compound, Hyd.



# SOUTHERN POWER DISTRIBUTION COMPANY OF TS LIMITED

Activity No : 30

Activity Description : 2) Erection of 33KV line

S.No	Materials Code	Materials Text	Item Catagory	Quantity	Unit	Rate in Rs.	Amount in Rs.
1	INS30001	33KV Pin Insulators	Stock item	480	EA	155.97	74,865.60
2	HWR00003	33KV GI Pins	Stock item	480	EA	164.56	78,988.80
3	INS30007	33KV Polymer Insulators (B&S)	Stock item	60	EA	279.35	16,761.00
4	HWR00004	33KV Metal parts(B&S)	Stock item	60	SET	171.50	10,290.00
5	INS30001	33KV Pin Insulators	Stock item	60	EA	155.97	9,358.20
6	HWR00003	33KV GI Pins	Stock item	60	EA	164.56	9,873.60
7	INS30007	33KV Polymer Insulators (B&S)	Stock item	36	EA	279.35	10,056.60
8	HWR00004	33KV Metal parts(B&S)	Stock item	36	SET	171.50	6,174.00
9	MST00012	MS Channel 100x50 mm	Stock item	1,700.000	KG	43.37	73,729.00
10	MST00003	MS Angle 65x65x6	Stock item	900.000	KG	42.00	37,800.00
11	FBR30002	33KV M.S.Stay Clamps	Stock item	10	SET	65.59	655.90
12	FBR30009	33KV MS Stay Sets without BasePlate	Stock item	5	SET	734.26	3,671.30
13	MST00029	RS Joist 150x150mm	Stock item	7,774.000	KG	54.98	427,414.52
14	FBR30003	33KV "V"Cross Arms with Clamps	Stock item	20	EA	1,229.00	24,580.00
15	FBR30013	33KV TOP FITTING	Stock item	20	EA	125.46	2,509.20
16	FBR30001	33KV M.S.Back Clamps	Stock item	52	SET	176.00	9,152.00
17	MST00029	RS Joist 150x150mm	Stock item	3,588.000	KG	54.98	197,268.24
18	ABS30004	33KV 800A D/B AB SWITCH WITH INSULATORS	Stock item	3	EA	42,000.00	126,000.00
19	CDR00004	AAA conductor 100 Sq. mm	Stock item	35,100.000	M	49.23	1,727,973.00
20	CDR00004	AAA conductor 100 Sq. mm	Stock item	5,100.000	M	49.23	251,073.00
<b>Material Cost</b>							<b>3,098,193.96</b>
S.No	Services Code	Services Text	Item Catagory	Quantity	Unit	Rate in Rs.	Amount in Rs.
1	SWR10366	Stringing 100sqmm 33/11kv Line 3 Cond SC	-	1.690	KM	11,230.00	18,978.70
2	SWR10704	Stringing 100sqmm 33/11kv Line 6 Cond DC	-	5.850	KM	16,850.00	98,572.50
3	SMR11488	S-GI Bolts & Nuts,Washers etc.	-	1,200.000	KG	90.00	108,000.00
4	SWR21708	Sub Transport of Material	-	90	LS	1,200.00	108,000.00
5	SWR20499	Other miscellaneous items not covered	-	1	LS	10,000.00	10,000.00
6	SWR22092	survey line&cabl inc peg mark&tree clear	-	7.540	KM	500.00	3,770.00
7	SWR10466	Formation of 33kvline vertical cutpoint	-	10	EA	2,715.00	27,150.00
8	SWR10981	Horizontal Cut point for 33 KV line	-	6	EA	1,520.00	9,120.00
9	SWR20578	Crane Charges over and above first hour	-	72.0	HR	420.00	30,240.00
10	SWR10348	Erection of RS Joist 150 x 150 mm	-	26	EA	1,220.00	31,720.00
11	SWR10110	EXCAV. OF PIT HARD (2.6" x 2.6" x 5.0')	-	26	EA	1,905.00	49,530.00





## SOUTHERN POWER DISTRIBUTION COMPANY OF TS LIMITED

12	SWR10354	Assembly and erection of Stay set 33kv	-	5	SET	460.00	2,300.00
13	SWR21933	Exc Stay pit 0.45x0.45x1.265M Hard Soil	-	5	EA	907.00	4,535.00
14	SWR22517	Ere. 33kv DP str.#RS Joist poles 12mts	-	3	SET	15,000.00	45,000.00
15	SWR20165	Concreting of Poles	-	26.260	EA	4,914.00	129,041.64
16	SWR10392	Erection of 33kv ABSwitch incl earthing	-	3	EA	1,912.00	5,736.00
17	SMR11481	S-CI Pipe earthing 100mm dia 2m long	-	6	EA	2,700.00	16,200.00
18	SWR10003	Labour and Transport Charges	-	1	LS	10,000.00	10,000.00
19	SWR10357	ERECT. OF LINES-Providing of earthing	-	6	EA	1,359.00	8,154.00
20	SWR20002	33/11kv S.S Fabr of MS channel 100x50	-	1.700	LS	6,000.00	10,200.00
21	SMR22236	Supply of M+6 type tower	-	167.490	EA	46,904.00	7,855,950.96
22	SMR40041	SupHot dip gal./Zinc bolts & nuts washer	-	14.220	TO	87,000.00	1,237,140.00
23	SWR20126	M + 6 type tower complete Fabrication	-	167.490	TO	5,500.00	921,195.00
24	SWR20127	M + 6 type tower Earth work in all soils	-	427.680	M3	264.00	112,907.52
25	SWR20128	M + 6 type tower CC with 40mm metal	-	427.680	M3	5,963.00	2,550,255.84
26	SWR20129	M + 6 type tower erection complete	-	167.490	TO	6,500.00	1,088,685.00
27	SWR20130	M + 6 type tower Tack welding.	-	90	EA	1,500.00	135,000.00
28	SWR20131	M + 6 type tower Pipe earthing 40mm dia	-	180	EA	1,479.50	266,310.00
29		Transport Charges for tower parts	-	167.490	TO	2,000.00	334,980.00
30	SMR40009	Sup Material for 1st coat Al. Painting.	-	167.490	TO	1,884.00	315,551.16
31	SWR10877	Labour for 1st coat Al. Painting.	-	167.490	TO	734.00	122,937.66
32	SMR40010	Sup Material for 2nd coat Al. Painting.	-	167.490	TO	1,116.00	186,918.84
33	SWR10879	Labour for 2nd coat Al. Painting.	-	167.490	TO	416.00	69,675.84
34	SWR10640	Painting of RS Joist(1C RO, 2C Al.Paint)	-	26	EA	906.00	23,556.00
<b>Service Cost</b>							15,947,311.66
<b>15% Service Tax on Labour &amp; Transport :</b>							934,132.61
<b>3 % S &amp; H Charges :</b>							92945.82
<b>3 % Contingencies on materials:</b>							92945.82
<b>10 % Estt. &amp; General Charges :</b>							309819.40
<b>Total :</b>							20475349.27

  
 Chief Operating Manager  
 Operation, Rangareddy Zone,  
 TSSPDCL, Mint Compound, Hyd.





# SOUTHERN POWER DISTRIBUTION COMPANY OF TS LIMITED

Activity No : 50

Activity Description : 3) Erection of 33KV Bay at Nandigama SS

S.No	Materials Code	Materials Text	Item Catagory	Quantity	Unit	Rate in Rs.	Amount in Rs.
1	CBP00006	LT PVC Cu Contr Cable 10 Core 2.5 Sq. mm	Stock item	750.000	M	173.85	130,387.50
2	CBP00002	LT PVC Cu Contr Cable 4 Core 2.5 Sq. mm	Stock item	750.000	M	73.27	54,952.50
3	LAS00004	33KV Lightning Arrestors Station Type	Stock item	3	EA	2,995.96	8,987.88
4	OTH10154	GI structure for 33kv Bay	Stock item	5,000.000	KG	86.62	433,100.00
5	OTH10158	Spacer Clamp for 33kv Bus	Stock item	9	EA	484.00	4,356.00
6	OTH10159	Spacer Clamp with T off Zebra 1 feeder	Stock item	3	EA	750.00	2,250.00
7	OTH10157	33kv Tension Hard ware for twin zebra	Stock item	6	EA	2,392.00	14,352.00
8	CDR00011	ACSR Conductor Zebra	Stock item	150.000	M	235.22	35,283.00
9	OTH10155	T clamps for 33kv Bay	Stock item	12	EA	500.00	6,000.00
10	MST00015	MS Flat 75x8	Stock item	150.000	KG	43.05	6,457.50
11	EMT00035	CI Earth Pipe 100 mm Dia 2.75 Mts Long	Stock item	4	EA	2,652.00	10,608.00
12	OTH10156	Twin Zebra connector for 33kv Bay	Stock item	12	EA	600.00	7,200.00
13	ABS30004	33KV 800A D/B AB SWITCH WITH INSULATORS	Stock item	2	EA	42,000.00	84,000.00
14	INS30007	33KV Polymer Insulators (B&S)	Stock item	24	EA	279.35	6,704.40
15	HWR00004	33KV Metal parts(B&S)	Stock item	24	SET	171.50	4,116.00
16	MST00048	GI Flat 100x16	Stock item	355.000	KG	63.47	22,531.85
17	MST00047	MS Flat 100x16	Stock item	630.000	KG	51.82	32,646.60
18	MST00014	MS Flat 50x6 mm	Stock item	620.000	KG	43.05	26,691.00
19	BRK30014	33KV IndorTwin Feeder Control&Relay Panl	Stock item	1	EA	136,858.20	136,858.20
20	CBX30001	33KV XLPE Cable 3 Core 400 Sq. mm	Stock item	200.000	M	2,167.70	433,540.00
21	SCB10114	33KV 3X400 Heat Shble out/d end ter kit	Stock item	4	EA	3,250.00	13,000.00
22	BRK30022	33KV 220V FED VCB WITH CTS & CR PANEL	Stock item	1	EA	322,016.00	322,016.00
23	SSB10004	33KV Pad Clamps for Panthar Conductor	Stock item	12	EA	162.69	1,952.28
24	SSB10056	Pad-clamp 3pairs bolt&nuts Panther cond	Stock item	24	EA	286.42	6,874.08
25	SSB10057	Pad-clamp 2pairs bolt&nuts Dog conductor	Stock item	24	EA	159.00	3,816.00
26	ITR30054	33KV Metering CT's 100/1A, 0.2S Class	Stock item	6	EA	16,753.11	100,518.66
27	ITR30061	33KV 1ph PTs,10 VA Burden 0.2 Class	Stock item	6	EA	19,966.94	119,801.64
28	MHT30044	HT Tri Open Access 33KV 50/1 A IP:15min	Stock item	3	EA	125,000.00	375,000.00
<b>Material Cost</b>							<b>2,404,001.09</b>





# SOUTHERN POWER DISTRIBUTION COMPANY OF TS LIMITED

S.No	Services Code	Services Text	Item Catagory	Quantity	Unit	Rate in Rs.	Amount in Rs.
1	SWR21731	Extension of 33kv Bay at 132/33kv SS	-	1	LS	232,963.00	232,963.00
2		Civil works	-	1	LS	100,000.00	100,000.00
3	SWR10447	Raising of UG Cable 33 KV 3x400 Sqmm	-	200.000	M	100.00	20,000.00
4	SWR20617	S&F route markings(Cable) incl.Concret	-	1	LS	10,000.00	10,000.00
5	SWR20843	33 KV XLPE Out.Door.End kit(3x400 sqmm)	-	4	EA	4,231.37	16,925.48
6	SWR20666	Laying 4 core/10 core, 2.5 sq.mm control	-	1.500	KM	13,000.00	19,500.00
7	SWR10396	Erect of 33kv LA stn type incl earthing	-	1	SET	838.00	838.00
8	SWR10357	ERECT. OF LINES-Providing of earthing	-	4	EA	1,359.00	5,436.00
9	SWR10392	Erection of 33kv ABSwitch incl earthing	-	2	EA	1,912.00	3,824.00
10	SWR10460	Erection of 33kv VCB	-	1	EA	4,783.00	4,783.00
11	SWR10399	Erection of 33kv CT s	-	2	SET	1,079.00	2,158.00
12		Suply & Erect of 1600A Isolator	-	1	EA	42,000.00	42,000.00
13		Labour & Transport for Breaker	-	1	LS	179,345.00	179,345.00
14	SWR20176	Erection of HT Trivector Meter	-	3	EA	1,000.00	3,000.00
15	SWR10401	Erection of 33kv single phase PT s	-	2	SET	1,079.00	2,158.00
16		Con of Plinth for 33kv VCB 2.1X2.1X1.5m	-	6.615	M3	4,914.00	32,506.11
17	SWR20052	Excavation of Pit for VCB	-	5.292	M3	315.00	1,666.98
18	SWR10917	Labour for Fixing of all types of clamps	-	102	EA	63.00	6,426.00
<b>Service Cost</b>							683,529.57
<b>15% Service Tax on Labour &amp; Transport :</b>							102,529.44
<b>3 % S &amp; H Charges :</b>							60870.03
<b>3 % Contingencies on materials:</b>							72120.03
<b>10 % Estt. &amp; General Charges :</b>							240400.11
<b>Total :</b>							3563450.27

  
 Chief General Manager  
 Operation, Rangareddy Zone,  
 TSSPDCL, Mint Compound, Hyd.





# SOUTHERN POWER DISTRIBUTION COMPANY OF TS LIMITED

Activity No : 70

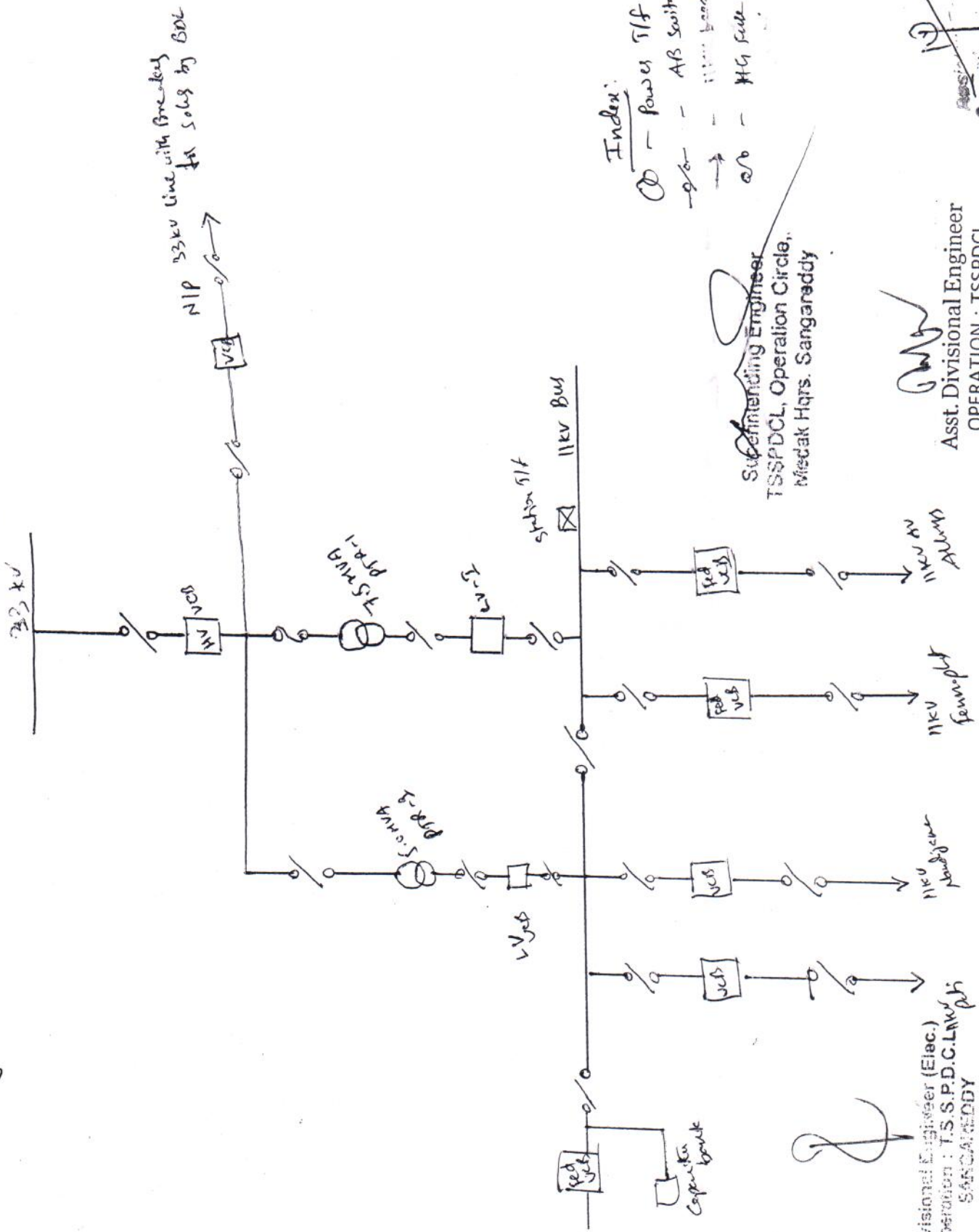
Activity Description : 4) Shifting of Breaker in SS

S.No	Materials Code	Materials Text	Item Category	Quantity	Unit	Rate in Rs.	Amount in Rs.
1	MST00029	RS Joist 150x150mm	Stock item	1,196.000	KG	54.98	65,756.08
2	MST00012	MS Channel 100x50 mm	Stock item	300.000	KG	43.37	13,011.00
3	MST00003	MS Angle 65x65x6	Stock item	150.000	KG	42.00	6,300.00
4	LAS00002	11KV Lightning Arrestors Station Type	Stock item	3	EA	1,726.08	5,178.24
5	ABS10009	11KV 400A Conv DB AB/s with insulators	Stock item	1	EA	14,350.00	14,350.00
<b>Material Cost</b>							<b>104,595.32</b>
S.No	Services Code	Services Text	Item Category	Quantity	Unit	Rate in Rs.	Amount in Rs.
1	SWR20005	33/11kv S.S Erection of 11kv AB switch	—	1	EA	1,912.00	1,912.00
2	SWR20003	33/11kv S.S Erection of 33kv&11kv bus	—	1	LS	5,000.00	5,000.00
3	SWR10348	Erection of RS Joist 150 x 150 mm	—	4	EA	1,220.00	4,880.00
4	SWR10397	Erect of 11kv LA stn type incl earthing	—	1	SET	532.00	532.00
5	SWR20002	33/11kv S.S Fabr of MS channel 100x50	—	0.300	LS	6,000.00	1,800.00
6	SWR10110	EXCAV. OF PIT HARD (2.6" x 2.6" x 5.0')	—	4	EA	1,905.00	7,620.00
7	SWR20578	Crane Charges over and above first hour	—	2.0	HR	420.00	840.00
8	SWR20165	Concreting of Poles	—	4.040	EA	4,914.00	19,852.56
9	SWR21265	Erection of 33KV & 11KV bus jumpering	—	1	LS	2,000.00	2,000.00
10	SWR10003	Labour and Transport Charges	—	1	LS	10,000.00	10,000.00
11	SMR11488	S-GI Bolts & Nuts, Washers etc.	—	50.000	KG	90.00	4,500.00
<b>Service Cost</b>							<b>58,936.56</b>
<b>15% Service Tax on Labour &amp; Transport :</b>							<b>8,165.48</b>
<b>3 % S &amp; H Charges :</b>							<b>3137.86</b>
<b>3 % Contingencies on materials:</b>							<b>3137.86</b>
<b>10 % Estt. &amp; General Charges :</b>							<b>10459.53</b>
<b>Total :</b>							<b>188432.61</b>

  
 Chief Technical Manager  
 Operation, Rangareddy Zone,  
 TSSPDCL, Mint Compound, Hyd.



Single line Diagram of 33/11KV Nandigama SS



## Index:

$$\frac{Q - \text{Power Tiff}}{Q - \text{Power Tiff}}$$

APB switches

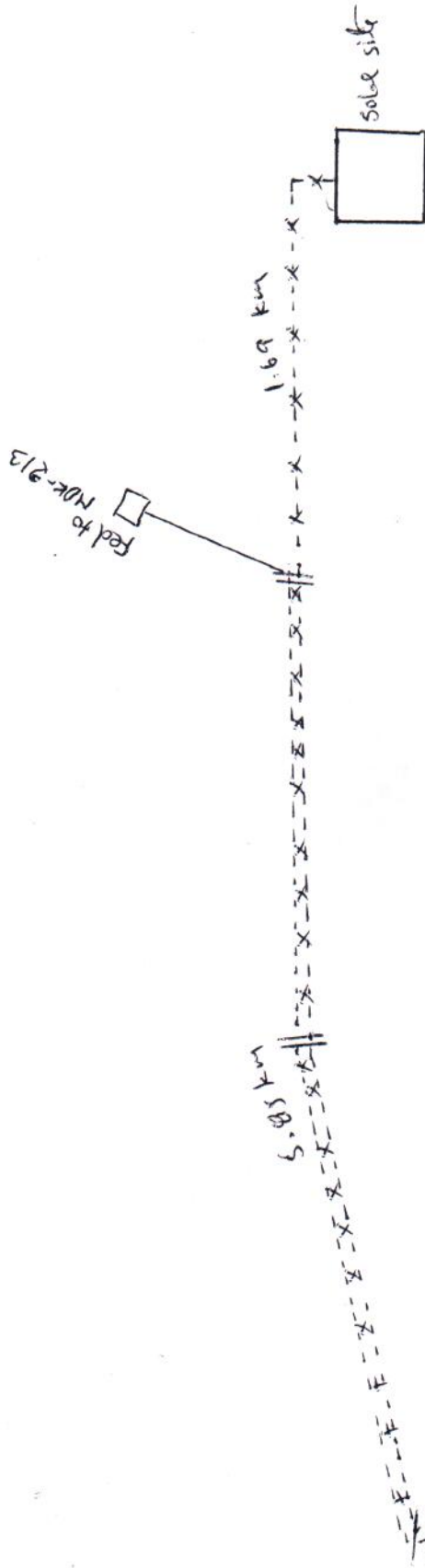
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Superintending Engineer  
TSSPDCL, Operation Circle  
Medak Hqrs. Sangareddy

Divisional Engineer (Elec.)  
Operation : T.S.S.P.D.C.L.NWJ  
SANGAREDDY

Asst. Divisional Engineer  
OPERATION : TSSPDL  
SANGAREDDY.

# Erection of 33kv Line from 33/11kv Nandigama SS



## Index

- 1:3 New Double CKT
- Line over 11+6 towers
- New Single CKT Line
- over 26 m Rigid-pds.
- 3m Line AB Smiling on DP Stand

Superintending Engineer  
TSSPDCL, Operation Circle,  
Sangareddy

33/11kv  
Nandigama SS

Asst. Divisional Engineer  
OPERATION : TSSPDCL  
SANGAREDDY.

Divisional Engineer (Elec.)  
Operation : T.S.S.P.D.C.L.  
SANGAREDDY

Asst. Divisional Engineer  
SF  
Sangareddy