ANNEXURE-13

DT AUGMENTATION /

DSS ADDITION

Annexure-13 DT Augmentation				
Sl. No.	**Description**	**Quantity (in nos.)**	**Unit Rate (in Rs.)**	**Amount (in cr.)**
1	100kVA to 250kVA	52	11,57,251.58	6.02
2	250kVA to 500kVA	67	20,82,361.48	13.95
Total				**20.0**

Standard Estimate for DTR Augmentation 100kVA to 250kVA					
	No. of Plinth Mounted DSS (Ref. Drawing No.- TPCODL/IPDS/DTR/0002)	1			
	MATERIALS OF Plinth Mounted DSS				
Sl. No.	***Description of Materials***	***Unit***	***Unit Rate***	***Total Quantity***	***Total Amount***
	SUPPLY OF FOLLOWING EQUIPMENT & MATERIALS				
1	50x6mm GI Flat for earthing, 2.36kg/mtr., (2.5x7 mtr. For mesh formation, 12 Mtr. For LA and 2.5 mtr. For raising, 11 mtr for AB switch, 2.8 mtr for HG Fuse, 5x2 mtr. for DTR Nutral, (1.3+4.5) mtr. For DTR Body, 0.500 mtr for LTDB & AB Switch operating handle, 3 mtr. for Fencing) (Each 65.6x 2.36= 154.81 Kg)	KG	97.50	154.82	15,094.56
2	250 KVA , 11/ 0.4 KV (Cu) Transformer with Tap Changer BIS Energy level II	Nos.	5,73,210.00	1	5,73,210.00
3	LT Distribution Box with MCCB, Aluminium Busbar for 3 Bay with kit kat fuse for 250 KVA S/S	Nos.	77,024.18	1	77,024.18
4	55mm2 All Alloy Aluminum Conductor (AAAC) - PVC Insulated (50 Mtr. Each Dtr.)	Mtr.	55.24	50	2,762.00
5	1 Cx 400 mm2 LT XLPE Cable(Un-Armoured)	Mtr.	359.66	120	43,159.20
6	Lightning Arrester(12KV,10KA) Station Class 2	Nos.	4,615.00	3	13,845.00
7	40 mm Nominal bore GI pipe (medium gauge) earthing device with 3 mtr .Long	No	1,365.00	7	9,555.00
A	**Total Cost of materials**				**7,34,649.94**
B	**Stock, Storage & Insurance i.e 3% of A**				22,039.50
C	**Sub Total (A+B)**				**7,56,689.44**
D	Contigency @ 3% of C				22,700.68
E	Tools & Plants @ 2% of C				14,047.88
F	Transportation @ 7.5% of C				56,751.71
G	Erection Charges @ 5% on Trf/Breaker/WPB/ H-Pole				29,520.32
H	Erection Charges @ 10% of C (except Trf/Breaker/WPB/ H-Pole/HT stay set/GI Pipe/PSC Pole)				11,198.75
I	Erection Charges @ 20% of PSC pole- Not to be used for 33kv				-
J	**Sum of (C to I)**				**8,90,908.77**
	Civil and Services Works (As per Technical Specification)				
1	Construction Earthing chamber including installation of earthing pipe.Making earthing chamber including excavation , soil treatment with bentonide powder , calculation of earth resistance, including Installation of 3Mtr GI Pipe 40mm/50mm including welding of GI flat around pipe .	No.	3,700.00	7	25,900.00
2	BA will supply all civil Material, excavation , removal of Malba,refilling, including Manpower,machinery etc as per TPCODL Drawing for Plinth for L.T. Distribution box 6ft hight (below GL2ft)x5ftx5ft	NO	6,000.00	1	6,000.00
3	Construction of Plinth with Brick, Mortar, 12 mm cement plaster and for 250KVA transformer as per TPCODL drawing.Scope of work includes excavation of earth,supply of Civil material for construction, desposal of extra malba as per EIC instruction.	No.	28,000.00	1	28,000.00
4	Laying of 1 Cx 400 mm2 LT XLPE Cable	Mtr.	72.00	120	8,640.00
5	Dismantling of existing 11/0.4kV, 33/0.4KV, Three Phase Distribution Transformer below 100KVA including removal of HT/LT leads, earth connections and unloading by crane if required. Scope of work also includes loading, transportation, unloading and staking at a proper place in safe position/site store	EA	3,262.64	1.000	3,262.64
K	**Total Civil & Services**				**71,802.64**
L	**Total (J+K)**				**9,62,711.41**
M	Other overheads (Including 6% supervision charges) of L				-
N	**Sub Total (L+M)**				**9,62,711.41**
O	Total GST @ 18% of (N)				1,73,288.05
O1	CESS @ 1% of (N)				9,627.11
P	**Gross Total Material +Services (N+O+O1)**				**11,45,626.58**
Q	Inspection Fee of Transformer (100kVA to 1000KVA)				10,500.00
R	Inspection Fee of LV Cable				375.00
S	Inspection Fee of Drawing Checking and Approval				750.00
T	**Gross Total Material, Services and Inspection Fees (P+Q+R+S)**				**11,57,251.58**

Standard Estimate for DTR Augmentation 250kVA to 500kVA					
	No. of Plinth Mounted DSS (Ref. Drawing No.- TPCODL/IPDS/DTR/0002)	1			
	MATERIALS OF Plinth Mounted DSS				
Sl. No.	***Description of Materials***	***Unit***	***Unit Rate***	***Total Quantity***	***Total Amount***
	SUPPLY OF FOLLOWING EQUIPMENT & MATERIALS				
1	50x6mm GI Flat for earthing, 2.36kg/mtr., (2.5x7 mtr. For mesh formation, 12 Mtr. For LA and 2.5 mtr. For raising, 11 mtr for AB switch, 2.8 mtr for HG Fuse, 5x2 mtr. for DTR Nutral, (1.3+4.5) mtr. For DTR Body, 0.500 mtr for LTDB & AB Switch operating handle, 3 mtr. for Fencing) (Each 65.6x 2.36= 154.81 Kg)	KG	97.50	154.82	15,094.56
2	500 KVA , 11/ 0.4 KV (Cu) Transformer with Tap Changer BIS Energy level II	Nos.	11,62,260.00	1	11,62,260.00
3	LT Distribution Box with MCCB, Aluminium Busbar for 4 Bay with kit kat fuse for 500 KVA S/S	Nos.	1,26,149.00	1	1,26,149.00
4	55mm2 All Alloy Aluminum Conductor (AAAC) - PVC Insulated (50 Mtr. Each Dtr.)	Mtr.	55.24	50	2,762.00
5	1 Cx 400 mm2 LT XLPE Cable(Un-Armoured)	Mtr.	359.66	180	64,738.80
6	Lightning Arrester(12KV,10KA) Station Class 2	Nos.	4,615.00	3	13,845.00
7	40 mm Nominal bore GI pipe (medium gauge) earthing device with 3 mtr .Long	No	1,365.00	7	9,555.00
A				**Total Cost of materials**	**13,94,404.36**
B				Stock, Storage & Insurance i.e 3% of A	41,832.13
C				**Sub Total (A+B)**	**14,36,236.49**
D				Contigency @ 3% of C	43,087.09
E				Tools & Plants @ 2% of C	27,194.28
F				Transportation @ 7.5% of C	1,07,717.74
G				Erection Charges @ 5% on Trf/Breaker/WPB/ H-Pole	59,856.39
H				Erection Charges @ 10% of C (except Trf/Breaker/WPB/ H-Pole/HT stay set/GI Pipe/PSC Pole)	16,258.61
I				Erection Charges @ 20% of PSC pole- Not to be used for 33kv	-
J				**Sum of (C to I)**	**16,90,350.60**
	Civil and Services Works				
1	Construction Earthing chamber including installation of earthing pipe.Making earthing chamber including excavation , soil treatment with bentonide powder , calculation of earth resistance, including Installation of 3Mtr GI Pipe 40mm/50mm including welding of GI flat around pipe .	No.	3,700.00	7	25,900.00
2	BA will supply all civil Material, excavation , removal of Malba,refilling, including Manpower,machinery etc as per TPCODL Drawing for Plinth for L.T. Distribution box 6ft hight (below GL2ft)x5ftx5ft	NO	6,000.00	1	6,000.00
3	Civil cost for making TRF plinth from 250KVA of upto 1000KVA.BA has to provide necessary civil material, manpower, machinery for construction of plinth as per TPCODL Drawing	No.	32,181.60	0	-
4	Laying of 1 Cx 400 mm2 LT XLPE Cable	Mtr.	72.00	180	12,960.00
5	Dismantling of existing 11/0.4kV, 33/0.4KV, 250kVA Three Phase Distribution Transformer including removal of HT/LT leads, earth connections and unloading by crane if required. Scope of work also includes loading, transportation, unloading and staking at a proper place in safe position/site store	EA	4,904.09	1.000	4,904.09
K				**Total Civil & Services**	**49,764.09**
L				**Total (J+K)**	**17,40,114.69**
M				Other overheads (Including 6% supervision charges) of L	-
N				**Sub Total (L+M)**	**17,40,114.69**
O				Total GST @ 18% of (N)	3,13,220.64
O1				CESS @ 1% of (N)	17,401.15
P				**Gross Total Material +Services (N+O)**	**20,70,736.48**
Q				Inspection Fee of Transformer (100kVA to 1000KVA)	10,500.00
R				Inspection Fee of LV Cable	375.00
S				Inspection Fee of Drawing Checking and Approval	750.00
T				**Gross Total Material, Services and Inspection Fees (P+Q+R+S)**	**20,82,361.48**