

BOQ and estimated of Sectors-14 & 17 area under Maruti subdivision

Sr. NO.	Description	Unit	Total Quantity required	Unit Supply Charges	Ref. of Rates	Unit Supply Rates (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Total Supply cost (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Unit Erection Cost including all taxes (in Rs)	Total Erection Cost including all taxes (In Rs)	Total Cost (In Rs)
1	2	3	4	5	6	7	8	9	10	11
1	Poles									
a	PCC Pole 11.0M Long (400kg working load).	Nos	52	4600.00	1.1	5290.00	275080.00	690.00	35880.00	310960.00
b	PCC Poles 9 M Long (400kg working Load)	Nos	334	1800.00	1.2	2070.00	691380.00	270.00	90180.00	781560.00
2	ACSR Conductor									
a	100mm ²	Mtrs	186900	55.49	5.3	63.81	11926089.00	5.55	1037295.00	12963384.00
b	100mm ² insulated	Mtrs.	7940	64.70	5.4	74.41	590815.40	6.47	51371.80	642187.20
3	11 KV Insulators									
a	11 KV Porcelain insulators with GI pin, nuts and washers complete suitable for insulator assembly	Nos.	162	90.00	4.1 & 4.2	103.50	16767.00	9.00	1458.00	18225.00
b	45 KN Disc Insulator (T&C type) along with Hardwares & Accessories all complete as per Technical Specification.	Nos.	72	267.00	4.3 & 4.11	307.05	22107.60	26.70	1922.40	24030.00
4	LT Insulators									
a	LT Insulator	Nos.	1242	10.00	4.13	11.50	14283.00	1.00	1242.00	15525.00
b	Egg Insulator	Nos.	169	10.00	4.14	11.50	1943.50	1.00	169.00	2112.50
5	M.S. Galvanized Items									
a	Fabrication and Supply of M.S. Galvanized items- Pole Top Bracket/hamper, V/straight-Cross arm, Guarding cross arm, Back Clamps for V/straight-Cross arm and Guard cross arm, D P Channel/angle, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, half clamp, full clamp, D-Strap, structure for mounting of isolator MS flat for knee bracing, MS Flat, Eye Screw Bolts, Transformer platform set complete, various size of angle & channel and Cable end termination/stand using total double compression brass glands and crimping type Cu./Alu. thimbles as per cable size and DT, LT Rod etc., complete steel items as required. The weight and size of the above mentioned items shall be as per Nigam's approved latest rate list and approved drawing.	Kg	19135	52.43	2.12	60.29	1153649.15	5.24	100267.40	1253916.55
b	GI Nuts & Bolts with Washers (plain and spring)	Kgs	1138	68.00	13.4	78.20	88991.60	6.80	7738.40	96730.00

6	Clamps									
a	PG clamp for 100 mm ² ACSR	Nos.	950	40.00	3.1	46.00	43700.00	4.00	3800.00	47500.00
7	11 kV stay set assembly & LT stay set assembly (excluding stay clamp & fasteners)									
a	Stay wire (7/8 SWG)	Kgs	2260	52.00	6.1	59.80	135148.00	5.20	11752.00	146900.00
b	Hardware Fittings (8' long complete with X-Plate 460mm of Angle 65x65x6 Elbow & rod with Discs/egg insulator etc) to complete 11kV/LT stay set	Set	226	649.00	58.3	746.35	168675.10	64.90	14667.40	183342.50
8	Earthing									
a	G.I. Pipe 40 mm dia 6 mtr. Long for earthing set. B-class for line	Nos	144	1540.00	58.5	1771.00	255024.00	154.00	22176.00	277200.00
b	Earthing with G.I. Strip 25x6 mm 9 mtr. as per Drawing for line	Nos	144	601.00	6.4	691.15	99525.60	60.10	8654.40	108180.00
c	Maintanance free (Chemical) Earthing with all the allied Materialas per Nigam Specifiaction for DTs, RMUs and LT feeder Panel	Nos.	439	4280.00	P&D	4922.00	2160758.00	428.00	187892.00	2348650.00
d	GSL 8 SWG	Kgs	2916	52.00	6.2	59.80	174376.80	5.20	15163.20	189540.00
9	11 KV 400 Amps. GO Switch complete with handle, pipe & Supporting Channel. As per Nigam's Tech. Spec., relevant ISS and latest amendments	Nos	59	6000.00	12.1	6900.00	407100.00	600.00	35400.00	442500.00
10	AB Cable									
a	LT XLPE AB Cable 3C x150 mm ² (PH)+ 1Cx150 mm.sq.(N)+1C x125 mm.sq.(M) + 16mm ² (SL)	Mtrs	500	585.00	Mkt.	672.75	336375.00	29.25	14625.00	351000.00
b	LT XLPE AB Cable 3C x120 mm ² (PH)+ 1Cx120 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	1050	485.00	Mkt.	557.75	585637.50	24.25	25462.50	611100.00
c	LT XLPE AB Cable 3C x95 mm ² (PH)+ 1Cx95 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	50	385.00	Mkt.	442.75	22137.50	19.25	962.50	23100.00
11	M.S.Galvanised Clamps and Connector for LT AB cable									
a	Suspension clamps Assembly with eye hook	No	50	425.00	3.6	488.75	24437.50	42.50	2125.00	26562.50
b	Tension /dead end clamps (Bolted type) Assembly with eye hook	Set	22	244.00	3.7	280.60	6173.20	24.40	536.80	6710.00
c	Insulated Piercing Connector as per site requirement	Nos.	50	70.00	58.10	80.50	4025.00	7.00	350.00	4375.00
12	11kV LA (9KV)	Nos	177	420.00	11.1	483.00	85491.00	42.00	7434.00	92925.00
13	Barbed wire	Kg.	49	50.00	6.3	57.50	2817.50	5.00	245.00	3062.50
14	Danger Plate Enameled with clamp	No.	95	66.00	58.7	75.90	7210.50	6.60	627.00	7837.50
15	Number Plate Enameled with clamp	No.	55	66.00	58.8	75.90	4174.50	6.60	363.00	4537.50
16	Phase Plate for each phase set of 3 (On H-pole & 4 pole)	Set	44	55.00	58.6	63.25	2783.00	5.50	242.00	3025.00
17	LT Line Spacers	Nos	3488	10.00	19.1	11.50	40112.00	1.00	3488.00	43600.00
18	LT distribution box (sealable with lock facility)suitable for 10 no. consumers (2 mm CRCA sheet box, Bus bars for load as per 25 kVA DT/Fs only with holes for incoming cable and O/G cable with rubber glands	nos.	40	500.00	58.11	575.00	23000.00	50.00	2000.00	25000.00
19	HT Cables									
a	3/C 400 mm ² 11 kV XLPE Armoured cable	Mtr	53180	1692.96	P&D	1946.90	103536142.00	0.00	0.00	103536142.00
b	3/C 300 mm ² 11 kV XLPE Armoured cable	Mtr	10	1206.04	P&D	1386.95	13869.50	0.00	0.00	13869.50
c	3/C 185 mm ² 11 kV XLPE Armoured cable	Mtr	7560	676.85	32.5	778.38	5884552.80	0.00	0.00	5884552.80
d	3/C 120 mm ² 11 kV XLPE Armoured cable	Mtr	430	743.16	P&D	854.63	367490.90	0.00	0.00	367490.90
20	LT Cables									
a	LT XLPE S/C 630 MM. sq. Un-Armoured cable	Mtr	570	730.63	P&D	840.22	478925.40	36.53	20822.10	499747.50
b	LT PVC S/C 300 MM. sq. Un-Armoured cable	Mtr	550	179.19	28.5	206.07	113338.50	8.96	4928.00	118266.50
d	LT XLPE Armoured 3.5 Core, 240 sq.mm. cable	Mtr	10	835.34	P&D	960.64	9606.40	41.77	417.70	10024.10

e	LT PVC 3.5 Core 185 MM. sq. Un-Armoured cable	Mtr	770	375.70	28.16	432.06	332686.20	18.79	14468.30	347154.50
f	LT XLPE Armoured 3.5 Core, 120 sq.mm. cable	Mtr	10	449.00	P&D	516.35	5163.50	22.45	224.50	5388.00
g	LT XLPE Armoured 3.5 Core, 95 sq.mm. cable	Mtr	10	344.89	P&D	396.62	3966.20	17.24	172.40	4138.60
h	LT PVC Cable 2/C 10 MM. sq.	Mtr	10	17.28	28.10	19.87	198.70	0.86	8.60	207.30
i	LT PVC Cable 2/C 16 MM. sq.	Mtr	10	33.37	28.9	38.38	383.80	1.67	16.70	400.50
j	LT PVC Cable 4/C 16 MM. sq.	Mtr	10	55.94	28.11	64.33	643.30	2.80	28.00	671.30
k	LT PVC Cable 4/C 25 MM. sq.	Mtr	10	79.00	28.12	90.85	908.50	3.95	39.50	948.00
l	LT PVC Cable 4/C 50 MM. sq.	Mtr	10	126.97	28.14	146.02	1460.20	6.35	63.50	1523.70
m	LT PVC Cable 3.5/C 95 MM. sq.	Mtr	10	224.42	28.13	258.08	2580.80	11.22	112.20	2693.00
n	LT XLPE Armoured Cable 2/C 10 MM. sq.	Mtr	10	61.32	P&D	70.52	705.20	3.07	30.70	735.90
o	LT XLPE Armoured Cable 2/C 16 MM. sq.	Mtr	10	59.37	P&D	70.52	705.20	3.07	30.70	735.90
p	LT XLPE Armoured Cable 4/C 16 MM. sq.	Mtr	10	101.33	P&D	68.28	682.80	2.97	29.70	712.50
q	LT XLPE Armoured Cable 4/C 25 MM. sq.	Mtr	10	138.93	P&D	116.53	1165.30	5.07	50.70	1216.00
r	LT XLPE Armoured Cable 4/C 50 MM. sq.	Mtr	10	231.33	P&D	159.77	1597.70	6.95	69.50	1667.20
s	LT XLPE Armoured Cable 4/C 95 MM. sq.	Mtr	10	354.94	P&D	266.03	2660.30	11.57	115.70	2776.00
21	Straight Jointing Kit, O/D & I/D Termination Kit									
a	Straight Jointing kit for 3/C 400 mm2 11 kV XLPE cable	No.	78	13158.43	P&D	15132.19	1180310.82	1315.84	102635.52	1282946.34
b	ID Termination kit for 11KV 3/C 400 mm2 XLPE Cable	No.	378	3386.63	P&D	3894.62	1472166.36	338.66	128013.48	1600179.84
c	OD Termination kit for 11KV 3/C 400mm2 XLPE Cable	No.	62	4097.61	P&D	4712.25	292159.50	409.76	25405.12	317564.62
d	Straight Jointing kit for 3/C 300 mm2 11 kV XLPE cable	No.	1	2950.00	45.5	3392.50	3392.50	295.00	295.00	3687.50
e	ID Termination kit for 11KV 3/C 300 mm2 XLPE Cable	No.	1	854.00	43.5	982.10	982.10	85.40	85.40	1067.50
f	OD Termination kit for 11KV 3/C 300mm2 XLPE Cable	No.	1	977.00	44.5	1123.55	1123.55	97.70	97.70	1221.25
g	Straight Jointing kit for 3/C 185 mm2 11 kV XLPE cable	No.	20	2310.00	45.4	2656.50	53130.00	231.00	4620.00	57750.00
h	ID Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	81	680.00	43.4	782.00	63342.00	68.00	5508.00	68850.00
i	OD Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	23	700.00	44.4	805.00	18515.00	70.00	1610.00	20125.00
j	Straight Jointing kit for 3/C 120 mm2 11 kV XLPE cable	No.	1	2250.00	45.3	2587.50	2587.50	225.00	225.00	2812.50
k	ID Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	22	640.00	43.3	736.00	16192.00	64.00	1408.00	17600.00
l	OD Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	22	680.00	44.3	782.00	17204.00	68.00	1496.00	18700.00
22	Pipes/Cable Protection cover and Marker									
a	HDPE pipe 160 mm dia for Trenchless boring & for cable raising and lowering on H Pole	Mtr	21600	216.00	P&D	248.40	5365440.00	0.00	0.00	5365440.00
b	CI pipe 250mm dia, 14mm thick for road crossing	Mtr	2280	1342.00	P&D	1543.30	3518724.00	0.00	0.00	3518724.00
c	PVC pipe of Dia 160 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	182.00	P&D	209.30	2093.00	18.20	182.00	2275.00
d	PVC pipe of Dia 110 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	87.00	P&D	100.05	1000.50	8.70	87.00	1087.50
e	PVC pipe of Dia 50 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	40.00	P&D	46.00	460.00	4.00	40.00	500.00
f	PVC pipe of Dia 25 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	16.00	P&D	18.40	184.00	1.60	16.00	200.00
g	HT cable & LT Cable protection cover RCC slabs	nos.	58645	205.00	P&D	235.75	13825558.75	0.00	0.00	13825558.75
h	HT & LT Cable RCC Route Marker and Straight Joint maker	nos.	575	750.00	P&D	862.50	495937.50	0.00	0.00	495937.50

a	Outdoor type 11 KV SF6 type extensible and motorized 5 way smart Ring Main Unit (RMU) complete with three VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	0	714510.00	Derived	821686.50	0.00	14290.20	0.00	0.00
b	Outdoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	8	539010.00	Mkt	619861.50	4958892.00	10780.20	86241.60	5045133.60
c	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	26	363410.00	Mkt	417921.50	10865959.00	7268.20	188973.20	11054932.20
d	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with all two LBS and with FPI per IS (Without FRTU)	Nos.	9	219410.00	Mkt	252321.50	2270893.50	4388.20	39493.80	2310387.30
e	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with one LBS and one VCB and with FPI per IS (Without FRTU)	Nos.	1	305510.00	Mkt	351336.50	351336.50	6110.20	6110.20	357446.70
f	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with LB and with FPI as per IS	Nos.	180	176910.00	Mkt	203446.50	36620370.00	3538.20	636876.00	37257246.00
g	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with VCB and FPI as per IS	Nos.	1	263010.00	Mkt	302461.50	302461.50	5260.20	5260.20	307721.70
h	Outdoor type 11 KV SF6 type bus coupler/Bus dis-connector as per IS	Nos.	1	176910.00	Mkt	203446.50	203446.50	3538.20	3538.20	206984.70
28	Civil Work including material required for civil work									
a	Foundation for RMU	No.	226	0.00	P&D	0.00	0.00	18000.00	4068000.00	4068000.00
b	Foundation for Distribution Transformer (400,630 & 1000kVA)	No.	25	0.00	P&D	0.00	0.00	20000.00	500000.00	500000.00
c	Foundation for LT feeder Pillar for Type-A,B & D	No.	10	0.00	P&D	0.00	0.00	14000.00	140000.00	140000.00
d	Foundation for LT feeder Pillar for Type C & E	No.	25	1.00	P&D	1.15	28.75	11000.00	275000.00	275028.75
e	Excavation for trenches upto 2m depth for size 1000mmX1200mmX400mm with supplying & laying 100mm jamuna sand for 1 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr.	430	0.00	P&D	0.00	0.00	97.65	41989.50	41989.50

f	Excavation for trenches upto 2m depth for size 1000mmX1200mmX700mm with supplying & laying 100mm jamuna sand for 2 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	8400	0.00	P&D	0.00	0.00	137.65	1156260.00	1156260.00	
g	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1000mm with supplying & laying 100mm jamuna sand for 3 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	6700	0.00	P&D	0.00	0.00	177.65	1190255.00	1190255.00	
h	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1300mm with supplying & laying 100mm jamuna sand for 4 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	5200	0.00	P&D	0.00	0.00	217.65	1131780.00	1131780.00	
i	Trenchless laying of HDPE and PLB-HDPE pipe by using HDD method	Mtr.	43200	0.00	P&D	0.00	0.00	650.00	28080000.00	28080000.00	
Total =							268914079.86		41544066.12	310458145.98	
Grand Total of Supply & Erection									310458145.98		
Note :- In case more than 4 cables are to be laid in trenches, it is clarified that for any additional cable to be laid, the erection cost shall be enhanced by Rs 40/- per meter. This includes erection of all the material as mentioned in the description 28 (e to h). It is further added that in the items 28 (e to h) of BOQ the cable laying rates through open digging process have been mentioned which includes the erection cost of laying of certain items, as mentioned therein, but which excludes the erection cost of laying of HDPE pipes. It is also clarified that in case the HT cable is laid through open trench digging alongwith laying of the HDPE pipe then the amount @Rs 12.35 + awarded premium per cable per meter shall be allowed/ paid to the contractor towards erection cost of HDPE pipe against item no 28 (eto h).											

Estimate for dismantlement of material of existing HT and LT network along with Distribution T/F and allied material					
Sr. No.	Description	Unit	Dismantling Unit Rates	Qty of Sector 14 &17	Total Cost
1	HT Pole along with complete steel structure	Nos.	300.00	347.00	104100
2	LT Pole along with complete steel structure	Nos.	287.50	0.00	0
3	ACSR Conductor (50 mm. sq.)	KM	925.00	42.00	38850
4	ACSR Conductor (80 mm. sq.)	KM	1125.00	14.00	15750
6	Distribution T/F 25 & 63 KVA	nos.	1200.00	0.00	0
7	Distribution T/F 100 to 200 KVA	nos.	1360.00	32.00	43520
8	Distribution T/F 200 to 500 KVA	nos.	562.50	1.00	563
9	HT AB Cable 3CX50 mm.sq. with messenger wire	KM	10500.00	0.00	0
10	HT AB Cable 3CX70 mm.sq. with messenger wire	KM	11000.00	0.00	0
11	HT AB Cable 3CX95 mm.sq. with messenger wire	KM	14000.00	0.00	0
12	HT AB Cable 3CX120 mm.sq. with messenger wire	KM	14000.00	0.00	0
13	HT AB Cable 3CX185 mm.sq. with messenger wire	KM	18000.00	17.00	306000
Total dismantlement Cost					508783
Note: - Any other item which is not mentioned above but is required to be dismantled for the completion of dismantlement					

Abstract of Estimated cost of Smart Grids Project, Gurgaon		
Sr. No.	Description	Cost (in Cr.)
A	Total Supply Cost	268914079.86
B	Total Erection Cost	41544066.12
C	Total Cost	310458145.98
F	Dismantling estimated Cost	508782.50
G	Total PROJECT COST (A+B+F)	310966928.48

Prepared By

Checked by

Reviewed by

Verified by

Approved by

JE-1

AE-III

XEN-I

SE-II/Smart City

CE/Smart City

BOQ and estimated of Sohna Road area under Sohna Road subdivision

Sr. NO.	Description	Unit	Total Quantity required	Unit Supply Charges	Ref. of Rates	Unit Supply Rates (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Total Supply cost (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Unit Erection Cost including all taxes (in Rs)	Total Erection Cost including all taxes (In Rs)	Total Cost (In Rs)
1	2	3	4	5	6	7	8	9	10	11
1	Poles									
a	PCC Pole 11.0M Long (400kg working load).	Nos	6	4600.00	1.1	5290.00	31740.00	690.00	4140.00	35880.00
b	PCC Poles 9 M Long (400kg working Load)	Nos	0	1800.00	1.2	2070.00	0.00	270.00	0.00	0.00
2	ACSR Conductor									
a	100mm2	Mtrs	0	55.49	5.3	63.81	0.00	5.55	0.00	0.00
b	100mm2 insulated	Mtrs.	0	64.70	5.4	74.41	0.00	6.47	0.00	0.00
3	11 KV Insulators									
a	11 KV Porcelain insulators with GI pin, nuts and washers complete suitable for insulator assembly	Nos.	0	90.00	4.1 & 4.2	103.50	0.00	9.00	0.00	0.00
b	45 KN Disc Insulator (T&C type) along with Hardwares & Accessories all complete as per Technical Specification.	Nos.	0	267.00	4.3 & 4.11	307.05	0.00	26.70	0.00	0.00
4	LT Insulators									
a	LT Insulator	Nos.	0	10.00	4.13	11.50	0.00	1.00	0.00	0.00
b	Egg Insulator	Nos.	0	10.00	4.14	11.50	0.00	1.00	0.00	0.00
5	M.S. Galvanized Items									
a	Fabrication and Supply of M.S. Galvanized items- Pole Top Bracket/hamper, V/straight-Cross arm, Guarding cross arm, Back Clamps for V/straight-Cross arm and Guard cross arm, D P Channel/angle, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, half clamp, full clamp, D-Strap, structure for mounting of isolator MS flat for knee bracing, MS Flat, Eye Screw Bolts, Transformer platform set complete, various size of angle & channel and Cable end termination/stand using total double compression brass glands and crimping type Cu./Alu. thimbles as per cable size and DT, LT Rod etc., complete steel items as required. The weight and size of the above mentioned items shall be as per Nigam's approved latest rate list and approved drawing.	Kg	100	52.43	2.12	60.29	6029.00	5.24	524.00	6553.00
b	GI Nuts & Bolts with Washers (plain and spring)	Kgs	100	68.00	13.4	78.20	7820.00	6.80	680.00	8500.00

6	Clamps									
a	PG clamp for 100 mm ² ACSR	Nos.	3	40.00	3.1	46.00	138.00	4.00	12.00	150.00
7	11 kV stay set assembly & LT stay set assembly (excluding stay clamp & fasteners)									
a	Stay wire (7/8 SWG)	Kgs	30	52.00	6.1	59.80	1794.00	5.20	156.00	1950.00
b	Hardware Fittings (8' long complete with X-Plate 460mm of Angle 65x65x6 Elbow & rod with Discs/egg insulator etc) to complete 11kV/LT stay set	Set	3	649.00	58.3	746.35	2239.05	64.90	194.70	2433.75
8	Earthing									
a	G.I. Pipe 40 mm dia 6 mtr. Long for earthing set. B-class for line	Nos	38	1540.00	58.5	1771.00	67298.00	154.00	5852.00	73150.00
b	Earthing with G.I. Strip 25x6 mm 9 mtr. as per Drawing for line	Nos	38	601.00	6.4	691.15	26263.70	60.10	2283.80	28547.50
c	Maintanance free (Chemical) Earthing with all the allied Materialas per Nigam Specifiaction for DTs, RMUs and LT feeder Panel	Nos.	34	4280.00	P&D	4922.00	167348.00	428.00	14552.00	181900.00
d	GSL 8 SWG	Kgs	794	52.00	6.2	59.80	47481.20	5.20	4128.80	51610.00
9	11 KV 400 Amps. GO Switch complete with handle, pipe & Supporting Channel. As per Nigam's Tech. Spec., relevant ISS and latest amendments	Nos	12	6000.00	12.1	6900.00	82800.00	600.00	7200.00	90000.00
10	AB Cable									
a	LT XLPE AB Cable 3C x150 mm ² (PH)+ 1Cx150 mm.sq.(N)+1C x125 mm.sq.(M) + 16mm ² (SL)	Mtrs	0	585.00	Mkt.	672.75	0.00	29.25	0.00	0.00
b	LT XLPE AB Cable 3C x120 mm ² (PH)+ 1Cx120 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	0	485.00	Mkt.	557.75	0.00	24.25	0.00	0.00
c	LT XLPE AB Cable 3C x95 mm ² (PH)+ 1Cx95 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	0	385.00	Mkt.	442.75	0.00	19.25	0.00	0.00
11	M.S.Galvanised Clamps and Connector for LT AB cable									
a	Suspension clamps Assembly with eye hook	No	0	425.00	3.6	488.75	0.00	42.50	0.00	0.00
b	Tension /dead end clamps (Bolted type) Assembly with eye hook	Set	0	244.00	3.7	280.60	0.00	24.40	0.00	0.00
c	Insulated Piercing Connector as per site requirement	Nos.	0	70.00	58.10	80.50	0.00	7.00	0.00	0.00
12	11kV LA (9KV)	Nos	0	420.00	11.1	483.00	0.00	42.00	0.00	0.00
13	Barbed wire	Kg.	0	50.00	6.3	57.50	0.00	5.00	0.00	0.00
14	Danger Plate Enameled with clamp	No.	91	66.00	58.7	75.90	6906.90	6.60	600.60	7507.50
15	Number Plate Enameled with clamp	No.	91	66.00	58.8	75.90	6906.90	6.60	600.60	7507.50
16	Phase Plate for each phase set of 3 (On H-pole & 4 pole)	Set	1	55.00	58.6	63.25	63.25	5.50	5.50	68.75
17	LT Line Spacers	Nos	1	10.00	19.1	11.50	11.50	1.00	1.00	12.50
18	LT distribution box (sealable with lock facility)suitable for 10 no. consumers (2 mm CRCA sheet box, Bus bars for load as per 25 kVA DT/Fs only with holes for incoming cable and O/G cable with rubber glands	nos.	0	500.00	58.11	575.00	0.00	50.00	0.00	0.00
19	HT Cables									
a	3/C 400 mm ² 11 kV XLPE Armoured cable	Mtr	33420	1692.96	P&D	1946.90	65065398.00	0.00	0.00	65065398.00
b	3/C 300 mm ² 11 kV XLPE Armoured cable	Mtr	0	1206.04	P&D	1386.95	0.00	0.00	0.00	0.00
c	3/C 185 mm ² 11 kV XLPE Armoured cable	Mtr	2650	676.85	32.5	778.38	2062707.00	0.00	0.00	2062707.00
d	3/C 120 mm ² 11 kV XLPE Armoured cable	Mtr	0	743.16	P&D	854.63	0.00	0.00	0.00	0.00
20	LT Cables									
a	LT XLPE S/C 630 MM. sq. Un-Armoured cable	Mtr	0	730.63	P&D	840.22	0.00	36.53	0.00	0.00
b	LT PVC S/C 300 MM. sq. Un-Armoured cable	Mtr	0	179.19	28.5	206.07	0.00	8.96	0.00	0.00
d	LT XLPE Armoured 3.5 Core, 240 sq.mm. cable	Mtr	0	835.34	P&D	960.64	0.00	41.77	0.00	0.00

e	LT PVC 3.5 Core 185 MM. sq. Un-Armoured cable	Mtr	0	375.70	28.16	432.06	0.00	18.79	0.00	0.00
f	LT XLPE Armoured 3.5 Core, 120 sq.mm. cable	Mtr	0	449.00	P&D	516.35	0.00	22.45	0.00	0.00
g	LT XLPE Armoured 3.5 Core, 95 sq.mm. cable	Mtr	0	344.89	P&D	396.62	0.00	17.24	0.00	0.00
h	LT PVC Cable 2/C 10 MM. sq.	Mtr	0	17.28	28.10	19.87	0.00	0.86	0.00	0.00
i	LT PVC Cable 2/C 16 MM. sq.	Mtr	0	33.37	28.9	38.38	0.00	1.67	0.00	0.00
j	LT PVC Cable 4/C 16 MM. sq.	Mtr	0	55.94	28.11	64.33	0.00	2.80	0.00	0.00
k	LT PVC Cable 4/C 25 MM. sq.	Mtr	0	79.00	28.12	90.85	0.00	3.95	0.00	0.00
l	LT PVC Cable 4/C 50 MM. sq.	Mtr	0	126.97	28.14	146.02	0.00	6.35	0.00	0.00
m	LT PVC Cable 3.5/C 95 MM. sq.	Mtr	0	224.42	28.13	258.08	0.00	11.22	0.00	0.00
n	LT XLPE Armoured Cable 2/C 10 MM. sq.	Mtr	0	61.32	P&D	70.52	0.00	3.07	0.00	0.00
o	LT XLPE Armoured Cable 2/C 16 MM. sq.	Mtr	0	59.37	P&D	70.52	0.00	3.07	0.00	0.00
p	LT XLPE Armoured Cable 4/C 16 MM. sq.	Mtr	0	101.33	P&D	68.28	0.00	2.97	0.00	0.00
q	LT XLPE Armoured Cable 4/C 25 MM. sq.	Mtr	0	138.93	P&D	116.53	0.00	5.07	0.00	0.00
r	LT XLPE Armoured Cable 4/C 50 MM. sq.	Mtr	0	231.33	P&D	159.77	0.00	6.95	0.00	0.00
s	LT XLPE Armoured Cable 4/C 95 MM. sq.	Mtr	0	354.94	P&D	266.03	0.00	11.57	0.00	0.00
21	Straight Jointing Kit, O/D & I/D Termination Kit									
a	Straight Jointing kit for 3/C 400 mm2 11 kV XLPE cable	No.	85	13158.43	P&D	15132.19	1286236.15	1315.84	111846.40	1398082.55
b	ID Termination kit for 11KV 3/C 400 mm2 XLPE Cable	No.	185	3386.63	P&D	3894.62	720504.70	338.66	62652.10	783156.80
c	OD Termination kit for 11KV 3/C 400mm2 XLPE Cable	No.	86	4097.61	P&D	4712.25	405253.50	409.76	35239.36	440492.86
d	Straight Jointing kit for 3/C 300 mm2 11 kV XLPE cable	No.	0	2950.00	45.5	3392.50	0.00	295.00	0.00	0.00
e	ID Termination kit for 11KV 3/C 300 mm2 XLPE Cable	No.	0	854.00	43.5	982.10	0.00	85.40	0.00	0.00
f	OD Termination kit for 11KV 3/C 300mm2 XLPE Cable	No.	0	977.00	44.5	1123.55	0.00	97.70	0.00	0.00
g	Straight Jointing kit for 3/C 185 mm2 11 kV XLPE cable	No.	5	2310.00	45.4	2656.50	13282.50	231.00	1155.00	14437.50
h	ID Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	81	680.00	43.4	782.00	63342.00	68.00	5508.00	68850.00
i	OD Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	81	700.00	44.4	805.00	65205.00	70.00	5670.00	70875.00
j	Straight Jointing kit for 3/C 120 mm2 11 kV XLPE cable	No.	0	2250.00	45.3	2587.50	0.00	225.00	0.00	0.00
k	ID Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	0	640.00	43.3	736.00	0.00	64.00	0.00	0.00
l	OD Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	0	680.00	44.3	782.00	0.00	68.00	0.00	0.00
22	Pipes/Cable Protection cover and Marker									
a	HDPE pipe 160 mm dia for Trenchless boring & for cable raising and lowering on H Pole	Mtr	650	216.00	P&D	248.40	161460.00	0.00	0.00	161460.00
b	CI pipe 250mm dia, 14mm thick for road crossing	Mtr	450	1342.00	P&D	1543.30	694485.00	0.00	0.00	694485.00
c	PVC pipe of Dia 160 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	0	182.00	P&D	209.30	0.00	18.20	0.00	0.00
d	PVC pipe of Dia 110 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	0	87.00	P&D	100.05	0.00	8.70	0.00	0.00
e	PVC pipe of Dia 50 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	0	40.00	P&D	46.00	0.00	4.00	0.00	0.00
f	PVC pipe of Dia 25 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	0	16.00	P&D	18.40	0.00	1.60	0.00	0.00
g	HT cable & LT Cable protection cover RCC slabs	nos.	55436	205.00	P&D	235.75	13069037.00	0.00	0.00	13069037.00
h	HT & LT Cable RCC Route Marker and Straight Joint maker	nos.	192	750.00	P&D	862.50	165600.00	0.00	0.00	165600.00

a	Outdoor type 11 KV SF6 type extensible and motorized 5 way smart Ring Main Unit (RMU) complete with three VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	0	714510.00	Derived	821686.50	0.00	14290.20	0.00	0.00
b	Outdoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	9	539010.00	Mkt	619861.50	5578753.50	10780.20	97021.80	5675775.30
c	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	42	363410.00	Mkt	417921.50	17552703.00	7268.20	305264.40	17857967.40
d	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with all two LBS and with FPI per IS (Without FRTU)	Nos.	4	219410.00	Mkt	252321.50	1009286.00	4388.20	17552.80	1026838.80
e	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with one LBS and one VCB and with FPI per IS (Without FRTU)	Nos.	0	305510.00	Mkt	351336.50	0.00	6110.20	0.00	0.00
f	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with LB and with FPI as per IS	Nos.	0	176910.00	Mkt	203446.50	0.00	3538.20	0.00	0.00
g	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with VCB and FPI as per IS	Nos.	4	263010.00	Mkt	302461.50	1209846.00	5260.20	21040.80	1230886.80
h	Outdoor type 11 KV SF6 type bus coupler/Bus dis-connector as per IS	Nos.	0	176910.00	Mkt	203446.50	0.00	3538.20	0.00	0.00
28	Civil Work including material required for civil work									
a	Foundation for RMU	No.	59	0.00	P&D	0.00	0.00	18000.00	1062000.00	1062000.00
b	Foundation for Distribution Transformer (400,630 & 1000kVA)	No.	0	0.00	P&D	0.00	0.00	20000.00	0.00	0.00
c	Foundation for LT feeder Pillar for Type-A,B & D	No.	14	0.00	P&D	0.00	0.00	14000.00	196000.00	196000.00
d	Foundation for LT feeder Pillar for Type C & E	No.	0	1.00	P&D	1.15	0.00	11000.00	0.00	0.00
e	Excavation for trenches upto 2m depth for size 1000mmX1200mmX400mm with supplying & laying 100mm jamuna sand for 1 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr.	100	0.00	P&D	0.00	0.00	97.65	9765.00	9765.00

f	Excavation for trenches upto 2m depth for size 1000mmX1200mmX700mm with supplying & laying 100mm jamuna sand for 2 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	21970	0.00	P&D	0.00	0.00	137.65	3024170.50	3024170.50	
g	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1000mm with supplying & laying 100mm jamuna sand for 3 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	400	0.00	P&D	0.00	0.00	177.65	71060.00	71060.00	
h	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1300mm with supplying & laying 100mm jamuna sand for 4 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	4200	0.00	P&D	0.00	0.00	217.65	914130.00	914130.00	
i	Trenchless laying of HDPE and PLB-HDPE pipe by using HDD method	Mtr.	2200	0.00	P&D	0.00	0.00	650.00	1430000.00	1430000.00	
Total =							121676744.84		7724793.33	129401538.17	
Grand Total of Supply & Erection							129401538.17				
Note :- In case more than 4 cables are to be laid in trenches, it is clarified that for any additional cable to be laid, the erection cost shall be enhanced by Rs 40/- per meter. This includes erection of all the material as mentioned in the description 28 (e to h). It is further added that in the items 28 (e to h) of BOQ the cable laying rates through open digging process have been mentioned which includes the erection cost of laying of certain items, as mentioned therein, but which excludes the erection cost of laying of HDPE pipes. It is also clarified that in case the HT cable is laid through open trench digging alongwith laying of the HDPE pipe then the amount @Rs 12.35 + awarded premium per cable per meter shall be allowed/ paid to the contractor towards erection cost of HDPE pipe against item no 28 (eto h).											

Estimate for dismantlement of material of existing HT and LT network along with Distribution T/F and allied material					
Sr. No.	Description	Unit	Dismantling Unit Rates	Qty of Sohna Road	Total Cost
1	HT Pole along with complete steel structure	Nos.	300.00	778.00	233400
2	LT Pole along with complete steel structure	Nos.	287.50	0.00	0
3	ACSR Conductor (50 mm. sq.)	KM	925.00	8.80	8140
4	ACSR Conductor (80 mm. sq.)	KM	1125.00	16.00	18000
6	Distribution T/F 25 & 63 KVA	nos.	1200.00	0.00	0
7	Distribution T/F 100 to 200 KVA	nos.	1360.00	0.00	0
8	Distribution T/F 200 to 500 KVA	nos.	562.50	0.00	0
9	HT AB Cable 3CX50 mm.sq. with messenger wire	KM	10500.00	0.00	0
10	HT AB Cable 3CX70 mm.sq. with messenger wire	KM	11000.00	0.00	0
11	HT AB Cable 3CX95 mm.sq. with messenger wire	KM	14000.00	0.00	0
12	HT AB Cable 3CX120 mm.sq. with messenger wire	KM	14000.00	0.00	0
13	HT AB Cable 3CX185 mm.sq. with messenger wire	KM	18000.00	17.00	306000
Total dismantlement Cost					565540
Note: - Any other item which is not mentioned above but is required to be dismantled for the completion of dismantlement					

Abstract of Estimated cost of Smart Grids Project, Gurgaon		
Sr. No.	Description	Cost (in Cr.)
A	Total Supply Cost	121676744.84
B	Total Erection Cost	7724793.33
C	Total Cost	129401538.17
F	Dismantling estimated Cost	565540.00
G	Total PROJECT COST (A+B+F)	129967078.17

Prepared By

Checked by

Reviewed by

Verified by

Approved by

JE-1

AE-II

XEN-I

SE-II/Smart City

CE/Smart City

BOQ and estimated of Sushant Lok-1 area under DLF subdivision

Sr. NO.	Description	Unit	Total Quantity required	Unit Supply Charges	Ref. of Rates	Unit Supply Rates (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Total Supply cost (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Unit Erection Cost including all taxes (in Rs)	Total Erection Cost including all taxes (In Rs)	Total Cost (In Rs)
1	2	3	4	5	6	7	8	9	10	11
1	Poles									
a	PCC Pole 11.0M Long (400kg working load).	Nos	10	4600.00	1.1	5290.00	52900.00	690.00	6900.00	59800.00
b	PCC Poles 9 M Long (400kg working Load)	Nos	253	1800.00	1.2	2070.00	523710.00	270.00	68310.00	592020.00
2	ACSR Conductor									
a	100mm2	Mtrs	16000	55.49	5.3	63.81	1020960.00	5.55	88800.00	1109760.00
b	100mm2 insulated	Mtrs.	3000	64.70	5.4	74.41	223230.00	6.47	19410.00	242640.00
3	11 KV Insulators									
a	11 KV Porcelain insulators with GI pin, nuts and washers complete suitable for insulator assembly	Nos.	30	90.00	4.1 & 4.2	103.50	3105.00	9.00	270.00	3375.00
b	45 KN Disc Insulator (T&C type) along with Hardwares & Accessories all complete as per Technical Specification.	Nos.	6	267.00	4.3 & 4.11	307.05	1842.30	26.70	160.20	2002.50
4	LT Insulators									
a	LT Insulator	Nos.	1014	10.00	4.13	11.50	11661.00	1.00	1014.00	12675.00
b	Egg Insulator	Nos.	128	10.00	4.14	11.50	1472.00	1.00	128.00	1600.00
5	M.S. Galvanized Items									
a	Fabrication and Supply of M.S. Galvanized items- Pole Top Bracket/hamper, V/straight-Cross arm, Guarding cross arm, Back Clamps for V/straight-Cross arm and Guard cross arm, D P Channel/angle, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, half clamp, full clamp, D-Strap, structure for mounting of isolator MS flat for knee bracing, MS Flat, Eye Screw Bolts, Transformer platform set complete, various size of angle & channel and Cable end termination/stand using total double compression brass glands and crimping type Cu./Alu. thimbles as per cable size and DT, LT Rod etc., complete steel items as required. The weight and size of the above mentioned items shall be as per Nigam's approved latest rate list and approved drawing.	Kg	15000	52.43	2.12	60.29	904350.00	5.24	78600.00	982950.00
b	GI Nuts & Bolts with Washers (plain and spring)	Kgs	639	68.00	13.4	78.20	49969.80	6.80	4345.20	54315.00

6	Clamps									
a	PG clamp for 100 mm ² ACSR	Nos.	9	40.00	3.1	46.00	414.00	4.00	36.00	450.00
7	11 kV stay set assembly & LT stay set assembly (excluding stay clamp & fasteners)									
a	Stay wire (7/8 SWG)	Kgs	1279	52.00	6.1	59.80	76484.20	5.20	6650.80	83135.00
b	Hardware Fittings (8' long complete with X-Plate 460mm of Angle 65x65x6 Elbow & rod with Discs/egg insulator etc) to complete 11kV/LT stay set	Set	128	649.00	58.3	746.35	95532.80	64.90	8307.20	103840.00
8	Earthing									
a	G.I. Pipe 40 mm dia 6 mtr. Long for earthing set. B-class for line	Nos	322	1540.00	58.5	1771.00	570262.00	154.00	49588.00	619850.00
b	Earthing with G.I. Strip 25x6 mm 9 mtr. as per Drawing for line	Nos	322	601.00	6.4	691.15	222550.30	60.10	19352.20	241902.50
c	Maintanance free (Chemical) Earthing with all the allied Materialas per Nigam Specifiaction for DTs, RMUs and LT feeder Panel	Nos.	189	4280.00	P&D	4922.00	930258.00	428.00	80892.00	1011150.00
d	GSL 8 SWG	Kgs	3325	52.00	6.2	59.80	198835.00	5.20	17290.00	216125.00
9	11 KV 400 Amps. GO Switch complete with handle, pipe & Supporting Channel. As per Nigam's Tech. Spec., relevant ISS and latest amendments	Nos	1	6000.00	12.1	6900.00	6900.00	600.00	600.00	7500.00
10	AB Cable									
a	LT XLPE AB Cable 3C x150 mm ² (PH)+ 1Cx150 mm.sq.(N)+1C x125 mm.sq.(M) + 16mm ² (SL)	Mtrs	0	585.00	Mkt.	672.75	0.00	29.25	0.00	0.00
b	LT XLPE AB Cable 3C x120 mm ² (PH)+ 1Cx120 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	0	485.00	Mkt.	557.75	0.00	24.25	0.00	0.00
c	LT XLPE AB Cable 3C x95 mm ² (PH)+ 1Cx95 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	0	385.00	Mkt.	442.75	0.00	19.25	0.00	0.00
11	M.S.Galvanised Clamps and Connector for LT AB cable									
a	Suspension clamps Assembly with eye hook	No	0	425.00	3.6	488.75	0.00	42.50	0.00	0.00
b	Tension /dead end clamps (Bolted type) Assembly with eye hook	Set	0	244.00	3.7	280.60	0.00	24.40	0.00	0.00
c	Insulated Piercing Connector as per site requirement	Nos.	0	70.00	58.10	80.50	0.00	7.00	0.00	0.00
12	11kV LA (9KV)	Nos	6	420.00	11.1	483.00	2898.00	42.00	252.00	3150.00
13	Barbed wire	Kg.	130	50.00	6.3	57.50	7475.00	5.00	650.00	8125.00
14	Danger Plate Enameled with clamp	No.	130	66.00	58.7	75.90	9867.00	6.60	858.00	10725.00
15	Number Plate Enameled with clamp	No.	130	66.00	58.8	75.90	9867.00	6.60	858.00	10725.00
16	Phase Plate for each phase set of 3 (On H-pole & 4 pole)	Set	2	55.00	58.6	63.25	126.50	5.50	11.00	137.50
17	LT Line Spacers	Nos	3100	10.00	19.1	11.50	35650.00	1.00	3100.00	38750.00
18	LT distribution box (sealable with lock facility)suitable for 10 no. consumers (2 mm CRCA sheet box, Bus bars for load as per 25 kVA DT/Fs only with holes for incoming cable and O/G cable with rubber glands	nos.	0	500.00	58.11	575.00	0.00	50.00	0.00	0.00
19	HT Cables									
a	3/C 400 mm ² 11 kV XLPE Armoured cable	Mtr	34800	1692.96	P&D	1946.90	67752120.00	0.00	0.00	67752120.00
b	3/C 300 mm ² 11 kV XLPE Armoured cable	Mtr	325	1206.04	P&D	1386.95	450758.75	0.00	0.00	450758.75
c	3/C 185 mm ² 11 kV XLPE Armoured cable	Mtr	10	676.85	32.5	778.38	7783.80	0.00	0.00	7783.80
d	3/C 120 mm ² 11 kV XLPE Armoured cable	Mtr	2930	743.16	P&D	854.63	2504065.90	0.00	0.00	2504065.90
20	LT Cables									
a	LT XLPE S/C 630 MM. sq. Un-Armoured cable	Mtr	2180	730.63	P&D	840.22	1831679.60	36.53	79635.40	1911315.00
b	LT PVC S/C 300 MM. sq. Un-Armoured cable	Mtr	10	179.19	28.5	206.07	2060.70	8.96	89.60	2150.30
d	LT XLPE Armoured 3.5 Core, 240 sq.mm. cable	Mtr	10	835.34	P&D	960.64	9606.40	41.77	417.70	10024.10

e	LT PVC 3.5 Core 185 MM. sq. Un-Armoured cable	Mtr	10	375.70	28.16	432.06	4320.60	18.79	187.90	4508.50
f	LT XLPE Armoured 3.5 Core, 120 sq.mm. cable	Mtr	10	449.00	P&D	516.35	5163.50	22.45	224.50	5388.00
g	LT XLPE Armoured 3.5 Core, 95 sq.mm. cable	Mtr	10	344.89	P&D	396.62	3966.20	17.24	172.40	4138.60
h	LT PVC Cable 2/C 10 MM. sq.	Mtr	10	17.28	28.10	19.87	198.70	0.86	8.60	207.30
i	LT PVC Cable 2/C 16 MM. sq.	Mtr	10	33.37	28.9	38.38	383.80	1.67	16.70	400.50
j	LT PVC Cable 4/C 16 MM. sq.	Mtr	10	55.94	28.11	64.33	643.30	2.80	28.00	671.30
k	LT PVC Cable 4/C 25 MM. sq.	Mtr	10	79.00	28.12	90.85	908.50	3.95	39.50	948.00
l	LT PVC Cable 4/C 50 MM. sq.	Mtr	10	126.97	28.14	146.02	1460.20	6.35	63.50	1523.70
m	LT PVC Cable 3.5/C 95 MM. sq.	Mtr	10	224.42	28.13	258.08	2580.80	11.22	112.20	2693.00
n	LT XLPE Armoured Cable 2/C 10 MM. sq.	Mtr	10	61.32	P&D	70.52	705.20	3.07	30.70	735.90
o	LT XLPE Armoured Cable 2/C 16 MM. sq.	Mtr	10	59.37	P&D	70.52	705.20	3.07	30.70	735.90
p	LT XLPE Armoured Cable 4/C 16 MM. sq.	Mtr	10	101.33	P&D	68.28	682.80	2.97	29.70	712.50
q	LT XLPE Armoured Cable 4/C 25 MM. sq.	Mtr	10	138.93	P&D	116.53	1165.30	5.07	50.70	1216.00
r	LT XLPE Armoured Cable 4/C 50 MM. sq.	Mtr	10	231.33	P&D	159.77	1597.70	6.95	69.50	1667.20
s	LT XLPE Armoured Cable 4/C 95 MM. sq.	Mtr	10	354.94	P&D	266.03	2660.30	11.57	115.70	2776.00
21	Straight Jointing Kit, O/D & I/D Termination Kit									
a	Straight Jointing kit for 3/C 400 mm2 11 kV XLPE cable	No.	116	13158.43	P&D	15132.19	1755334.04	1315.84	152637.44	1907971.48
b	ID Termination kit for 11KV 3/C 400 mm2 XLPE Cable	No.	10	3386.63	P&D	3894.62	38946.20	338.66	3386.60	42332.80
c	OD Termination kit for 11KV 3/C 400mm2 XLPE Cable	No.	103	4097.61	P&D	4712.25	485361.75	409.76	42205.28	527567.03
d	Straight Jointing kit for 3/C 300 mm2 11 kV XLPE cable	No.	1	2950.00	45.5	3392.50	3392.50	295.00	295.00	3687.50
e	ID Termination kit for 11KV 3/C 300 mm2 XLPE Cable	No.	1	854.00	43.5	982.10	982.10	85.40	85.40	1067.50
f	OD Termination kit for 11KV 3/C 300mm2 XLPE Cable	No.	4	977.00	44.5	1123.55	4494.20	97.70	390.80	4885.00
g	Straight Jointing kit for 3/C 185 mm2 11 kV XLPE cable	No.	1	2310.00	45.4	2656.50	2656.50	231.00	231.00	2887.50
h	ID Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	1	680.00	43.4	782.00	782.00	68.00	68.00	850.00
i	OD Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	1	700.00	44.4	805.00	805.00	70.00	70.00	875.00
j	Straight Jointing kit for 3/C 120 mm2 11 kV XLPE cable	No.	1	2250.00	45.3	2587.50	2587.50	225.00	225.00	2812.50
k	ID Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	1	640.00	43.3	736.00	736.00	64.00	64.00	800.00
l	OD Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	158	680.00	44.3	782.00	123556.00	68.00	10744.00	134300.00
22	Pipes/Cable Protection cover and Marker									
a	HDPE pipe 160 mm dia for Trenchless boring & for cable raising and lowering on H Pole	Mtr	14655	216.00	P&D	248.40	3640302.00	0.00	0.00	3640302.00
b	CI pipe 250mm dia, 14mm thick for road crossing	Mtr	500	1342.00	P&D	1543.30	771650.00	0.00	0.00	771650.00
c	PVC pipe of Dia 160 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	182.00	P&D	209.30	2093.00	18.20	182.00	2275.00
d	PVC pipe of Dia 110 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	87.00	P&D	100.05	1000.50	8.70	87.00	1087.50
e	PVC pipe of Dia 50 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	40.00	P&D	46.00	460.00	4.00	40.00	500.00
f	PVC pipe of Dia 25 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	16.00	P&D	18.40	184.00	1.60	16.00	200.00
g	HT cable & LT Cable protection cover RCC slabs	nos.	33875	205.00	P&D	235.75	7986031.25	0.00	0.00	7986031.25
h	HT & LT Cable RCC Route Marker and Straight Joint maker	nos.	232	750.00	P&D	862.50	200100.00	0.00	0.00	200100.00

a	Outdoor type 11 KV SF6 type extensible and motorized 5 way smart Ring Main Unit (RMU) complete with three VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	5	714510.00	Derived	821686.50	4108432.50	14290.20	71451.00	4179883.50
b	Outdoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	21	539010.00	Mkt	619861.50	13017091.50	10780.20	226384.20	13243475.70
c	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	24	363410.00	Mkt	417921.50	10030116.00	7268.20	174436.80	10204552.80
d	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with all two LBS and with FPI per IS (Without FRTU)	Nos.	1	219410.00	Mkt	252321.50	252321.50	4388.20	4388.20	256709.70
e	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with one LBS and one VCB and with FPI per IS (Without FRTU)	Nos.	1	305510.00	Mkt	351336.50	351336.50	6110.20	6110.20	357446.70
f	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with LB and with FPI as per IS	Nos.	8	176910.00	Mkt	203446.50	1627572.00	3538.20	28305.60	1655877.60
g	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with VCB and FPI as per IS	Nos.	4	263010.00	Mkt	302461.50	1209846.00	5260.20	21040.80	1230886.80
h	Outdoor type 11 KV SF6 type bus coupler/Bus dis-connector as per IS	Nos.	9	176910.00	Mkt	203446.50	1831018.50	3538.20	31843.80	1862862.30
28	Civil Work including material required for civil work									
a	Foundation for RMU	No.	73	0.00	P&D	0.00	0.00	18000.00	1314000.00	1314000.00
b	Foundation for Distribution Transformer (400,630 & 1000kVA)	No.	15	0.00	P&D	0.00	0.00	20000.00	300000.00	300000.00
c	Foundation for LT feeder Pillar for Type-A,B & D	No.	52	0.00	P&D	0.00	0.00	14000.00	728000.00	728000.00
d	Foundation for LT feeder Pillar for Type C & E	No.	11	1.00	P&D	1.15	12.65	11000.00	121000.00	121012.65
e	Excavation for trenches upto 2m depth for size 1000mmX1200mmX400mm with supplying & laying 100mm jamuna sand for 1 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr.	2575	0.00	P&D	0.00	0.00	97.65	251448.75	251448.75

f	Excavation for trenches upto 2m depth for size 1000mmX1200mmX700mm with supplying & laying 100mm jamuna sand for 2 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	18975	0.00	P&D	0.00	0.00	137.65	2611908.75	2611908.75
g	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1000mm with supplying & laying 100mm jamuna sand for 3 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	10	0.00	P&D	0.00	0.00	177.65	1776.50	1776.50
h	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1300mm with supplying & laying 100mm jamuna sand for 4 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	450	0.00	P&D	0.00	0.00	217.65	97942.50	97942.50
i	Trenchless laying of HDPE and PLB-HDPE pipe by using HDD method	Mtr.	29630	0.00	P&D	0.00	0.00	650.00	19259500.00	19259500.00
Total =							175626043.24		27114508.70	202740551.94
Grand Total of Supply & Erection									202740551.94	
Note :- In case more than 4 cables are to be laid in trenches, it is clarified that for any additional cable to be laid, the erection cost shall be enhanced by Rs 40/- per meter. This includes erection of all the material as mentioned in the description 28 (e to h). It is further added that in the items 28 (e to h) of BOQ the cable laying rates through open digging process have been mentioned which includes the erection cost of laying of certain items, as mentioned therein, but which excludes the erection cost of laying of HDPE pipes. It is also clarified that in case the HT cable is laid through open trench digging alongwith laying of the HDPE pipe then the amount @Rs 12.35 + awarded premium per cable per meter shall be allowed/ paid to the contractor towards erection cost of HDPE pipe against item no 28 (eto h).										

Estimate for dismantlement of material of existing HT and LT network along with Distribution T/F and allied material					
Sr. No.	Description	Unit	Dismantling Unit Rates	Qty of Sushant Lok-1	Total Cost
1	HT Pole along with complete steel structure	Nos.	300.00	612.00	183600
2	LT Pole along with complete steel structure	Nos.	287.50	1.00	288
3	ACSR Conductor (50 mm. sq.)	KM	925.00	0.10	93
4	ACSR Conductor (80 mm. sq.)	KM	1125.00	80.00	90000
6	Distribution T/F 25 & 63 KVA	nos.	1200.00	0.00	0
7	Distribution T/F 100 to 200 KVA	nos.	1360.00	2.00	2720
8	Distribution T/F 200 to 500 KVA	nos.	562.50	3.00	1688
9	HT AB Cable 3CX50 mm.sq. with messenger wire	KM	10500.00	0.00	0
10	HT AB Cable 3CX70 mm.sq. with messenger wire	KM	11000.00	0.00	0
11	HT AB Cable 3CX95 mm.sq. with messenger wire	KM	14000.00	0.30	4200
12	HT AB Cable 3CX120 mm.sq. with messenger wire	KM	14000.00	0.00	0
13	HT AB Cable 3CX185 mm.sq. with messenger wire	KM	18000.00	2.50	45000
Total dismantlement Cost					327588
Note: - Any other item which is not mentioned above but is required to be dismantled for the completion of dismantlement					

Abstract of Estimated cost of Smart Grids Project, Gurgaon		
Sr. No.	Description	Cost (in Cr.)
A	Total Supply Cost	175626043.24
B	Total Erection Cost	27114508.70
C	Total Cost	202740551.94
F	Dismantling estimated Cost	327587.50
G	Total PROJECT COST (A+B+F)	203068139.44

Prepared By

Checked by

Reviewed by

Verified by

Approved by

JE-II

JE-III

AE-I

XEN-I

SE-II/Smart City

CE/Smart City

BOQ and estimated of DLF Phase-III area under DLF subdivision

Sr. NO.	Description	Unit	Total Quantity required	Unit Supply Charges	Ref. of Rates	Unit Supply Rates (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Total Supply cost (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Unit Erection Cost including all taxes (in Rs)	Total Erection Cost including all taxes (In Rs)	Total Cost (In Rs)
1	2	3	4	5	6	7	8	9	10	11
1	Poles									
a	PCC Pole 11.0M Long (400kg working load).	Nos	10	4600.00	1.1	5290.00	52900.00	690.00	6900.00	59800.00
b	PCC Poles 9 M Long (400kg working Load)	Nos	224	1800.00	1.2	2070.00	463680.00	270.00	60480.00	524160.00
2	ACSR Conductor									
a	100mm2	Mtrs	140000	55.49	5.3	63.81	8933400.00	5.55	777000.00	9710400.00
b	100mm2 insulated	Mtrs.	4600	64.70	5.4	74.41	342286.00	6.47	29762.00	372048.00
3	11 KV Insulators									
a	11 KV Porcelain insulators with GI pin, nuts and washers complete suitable for insulator assembly	Nos.	30	90.00	4.1 & 4.2	103.50	3105.00	9.00	270.00	3375.00
b	45 KN Disc Insulator (T&C type) along with Hardwares & Accessories all complete as per Technical Specification.	Nos.	6	267.00	4.3 & 4.11	307.05	1842.30	26.70	160.20	2002.50
4	LT Insulators									
a	LT Insulator	Nos.	890	10.00	4.13	11.50	10235.00	1.00	890.00	11125.00
b	Egg Insulator	Nos.	110	10.00	4.14	11.50	1265.00	1.00	110.00	1375.00
5	M.S. Galvanized Items									
a	Fabrication and Supply of M.S. Galvanized items- Pole Top Bracket/hamper, V/straight-Cross arm, Guarding cross arm, Back Clamps for V/straight-Cross arm and Guard cross arm, D P Channel/angle, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, half clamp, full clamp, D-Strap, structure for mounting of isolator MS flat for knee bracing, MS Flat, Eye Screw Bolts, Transformer platform set complete, various size of angle & channel and Cable end termination/stand using total double compression brass glands and crimping type Cu./Alu. thimbles as per cable size and DT, LT Rod etc., complete steel items as required. The weight and size of the above mentioned items shall be as per Nigam's approved latest rate list and approved drawing.	Kg	13500	52.43	2.12	60.29	813915.00	5.24	70740.00	884655.00
b	GI Nuts & Bolts with Washers (plain and spring)	Kgs	570	68.00	13.4	78.20	44574.00	6.80	3876.00	48450.00

6	Clamps									
a	PG clamp for 100 mm ² ACSR	Nos.	6	40.00	3.1	46.00	276.00	4.00	24.00	300.00
7	11 kV stay set assembly & LT stay set assembly (excluding stay clamp & fasteners)									
a	Stay wire (7/8 SWG)	Kgs	1100	52.00	6.1	59.80	65780.00	5.20	5720.00	71500.00
b	Hardware Fittings (8' long complete with X-Plate 460mm of Angle 65x65x6 Elbow & rod with Discs/egg insulator etc) to complete 11kV/LT stay set	Set	110	649.00	58.3	746.35	82098.50	64.90	7139.00	89237.50
8	Earthing									
a	G.I. Pipe 40 mm dia 6 mtr. Long for earthing set. B-class for line	Nos	460	1540.00	58.5	1771.00	814660.00	154.00	70840.00	885500.00
b	Earthing with G.I. Strip 25x6 mm 9 mtr. as per Drawing for line	Nos	460	601.00	6.4	691.15	317929.00	60.10	27646.00	345575.00
c	Maintanance free (Chemical) Earthing with all the allied Materialas per Nigam Specifiaction for DTs, RMUs and LT feeder Panel	Nos.	285	4280.00	P&D	4922.00	1402770.00	428.00	121980.00	1524750.00
d	GSL 8 SWG	Kgs	4600	52.00	6.2	59.80	275080.00	5.20	23920.00	299000.00
9	11 KV 400 Amps. GO Switch complete with handle, pipe & Supporting Channel. As per Nigam's Tech. Spec., relevant ISS and latest amendments	Nos	22	6000.00	12.1	6900.00	151800.00	600.00	13200.00	165000.00
10	AB Cable									
a	LT XLPE AB Cable 3C x150 mm ² (PH)+ 1Cx150 mm.sq.(N)+1C x125 mm.sq.(M) + 16mm ² (SL)	Mtrs	4000	585.00	Mkt.	672.75	2691000.00	29.25	117000.00	2808000.00
b	LT XLPE AB Cable 3C x120 mm ² (PH)+ 1Cx120 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	3000	485.00	Mkt.	557.75	1673250.00	24.25	72750.00	1746000.00
c	LT XLPE AB Cable 3C x95 mm ² (PH)+ 1Cx95 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	8000	385.00	Mkt.	442.75	3542000.00	19.25	154000.00	3696000.00
11	M.S.Galvanised Clamps and Connector for LT AB cable									
a	Suspension clamps Assembly with eye hook	No	375	425.00	3.6	488.75	183281.25	42.50	15937.50	199218.75
b	Tension /dead end clamps (Bolted type) Assembly with eye hook	Set	120	244.00	3.7	280.60	33672.00	24.40	2928.00	36600.00
c	Insulated Piercing Connector as per site requirement	Nos.	750	70.00	58.10	80.50	60375.00	7.00	5250.00	65625.00
12	11kV LA (9KV)	Nos	6	420.00	11.1	483.00	2898.00	42.00	252.00	3150.00
13	Barbed wire	Kg.	110	50.00	6.3	57.50	6325.00	5.00	550.00	6875.00
14	Danger Plate Enameled with clamp	No.	110	66.00	58.7	75.90	8349.00	6.60	726.00	9075.00
15	Number Plate Enameled with clamp	No.	110	66.00	58.8	75.90	8349.00	6.60	726.00	9075.00
16	Phase Plate for each phase set of 3 (On H-pole & 4 pole)	Set	2	55.00	58.6	63.25	126.50	5.50	11.00	137.50
17	LT Line Spacers	Nos	2800	10.00	19.1	11.50	32200.00	1.00	2800.00	35000.00
18	LT distribution box (sealable with lock facility)suitable for 10 no. consumers (2 mm CRCA sheet box, Bus bars for load as per 25 kVA DT/Fs only with holes for incoming cable and O/G cable with rubber glands	nos.	375	500.00	58.11	575.00	215625.00	50.00	18750.00	234375.00
19	HT Cables									
a	3/C 400 mm ² 11 kV XLPE Armoured cable	Mtr	26590	1692.96	P&D	1946.90	51768071.00	0.00	0.00	51768071.00
b	3/C 300 mm ² 11 kV XLPE Armoured cable	Mtr	20	1206.04	P&D	1386.95	27739.00	0.00	0.00	27739.00
c	3/C 185 mm ² 11 kV XLPE Armoured cable	Mtr	10	676.85	32.5	778.38	7783.80	0.00	0.00	7783.80
d	3/C 120 mm ² 11 kV XLPE Armoured cable	Mtr	2390	743.16	P&D	854.63	2042565.70	0.00	0.00	2042565.70
20	LT Cables									
a	LT XLPE S/C 630 MM. sq. Un-Armoured cable	Mtr	3220	730.63	P&D	840.22	2705508.40	36.53	117626.60	2823135.00
b	LT PVC S/C 300 MM. sq. Un-Armoured cable	Mtr	100	179.19	28.5	206.07	20607.00	8.96	896.00	21503.00
d	LT XLPE Armoured 3.5 Core, 240 sq.mm. cable	Mtr	10	835.34	P&D	960.64	9606.40	41.77	417.70	10024.10

e	LT PVC 3.5 Core 185 MM. sq. Un-Armoured cable	Mtr	10	375.70	28.16	432.06	4320.60	18.79	187.90	4508.50
f	LT XLPE Armoured 3.5 Core, 120 sq.mm. cable	Mtr	10	449.00	P&D	516.35	5163.50	22.45	224.50	5388.00
g	LT XLPE Armoured 3.5 Core, 95 sq.mm. cable	Mtr	10	344.89	P&D	396.62	3966.20	17.24	172.40	4138.60
h	LT PVC Cable 2/C 10 MM. sq.	Mtr	10	17.28	28.10	19.87	198.70	0.86	8.60	207.30
i	LT PVC Cable 2/C 16 MM. sq.	Mtr	10	33.37	28.9	38.38	383.80	1.67	16.70	400.50
j	LT PVC Cable 4/C 16 MM. sq.	Mtr	10	55.94	28.11	64.33	643.30	2.80	28.00	671.30
k	LT PVC Cable 4/C 25 MM. sq.	Mtr	10	79.00	28.12	90.85	908.50	3.95	39.50	948.00
l	LT PVC Cable 4/C 50 MM. sq.	Mtr	10	126.97	28.14	146.02	1460.20	6.35	63.50	1523.70
m	LT PVC Cable 3.5/C 95 MM. sq.	Mtr	10	224.42	28.13	258.08	2580.80	11.22	112.20	2693.00
n	LT XLPE Armoured Cable 2/C 10 MM. sq.	Mtr	10	61.32	P&D	70.52	705.20	3.07	30.70	735.90
o	LT XLPE Armoured Cable 2/C 16 MM. sq.	Mtr	10	59.37	P&D	70.52	705.20	3.07	30.70	735.90
p	LT XLPE Armoured Cable 4/C 16 MM. sq.	Mtr	10	101.33	P&D	68.28	682.80	2.97	29.70	712.50
q	LT XLPE Armoured Cable 4/C 25 MM. sq.	Mtr	10	138.93	P&D	116.53	1165.30	5.07	50.70	1216.00
r	LT XLPE Armoured Cable 4/C 50 MM. sq.	Mtr	10	231.33	P&D	159.77	1597.70	6.95	69.50	1667.20
s	LT XLPE Armoured Cable 4/C 95 MM. sq.	Mtr	10	354.94	P&D	266.03	2660.30	11.57	115.70	2776.00
21	Straight Jointing Kit, O/D & I/D Termination Kit									
a	Straight Jointing kit for 3/C 400 mm2 11 kV XLPE cable	No.	88	13158.43	P&D	15132.19	1331632.72	1315.84	115793.92	1447426.64
b	ID Termination kit for 11KV 3/C 400 mm2 XLPE Cable	No.	5	3386.63	P&D	3894.62	19473.10	338.66	1693.30	21166.40
c	OD Termination kit for 11KV 3/C 400mm2 XLPE Cable	No.	157	4097.61	P&D	4712.25	739823.25	409.76	64332.32	804155.57
d	Straight Jointing kit for 3/C 300 mm2 11 kV XLPE cable	No.	1	2950.00	45.5	3392.50	3392.50	295.00	295.00	3687.50
e	ID Termination kit for 11KV 3/C 300 mm2 XLPE Cable	No.	1	854.00	43.5	982.10	982.10	85.40	85.40	1067.50
f	OD Termination kit for 11KV 3/C 300mm2 XLPE Cable	No.	1	977.00	44.5	1123.55	1123.55	97.70	97.70	1221.25
g	Straight Jointing kit for 3/C 185 mm2 11 kV XLPE cable	No.	1	2310.00	45.4	2656.50	2656.50	231.00	231.00	2887.50
h	ID Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	1	680.00	43.4	782.00	782.00	68.00	68.00	850.00
i	OD Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	1	700.00	44.4	805.00	805.00	70.00	70.00	875.00
j	Straight Jointing kit for 3/C 120 mm2 11 kV XLPE cable	No.	18	2250.00	45.3	2587.50	46575.00	225.00	4050.00	50625.00
k	ID Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	1	640.00	43.3	736.00	736.00	64.00	64.00	800.00
l	OD Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	111	680.00	44.3	782.00	86802.00	68.00	7548.00	94350.00
22	Pipes/Cable Protection cover and Marker									
a	HDPE pipe 160 mm dia for Trenchless boring & for cable raising and lowering on H Pole	Mtr	9700	216.00	P&D	248.40	2409480.00	0.00	0.00	2409480.00
b	CI pipe 250mm dia, 14mm thick for road crossing	Mtr	500	1342.00	P&D	1543.30	771650.00	0.00	0.00	771650.00
c	PVC pipe of Dia 160 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	182.00	P&D	209.30	2093.00	18.20	182.00	2275.00
d	PVC pipe of Dia 110 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	87.00	P&D	100.05	1000.50	8.70	87.00	1087.50
e	PVC pipe of Dia 50 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	40.00	P&D	46.00	460.00	4.00	40.00	500.00
f	PVC pipe of Dia 25 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	16.00	P&D	18.40	184.00	1.60	16.00	200.00
g	HT cable & LT Cable protection cover RCC slabs	nos.	27316	205.00	P&D	235.75	6439747.00	0.00	0.00	6439747.00
h	HT & LT Cable RCC Route Marker and Straight Joint maker	nos.	180	750.00	P&D	862.50	155250.00	0.00	0.00	155250.00

a	Outdoor type 11 KV SF6 type extensible and motorized 5 way smart Ring Main Unit (RMU) complete with three VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	10	714510.00	Derived	821686.50	8216865.00	14290.20	142902.00	8359767.00
b	Outdoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	26	539010.00	Mkt	619861.50	16116399.00	10780.20	280285.20	16396684.20
c	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	40	363410.00	Mkt	417921.50	16716860.00	7268.20	290728.00	17007588.00
d	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with all two LBS and with FPI per IS (Without FRTU)	Nos.	1	219410.00	Mkt	252321.50	252321.50	4388.20	4388.20	256709.70
e	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with one LBS and one VCB and with FPI per IS (Without FRTU)	Nos.	1	305510.00	Mkt	351336.50	351336.50	6110.20	6110.20	357446.70
f	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with LB and with FPI as per IS	Nos.	22	176910.00	Mkt	203446.50	4475823.00	3538.20	77840.40	4553663.40
g	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with VCB and FPI as per IS	Nos.	4	263010.00	Mkt	302461.50	1209846.00	5260.20	21040.80	1230886.80
h	Outdoor type 11 KV SF6 type bus coupler/Bus dis-connector as per IS	Nos.	8	176910.00	Mkt	203446.50	1627572.00	3538.20	28305.60	1655877.60
28	Civil Work including material required for civil work									
a	Foundation for RMU	No.	112	0.00	P&D	0.00	0.00	18000.00	2016000.00	2016000.00
b	Foundation for Distribution Transformer (400,630 & 1000kVA)	No.	47	0.00	P&D	0.00	0.00	20000.00	940000.00	940000.00
c	Foundation for LT feeder Pillar for Type-A,B & D	No.	55	0.00	P&D	0.00	0.00	14000.00	770000.00	770000.00
d	Foundation for LT feeder Pillar for Type C & E	No.	42	1.00	P&D	1.15	48.30	11000.00	462000.00	462048.30
e	Excavation for trenches upto 2m depth for size 1000mmX1200mmX400mm with supplying & laying 100mm jamuna sand for 1 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr.	2410	0.00	P&D	0.00	0.00	97.65	235336.50	235336.50

f	Excavation for trenches upto 2m depth for size 1000mmX1200mmX700mm with supplying & laying 100mm jamuna sand for 2 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	12900	0.00	P&D	0.00	0.00	137.65	1775685.00	1775685.00		
g	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1000mm with supplying & laying 100mm jamuna sand for 3 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	1600	0.00	P&D	0.00	0.00	177.65	284240.00	284240.00		
h	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1300mm with supplying & laying 100mm jamuna sand for 4 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	900	0.00	P&D	0.00	0.00	217.65	195885.00	195885.00		
i	Trenchless laying of HDPE and PLB-HDPE pipe by using HDD method	Mtr.	20400	0.00	P&D	0.00	0.00	650.00	13260000.00	13260000.00		
Total =									223143422.09		24403749.79	247547171.88
Grand Total of Supply & Erection												247547171.88
Note :- In case more than 4 cables are to be laid in trenches, it is clarified that for any additional cable to be laid, the erection cost shall be enhanced by Rs 40/- per meter. This includes erection of all the material as mentioned in the description 28 (e to h). It is further added that in the items 28 (e to h) of BOQ the cable laying rates through open digging process have been mentioned which includes the erection cost of laying of certain items, as mentioned therein, but which excludes the erection cost of laying of HDPE pipes. It is also clarified that in case the HT cable is laid through open trench digging alongwith laying of the HDPE pipe then the amount @Rs 12.35 + awarded premium per cable per meter shall be allowed/ paid to the contractor towards erection cost of HDPE pipe against item no 28 (eto h).												

Estimate for dismantlement of material of existing HT and LT network along with Distribution T/F and allied material					
Sr. No.	Description	Unit	Dismantalling Unit Rates	Qty of DLF Phase - III	Total Cost
1	HT Pole along with complete steel structure	Nos.	300.00	710.00	213000
2	LT Pole along with complete steel structure	Nos.	287.50	1.00	288
3	ACSR Conductor (50 mm. sq.)	KM	925.00	0.00	0
4	ACSR Conductor (80 mm. sq.)	KM	1125.00	32.50	36563
6	Distribution T/F 25 & 63 KVA	nos.	1200.00	0.00	0
7	Distribution T/F 100 to 200 KVA	nos.	1360.00	15.00	20400
8	Distribution T/F 200 to 500 KVA	nos.	562.50	11.00	6188
9	HT AB Cable 3CX50 mm.sq. with messenger wire	KM	10500.00	0.01	105
10	HT AB Cable 3CX70 mm.sq. with messenger wire	KM	11000.00	1.00	34650
11	HT AB Cable 3CX95 mm.sq. with messenger wire	KM	14000.00	3.15	140
12	HT AB Cable 3CX120 mm.sq. with messenger wire	KM	14000.00	0.01	140
13	HT AB Cable 3CX185 mm.sq. with messenger wire	KM	18000.00	0.01	0
Total dismantlement Cost					311473

Note: - Any other item which is not mentioned above but is required to be dismantled for the completion of dismantlement

Abstract of Estimated cost of Smart Grids Project, Gurgaon		
Sr. No.	Description	Cost (in Cr.)
A	Total Supply Cost	223143422.09
B	Total Erection Cost	24403749.79
C	Total Cost	247547171.88
F	Dismantling estimated Cost	311472.50
G	Total PROJECT COST (A+B+F)	247858644.38

Prepared By

Checked by

Reviewed by

Verified by

Approved by

JE-II

JE-III

AE-I

XEN-I

SE-II/Smart City

CE/Smart City

BOQ and estimated of Sector-31,32,40 & Jharsa area under South City subdivision

Sr. NO.	Description	Unit	Total Quantity required	Unit Supply Charges	Ref. of Rates	Unit Supply Rates (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Total Supply cost (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Unit Erection Cost including all taxes (in Rs)	Total Erection Cost including all taxes (In Rs)	Total Cost (In Rs)
1	2	3	4	5	6	7	8	9	10	11
1	Poles									
a	PCC Pole 11.0M Long (400kg working load).	Nos	332	4600.00	1.1	5290.00	1756280.00	690.00	229080.00	1985360.00
b	PCC Poles 9 M Long (400kg working Load)	Nos	478	1800.00	1.2	2070.00	989460.00	270.00	129060.00	1118520.00
2	ACSR Conductor									
a	100mm2	Mtrs	305000	55.49	5.3	63.81	19462050.00	5.55	1692750.00	21154800.00
b	100mm2 insulated	Mtrs.	810	64.70	5.4	74.41	60272.10	6.47	5240.70	65512.80
3	11 KV Insulators									
a	11 KV Porcelain insulators with GI pin, nuts and washers complete suitable for insulator assembly	Nos.	1494	90.00	4.1 & 4.2	103.50	154629.00	9.00	13446.00	168075.00
b	45 KN Disc Insulator (T&C type) along with Hardwares & Accessories all complete as per Technical Specification.	Nos.	2496	267.00	4.3 & 4.11	307.05	766396.80	26.70	66643.20	833040.00
4	LT Insulators									
a	LT Insulator	Nos.	2865	10.00	4.13	11.50	32947.50	1.00	2865.00	35812.50
b	Egg Insulator	Nos.	200	10.00	4.14	11.50	2300.00	1.00	200.00	2500.00
5	M.S. Galvanized Items									
a	Fabrication and Supply of M.S. Galvanized items- Pole Top Bracket/hamper, V/straight-Cross arm, Guarding cross arm, Back Clamps for V/straight-Cross arm and Guard cross arm, D P Channel/angle, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, half clamp, full clamp, D-Strap, structure for mounting of isolator MS flat for knee bracing, MS Flat, Eye Screw Bolts, Transformer platform set complete, various size of angle & channel and Cable end termination/stand using total double compression brass glands and crimping type Cu./Alu. thimbles as per cable size and DT, LT Rod etc., complete steel items as required. The weight and size of the above mentioned items shall be as per Nigam's approved latest rate list and approved drawing.	Kg	66875	52.43	2.12	60.29	4031893.75	5.24	350425.00	4382318.75
b	GI Nuts & Bolts with Washers (plain and spring)	Kgs	2602	68.00	13.4	78.20	203476.40	6.80	17693.60	221170.00

6	Clamps									
a	PG clamp for 100 mm ² ACSR	Nos.	3147	40.00	3.1	46.00	144762.00	4.00	12588.00	157350.00
7	11 kV stay set assembly & LT stay set assembly (excluding stay clamp & fasteners)									
a	Stay wire (7/8 SWG)	Kgs	6200	52.00	6.1	59.80	370760.00	5.20	32240.00	403000.00
b	Hardware Fittings (8' long complete with X-Plate 460mm of Angle 65x65x6 Elbow & rod with Discs/egg insulator etc) to complete 11kV/LT stay set	Set	620	649.00	58.3	746.35	462737.00	64.90	40238.00	502975.00
8	Earthing									
a	G.I. Pipe 40 mm dia 6 mtr. Long for earthing set. B-class for line	Nos	246	1540.00	58.5	1771.00	435666.00	154.00	37884.00	473550.00
b	Earthing with G.I. Strip 25x6 mm 9 mtr. as per Drawing for line	Nos	243	601.00	6.4	691.15	167949.45	60.10	14604.30	182553.75
c	Maintanance free (Chemical) Earthing with all the allied Materialas per Nigam Specifiaction for DTs, RMUs and LT feeder Panel	Nos.	434	4280.00	P&D	4922.00	2136148.00	428.00	185752.00	2321900.00
d	GSL 8 SWG	Kgs	3172	52.00	6.2	59.80	189685.60	5.20	16494.40	206180.00
9	11 KV 400 Amps. GO Switch complete with handle, pipe & Supporting Channel. As per Nigam's Tech. Spec., relevant ISS and latest amendments	Nos	122	6000.00	12.1	6900.00	841800.00	600.00	73200.00	915000.00
10	AB Cable									
a	LT XLPE AB Cable 3C x150 mm ² (PH)+ 1Cx150 mm.sq.(N)+1C x125 mm.sq.(M) + 16mm ² (SL)	Mtrs	1000	585.00	Mkt.	672.75	672750.00	29.25	29250.00	702000.00
b	LT XLPE AB Cable 3C x120 mm ² (PH)+ 1Cx120 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	18000	485.00	Mkt.	557.75	10039500.00	24.25	436500.00	10476000.00
c	LT XLPE AB Cable 3C x95 mm ² (PH)+ 1Cx95 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	2000	385.00	Mkt.	442.75	885500.00	19.25	38500.00	924000.00
11	M.S.Galvanised Clamps and Connector for LT AB cable									
a	Suspension clamps Assembly with eye hook	No	400	425.00	3.6	488.75	195500.00	42.50	17000.00	212500.00
b	Tension /dead end clamps (Bolted type) Assembly with eye hook	Set	80	244.00	3.7	280.60	22448.00	24.40	1952.00	24400.00
c	Insulated Piercing Connector as per site requirement	Nos.	1950	70.00	58.10	80.50	156975.00	7.00	13650.00	170625.00
12	11kV LA (9KV)	Nos	366	420.00	11.1	483.00	176778.00	42.00	15372.00	192150.00
13	Barbed wire	Kg.	810	50.00	6.3	57.50	46575.00	5.00	4050.00	50625.00
14	Danger Plate Enameled with clamp	No.	236	66.00	58.7	75.90	17912.40	6.60	1557.60	19470.00
15	Number Plate Enameled with clamp	No.	83	66.00	58.8	75.90	6299.70	6.60	547.80	6847.50
16	Phase Plate for each phase set of 3 (On H-pole & 4 pole)	Set	83	55.00	58.6	63.25	5249.75	5.50	456.50	5706.25
17	LT Line Spacers	Nos	6740	10.00	19.1	11.50	77510.00	1.00	6740.00	84250.00
18	LT distribution box (sealable with lock facility)suitable for 10 no. consumers (2 mm CRCA sheet box, Bus bars for load as per 25 kVA DT/Fs only with holes for incoming cable and O/G cable with rubber glands	nos.	390	500.00	58.11	575.00	224250.00	50.00	19500.00	243750.00
19	HT Cables									
a	3/C 400 mm ² 11 kV XLPE Armoured cable	Mtr	70950	1692.96	P&D	1946.90	138132555.00	0.00	0.00	138132555.00
b	3/C 300 mm ² 11 kV XLPE Armoured cable	Mtr	10	1206.04	P&D	1386.95	13869.50	0.00	0.00	13869.50
c	3/C 185 mm ² 11 kV XLPE Armoured cable	Mtr	4370	676.85	32.5	778.38	3401520.60	0.00	0.00	3401520.60
d	3/C 120 mm ² 11 kV XLPE Armoured cable	Mtr	10	743.16	P&D	854.63	8546.30	0.00	0.00	8546.30
20	LT Cables									
a	LT XLPE S/C 630 MM. sq. Un-Armoured cable	Mtr	690	730.63	P&D	840.22	579751.80	36.53	25205.70	604957.50
b	LT PVC S/C 300 MM. sq. Un-Armoured cable	Mtr	10	179.19	28.5	206.07	2060.70	8.96	89.60	2150.30
d	LT XLPE Armoured 3.5 Core, 240 sq.mm. cable	Mtr	10	835.34	P&D	960.64	9606.40	41.77	417.70	10024.10

e	LT PVC 3.5 Core 185 MM. sq. Un-Armoured cable	Mtr	10	375.70	28.16	432.06	4320.60	18.79	187.90	4508.50
f	LT XLPE Armoured 3.5 Core, 120 sq.mm. cable	Mtr	10	449.00	P&D	516.35	5163.50	22.45	224.50	5388.00
g	LT XLPE Armoured 3.5 Core, 95 sq.mm. cable	Mtr	10	344.89	P&D	396.62	3966.20	17.24	172.40	4138.60
h	LT PVC Cable 2/C 10 MM. sq.	Mtr	10	17.28	28.10	19.87	198.70	0.86	8.60	207.30
i	LT PVC Cable 2/C 16 MM. sq.	Mtr	10	33.37	28.9	38.38	383.80	1.67	16.70	400.50
j	LT PVC Cable 4/C 16 MM. sq.	Mtr	10	55.94	28.11	64.33	643.30	2.80	28.00	671.30
k	LT PVC Cable 4/C 25 MM. sq.	Mtr	10	79.00	28.12	90.85	908.50	3.95	39.50	948.00
l	LT PVC Cable 4/C 50 MM. sq.	Mtr	10	126.97	28.14	146.02	1460.20	6.35	63.50	1523.70
m	LT PVC Cable 3.5/C 95 MM. sq.	Mtr	10	224.42	28.13	258.08	2580.80	11.22	112.20	2693.00
n	LT XLPE Armoured Cable 2/C 10 MM. sq.	Mtr	10	61.32	P&D	70.52	705.20	3.07	30.70	735.90
o	LT XLPE Armoured Cable 2/C 16 MM. sq.	Mtr	10	59.37	P&D	70.52	705.20	3.07	30.70	735.90
p	LT XLPE Armoured Cable 4/C 16 MM. sq.	Mtr	10	101.33	P&D	68.28	682.80	2.97	29.70	712.50
q	LT XLPE Armoured Cable 4/C 25 MM. sq.	Mtr	10	138.93	P&D	116.53	1165.30	5.07	50.70	1216.00
r	LT XLPE Armoured Cable 4/C 50 MM. sq.	Mtr	10	231.33	P&D	159.77	1597.70	6.95	69.50	1667.20
s	LT XLPE Armoured Cable 4/C 95 MM. sq.	Mtr	10	354.94	P&D	266.03	2660.30	11.57	115.70	2776.00
21	Straight Jointing Kit, O/D & I/D Termination Kit									
a	Straight Jointing kit for 3/C 400 mm2 11 kV XLPE cable	No.	263	13158.43	P&D	15132.19	3979765.97	1315.84	346065.92	4325831.89
b	ID Termination kit for 11KV 3/C 400 mm2 XLPE Cable	No.	27	3386.63	P&D	3894.62	105154.74	338.66	9143.82	114298.56
c	OD Termination kit for 11KV 3/C 400mm2 XLPE Cable	No.	656	4097.61	P&D	4712.25	3091236.00	409.76	268802.56	3360038.56
d	Straight Jointing kit for 3/C 300 mm2 11 kV XLPE cable	No.	1	2950.00	45.5	3392.50	3392.50	295.00	295.00	3687.50
e	ID Termination kit for 11KV 3/C 300 mm2 XLPE Cable	No.	1	854.00	43.5	982.10	982.10	85.40	85.40	1067.50
f	OD Termination kit for 11KV 3/C 300mm2 XLPE Cable	No.	1	977.00	44.5	1123.55	1123.55	97.70	97.70	1221.25
g	Straight Jointing kit for 3/C 185 mm2 11 kV XLPE cable	No.	32	2310.00	45.4	2656.50	85008.00	231.00	7392.00	92400.00
h	ID Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	1	680.00	43.4	782.00	782.00	68.00	68.00	850.00
i	OD Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	109	700.00	44.4	805.00	87745.00	70.00	7630.00	95375.00
j	Straight Jointing kit for 3/C 120 mm2 11 kV XLPE cable	No.	1	2250.00	45.3	2587.50	2587.50	225.00	225.00	2812.50
k	ID Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	1	640.00	43.3	736.00	736.00	64.00	64.00	800.00
l	OD Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	1	680.00	44.3	782.00	782.00	68.00	68.00	850.00
22	Pipes/Cable Protection cover and Marker									
a	HDPE pipe 160 mm dia for Trenchless boring & for cable raising and lowering on H Pole	Mtr	19450	216.00	P&D	248.40	4831380.00	0.00	0.00	4831380.00
b	CI pipe 250mm dia, 14mm thick for road crossing	Mtr	4903	1342.00	P&D	1543.30	7566799.90	0.00	0.00	7566799.90
c	PVC pipe of Dia 160 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	182.00	P&D	209.30	2093.00	18.20	182.00	2275.00
d	PVC pipe of Dia 110 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	87.00	P&D	100.05	1000.50	8.70	87.00	1087.50
e	PVC pipe of Dia 50 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	40.00	P&D	46.00	460.00	4.00	40.00	500.00
f	PVC pipe of Dia 25 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	10	16.00	P&D	18.40	184.00	1.60	16.00	200.00
g	HT cable & LT Cable protection cover RCC slabs	nos.	84946	205.00	P&D	235.75	20026019.50	0.00	0.00	20026019.50
h	HT & LT Cable RCC Route Marker and Straight Joint maker	nos.	461	750.00	P&D	862.50	397612.50	0.00	0.00	397612.50

a	Outdoor type 11 KV SF6 type extensible and motorized 5 way smart Ring Main Unit (RMU) complete with three VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	31	714510.00	Derived	821686.50	25472281.50	14290.20	442996.20	25915277.70
b	Outdoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	11	539010.00	Mkt	619861.50	6818476.50	10780.20	118582.20	6937058.70
c	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	62	363410.00	Mkt	417921.50	25911133.00	7268.20	450628.40	26361761.40
d	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with all two LBS and with FPI per IS (Without FRTU)	Nos.	3	219410.00	Mkt	252321.50	756964.50	4388.20	13164.60	770129.10
e	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with one LBS and one VCB and with FPI per IS (Without FRTU)	Nos.	1	305510.00	Mkt	351336.50	351336.50	6110.20	6110.20	357446.70
f	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with LB and with FPI as per IS	Nos.	1	176910.00	Mkt	203446.50	203446.50	3538.20	3538.20	206984.70
g	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with VCB and FPI as per IS	Nos.	1	263010.00	Mkt	302461.50	302461.50	5260.20	5260.20	307721.70
h	Outdoor type 11 KV SF6 type bus coupler/Bus dis-connector as per IS	Nos.	1	176910.00	Mkt	203446.50	203446.50	3538.20	3538.20	206984.70
28	Civil Work including material required for civil work									
a	Foundation for RMU	No.	111	0.00	P&D	0.00	0.00	18000.00	1998000.00	1998000.00
b	Foundation for Distribution Transformer (400,630 & 1000kVA)	No.	2	0.00	P&D	0.00	0.00	20000.00	40000.00	40000.00
c	Foundation for LT feeder Pillar for Type-A,B & D	No.	3	0.00	P&D	0.00	0.00	14000.00	42000.00	42000.00
d	Foundation for LT feeder Pillar for Type C & E	No.	4	1.00	P&D	1.15	4.60	11000.00	44000.00	44004.60
e	Excavation for trenches upto 2m depth for size 1000mmX1200mmX400mm with supplying & laying 100mm jamuna sand for 1 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr.	0	0.00	P&D	0.00	0.00	97.65	0.00	0.00

f	Excavation for trenches upto 2m depth for size 1000mmX1200mmX700mm with supplying & laying 100mm jamuna sand for 2 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	13750	0.00	P&D	0.00	0.00	137.65	1892687.50	1892687.50	
g	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1000mm with supplying & laying 100mm jamuna sand for 3 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	5300	0.00	P&D	0.00	0.00	177.65	941545.00	941545.00	
h	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1300mm with supplying & laying 100mm jamuna sand for 4 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	7850	0.00	P&D	0.00	0.00	217.65	1708552.50	1708552.50	
i	Trenchless laying of HDPE and PLB-HDPE pipe by using HDD method	Mtr.	38920	0.00	P&D	0.00	0.00	650.00	25298000.00	25298000.00	
Total =							321019393.41		38137512.71	359156906.12	
Grand Total of Supply & Erection									359156906.12		
Note :- In case more than 4 cables are to be laid in trenches, it is clarified that for any additional cable to be laid, the erection cost shall be enhanced by Rs 40/- per meter. This includes erection of all the material as mentioned in the description 28 (e to h). It is further added that in the items 28 (e to h) of BOQ the cable laying rates through open digging process have been mentioned which includes the erection cost of laying of certain items, as mentioned therein, but which excludes the erection cost of laying of HDPE pipes. It is also clarified that in case the HT cable is laid through open trench digging alongwith laying of the HDPE pipe then the amount @Rs 12.35 + awarded premium per cable per meter shall be allowed/ paid to the contractor towards erection cost of HDPE pipe against item no 28 (eto h).											

Estimate for dismantlement of material of existing HT and LT network along with Distribution T/F and allied material					
Sr. No.	Description	Unit	Dismantling Unit Rates	Qty Of 31,32,40 & Jharsa	Total Cost
1	HT Pole along with complete steel structure	Nos.	300.00	627.00	188100
2	LT Pole along with complete steel structure	Nos.	287.50	0.00	0
3	ACSR Conductor (50 mm. sq.)	KM	925.00	85.00	78625
4	ACSR Conductor (80 mm. sq.)	KM	1125.00	0.00	0
6	Distribution T/F 25 & 63 KVA	nos.	1200.00	0.00	0
7	Distribution T/F 100 to 200 KVA	nos.	1360.00	26.00	35360
8	Distribution T/F 200 to 500 KVA	nos.	562.50	0.00	0
9	HT AB Cable 3CX50 mm.sq. with messenger wire	KM	10500.00	0.00	0
10	HT AB Cable 3CX70 mm.sq. with messenger wire	KM	11000.00	0.00	0
11	HT AB Cable 3CX95 mm.sq. with messenger wire	KM	14000.00	0.00	0
12	HT AB Cable 3CX120 mm.sq. with messenger wire	KM	14000.00	0.00	0
13	HT AB Cable 3CX185 mm.sq. with messenger wire	KM	18000.00	1.40	25200
Total dismantlement Cost					327285
Note: - Any other item which is not mentioned above but is required to be dismantled for the completion of dismantlement					

Abstract of Estimated cost of Smart Grids Project, Gurgaon		
Sr. No.	Description	Cost (in Cr.)
A	Total Supply Cost	321019393.41
B	Total Erection Cost	38137512.71
C	Total Cost	359156906.12
F	Dismantling estimated Cost	327285.00
G	Total PROJECT COST (A+B+F)	359484191.12

Prepared By

Checked by

Reviewed by

Verified by

Approved by

JE-1

AE-III

XEN-III

SE-II/Smart City

CE/Smart City

Total BOQ and estimated Cost for Renovation and Up-gradation work (i.e. Underground of HT Line and Augmentation of LT conductor, Augmentation of DT and providing of Addition DTs) of existing infra under problematic areas to resolve the power supply related issues under Smart City Project, DHBVN, Gurgaon against the NIT no TSGP-05/ 2016 under Gurugram Circle under the jurisdiction of DHBVN.

Sr. NO.	Description	Unit	Total Quantity required	Unit Supply Charges	Ref. of Rates	Unit Supply Rates (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Total Supply cost (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Unit Erection Cost including all taxes (in Rs)	Total Erection Cost including all taxes (In Rs)	Total Cost (In Rs)
1	2	3	4	5	6	7	8	9	10	11
1	Poles									
a	PCC Pole 11.0M Long (400kg working load).	Nos	410	4600.00	1.1	5290.00	2168900.00	690.00	282900.00	2451800.00
b	PCC Poles 9 M Long (400kg working Load)	Nos	1289	1800.00	1.2	2070.00	2668230.00	270.00	348030.00	3016260.00
2	ACSR Conductor									
a	100mm ²	Mtrs	647900	55.49	5.3	63.81	41342499.00	5.55	3595845.00	44938344.00
b	100mm ² insulated	Mtrs.	16350	64.70	5.4	74.41	1216603.50	6.47	105784.50	1322388.00
3	11 KV Insulators									
a	11 KV Porcelain insulators with GI pin, nuts and washers complete suitable for insulator assembly	Nos.	1716	90.00	4.1 & 4.2	103.50	177606.00	9.00	15444.00	193050.00
b	45 KN Disc Insulator (T&C type) along with Hardwares & Accessories all complete as per Technical Specification.	Nos.	2580	267.00	4.3 & 4.11	307.05	792189.00	26.70	68886.00	861075.00
4	LT Insulators									
a	LT Insulator	Nos.	6011	10.00	4.13	11.50	69126.50	1.00	6011.00	75137.50
b	Egg Insulator	Nos.	607	10.00	4.14	11.50	6980.50	1.00	607.00	7587.50
5	M.S. Galvanized Items									
a	Fabrication and Supply of M.S. Galvanized items- Pole Top Bracket/hamper, V/straight-Cross arm, Guarding cross arm, Back Clamps for V/straight-Cross arm and Guard cross arm, D P Channel/angle, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, half clamp, full clamp, D-Strap, structure for mounting of isolator MS flat for knee bracing, MS Flat, Eye Screw Bolts, Transformer platform set complete, various size of angle & channel and Cable end termination/stand using total double compression brass glands and crimping type Cu./Alu. thimbles as per cable size and DT, LT Rod etc., complete steel items as required. The weight and size of the above mentioned items shall be as per Nigam's approved latest rate list and approved drawing.	Kg	114610	52.43	2.12	60.29	6909836.90	5.24	600556.40	7510393.30
b	GI Nuts & Bolts with Washers (plain and spring)	Kgs	5049	68.00	13.4	78.20	394831.80	6.80	34333.20	429165.00

6	Clamps									
a	PG clamp for 100 mm ² ACSR	Nos.	4115	40.00	3.1	46.00	189290.00	4.00	16460.00	205750.00
7	11 kV stay set assembly & LT stay set assembly (excluding stay clamp & fasteners)									
a	Stay wire (7/8 SWG)	Kgs	10869	52.00	6.1	59.80	649966.20	5.20	56518.80	706485.00
b	Hardware Fittings (8' long complete with X-Plate 460mm of Angle 65x65x6 Elbow & rod with Discs/egg insulator etc) to complete 11kV/LT stay set	Set	1087	649.00	58.3	746.35	811282.45	64.90	70546.30	881828.75
8	Earthing									
a	G.I. Pipe 40 mm dia 6 mtr. Long for earthing set. B-class for line	Nos	1210	1540.00	58.5	1771.00	2142910.00	154.00	186340.00	2329250.00
b	Earthing with G.I. Strip 25x6 mm 9 mtr. as per Drawing for line	Nos	1207	601.00	6.4	691.15	834218.05	60.10	72540.70	906758.75
c	Maintanance free (Chemical) Earthing with all the allied Materialas per Nigam Specifiaction for DTs, RMUs and LT feeder Panel	Nos.	1381	4280.00	P&D	4922.00	6797282.00	428.00	591068.00	7388350.00
d	GSL 8 SWG	Kgs	14807	52.00	6.2	59.80	885458.60	5.20	76996.40	962455.00
9	11 KV 400 Amps. GO Switch complete with handle, pipe & Supporting Channel. As per Nigam's Tech. Spec., relevant ISS and latest amendments	Nos	216	6000.00	12.1	6900.00	1490400.00	600.00	129600.00	1620000.00
10	AB Cable									
a	LT XLPE AB Cable 3C x150 mm ² (PH)+ 1Cx150 mm.sq.(N)+1C x125 mm.sq.(M) + 16mm ² (SL)	Mtrs	5500	585.00	Mkt.	672.75	3700125.00	29.25	160875.00	3861000.00
b	LT XLPE AB Cable 3C x120 mm ² (PH)+ 1Cx120 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	22050	485.00	Mkt.	557.75	12298387.50	24.25	534712.50	12833100.00
c	LT XLPE AB Cable 3C x95 mm ² (PH)+ 1Cx95 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	10050	385.00	Mkt.	442.75	4449637.50	19.25	193462.50	4643100.00
11	M.S.Galvanised Clamps and Connector for LT AB cable									
a	Suspension clamps Assembly with eye hook	No	825	425.00	3.6	488.75	403218.75	42.50	35062.50	438281.25
b	Tension /dead end clamps (Bolted type) Assembly with eye hook	Set	222	244.00	3.7	280.60	62293.20	24.40	5416.80	67710.00
c	Insulated Piercing Connector as per site requirement	Nos.	2750	70.00	58.10	80.50	221375.00	7.00	19250.00	240625.00
12	11kV LA (9KV)	Nos	555	420.00	11.1	483.00	268065.00	42.00	23310.00	291375.00
13	Barbed wire	Kg.	1099	50.00	6.3	57.50	63192.50	5.00	5495.00	68687.50
14	Danger Plate Enameled with clamp	No.	662	66.00	58.7	75.90	50245.80	6.60	4369.20	54615.00
15	Number Plate Enameled with clamp	No.	469	66.00	58.8	75.90	35597.10	6.60	3095.40	38692.50
16	Phase Plate for each phase set of 3 (On H-pole & 4 pole)	Set	132	55.00	58.6	63.25	8349.00	5.50	726.00	9075.00
17	LT Line Spacers	Nos	16129	10.00	19.1	11.50	185483.50	1.00	16129.00	201612.50
18	LT distribution box (sealable with lock facility)suitable for 10 no. consumers (2 mm CRCA sheet box, Bus bars for load as per 25 kVA DT/Fs only with holes for incoming cable and O/G cable with rubber glands	nos.	805	500.00	58.11	575.00	462875.00	50.00	40250.00	503125.00
19	HT Cables									
a	3/C 400 mm ² 11 kV XLPE Armoured cable	Mtr	218940	1692.96	P&D	1946.90	426254286.00	0.00	0.00	426254286.00
b	3/C 300 mm ² 11 kV XLPE Armoured cable	Mtr	365	1206.04	P&D	1386.95	506236.75	0.00	0.00	506236.75
c	3/C 185 mm ² 11 kV XLPE Armoured cable	Mtr	14600	676.85	32.5	778.38	11364348.00	0.00	0.00	11364348.00
d	3/C 120 mm ² 11 kV XLPE Armoured cable	Mtr	5760	743.16	P&D	854.63	4922668.80	0.00	0.00	4922668.80
20	LT Cables									
a	LT XLPE S/C 630 MM. sq. Un-Armoured cable	Mtr	6660	730.63	P&D	840.22	5595865.20	36.53	243289.80	5839155.00
b	LT PVC S/C 300 MM. sq. Un-Armoured cable	Mtr	670	179.19	28.5	206.07	138066.90	8.96	6003.20	144070.10
d	LT XLPE Armoured 3.5 Core, 240 sq.mm. cable	Mtr	40	835.34	P&D	960.64	38425.60	41.77	1670.80	40096.40

e	LT PVC 3.5 Core 185 MM. sq. Un-Armoured cable	Mtr	800	375.70	28.16	432.06	345648.00	18.79	15032.00	360680.00
f	LT XLPE Armoured 3.5 Core, 120 sq.mm. cable	Mtr	40	449.00	P&D	516.35	20654.00	22.45	898.00	21552.00
g	LT XLPE Armoured 3.5 Core, 95 sq.mm. cable	Mtr	40	344.89	P&D	396.62	15864.80	17.24	689.60	16554.40
h	LT PVC Cable 2/C 10 MM. sq.	Mtr	40	17.28	28.10	19.87	794.80	0.86	34.40	829.20
i	LT PVC Cable 2/C 16 MM. sq.	Mtr	40	33.37	28.9	38.38	1535.20	1.67	66.80	1602.00
j	LT PVC Cable 4/C 16 MM. sq.	Mtr	40	55.94	28.11	64.33	2573.20	2.80	112.00	2685.20
k	LT PVC Cable 4/C 25 MM. sq.	Mtr	40	79.00	28.12	90.85	3634.00	3.95	158.00	3792.00
l	LT PVC Cable 4/C 50 MM. sq.	Mtr	40	126.97	28.14	146.02	5840.80	6.35	254.00	6094.80
m	LT PVC Cable 3.5/C 95 MM. sq.	Mtr	40	224.42	28.13	258.08	10323.20	11.22	448.80	10772.00
n	LT XLPE Armoured Cable 2/C 10 MM. sq.	Mtr	40	61.32	P&D	70.52	2820.80	3.07	122.80	2943.60
o	LT XLPE Armoured Cable 2/C 16 MM. sq.	Mtr	40	59.37	P&D	70.52	2820.80	3.07	122.80	2943.60
p	LT XLPE Armoured Cable 4/C 16 MM. sq.	Mtr	40	101.33	P&D	68.28	2731.20	2.97	118.80	2850.00
q	LT XLPE Armoured Cable 4/C 25 MM. sq.	Mtr	40	138.93	P&D	116.53	4661.20	5.07	202.80	4864.00
r	LT XLPE Armoured Cable 4/C 50 MM. sq.	Mtr	40	231.33	P&D	159.77	6390.80	6.95	278.00	6668.80
s	LT XLPE Armoured Cable 4/C 95 MM. sq.	Mtr	40	354.94	P&D	266.03	10641.20	11.57	462.80	11104.00
21	Straight Jointing Kit, O/D & I/D Termination Kit									
a	Straight Jointing kit for 3/C 400 mm2 11 kV XLPE cable	No.	630	13158.43	P&D	15132.19	9533279.70	1315.84	828979.20	10362258.90
b	ID Termination kit for 11KV 3/C 400 mm2 XLPE Cable	No.	605	3386.63	P&D	3894.62	2356245.10	338.66	204889.30	2561134.40
c	OD Termination kit for 11KV 3/C 400mm2 XLPE Cable	No.	1064	4097.61	P&D	4712.25	5013834.00	409.76	435984.64	5449818.64
d	Straight Jointing kit for 3/C 300 mm2 11 kV XLPE cable	No.	4	2950.00	45.5	3392.50	13570.00	295.00	1180.00	14750.00
e	ID Termination kit for 11KV 3/C 300 mm2 XLPE Cable	No.	4	854.00	43.5	982.10	3928.40	85.40	341.60	4270.00
f	OD Termination kit for 11KV 3/C 300mm2 XLPE Cable	No.	7	977.00	44.5	1123.55	7864.85	97.70	683.90	8548.75
g	Straight Jointing kit for 3/C 185 mm2 11 kV XLPE cable	No.	59	2310.00	45.4	2656.50	156733.50	231.00	13629.00	170362.50
h	ID Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	165	680.00	43.4	782.00	129030.00	68.00	11220.00	140250.00
i	OD Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	215	700.00	44.4	805.00	173075.00	70.00	15050.00	188125.00
j	Straight Jointing kit for 3/C 120 mm2 11 kV XLPE cable	No.	21	2250.00	45.3	2587.50	54337.50	225.00	4725.00	59062.50
k	ID Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	25	640.00	43.3	736.00	18400.00	64.00	1600.00	20000.00
l	OD Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	292	680.00	44.3	782.00	228344.00	68.00	19856.00	248200.00
22	Pipes/Cable Protection cover and Marker									
a	HDPE pipe 160 mm dia for Trenchless boring & for cable raising and lowering on H Pole	Mtr	66055	216.00	P&D	248.40	16408062.00	0.00	0.00	16408062.00
b	CI pipe 250mm dia, 14mm thick for road crossing	Mtr	8633	1342.00	P&D	1543.30	13323308.90	0.00	0.00	13323308.90
c	PVC pipe of Dia 160 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	40	182.00	P&D	209.30	8372.00	18.20	728.00	9100.00
d	PVC pipe of Dia 110 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	40	87.00	P&D	100.05	4002.00	8.70	348.00	4350.00
e	PVC pipe of Dia 50 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	40	40.00	P&D	46.00	1840.00	4.00	160.00	2000.00
f	PVC pipe of Dia 25 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	40	16.00	P&D	18.40	736.00	1.60	64.00	800.00
g	HT cable & LT Cable protection cover RCC slabs	nos.	260218	205.00	P&D	235.75	61346393.50	0.00	0.00	61346393.50
h	HT & LT Cable RCC Route Marker and Straight Joint maker	nos.	1640	750.00	P&D	862.50	1414500.00	0.00	0.00	1414500.00

23	LT Feeder panel/Fuse Unit Board									
a	6 way Distribution feeder panel with 1 no ACB , 4 pole, 3phase, 415 v , 1600 Amps for incoming and 5 nos outgoing MCCB 4 pole, 3phase, 415 v , 400 Amps rating type, metering arrangement on incomer suitable for outdoor installation , in accordance with Technical Specification (Type-A)	Nos	7	479648.34	P&D	551595.59	3861169.13	9592.97	67150.79	3928319.92
b	5 way Distribution feeder panel with 1 no ACB , 4 pole, 3phase, 415 v , 1250 Amps for incoming and 4 nos outgoing MCCB 4 pole, 3phase, 415 v , 400 Amps rating type, metering arrangement on incomer suitable for outdoor installation , in accordance with Technical Specification (Type-B)	Nos	122	430776.50	P&D	495392.98	60437943.56	8615.53	1051094.66	61489038.22
c	4 way Distribution feeder panel with 1 no ACB , 4 pole, 3phase, 415 v , 800 Amps for incoming and 3 nos outgoing MCCB 4 pole, 3phase, 415 v , 400 Amps rating type, metering arrangement on incomer suitable for outdoor installation , in accordance with Technical Specification (Type-C)	Nos.	79	366513.90	P&D	421490.99	33297788.21	7330.28	579092.12	33876880.33
d	7- way Distribution feeder panel with 2 no MCCB , 4 pole, 3phase, 415 v , 400 Amps for incoming and 5 nos outgoing MCCB 4 pole, 3phase, 415 v , 100 Amps rating type suitable for outdoor installation , in accordance with Technical Specification (Type-D)	Nos	4	183960.24	P&D	211554.28	846217.12	3679.20	14716.80	860933.92
e	3 phase, 415 V, Distribution service panel for LT, 100 Amps rating bus bar only with 12 holes for 2 nos. incoming and 10 nos. outgoing , feeder type distribution service panel suitable for outdoor installation , in accordance with Technical Specification (Type-E)	Nos	4	47530.37	P&D	54659.93	218639.72	950.61	3802.44	222442.16
f	LT fuse Board Unit with epoxy bus bar type insulators mounted on bakelite sheet size 18"x12"x10mm and aluminium bus bar L-0 strip size 6"x50mm with 6 nos. GI nut and bolts off size with double washers.	Nos.	147	552.00	Mkt.	634.80	93315.60	11.04	1622.88	94938.48
24	Distribution T/Fs									
a	1000 KVA 11/.433 KV T/F, Cu wound ,Oil Type as per IS/Nigam	Nos.	4	1031070.00	8.3	1185730.50	4742922.00	20621.40	82485.60	4825407.60
b	630 KVA 11/.433 KV T/F, Cu wound , Oil Type as per IS/Nigam Specification	Nos.	33	731888.00	8.2	841671.20	27775149.60	14637.76	483046.08	28258195.68
c	400 KVA 11/.433 KV T/F, Cu wound , Oil Type as per IS/Nigam Specification	Nos.	52	449904.00	8.1	517389.60	26904259.20	8998.08	467900.16	27372159.36
d	200 KVA 11/.433 KV T/F, Al wound, Oil Type as per IS/Nigam Specification	Nos.	123	173228.00	7.4	199212.20	24503100.60	3464.56	426140.88	24929241.48
25	Fencing of new DT installed on plinth, RMU and LT distribution feeder Panel including gate (Per Running meter) as per Nigam Specification	R/Mtr.	8697	3324.00	P&D	3822.60	33245152.20	332.40	2890882.80	36136035.00
26	Optical Fiber									
a	Un- Armoured Optical Fiber (48 Fibers) along with the all accessories connectors, switches etc.	KM	170.61	48095.00	P&D	55309.25	9436311.14	0.00	0.00	9436311.14
b	PLB-HDPE (Permanently Lubricated High Density Poly Ethylene) pipe 40 mm. dia pipe for laying optical Fiber Cable.	KM	163.51	61000.00	P&D	70150.00	11470226.50	0.00	0.00	11470226.50

27	RMU (Ring Main Units)									
a	Outdoor type 11 KV SF6 type extensible and motorized 5 way smart Ring Main Unit (RMU) complete with three VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	46	714510.00	Derived	821686.50	37797579.00	14290.20	657349.20	38454928.20
b	Outdoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	75	539010.00	Mkt	619861.50	46489612.50	10780.20	808515.00	47298127.50
c	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	194	363410.00	Mkt	417921.50	81076771.00	7268.20	1410030.80	82486801.80
d	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with all two LBS and with FPI per IS (Without FRTU)	Nos.	18	219410.00	Mkt	252321.50	4541787.00	4388.20	78987.60	4620774.60
e	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with one LBS and one VCB and with FPI per IS (Without FRTU)	Nos.	4	305510.00	Mkt	351336.50	1405346.00	6110.20	24440.80	1429786.80
f	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with LB and with FPI as per IS	Nos.	211	176910.00	Mkt	203446.50	42927211.50	3538.20	746560.20	43673771.70
g	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with VCB and FPI as per IS	Nos.	14	263010.00	Mkt	302461.50	4234461.00	5260.20	73642.80	4308103.80
h	Outdoor type 11 KV SF6 type bus coupler/Bus dis-connector as per IS	Nos.	19	176910.00	Mkt	203446.50	3865483.50	3538.20	67225.80	3932709.30
28	Civil Work including material required for civil work									
a	Foundation for RMU	No.	581	0.00	P&D	0.00	0.00	18000.00	10458000.00	10458000.00
b	Foundation for Distribution Transformer (400,630 & 1000kVA)	No.	89	0.00	P&D	0.00	0.00	20000.00	1780000.00	1780000.00
c	Foundation for LT feeder Pillar for Type-A,B & D	No.	134	0.00	P&D	0.00	0.00	14000.00	1876000.00	1876000.00
d	Foundation for LT feeder Pillar for Type C & E	No.	82	1.00	P&D	1.15	94.30	11000.00	902000.00	902094.30
e	Excavation for trenches upto 2m depth for size 1000mmX1200mmX400mm with supplying & laying 100mm jamuna sand for 1 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr.	5515	0.00	P&D	0.00	0.00	97.65	538539.75	538539.75

f	Excavation for trenches upto 2m depth for size 1000mmX1200mmX700mm with supplying & laying 100mm jamuna sand for 2 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	75995	0.00	P&D	0.00	0.00	137.65	10460711.75	10460711.75
g	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1000mm with supplying & laying 100mm jamuna sand for 3 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	14010	0.00	P&D	0.00	0.00	177.65	2488876.50	2488876.50
h	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1300mm with supplying & laying 100mm jamuna sand for 4 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	18600	0.00	P&D	0.00	0.00	217.65	4048290.00	4048290.00
i	Trenchless laying of HDPE and PLB-HDPE pipe by using HDD method	Mtr.	134350	0.00	P&D	0.00	0.00	650.00	87327500.00	87327500.00
Total =							1110379683.43		138924630.65	1249304314.08
Grand Total of Supply & Erection									1249304314.08	
Note :- In case more than 4 cables are to be laid in trenches, it is clarified that for any additional cable to be laid, the erection cost shall be enhanced by Rs 40/- per meter. This includes erection of all the material as mentioned in the description 28 (e to h). It is further added that in the items 28 (e to h) of BOQ the cable laying rates through open digging process have been mentioned which includes the erection cost of laying of certain items, as mentioned therein, but which excludes the erection cost of laying of HDPE pipes. It is also clarified that in case the HT cable is laid through open trench digging alongwith laying of the HDPE pipe then the amount @Rs 12.35 + awarded premium per cable per meter shall be allowed/ paid to the contractor towards erection cost of HDPE pipe against item no 28 (eto h).										

Estimate for dismantlement of material of existing HT and LT network along with Distribution T/F and allied material					
Sr. No.	Description	Unit	Dismantling Unit Rates	Total Qty	Total Cost
1	HT Pole along with complete steel structure	Nos.	300.00	3074.00	922200
2	LT Pole along with complete steel structure	Nos.	287.50	2.00	575
3	ACSR Conductor (50 mm. sq.)	KM	925.00	135.90	125708
4	ACSR Conductor (80 mm. sq.)	KM	1125.00	142.50	160313
6	Distribution T/F 25 & 63 KVA	nos.	1200.00	0.00	0
7	Distribution T/F 100 to 200 KVA	nos.	1360.00	75.00	102000
8	Distribution T/F 200 to 500 KVA	nos.	562.50	15.00	8438
9	HT AB Cable 3CX50 mm.sq. with messenger wire	KM	10500.00	0.01	105
10	HT AB Cable 3CX70 mm.sq. with messenger wire	KM	11000.00	3.15	34650
11	HT AB Cable 3CX95 mm.sq. with messenger wire	KM	14000.00	0.31	4340
12	HT AB Cable 3CX120 mm.sq. with messenger wire	KM	14000.00	0.01	140
13	HT AB Cable 3CX185 mm.sq. with messenger wire	KM	18000.00	37.90	682200
Total dismantlement Cost					2040668

Note: - Any other item which is not mentioned above but is required to be dismantled for the completion of dismantlement

Abstract of Estimated cost of Smart Grids Project, Gurgaon		
Sr. No.	Description	Cost (in Cr.)
A	Total Supply Cost	1110379683.43
B	Total Erection Cost	138924630.65
C	Total Cost	1249304314.08
F	Dismantling estimated Cost	2040667.50
G	Total PROJECT COST (A+B+F)	1251344981.58

Prepared By

Checked by

Reviewed by

Verified by

JE-1

JE-II

JE-III

AE-I

AE-II

AE-III

XEN-1

XEN-II

SE-II/Smart City

Ann H:Total BOQ and estimated Cost for Renovation and Up-gradation work (i.e. Underground of HT Line and Augmentation of LT conductor, Augmentation of DT and providing of Addition DTs) of existing Infra under problematic areas to resolve the power supply related issues under Smart City Project, DHBVN, Gurgaon against the NIT no TSGP-05/ 2016 under the jurisdiction of Operation Circle Gurugram .

Sr. NO.	Description	Unit	Total Quantity required for Part-A (DLF phase-III and Sushant Lok-I)	Total Quantity required for Part -B (14 &17, Sohna Road, 31,32,40 & Jarsha)	Total Quantity required (Part-A +Part-B)		Ref. of Rates	Unit Supply Rates (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Total Supply cost (including all taxes, ED, CST, VAT, Levies, Transportation, Contingency, insurance, handling charges, Contractor Profit & Supervision etc. (in Rs)	Unit Erection Cost including all taxes (in Rs)	Total Erection Cost including all taxes (In Rs)	Total Cost (In Rs)
1	2	3			4	5	6	7	8	9	10	11
1	Poles											
a	PCC Pole 11.0M Long (400kg working load).	Nos	20	390	410	4600.00	1.1	5290.00	2168900.00	690.00	282900.00	2451800.00
b	PCC Poles 9 M Long (200kg working Load)	Nos	477	812	1289	1800.00	1.2	2070.00	2668230.00	270.00	348030.00	3016260.00
2	ACSR Conductor											
a	100mm ²	Mtrs	156000	491900	647900	55.49	5.3	63.81	41342499.00	5.55	3595845.00	44938344.00
b	100mm ² insulated	Mtrs.	7600	8750	16350	64.70	5.4	74.41	1216603.50	6.47	105784.50	1322388.00
3	11 KV Insulators											
a	11 KV Porcelain insulators with GI pin, nuts and washers complete suitable for insulator assembly	Nos.	60	1656	1716	90.00	4.1 & 4.2	103.50	177606.00	9.00	15444.00	193050.00
b	45 KN Disc Insulator (T&C type) along with Hardwares & Accessories all complete as per Technical Specification.	Nos.	12	2568	2580	267.00	4.3 & 4.11	307.05	792189.00	26.70	68886.00	861075.00
4	LT Insulators											
a	LT Insulator	Nos.	1904	4107	6011	10.00	4.13	11.50	69126.50	1.00	6011.00	75137.50
b	Egg Insulator	Nos.	238	369	607	10.00	4.14	11.50	6980.50	1.00	607.00	7587.50
5	M.S. Galvanized Items											
a	Fabrication and Supply of M.S. Galvanized items- Pole Top Bracket/hamper, V/straight-Cross arm, Guarding cross arm, Back Clamps for V/straight-Cross arm and Guard cross arm, D P Channel/angle, D P Channel clamp, Stay clamps angle, Stay clamps side, D P cross bracing & clamps, half clamp, full clamp, D-Strap, structure for mounting of isolator MS flat for knee bracing, MS Flat, Eye Screw Bolts, Transformer platform set complete, various size of angle & channel and Cable end termination/stand using total double compression brass glands etc., complete steel items as required. The weight and size of the above mentioned items shall be as per Nigam's approved latest rate list and approved drawing.	Kg	28500	86110	114610	52.43	2.12	60.29	6909836.90	5.24	600556.40	7510393.30
b	GI Nuts & Bolts with Washers (plain and spring)	Kgs	1209	3840	5049	68.00	13.4	78.20	394831.80	6.80	34333.20	429165.00

6	Clamps											
a	PG clamp for 100 mm ² ACSR	Nos.	15	4100	4115	40.00	3.1	46.00	189290.00	4.00	16460.00	205750.00
b	Thimbles and glands off size (Sizes up to 95 Sq. mm.)	Nos.	720	2508	3228	15.65	Mkt.	18.00	58104.00	1.57	5067.96	63171.96
c	Thimbles and glands off size (Sizes above 95 Sq. mm.)	Nos.	1536	1368	2904	39.87	Mkt.	45.85	133148.40	3.99	11586.96	144735.36
7	11 kV stay set assembly & LT stay set assembly (excluding stay clamp & fasteners)											
a	Stay wire (7/8 SWG)	Kgs	2379	8490	10869	52.00	6.1	59.80	649966.20	5.20	56518.80	706485.00
b	Hardware Fittings (8' long complete with X-Plate 460mm of Angle 65x65x6 Elbow & rod with Discs/egg insulator etc) to complete 11kV/LT stay set	Set	238	849	1087	649.00	58.3	746.35	811282.45	64.90	70546.30	881828.75
8	Earthing											
a	G.I. Pipe 40 mm dia 6 mtr. Long with salt & charcoal earthing set,	Nos	307	695	1002	1540.00	58.5	1771.00	1774542.00	154.00	154308.00	1928850.00
b	Earthing with G.I. Strip 25x6 mm 9 mtr. as per Drawing for line	Nos	307	695	1002	601.00	6.4	691.15	692532.30	60.10	60220.20	752752.50
c	Maintanance free (Chemical) Earthing with all the allied Materialas per Nigam Specifiacion for DTs, RMUs and LT feeder Panel	Nos.	472	695	1167	4280.00	P&D	4922.00	5743974.00	428.00	499476.00	6243450.00
d	GSL 8 SWG	Kgs	7925	6882	14807	52.00	6.2	59.80	885458.60	5.20	76996.40	962455.00
9	11 KV 400 Amps. GO Switch complete with handle, pipe & Supporting Channel. As per Nigam's Tech. Spec., relevant ISS and latest amendments	Nos	23	193	216	6000.00	12.1	6900.00	1490400.00	600.00	129600.00	1620000.00
10	AB Cable											
a	LT XLPE AB Cable 3C x150 mm ² (PH)+ 1Cx150 mm.sq.(N)+1C x125 mm.sq.(M) + 16mm ² (SL)	Mtrs	4000	1500	5500	585.00	Mkt.	672.75	3700125.00	29.25	160875.00	3861000.00
b	LT XLPE AB Cable 3C x120 mm ² (PH)+ 1Cx120 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	3000	19050	22050	485.00	Mkt.	557.75	12298387.50	24.25	534712.50	12833100.00
c	LT XLPE AB Cable 3C x95 mm ² (PH)+ 1Cx95 mm.sq.(N)+1C x70 mm.sq.(M) + 16mm ² (SL)	Mtrs	8000	2050	10050	385.00	Mkt.	442.75	4449637.50	19.25	193462.50	4643100.00
11	M.S.Galvanised Clamps and Connector for LT AB cable											
a	Suspension clamps Assembly with eye hook	No	375	450	825	425.00	3.6	488.75	403218.75	42.50	35062.50	438281.25
b	Tension /dead end clamps (Bolted type) Assembly with eye hook	Set	120	102	222	244.00	3.7	280.60	62293.20	24.40	5416.80	67710.00
c	Insulated Piercing Connector as per site requirement	Nos.	750	2000	2750	70.00	58.10	80.50	221375.00	7.00	19250.00	240625.00
12	11kV LA (9KV)	Nos	249	561	810	420.00	11.1	483.00	391230.00	42.00	34020.00	425250.00
13	Barbed wire	Kg.	240	859	1099	50.00	6.3	57.50	63192.50	5.00	5495.00	68687.50
14	Danger Plate Enameled with clamp	No.	240	422	662	66.00	58.7	75.90	50245.80	6.60	4369.20	54615.00
15	Number Plate Enameled with clamp	No.	240	229	469	66.00	58.8	75.90	35597.10	6.60	3095.40	38692.50
16	Phase Plate for each phase set of 3 (On H-pole & 4 pole)	Set	4	128	132	55.00	58.6	63.25	8349.00	5.50	726.00	9075.00
17	LT Line Spacers	Nos	5900	10229	16129	10.00	19.1	11.50	185483.50	1.00	16129.00	201612.50
18	LT distribution box (sealable with lock facility)suitable for 10 no. consumers (2 mm CRCA sheet box, Bus bars for load as per 25 kVA DT/Fs only with holes for incoming cable and O/G cable with rubber glands	nos.	375	430	805	500.00	58.11	575.00	462875.00	50.00	40250.00	503125.00

19	HT Cables											
a	3/C 400 mm2 11 kV XLPE Armoured cable	Mtr	61390	157550	218940	1692.96	P&D	1946.90	426254286.00	0.00	0.00	426254286.00
b	3/C 300 mm2 11 kV XLPE Armoured cable	Mtr	345	20	365	1206.04	P&D	1386.95	506236.75	0.00	0.00	506236.75
c	3/C 185 mm2 11 kV XLPE Armoured cable	Mtr	20	14580	14600	676.85	32.5	778.38	11364348.00	0.00	0.00	11364348.00
d	3/C 120 mm2 11 kV XLPE Armoured cable	Mtr	5320	440	5760	743.16	P&D	854.63	4922668.80	0.00	0.00	4922668.80
20	LT Cables											
a	LT XLPE S/C 630 MM. sq. Un-Armoured cable	Mtr	5400	1260	6660	730.63	P&D	840.22	5595865.20	36.53	243289.80	5839155.00
b	LT PVC S/C 300 MM. sq. Un-Armoured cable	Mtr	110	560	670	179.19	28.5	206.07	138066.90	8.96	6003.20	144070.10
d	LT XLPE Armoured 3.5 Core, 240 sq.mm. cable	Mtr	20	20	40	835.34	P&D	960.64	38425.60	41.77	1670.80	40096.40
e	LT PVC 3.5 Core 185 MM. sq. Un-Armoured cable	Mtr	20	780	800	375.70	28.16	432.06	345648.00	18.79	15032.00	360680.00
f	LT XLPE Armoured 3.5 Core, 120 sq.mm. cable	Mtr	20	20	40	449.00	P&D	516.35	20654.00	22.45	898.00	21552.00
g	LT XLPE Armoured 3.5 Core, 95 sq.mm. cable	Mtr	20	20	40	344.89	P&D	396.62	15864.80	17.24	689.60	16554.40
h	LT PVC Cable 2/C 10 MM. sq.	Mtr	20	20	40	17.28	28.10	19.87	794.80	0.86	34.40	829.20
i	LT PVC Cable 2/C 16 MM. sq.	Mtr	20	20	40	33.37	28.9	38.38	1535.20	1.67	66.80	1602.00
j	LT PVC Cable 4/C 16 MM. sq.	Mtr	20	20	40	55.94	28.11	64.33	2573.20	2.80	112.00	2685.20
k	LT PVC Cable 4/C 25 MM. sq.	Mtr	20	20	40	79.00	28.12	90.85	3634.00	3.95	158.00	3792.00
l	LT PVC Cable 4/C 50 MM. sq.	Mtr	20	20	40	126.97	28.14	146.02	5840.80	6.35	254.00	6094.80
m	LT PVC Cable 3.5/C 95 MM. sq.	Mtr	20	20	40	224.42	28.13	258.08	10323.20	11.22	448.80	10772.00
n	LT XLPE Armoured Cable 2/C 10 MM. sq.	Mtr	20	20	40	61.32	P&D	70.52	2820.80	3.07	122.80	2943.60
o	LT XLPE Armoured Cable 2/C 16 MM. sq.	Mtr	20	20	40	59.37	P&D	70.52	2820.80	3.07	122.80	2943.60
p	LT XLPE Armoured Cable 4/C 16 MM. sq.	Mtr	20	20	40	101.33	P&D	68.28	2731.20	2.97	118.80	2850.00
q	LT XLPE Armoured Cable 4/C 25 MM. sq.	Mtr	20	20	40	138.93	P&D	116.53	4661.20	5.07	202.80	4864.00
r	LT XLPE Armoured Cable 4/C 50 MM. sq.	Mtr	20	20	40	231.33	P&D	159.77	6390.80	6.95	278.00	6668.80
s	LT XLPE Armoured Cable 4/C 95 MM. sq.	Mtr	20	20	40	354.94	P&D	266.03	10641.20	11.57	462.80	11104.00
21	Straight Jointing Kit, O/D & I/D Termination Kit											
a	Straight Jointing kit for 3/C 400 mm2 11 kV XLPE cable	No.	204	426	630	13158.43	P&D	15132.19	9533279.70	1315.84	828979.20	10362258.90
b	ID Termination kit for 11KV 3/C 400 mm2 XLPE Cable	No.	15	590	605	3386.63	P&D	3894.62	2356245.10	338.66	204889.30	2561134.40
c	OD Termination kit for 11KV 3/C 400mm2 XLPE Cable	No.	260	804	1064	4097.61	P&D	4712.25	5013834.00	409.76	435984.64	5449818.64
d	Straight Jointing kit for 3/C 300 mm2 11 kV XLPE cable	No.	2	2	4	2950.00	45.5	3392.50	13570.00	295.00	1180.00	14750.00
e	ID Termination kit for 11KV 3/C 300 mm2 XLPE Cable	No.	2	2	4	854.00	43.5	982.10	3928.40	85.40	341.60	4270.00
f	OD Termination kit for 11KV 3/C 300mm2 XLPE Cable	No.	5	2	7	977.00	44.5	1123.55	7864.85	97.70	683.90	8548.75
g	Straight Jointing kit for 3/C 185 mm2 11 kV XLPE cable	No.	2	57	59	2310.00	45.4	2656.50	156733.50	231.00	13629.00	170362.50
h	ID Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	2	163	165	680.00	43.4	782.00	129030.00	68.00	11220.00	140250.00
i	OD Termination kit for 11KV 3/C 185 mm2 XLPE Cable	No.	2	213	215	700.00	44.4	805.00	173075.00	70.00	15050.00	188125.00
j	Straight Jointing kit for 3/C 120 mm2 11 kV XLPE cable	No.	19	2	21	2250.00	45.3	2587.50	54337.50	225.00	4725.00	59062.50
k	ID Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	2	23	25	640.00	43.3	736.00	18400.00	64.00	1600.00	20000.00
l	OD Termination kit for 11KV 3/C 120 mm2 XLPE Cable	No.	269	23	292	680.00	44.3	782.00	228344.00	68.00	19856.00	248200.00
22	Pipes/Cable Protection cover and Marker											
a	HDPE pipe 160 mm dia for Trenchless boring & for cable raising and lowering on H Pole	Mtr	24355	41700	66055	216.00	P&D	248.40	16408062.00	0.00	0.00	16408062.00
b	CI pipe 250mm dia, 14mm thick for road crossing	Mtr	1000	7633	8633	1342.00	P&D	1543.30	13323308.90	0.00	0.00	13323308.90
c	PVC pipe of Dia 160 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	20	20	40	182.00	P&D	209.30	8372.00	18.20	728.00	9100.00
d	PVC pipe of Dia 110 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	20	20	40	87.00	P&D	100.05	4002.00	8.70	348.00	4350.00
e	PVC pipe of Dia 50 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	20	20	40	40.00	P&D	46.00	1840.00	4.00	160.00	2000.00
f	PVC pipe of Dia 25 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	20	20	40	16.00	P&D	18.40	736.00	1.60	64.00	800.00
g	HT cable & LT Cable protection cover RCC slabs	nos.	61191	199027	260218	205.00	P&D	235.75	61346393.50	0.00	0.00	61346393.50
h	HT & LT Cable RCC Route Marker and Straight Joint maker	nos.	412	1228	1640	750.00	P&D	862.50	1414500.00	0.00	0.00	1414500.00

23	LT Feeder panel/Fuse Unit Board											
a	6 way Distribution feeder panel with 1 no ACB , 4 pole, 3phase, 415 v , 1600 Amps for incoming and 5 nos outgoing MCCB 4 pole, 3phase, 415 v , 400 Amps rating type, metering arrangement on incomer suitable for outdoor installation , in accordance with Technical Specification (Type-A)	Nos	5	2	7	479648.34	P&D	551595.59	3861169.13	9592.97	67150.79	3928319.92
b	5 way Distribution feeder panel with 1 no ACB , 4 pole, 3phase, 415 v , 1250 Amps for incoming and 4 nos outgoing MCCB 4 pole, 3phase, 415 v , 400 Amps rating type, metering arrangement on incomer suitable for outdoor installation , in accordance with Technical Specification (Type-B)	Nos	100	22	122	430776.50	P&D	495392.98	60437943.56	8615.53	1051094.66	61489038.22
c	4 way Distribution feeder panel with 1 no ACB , 4 pole, 3phase, 415 v , 800 Amps for incoming and 3 nos outgoing MCCB 4 pole, 3phase, 415 v , 400 Amps rating type, metering arrangement on incomer suitable for outdoor installation , in accordance with Technical Specification (Type-C)	Nos.	51	28	79	366513.90	P&D	421490.99	33297788.21	7330.28	579092.12	33876880.33
d	7- way Distribution feeder panel with 2 no MCCB , 4 pole, 3phase, 415 v , 400 Amps for incoming and 5 nos outgoing MCCB 4 pole, 3phase, 415 v , 100 Amps rating type suitable for outdoor installation , in accordance with Technical Specification (Type-D)	Nos	2	2	4	183960.24	P&D	211554.28	846217.12	3679.20	14716.80	860933.92
e	3 phase, 415 V, Distribution service panel for LT, 100 Amps rating bus bar only with 12 holes for 2 nos. incoming and 10 nos. outgoing , feeder type distribution service panel suitable for outdoor installation , in accordance with Technical Specification (Type-E)	Nos	2	2	4	47530.37	P&D	54659.93	218639.72	950.61	3802.44	222442.16
f	LT fuse Board Unit with epoxy bus bar type insulators mounted on backelite sheet size 18"x12"x10mm and aluminium bus bar L-0 strip size 6"x50mm with 6 nos. GI nut and bolts off size with double washers.	Nos.	24	123	147	552.00	Mkt.	634.80	93315.60	11.04	1622.88	94938.48
24	Distribution T/Fs											
a	1000 KVA 11/.433 KV T/F, Cu wound ,Oil Type as per IS/Nigam Specification	Nos.	4	0	4	1031070.00	8.3	1185730.50	4742922.00	20621.40	82485.60	4825407.60
b	630 KVA 11/.433 KV T/F, Cu wound , Oil Type as per IS/Nigam Specification	Nos.	26	7	33	731888.00	8.2	841671.20	27775149.60	14637.76	483046.08	28258195.68
c	400 KVA 11/.433 KV T/F, Cu wound , Oil Type as per IS/Nigam Specification	Nos.	32	20	52	449904.00	8.1	517389.60	26904259.20	8998.08	467900.16	27372159.36
d	200 KVA 11/.433 KV T/F, Al wound, Oil Type as per IS/Nigam Specification	Nos.	0	123	123	173228.00	7.4	199212.20	24503100.60	3464.56	426140.88	24929241.48
25	Fencing of new DT installed on plinth, RMU and LT distribution feeder Panel including gate (Per Running meter) as per Nigam Specification	R/Mtr.	2282	6415	8697	3324.00	P&D	3822.60	33245152.20	332.40	2890882.80	36136035.00
26	Optical Fiber											
a	Un- Armoured Optical Fiber (48 Fibers) along with the all accessories connectors, switches etc.	KM	61.39	109.22	170.61	48095.00	P&D	55309.25	9436311.14	0.00	0.00	9436311.14
b	PLB-HDPE (Permanently Lubricated High Density Poly Ethylene) pipe 40 mm. dia pipe for laying optical Fiber Cable.	KM	61.39	102.12	163.51	61000.00	P&D	70150.00	11470226.50	0.00	0.00	11470226.50

27	RMU (Ring Main Units)											
a	Outdoor type 11 KV SF6 type extensible and motorized 5 way smart Ring Main Unit (RMU) complete with three VCB and two LBS with FPI as per IS (Without FRTU) with the provision of self powered supply through 1 kVA auxilliary power transformer 11/0.230 KV as per Nigam Specs	Nos.	1	0	1	914610.00		1051801.50	1051801.50	18292.20	18292.20	1070093.70
b	Outdoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FPI as per IS (Without FRTU) with the provision of self powered supply through 1 kVA auxilliary power transformer 11/0.230 KV as per Nigam Specs	Nos.	0	0	0	739010.00		849861.50	0.00	14780.20	0.00	0.00
c	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FPI as per IS (Without FRTU) with the provision of self powered supply through 1 kVA auxilliary power transformer 11/0.230 KV as per Nigam Specs	Nos.	37	99	136	563410.00		647921.50	88117324.00	11268.20	1532475.20	89649799.20
d	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with all two LBS and with FPI per IS (Without FRTU) with the provision of self powered supply through 1 kVA auxilliary power transformer 11/0.230 KV as per Nigam Specs	Nos.	0	13	13	419410.00		482321.50	6270179.50	8388.20	109046.60	6379226.10
e	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with one LBS and one VCB and with FPI per IS (Without FRTU) with the provision of self powered supply through 1 kVA auxilliary power transformer 11/0.230 KV as per Nigam Specs	Nos.	0	1	1	439410.00		505321.50	505321.50	8788.20	8788.20	514109.70
f	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with LB and with FPI as per IS with the provision of self powered supply through 1 kVA auxilliary power transformer 11/0.230 KV as per Nigam Specs	Nos.	0	180	180	275000.00		316250.00	56925000.00	5500.00	990000.00	57915000.00
g	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with VCB as per IS with the provision of self powered supply through 1 kVA auxilliary power transformer 11/0.230 KV as per Nigam Specs	Nos.	0	0	0	295000.00		339250.00	0.00	5900.00	0.00	0.00
h	Outdoor type 11 KV SF6 type extensible and motorized 5 way smart Ring Main Unit (RMU) complete with three VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	14	31	45	714610.00	Derived	821801.50	36981067.50	14292.20	643149.00	37624216.50
i	Outdoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	47	28	75	539010.00	Mkt	619861.50	46489612.50	10780.20	808515.00	47298127.50
j	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FPI as per IS (Without FRTU)	Nos.	27	31	58	363410.00	Mkt	417921.50	24239447.00	7268.20	421555.60	24661002.60
k	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with all two LBS and with FPI per IS (Without FRTU)	Nos.	2	3	5	219410.00	Mkt	252321.50	1261607.50	4388.20	21941.00	1283548.50
l	Outdoor type 11 KV SF6 type extensible and motorized 2 way smart Ring Main Unit (RMU) complete with one LBS and one VCB and with FPI per IS (Without FRTU)	Nos.	2	1	3	305510.00	Mkt	351336.50	1054009.50	6110.20	18330.60	1072340.10
m	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with LB and with FPI as per IS	Nos.	30	1	31	150000.00	Mkt	172500.00	5347500.00	3000.00	93000.00	5440500.00
n	Outdoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with VCB as per IS	Nos.	8	6	14	170000.00	Mkt	195500.00	2737000.00	3400.00	47600.00	2784600.00
o	Outdoor type 11 KV SF6 type bus coupler/Bus dis-connector as per IS	Nos.	17	2	19	150000.00	Mkt	172500.00	3277500.00	3000.00	57000.00	3334500.00

28	Civil Work including material required for civil work											
a	Foundation for RMU	No.	185	396	581	0.00	P&D	0.00	0.00	18000.00	10458000.00	10458000.00
b	Foundation for Distribution Transformer (400,630 & 1000kVA)	No.	62	27	89	0.00	P&D	0.00	0.00	20000.00	1780000.00	1780000.00
c	Foundation for LT feeder Pillar for Type-A,B & D	No.	107	27	134	0.00	P&D	0.00	0.00	14000.00	1876000.00	1876000.00
d	Foundation for LT feeder Pillar for Type C & E	No.	53	29	82	1.00	P&D	1.15	94.30	11000.00	902000.00	902094.30
e	Excavation for trenches upto 2m depth for size 1000mmX1200mmX400mm with supplying & laying 100mm jamuna sand for 1 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr.	4985	530	5515	0.00	P&D	0.00	0.00	97.65	538539.75	538539.75
f	Excavation for trenches upto 2m depth for size 1000mmX1200mmX700mm with supplying & laying 100mm jamuna sand for 2 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	31875	44120	75995	0.00	P&D	0.00	0.00	137.65	10460711.75	10460711.75
g	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1000mm with supplying & laying 100mm jamuna sand for 3 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	1610	12400	14010	0.00	P&D	0.00	0.00	177.65	2488876.50	2488876.50

h	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1300mm with supplying & laying 100mm jamuna sand for 4 nos. cables i/c refilling the excavated earth, watering, rolling compaction etc. complete in all respects alongwith laying of cables and all necessary installation of material including HDPE pipes for road/rail crossing and for bridge crossings or as per site requirement , cable protection cover RCC slabs, Yamuna Sand, end termination, supporting structure for crossing small bridges, culverts etc, cast riser for cable joint marker, route markers, earthing material and earthing cable etc, including testing and commissioning for Laying and restoration of excavated portion to original look as far as practical possible of HT/ LT (3-core, 1 core) of various sizes & Optical fibre below the ground complete as per Drg./TS.	Mtr	1350	17250	18600	0.00	P&D	0.00	0.00	217.65	4048290.00	4048290.00
i	Trenchless laying of HDPE and PLB-HDPE pipe by using HDD method	Mtr.	50030	84320	134350	0.00	P&D	0.00	0.00	650.00	87327500.00	87327500.00
j	Cutting/repair/finishing of interlocking paver block road including labour & material	Sq.Mtr.	1195	2229	3423.6	0.00	HSR/Civil	0.00	0.00	680.00	2328048.00	2328048.00
k	Cutting/repair/finishing of cemented concrete road including labour,material & sufficient curing	Sq.Mtr.	2787.4	5201	7988.4	0.00	HSR/Civil	0.00	0.00	1096.00	8755286.40	8755286.40
l	Cutting/repair/finishing of metallic(Bituminous) road including labour,material & sufficient curing	Sq.Mtr.	2787.4	5201	7988.4	0.00	HSR/Civil	0.00	0.00	313.00	2500369.20	2500369.20
m	Cutting/repair/finishing of brick on edge road including labour & material	Sq.Mtr.	1195	2229	3423.6	0.00	HSR/Civil	0.00	0.00	598.00	2047312.80	2047312.80
Total =										1161049858.08	155350008.67	1316399866.75
Grand Total of Supply & Erection										1316399866.75		

Note :- In case more than 4 cables are to be laid in trenches, it is clarified that for any additional cable to be laid, the erection cost shall be enhanced by Rs 40/- per meter. This includes erection of all the material as mentioned in the description 28 (e to h). It is further added that in the items 28 (e to h) of BOQ the cable laying rates through open digging process have been mentioned which includes the erection cost of laying of certain items, as mentioned therein, but which excludes the erection cost of laying of HDPE pipes. It is also clarified that in case the HT cable is laid through open trench digging alongwith laying of the HDPE pipe then the amount @Rs 12.35 + awarded premium per cable per meter shall be allowed/ paid to the contractor towards erection cost of HDPE pipe against item no 28 (eto h).Also, percentage length of road cutting required for interlocking paver block,cement concrete,metallic and brick on edge type roads has been assumed as 3,7,7 and 3 % of total length of road for manual digging.

Estimate for dismantlement of material of existing HT and LT network along with Distribution T/F and allied material and transportation to Nigam							
Sr. No.	Description	Unit	Dismantling Unit Rates	Total Quantity Of Part-A (DLF phase-III and Sushant Lok-I)	Total Quantity of Part -B (14 &17, Sohna Road, 31,32,40 & Jarsha)	Total Quantity of (Part-A +Part-B)	Total Cost
1	HT Pole along with complete steel structure	Nos.	300.00	1322.00	1752.00	3074.00	922200
2	LT Pole along with complete steel structure	Nos.	287.50	2.00	0.00	2.00	575
3	ACSR Conductor (50 mm. sq.)	KM	925.00	0.10	135.80	135.90	125708
4	ACSR Conductor (80 mm. sq.)	KM	1125.00	112.50	30.00	142.50	160313
6	Distribution T/F 25 & 63 KVA	nos.	1200.00	0.00	0.00	0.00	0
7	Distribution T/F 100 to 200 KVA	nos.	1360.00	17.00	58.00	75.00	102000
8	Distribution T/F 200 to 500 KVA	nos.	562.50	14.00	1.00	15.00	8438
9	HT AB Cable 3CX50 mm.sq. with messenger wire	KM	10500.00	0.01	0.00	0.01	105
10	HT AB Cable 3CX70 mm.sq. with messenger wire	KM	11000.00	1.00	0.00	1.00	11000
11	HT AB Cable 3CX95 mm.sq. with messenger wire	KM	14000.00	3.45	0.00	3.45	48300
12	HT AB Cable 3CX120 mm.sq. with messenger wire	KM	14000.00	0.01	0.00	0.01	140
13	HT AB Cable 3CX185 mm.sq. with messenger wire	KM	18000.00	2.51	35.40	37.91	682380
14	HT XLPE Cable 3CX185 mm.sq	KM	15000.00	0.01	0.09	0.10	1500
15	HT XLPE Cable 3CX300 mm.sq	KM	20000.00	0.42	1.10	1.52	30400
Total dismantlement Cost							2093058

Note: - Any other item which is not mentioned above but is required to be dismantled for the completion of dismantlement activity of entire existing electrical

Abstract of Estimated cost of Smart Grids Project, Gurgaon		
Sr. No.	Description	Cost (in Cr.)
A	Total Supply Cost	1161049858.08
B	Total Erection Cost	155350008.67
C	Total Cost (A+B)	1316399866.75
D	Dismantling estimated Cost	2093057.50
E	Total PROJECT COST (C+D)	1318492924.25