

a	3/C 400 mm ² 11 kV XLPE Armoured cable	Mtrs	264424	1692.96	P&D	447659255.04	84.65	22383491.60	470042746.64
b	3/C 300 mm ² 11 kV XLPE Armoured cable	Mtrs	8470	1206.04	31.6	10215158.80	60.3	510741.00	10725899.80
c	3/C 120 mm ² 11 kV XLPE Armoured cable	Mtrs	8529	743.16	P&D	6338411.64	37.16	316937.64	6655349.28
18	LT Cables								
a	LT XLPE Cable S/C 630 MM. sq.	Mtr	27320	730.63	P&D	19960811.60	36.53	997999.60	20958811.20
b	LT XLPE Armoured 3.5 Core, 300 sq.mm. cable	Mtr	340000	940.42	P&D	319742800.00	47.02	15986800.00	335729600.00
c	LT XLPE Armoured 3.5 Core, 240 sq.mm. cable	Mtr	1500	835.34	P&D	1253010.00	41.77	62655.00	1315665.00
d	LT XLPE Armoured 3.5 Core, 120 sq.mm. cable	Mtr	153000	449.00	P&D	68697000.00	22.45	3434850.00	72131850.00
e	LT XLPE Armoured 3.5 Core, 95 sq.mm. cable	Mtr	1000	344.89	P&D	344890.00	17.24	17240.00	362130.00
f	LT PVC Cable 2/C 10 MM. sq.	Mtr	92500	25.48	28.9	2356900.00	1.27	117475.00	2474375.00
g	LT PVC Cable 2/C 16 MM. sq.	Mtr	1000	38.71	28.1	38710.00	1.94	1940.00	40650.00
h	LT PVC Cable 4/C 16 MM. sq.	Mtr	85000	64.70	28.11	5499500.00	3.24	275400.00	5774900.00
i	LT PVC Cable 4/C 25 MM. sq.	Mtr	97500	91.03	28.12	8875425.00	4.55	443625.00	9319050.00
j	LT PVC Cable 4/C 50 MM. sq.	Mtr	4250	145.64	28.14	618970.00	7.28	30940.00	649910.00
k	LT PVC Cable 4/C 95 MM. sq.	Mtr	1000	258.69	P&D	258690.00	12.93	12930.00	271620.00
l	LT XLPE Armoured Cable 2/C 10 MM. sq.	Mtr	370000	61.32	29.2	22688400.00	3.07	1135900.00	23824300.00
m	LT XLPE Armoured Cable 2/C 16 MM. sq.	Mtr	1000	59.37	P&D	59370.00	2.97	2970.00	62340.00
n	LT XLPE Armoured Cable 4/C 16 MM. sq.	Mtr	340000	101.33	29.5	34452200.00	5.07	1723800.00	36176000.00
o	LT XLPE Armoured Cable 4/C 25 MM. sq.	Mtr	390000	138.93	29.6	54182700.00	6.95	2710500.00	56893200.00
p	LT XLPE Armoured Cable 4/C 50 MM. sq.	Mtr	17000	231.33	P&D	3932610.00	11.57	196690.00	4129300.00
q	LT XLPE Armoured Cable 4/C 95 MM. sq.	Mtr	1000	354.94	P&D	354940.00	17.75	17750.00	372690.00
19	Straight Jointing Kit, O/D & I/D Termination Kit								
a	Straight Jointing kit for 3/C 400 mm ² 11 kV XLPE cable	No.	529	13158.43	P&D	6960809.47	1315.84	696079.36	7656888.83
b	Straight Jointing kit for 3/C 300 mm ² 11 kV XLPE cable	No.	3	4477.00	39.5	13431.00	447.7	1343.10	14774.10
c	Straight Jointing kit for 3/C 120 mm ² 11 kV XLPE cable	No.	53	3414.82	39.3	180985.46	341.48	18098.44	199083.90
d	ID Termination kit for 11KV 3/C 400 mm ² Cable	No.	134	3386.63	P&D	453808.42	338.66	45380.44	499188.86
e	ID Termination kit for 11KV 3/C 300 mm ² Cable	No.	6	1061.35	37.5	6368.10	106.14	636.84	7004.94
f	ID Termination kit for 11KV 3/C 120 mm ² Cable	No.	6	795.39	37.3	4772.34	79.54	477.24	5249.58
g	OD Termination kit for 11KV 3/C 400mm ² Cable	No.	1027	4097.61	P&D	4208245.47	409.76	420823.52	4629068.99
h	OD Termination kit for 11KV 3/C 300mm ² Cable	No.	148	1214.21	38.5	179703.08	121.42	17970.16	197673.24
i	OD Termination kit for 11KV 3/C 120 mm ² Cable	No.	718	845.10	38.3	606781.80	84.51	60678.18	667459.98
21	Pipes								
a	HDPE pipe 125 mm dia	Mtrs	2000	169.00	P&D	338000.00	8.45	16900.00	354900.00
b	HDPE pipe 160 mm dia	Mtrs	81450	216.00	P&D	17593200.00	10.8	879660.00	18472860.00
c	PVC pipe of Dia 160 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	1000	182.00	P&D	182000.00	9.1	9100.00	191100.00
d	PVC pipe of Dia 110 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	153000	87.00	P&D	13311000.00	4.35	665550.00	13976550.00
e	PVC pipe of Dia 50 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	747000	40.00	P&D	29880000.00	2	1494000.00	31374000.00
f	PVC pipe of Dia 25 MM, Class-1, ISI mark along with elbow and other joint.	Mtr.	370000	16.00	P&D	5920000.00	0.8	296000.00	6216000.00
g	CI pipe 250mm dia, 14mm thick for crossing	Mtr	500	1342.00	52.15	671000.00	67.1	33550.00	704550.00
23	HT cable & LT Cable protection cover RCC slabs	nos.	900499	205.00	P&D	184602295.00	4.1	3692045.90	188294340.90
24	HT & LT Cable RCC Route Marker and Straight Joint maker	nos.	4931	750.00	P&D	3698250.00	15	73965.00	3772215.00
26	LT Feeder Pillar								
a	6- way Distribution feeder pillar 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	Nos	239	479648.34	P&D	114635953.26	9592.97	2292719.83	116928673.09

b	5- way Distribution feeder pillar 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	Nos	138	430776.50	P&D	59447157.00	8615.53	1188943.14	60636100.14
c	4- way Distribution feeder pillar 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	Nos	27	366513.90	P&D	9895875.30	7330.28	197917.56	10093792.86
d	7- way Distribution feeder pillar 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	Nos	4615	183960.24	P&D	848976507.60	3679.2	16979508.00	865956015.60
e	3 phase ,415 v , Distribution service Pillar for LT, 100 Amps incoming ;2 nos . 32 TPN, 10 nos. 16 Amp SPN rating feeder type distribution service pillar suitable for outdoor installation , in accordance with Technical Specification	Nos	2432	47530.37	P&D	115593859.84	950.61	2311883.52	117905743.36
27	Distribution T/Fs								
a	1000 KVA 11/.433 KV T/F Oil Type	Nos.	77	984082.00	P&D	75774314.00	19681.64	1515486.28	77289800.28
b	630 KVA 11/.433 KV T/F Oil Type	Nos.	129	749658.00	8.2	96705882.00	14993.16	1934117.64	98639999.64
c	400 KVA 11/.433 KV T/F Oil Type	Nos.	4	593390.00	P&D	2373560.00	11867.8	47471.20	2421031.20
d	1000 KVA 11/.433 KV T/F Dry Type	Nos.	10	1611579.00	P&D	16115790.00	32231.58	322315.80	16438105.80
e	630 KVA 11/.433 KV T/F Dry Type	Nos.	10	1410220.00	P&D	14102200.00	28204.4	282044.00	14384244.00
f	400 KVA 11/.433 KV T/F Dry Type	Nos.	10	1114129.00	P&D	11141290.00	22282.58	222825.80	11364115.80
28	Fencing for DT,RMU and LT ACB feeder Panel. (Per Running meter) as per Nigam Specification including gate.	R/Mtr.	9711	3324.00	P&D	32279364.00	332.4	3227936.40	35507300.40
29	PSS (Package Sub-Station)								
a	1000 KVA 11/.433 KV T/F compact type containerized T/F unit with RMU with one VCB and two LBS with FRTU and FPI, 415 V 1600 Amps Air circuit Breaker as incomer, 5nos. 400 Amps MCCB's as outgoing along with separate DT meter compartment	Nos.	5	3039113.59	P&D	15195567.95	60782.27	303911.35	15499479.30
b	630 KVA 11/.433 KV T/F compact type containerized T/F unit with RMU with one VCB and two LBS with FRTU and FPI, 415 V 1600 Amps Air circuit Breaker as incomer, 5nos. 400 Amps MCCB's as outgoing along with separate DT meter compartment	Nos.	5	2750632.08	P&D	13753160.40	55012.64	275063.20	14028223.60
c	400 KVA 11/.433 KV T/F compact type containerized T/F unit with RMU with one VCB and two LBS with FRTU and FPI, 415 V 1600 Amps Air circuit Breaker as incomer, 5nos. 400 Amps MCCB's as outgoing along with separate DT meter compartment	Nos.	5	2409904.72	P&D	12049523.60	48198.09	240990.45	12290514.05
30	RMU (Ring Main Units)								
a	Indoor type 11 KV SF6 type extensible and motorized 5 way smart Ring Main Unit (RMU) complete with two VCB and three LBS with FRTU and FPI as per IS	Nos.	5	915131.00	P&D	4575655.00	18302.62	91513.10	4667168.10
b	Indoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FRTU and FPI as per IS	Nos.	5	803250.00	P&D	4016250.00	16065	80325.00	4096575.00

c	Indoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FRTU and FPI as per IS	Nos.	5	643174.00	P&D	3215870.00	12863.48	64317.40	3280187.40
d	Indoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with all three VCB and with FRTU and FPI as per IS	Nos.	5	779726.00	P&D	3898630.00	15594.52	77972.60	3976602.60
e	Indoor 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.	5	154339.00	P&D	771695.00	3086.78	15433.90	787128.90
f	Indoor type 11 KV SF6 type extensible and motorized one way smart Ring Main Unit (RMU) complete with VCB and FPI as per IS	Nos.	5	220320.00	P&D	1101600.00	4406.4	22032.00	1123632.00
g	Outdoor type 11 KV SF6 type non extensible and motorized 5 way smart Ring Main Unit (RMU) complete with two VCB and three LBS with FRTU and FPI as per IS	Nos.	17	918000.00	P&D	15606000.00	18360	312120.00	15918120.00
h	Outdoor type 11 KV SF6 type extensible and motorized 4 way smart Ring Main Unit (RMU) complete with two VCB and two LBS with FRTU and FPI as per IS	Nos.	83	805545.00	P&D	66860235.00	16110.9	1337204.70	68197439.70
i	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with one VCB and two LBS with FRTU and FPI as per IS	Nos.	418	644895.00	P&D	269566110.00	12897.9	5391322.20	274957432.20
j	Outdoor type 11 KV SF6 type extensible and motorized 3 way smart Ring Main Unit (RMU) complete with all three VCB and with FRTU and FPI as per IS	Nos.	5	781448.00	P&D	3907240.00	15628.96	78144.80	3985384.80
k	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.	5	154913.00	P&D	774565.00	3098.26	15491.30	790056.30
l	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.	5	220894.00	P&D	1104470.00	4417.88	22089.40	1126559.40
31	Optical Fiber								
a	Un- Armoured Optical Fiber (48 Fibers) along with the all accessories connectors, switches etc.	KM	222	48095.00	P&D	10677090.00	2404.75	533854.50	11210944.50
b	Armoured Optical Fiber (48 Fibers) along with the all accessories connectors, switches etc.	KM	37	42477.20	P&D	1571656.40	2123.86	78582.82	1650239.22
c	PLB-HDPE (Permanently Lubricated High Density Poly Ethylene) pipe 40 mm. dia pipe for laying optical Fiber Cable.	KM	259	61000.00	P&D	15799000.00	3050	789950.00	16588950.00
32	Street light								
a	Supply and erection of 3 core PVC copper insulated and Sheathed Circular flexible wire of size 2.50sqmm(80/0.20mm) as per HSR No.31.9(II)e	Mtr	110000	0.00	MCG	0.00	35.88	3946800.00	3946800.00
b	Supply and erection of Galvanized Iron pipe 65 mm dia on flushed for wiring purposes including bends inspection boxes etc. where necessary and painting as required as per HSR No. 31.21(XIV)	Mtr	4000	0.00	MCG	0.00	405.45	1621800.00	1621800.00
c	Earthing with GI earth pipe 4.5 m long and 40 mm dia with masonry enclosure on the top etc. as required as per HSR item No.31.22(1)	Each	11000	0.00	MCG	0.00	1701	18711000.00	18711000.00
d	Extra item for using salt and charcoal / coke for pipe earth electrode as required as per HSR item No.31.12(II)	Each	11000	0.00	MCG	0.00	562.5	6187500.00	6187500.00

e	Supplying and laying of 25 mm x 5 mm G.I. Strip at 0.50 metre below ground level as strip earth electrode including soldering etc. as required as per HSR no. 31.22(VIII)	Mtr	55000	0.00	MCG	0.00	72.9	4009500.00	4009500.00
f	Supply and erection of 25 Sq. mm 4 Core Armoured under ground cable ,loose in existing pipe or trenches complete with necessary connections as per HSR 31.26(XII)	Mtr	341000	0.00	MCG	0.00	135.12	46075920.00	46075920.00
g	Supply and erection of copper lugs of 25sqmm size including crimping etc. up to entire satisfaction of Engineer-in-charge as per HSR No. 31.45(d)	Each	88000	0.00	MCG	0.00	15.95	1403600.00	1403600.00
h	Supply and erection of HDPE pipe 90/75 mm Outer dia/Inner dia laid 1 Mtr below ground level including digging or trenchless boring and refilling of earth including cost of suitable size socket/coupler for HDPE Pipe including cost of labour and material required to complete the job in all respects upto the entire satisfaction of the engineer-in-charge of the work.	Mtr	350000	0.00	MCG	0.00	135	47250000.00	47250000.00
i	Supply and erection of Hot Dip Galvanized octagonal pole of 3 mm thickness 7 Mtr. Long pole with top dia 70 mm and bottom dia 130 mm with base plate of size 220 x 220 x 12 mm, including cost of nut and bolts and all accessories(including provisions of camera, Wi-Fi unit, speaker etc.at later stage) as supplied by the manufacture including cost of foundation accessories etc. the foundation bolts as per manufacturer design should be hot dipped galvanized pole complete with door locking arrangement, Terminal plate consisting of 2 nos. 100 A, 4 pole natural links including connection etc. with suitable connecting arrangement for 2 nos. MCBs/ kit- kat including cost of RCC 1:1.5:3 for foundation of size 0.7 m x 0.7 m x 1.8 m with minimum 8 nos. 12 mm dia longitudinal MS reinforcement rods with rings of 8 mm dia not more than 200 mm C.C. for fixing the pole with all labour & material required to complete the job in all respect upto the entire satisfaction of Engineer - In - Charge of the work.as per HSR item no. 31.68(i)	nos.	9000	0.00	MCG	0.00	13940	125460000.00	125460000.00

j	Supply and erection of Hot Dip Galvanized octagonal pole of 3 mm thickness 8 Mtr. Long pole with top dia 70 mm and bottom dia 135 mm with base plate of size 225 x 225 x 16 mm, including cost of nut and bolts and all accessories (including provisions of camera, Wi-Fi unit, speaker etc.at later stage)as supplied by the manufacture including cost of foundation accessories etc. the foundation bolts as per manufacturer design should be hot dipped galvanized pole complete with door locking arrangement, Terminal plate consisting of 2 nos. 100 A, 4 pole natural links inclding connection etc. with suitable connecting arrangement for 2 nos. MCBs/ kit- kat including cost of RCC 1:1.5:3 for foundation of size 0.7 m x 0.7 m x 1.8 m with minimum 8 nos. 12 mm dia longitudinal MS reinforcement rods with rings of 8 mm dia not more than 200 mm C.C. for fixing the pole with all labour & material required to complete the job in all respect upto the entire satisfaction of Engineer - In - Charge of the work as per HSR item No.31.68(ii)	Nos	2000	0.00	MCG	0.00	15320	30640000.00	30640000.00
k	Supply, installation, Testing & commissioning of LED type IP-66 and above ,72W Street Light Fitting as per technical specification enclosed. With Free Replacement Guarantee -- 5 years as per the specification.	Nos	2000	0.00	MCG	0.00	13930	27860000.00	27860000.00
l	Supply, installation, Testing & commissioning of LED type IP-66 and above 35W Street Light Fitting as per technical specification enclosed . With Free Replacement Guarantee --- 5 years as per the specification.	Nos	9000	0.00	MCG	0.00	8168	73512000.00	73512000.00
m	Supply and erection of terminations for octogonal poles consisting of 1no 4 pole 40 A connector with brass/copper links,2 no 10A , SP MCB 10 KA mounted on 5 mm thick bakelite sheet duly fixed inside of the pole.	Nos	11000	0.00	MCG	0.00	440	4840000.00	4840000.00
n	Supply, Erection, Testing and Commissioning of Intelligent feeder pillar (Outdoor type) for smart lighting system having compatibility with optical fibre,GSM,Wi-Fi,Wi-max,Ethernet as per specifications attached including concentrator,convertor and other items required for successful operation as per entire satisfaction of Engineer-Incharge	Nos	75	1.00	MCG	75.00	295570	22167750.00	22167825.00
o	Supply , fabrication and erection of single arm bracket 1500 mm overhang made of 48.3mm OD Dia.MS pipe (3.5mm thick) as per IS 1161 welded to canopy 400 mm long with angle of inclination of 105 degree to the vertical.The canopy should be suitable for 70 mm top dia pole.The bracket should be hot dip galvanized alongwith 3 no. 10mm dia.SS bolts	Nos	11000	0.00	MCG	0.00	2350	25850000.00	25850000.00
32	Civil Work including material required for civil work								
a	Foundation for Package Substation (400,630 & 1000kVA)	No.	15	0.00	P&D	0.00	60000	900000.00	900000.00
b	Foundation for RMU	No.	538	0.00	P&D	0.00	18000	9684000.00	9684000.00

c	Foundation for Distribution Transformer(400,630 & 1000kVA)	No.	380	0.00	P&D	0.00	20000	7600000.00	7600000.00
d	Foundation for LT feeder Pillar				P&D				
i	Type A	No.	239	0.00	P&D	0.00	14000	3346000.00	3346000.00
ii	Type B	No.	138	0.00	P&D	0.00	14000	1932000.00	1932000.00
iii	Type C	No.	27	0.00	P&D	0.00	11000	297000.00	297000.00
iv	Type D	No.	4615	0.00	P&D	0.00	14000	64610000.00	64610000.00
v	Type E	No.	2432	0.00	P&D	0.00	11000	26752000.00	26752000.00
e	Excavation for trenches upto 2m depth for size 1000mmX1200mmX700mm with supplying & laying 100mm jamuna sand below the 2 no. 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 & PLB-HDPE for road/rail crossing or as per site requirement , GI pipes (Heavy Gauge) for bridge crossings, 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 11 kV and LT , 3-core, 1 core cable of various sizes below the ground complete as per Drg./TS.	Mtr	611000	0.00	P&D	0.00	150	91650000.00	91650000.00
f	Excavation for trenches upto 2m depth for size 1000mmX1200mmX1000 m with supplying & laying 100mm jamuna sand below the 3 no. 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 & PLB-HDPE pipes for road/rail crossing for road/rail crossing or as per site requirement , GI pipes (Heavy Gauge) for bridge crossings, 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 11 kV& LT 3-core, 1 core cable of various sizes below the ground complete as per Drg./TS.	Mtr	35000	0.00	P&D	0.00	190	6650000.00	6650000.00
g	Construction of room for providing Underground Distribution Transformer alongwith RMU and LT ACB	No.	5	0.00	P&D	0.00	400000	2000000.00	2000000.00
h	Construction of double-decker room for providing Distribution Transformer alongwith RMU and LT feeder pillar	No.	5	0.00	P&D	0.00	375000	1875000.00	1875000.00
i	Trenchless laying of Cable using HDD method with HDPE pipe or PLB-HDPE	km	397	0.00	P&D	0.00	650000	258050000.00	258050000.00
Total =						3136431048.57		1016303350.31	4152734398.88
15% overhead charges on supply								470464657.29	
Grand Total								4623199056.17	

Dismantling estimated Rates of existing HT and LT line and cartage to nearest store

Sr. No.	Description	Unit	Dismantling Unit Rates	Qty	Total Cost
A	Pole (PCC, Rail, Tubler etc) - Supply Unit rates taken of 9 mtr. Pole	Nos.	157.50	11914	1876455
B	ACSR Conductor with allied Material - Supply Unit rates taken of 80 mm. sq. Conductor	KM	2163.35	1136	2457566
C	Distribution T/F with allied Material - Supply Unit rates taken of 200 kVA DT	nos.	2232.53	234	522412
D	HT AB Cable of various sizes along with allied material - Supply Unit rates taken of 3CX185 mm.sq.+ 150 mm.sq.messenger	KM	19296.13	39	752548.9
C	Overhead HT XLPE Cable of various sizes along with allied material - Supply Unit rates taken of 3CX185 mm.sq.	KM	16428.03	11	180708.3
Total					5789690

Abstract of Estimated cost of Smart Grids Project, Gurgaon		
Sr. No.	Description	Cost (in Cr.)
A	Total Supply Cost	3136431048.57
B	Total Erection Cost	1016303350.31
C	Total Cost	4152734398.88
D	15% overhead charges on supply	470464657.29
E	O&M cost for five years after completion of project (@10% of total cost i.e. C)	415273439.89
F	Dismantling estimated Cost	5789689.78
G	Grand Total (C+D+E+F)	5044262185.83
Note :-	In the above estimated cost Rs. 43.95 Cr. against street light has been taken in the erection portion (as mentioned at sr. no. B).	