1.1	DESCRIPTION <u>Lities for Package-A</u> PREPARATION OF DRAWING & OBTAINING STATUTORY APPROVAL	иом	QUANTITY	Factor(F)	Rate per Qty= Factor(F) X quoted Value(A)/1000	Amount= Rate per UOM* Qty
1.1						
1.1			1			
1.1	PREPARATION OF DRAWING & OBTAINING STATUTORY APPROVAL		1		<	А
1.1	Route survey, preparation of route drawing, Detailed SLD, Detailed 11/11.5kV and 11kV/433V substation drawing, 11kV					
2.0	Motive survey, preparation to flotter unamp, Detention 3.17, Detention 3.17, 173. and 114(V)=552 substantial training, Detention 3.07, Detention 3.17, 173. and 114(V)=552 substantial training, 174 distribution for distribution for drawing, Extra for any other document, /drawing as required by Electrical inspectrate and getting approval of above from statutory authority and also includes liaison with electrical inspectrate for field inspection and obtaining clearance certificate for charging the entire system in a phased manner as per site requirement (any number of times till completion of entire scope under this contract.)	Lump	1	10.7624462	0	O
	SUPPLY PORTION OF BOM FOR 11kV OH Lines/Cable/Substation etc.		1			
2.0.2	11kV/11.5kV Substation Related Items					
	Supply of Lightning arrestor set suitable for 11kV as per ISS/IEC Spec No. IS:3070/2-1985/Latest. (Each set consist of all 3 Phases).	Sets	2	0.1383163	0	0
2.0.1.2	Supply of 11kV HG Fuse set as per IS (Each set consist of all 3 Phases).	Sets	2	0.1054351	0	0
2.0.1.3	Supply of 11kV pin insulator with GI pin as per IS:731-1971 IS:2486 Part-II – 1989. (Each set consist of all 3 Phases).	Sets	4	0.018641	0	0
2.0.1.4	Supply of 11kV disc insulator with fixing arrangements & conductor holding clamps as per IS:3188/1965 & IEC 309/1969/Latest.(Each set consist of all 3 Phases).	Sets	2	0.0419423	0	0
	Supply of 11kV pin insulator with pins as per IS: 2544/1963 AMD 125 & IEC 168/1969 Latest.(Each set consist of all 3				0	0
2.0.1.5	Phases). Supply of 11kV 400A Air break switch-double break-horizontal mounting rotating type as per ISS/IEC Spec No.4710/1968	Sets	4	0.018641	0	0
2.0.1.6	265-C/1970/Latest.	Nos.	1	0.5049879	0	0
	Supply of 11kV DO fuse as per ISS/IEC Latest. (Each set consist of all 3 Phases) Supply of 2kVA 230V 1 phase sine wave UPS of reputed make with 2 nos. of exide make 150AH 12V tubuler lead acid	Sets	2	0.1604196	0	0
2.0.1.8	batteries. Vendor shall specify the make for which he is quoting in the bid and shall submit relevant certificates along with supply.	Sets	1	1.0423938	0	0
	Supply of S0kVA 3 phase 4 wire 11kV/433V copper wound DYN11 oil filled out door plinth mounted Distribution transformer of reputed make to provide power supply to 11/11.5kV sub station and illumination etc.	Nos.	1	5.575758	0	0
2.0.1.10	Supply of 125A out door type Floor mounted Power distribution board (PDB), IP 55 protection, Double Door type, incomer-01 no. 125A TPM MCG. Outgoing-02 no. 5.83 TPB LECEs with 30mA tripping, 03 nos. 43A TPB LECBs with 30mA tripping, 03 nos. 43A TPB LECBs with 30mA tripping, 02 nos. 432 A TPM ELCBs with 30mA tripping withTimer & contactors for auto on/off and 3 indicating lamps with fuse for indication bus supply ON, Digital voltmeter & VSS 0-500V, suitable bus bar arrangement for phase and neutral. Sufficient space should be provided in the removable cable gland plate to accommodate minimum IR 3.5Cx185 sq. mm. incoming cable and outgoing cables of different sizes. All MCCB, MCBs and ELCBs shall be of reputed make.		1	1.6633635	0	0
2.0.1.11	Supply of 11kV Outdoor Vacuum Circuit Breaker (VCB) with outdoor busbar terminal bushing connectors Panel as per BHEL Technical Specifications including 230 V AC/220/110 V DC Power Pack/ SMPS Facility Power Supply for control circuit inside the panel.	Nos.	3	12.2298155	0	0
2.0.1.12	Supply of operator remote control desk/Relay control panel with chair for operating the 11kV/11.5kV of substation consisting of 2 Nos. of 2.5 M/vd. and 50kVd, 11kV/11.5kV and 11kV/0.4dk/V Transformers & 2Nos. of 11kV outdoor vacuum circuit beakers. This remote control desk/relay control panel shall control all operation points of Substation i.e control supply on status, UPS and battery healthiness, main supply on status for 11kV/11.5kV and 11kV/0.4dk/V transformers and VCB's.Other healthiness montroing which includes breaker on/off status, trip circuit healthy indication, relay coordinations & trip alarm annunciation window etc. The panel shall be approved by BHEL.		1	1.6105353	0	0
2.0.2	11kV Overhead Ring Main Line Related Items.					
2.0.2.1	Supply of ACSR RABBIT conductors as per IS:398/1961 (To meet 3 phases/lines)	Meters	9900	0.0012986	0	0
2.0.2.2	Supply of 9 m long 280kg working load pre-stressed cement concrete poles (PSCC) as per IS:1678.	Nos.	100	0.1755179	0	0
2.0.2.3	Pole ISMB-250 11 m for 11kV Height for Overhead line two/four pole steel structure at Sub Station.	Nos.	42	0.5850597	0	0
2.0.2.4	ISMC-100 for cross beam for Overhead line two/four pole steel structure at Sub Station.	MT	7	1.3480765	0	0
	ISMC-75 for cross beam for Overhead line two/four pole steel structure at Sub Station.	MT	2	1.3480765	0	0
2.0.2.6	Supply of 11kV 'V' Cross arms/Straight Arm with suitable back clamps including supply of necessary fasteners as per IE specification.	Nos.	70	0.050582	0	0
	Supply of 11kV GI stay (7/3.15mm) sets with Guy, Bow, Stay Rod, wire etc. as per I.E. Specifications. (Each set consist of all 3 Phases).	Sets	70	0.0915606	0	0
	Supply of 11kV top fittings (I Clamp) with suitable back clamps including supply of necessary fasteners as per IE specification.	Nos.	70	0.0157461	0	0
	Supply of 11kV disc insulator with fixing & conductor and holding clamp as per IS: 3188/1965 & IEC 309/1969/Latest. (Each set consist of all 3 Phases).	Sets	20	0.0419423	0	0
	Supply of 11kV pin insulator with pins as per IS: 2544/1963 AMD 125 & IEC 168/1969 Latest. (Each set consist of all 3 Phases).	Sets	70	0.0142922	0	0
	Supply of 11kV 400A Air break switch-double break-horizontal mounting rotating type as per ISS/IEC Spec No.4710/1968 265-C/1970/Latest.	Nos.	15	0.5049879	0	0
	Supply of 11kV 400A Air break switch-double break-Vertical mounting rotating type as per ISS/IEC Spec No.4710/1968- 265-C/1970/Latest.	Nos.	10	0.5049879	0	0
	Supply of 11kV Lightning arrestor set as per ISS/IEC Spec No. IS:3070/2-1985/Latest. (Each set consist of all 3 Phases).	Sets	10	0.1383163	0	0
	Supply of 11kV HG fuse as per ISS/IEC Spec IS: 9385/Latest. (Each set consist of all 3 Phases)	Sets	10	0.1054351	0	0
	Supply of 11kV DO fuse as per ISS/IEC Latest. (Each set consist of all 3 Phases)	Sets	10	0.1555594	0	0
2.0.2.15	Supply of out door type weather proof 630A capacity 11kV Pillar box IP 55 Protection as per IS with one no. Incoming			0.1333354	Ů	0

S. No.	DESCRIPTION	иом	QUANTITY	Factor(F)	Rate per Qty= Factor(F) X quoted Value(A)/1000	Amount= Rate per UOM* Qty
2.0.2.17	Supply and fixing of anti climb device (barbed wire) roled on the poles at 2m height as per I.E. specification and numbering of poles.	Sets	70	0.0841647	0	0
2.0.3	Common Items for 11kV OH Lines and Substation Equipments.					
2.0.3.1	Supply of SCx2.Ssgmm LT Power Cable along with double compression type brass cable glands and required number of termination lugs of reputed make suitable for CT and PT Wiring from VCB's to Control Panels.	Meters	250	0.0026394	0	0
2.0.3.2	Supply of 7C/9C/10Cx1.5sqmm LT Control Cable along with double compression type brass cable glands and required number of termination lugs of reputed make suitable for extending alarm, annunciation and protection VCB's and Xmers.		500	0.0028279	0	0
2.0.3.3	Supply of 1Cx10sqmm LT Control Cable along with double compression type brass cable glands and required number of termination lugs of reputed make suitable for earthing of high mast lighning arrangements.	Meters	500	0.0008484	0	0
2.0.3.4	Supply of 65x10 mm GI earth flat.	Meters	155	0.0109699	0	0
2.0.3.5	Supply of 50x6 mm GI earth flat.	Meters	321	0.0049485	0	0
2.0.3.6	Supply of 25x3 mm GI earth flat.	Meters	341	0.0024966	0	0
	Supply of 8SWG wire			0.0004001	0	0
2.0.3.7	Supply of Required Ms/GI/Nickel cadmium fasteners/anchor fasteners for erection of all supply materials and completion of entire works covered under this package [Ms to Msh.]	Meters	100	0.0031366	0	0
2.0.3.9	Supply of Heat shrink type HT Indoor/Outdoor termination kits of reputed make suitable for 3Cx185 sqmm 11kV Cables.	Nos.	3	0.1767819	0	0
2.0.3.10	Supply of Heat shrink type HT straight through jointing kits of reputed make for 3Cx185 sqmm 11kV Armoured Cables.	Nos.	2	0.2967494	0	0
2.0.3.11	Supply of Heat shrink type HT Indoor termination kits of reputed make suitable for 11kV 3Cx95 sqmm sqmm Cables.	Nos.	13	0.1767819	0	0
2.0.3.12	Supply of Heat shrink type HT Outdoor termination kits of reputed make suitable for 11kV 3Cx95 sqmm Cables.	Nos.	13	0.1767819	0	0
2.0.3.13	Supply of Heat shrink type HT straight through jointing kits of reputed make for 11kV 3Cx95 sqmm sqmm Cables.	Nos.	5	0.2967494	0	0
2.0.3.14	Supply of Heat shrink type HT Indoor/Outdoor termination kits of reputed make suitable for 11kV 3Cx185 sqmm Cables.	Nos.	20	0.1767819	0	0
2.0.3.15	Supply of Heat shrink type HT straight through jointing kits of reputed make for 11kV 3Cx185 sqmm Cables.	Nos.	10	0.2967494	0	0
2.0.3.16	Supply of 200mm dia RCC hume pipes for rmake use of cable crossing where ever required such as existing culverts, trenches and road etc for HT Cables.	Meters	150	0.0189604	0	0
2.0.3.17	Supply of 150mm NB 4.8mm thick medium class GI pipes for make use of cable crossing where ever required such as existing culverts, trenches and road etc for for LT Cables.	Meters	150	0.0129597	0	0
2.0.3.18	Supply of Fire Buckets with stand floor mounted type of rigid & good quality-4 nos. 10 ltr capacity Fire buckets per stand- Type & make shall be approved by BHEL/ Engineer. Supply of Aluminium alloy Skg CO2 fire extinguisher industrial type with ISI Mark of reputed make. Type & make shall be	Sets	12	0.054749	0	0
2.0.3.19	approved by BHEL/ engineer.	Nos.	12	0.0811391	0	0
2.0.3.20	Supply of HT cable route markers standard size with 1m height angle support. Supply of LT cable route markers standard size with 1m height angle support.	Nos.	175	0.0093674	0	0
2.0.3.21	supply and fixing G driddle Guards of length 15m, with 8SWG GI Wire for Road crossing with necessary fixing arrangement etc, as per IS Specification.	Nos. Sets	153	0.0091561 1.8912911	0	0
2.0.4	FOR AREA LIGHTING Related Items.					
2.0.4.1	Supply of High Mast (30 Meters) along with its Accessories (Civil works, Feeder Panel, 04Nos Earthing Per High Mast) including 12 Nos. 400W LED outdoor luminaire.	Nos.	10	7.3342884	0	0
2.0.4.2	Supply of steel tubular swaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg F/sq, mm conforming to BIS: 2713 (part-II) complete with 300x300x6 mm thick MS base plate for welding at site and size as per configuration given in BIS for 410 SP-28 (113 kg-pole weight).		249	0.2316751	0	0
2.0.4.3	Supply of Electrical junction box (Gi/PVC)of good quality to suit the opening availabe in above lighting pole, one connector block for 3 Phase 4 wire incoming and outgoing cable to next street light pole with 01 no. 6A SP MCB for street light not earthing etc.	Nos.	67	0.0368596	0	0
2.0.4.4	Supply of 90W LED street light fitting of make Philips/CGL/Bajaj/Havells only.	Nos.	76	0.0625123	0	0
2.0.4.5	Supply of 50mm NB 3.6mm thick medium class standard GI pipe for incoming and outgoing cables.	Meters	166	0.0141148	0	0
2.0.4.6	Supply of out door type metal clad Lighting distribution board (LDB) having IP-55 protection with double door type and one incomer with 100A TPM MCCB additionally with 3 nos. 32 A TPM ELCBs with 30mA tripping and timer & contactors for auto on/off street lights and 3 indicating lamps with fuse for indication bus supply ON, Digital Voltmeter & VSS O-SOV etc. Suitable busbar arrangement for Phase and Neutral. Sufficient space should be provided in the removable cable gland plate to accommodate incoming power cable and all outgoing cables.		8	1.1050667	0	0
2.0.4.7	Supply of weather proof LED street light fitting 150 watt of Bajaj, Crompton, Philips or equivalent make, complete with one piece of appropriate driver (Integral/non-integral) and suitable for directly slipping over light mounting bracket made out of 40 mm OD pipe and suitable for lamps, JB, cabling & termination of items supplied (To be mounted on 9 mtr pole - Item No.8.5.2.1).		205	0.1521453	0	0

	C No.	DESCRIPTION	шом	CHANTITY	Factor(F)	Rate per Qty=	Amount Date was HOMA Ob.
Company Service (1997) Company Service (19	S. No.	DESCRIPTION	иом	QUANTITY	Factor(F)	Factor(F) X quoted Value(A)/1000	Amount= Rate per UOM* Qty
Interest of 11 in Fig. 2 in the control of the cont	2.0.4.8	(1) Incoming SFU TPN 400 Amps - Ino, (2) Outgoing SFU TPN 200 Amps - Inos. (3) Outgoing SFU TPN 63 Amps - Inos. (4) Outgoing SFU TPN 63 Amps - Inos. (4) Outgoing SFU TPN 32 Amps - 7nos. 8) Phase Electronic Energy Meter - PHEL / L&T / GEC make. Ammeter, Voltmeter and Selector Switches for both - AE and Kaycee make. Ammeter, Voltmeter and Selector Switches for both - AE and Kaycee make. Ammeter, Voltmeter and Selector Switches for both - AE and Kaycee make. Phase indication lamps, HRC fuses for IC and OG feeders, cable glands, power terminals for cables termination, cable lugs and provision for doubly earthing the panel enclosure. Panel enclosure shall be made of sheet metal thichnness not less than 1.6 mm and suitable for out door installation, modular construction, hinged door with locking arrangement, base frame, should have slopped canopy, duly painted with first coat of primer and two coats of synthetic enamel paint (interior with white paint and exterior with light grey as per shade 5, is 630) internal power distribution to devices shall be with all busbars or copper flexible single core PVC calbels of 1.1 kV grade, control wirking with 1.5 symm, suitable stool made out of MS structure of 1.2 meter high for 1.2 meter h	Nos.	1	4.2262579	0	O
2.0.2.1.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	2.0.4.9	number aluminium bus bar for phase & neutral respectively. Bus bar rating shall be 200 amps and shall be mounted on epoxy insulator of 1.1 kV grade, each bus bar shall have drilled hole for connecting incoming /outgoing cables, provision for earthing the panel enclosure. Panel enclosure shall be made of sheet metal thichnness not less than 1.6 mm and suitable for out door installation, hinged door with locking arragement, base frame, should have slopped canopy, duly painted with first coat with primer and two coats of synthetic enamel paint (interior with white paint and exterior with smoke grey as per IS), suitable stool made out of MS structure of 1.2 meter high for mounting of panel with anchoring	Nos.	6	1.5214528	0	0
Execution of List Vision control of the Parison.	2.0.4.10	one incomer with 100A TPM MCCB additionally with 3 nos. 32 A TPM ELCBs with 30mA tripping and timer & contactors for auto on/off street lights and 3 indicating lamps with fuse for indication bus supply ON, Digital Voltmeter & VSS 0-500V etc. Suitable busbar arrangement for Phase and Neutral. Sufficient space should be provided in the removable cable gland plate to accommodate incoming power cable and all outgoing cables.		6	0.8937489	0	0
1.0.1.1.	205						
1.0.2.2.1 Forestoon of Lightning arrestors set suitable for 11xV as per 55/IIC Spec No. 0.3070/2-1985/Latest. (Each set connict of all 3 Phases). 5et 1	2.0.5.1						
20.3.12 3 mbases . Sets 1 0.0781959 0 0 0 0 0 0 0 0 0	2.0.5.2	11kV/11.5kV Substation Related Items.					
Decision of 1114/p (in insulation with Gap as a per 67.71-1971 G-3466 Part 61 - 1989) Set 4 0.0075881 0 0	2.0.5.2.1		Sets	1	0.0783199	0	0
20.5.2.5 Each set consist of all 3 Phoses). Set 4	2.0.5.2.2		Sets	1	0.094521	0	0
20.5.2.6 (Sech set contact of all Phases). 20.5.2.7 (Sech set contact of all Phases). 20.5.2.8 (Sech set contact of all Phases). 20.5.2.10 (Section of 11xV (Sin) influing arretor set as set set (SSI)CC Spec (No. IS-2070/2-398/). Latest. (Sech set consist of all 3 Phases). 20.5.2.10 (Section of 11xV (Sin) influing arretor set as set set (SSI)CC Spec (No. IS-2070/2-398/). Latest. (Sech set consist of all 3 Phases). 20.5.2.10 (Section of 11xV (Sin) influing arretor set as set set (SSI)CC Spec (No. IS-2070/2-398/). Latest. (Sech set consist of all 3 Phases). 20.5.2.10 (Section of 11xV (Sin) influing arretor set as set set (SSI)CC Spec (No. IS-2070/2-398/). Latest. (Sech set consist of all 3 Phases). 20.5.2.10 (Section of 11xV (Sin) influing arretor set as set set (SSI)CC Spec (No. IS-2070/2-398/). Latest. (Section of 11xV Oo Date as a per ISSI/CC Spec (No. IS-2070/2-398/). Latest. (Section of 11xV Oo Date as a per ISSI/CC Spec (No. IS-2070/2-398/). Latest. (Section of 11xV Oo Date as a per ISSI/CC Spec (No. IS-2070/2-398/). Latest. (Section of 11xV Oo Date as a per ISSI/CC Spec (No. IS-2070/2-398/). Latest. (Section of 11xV Oo Date as per ISSI/CC Spec (No. IS-2070/2-398/). Latest. (Section of 11xV Oo Date as per ISSI/CC Spec (No. IS-2070/2-398/). Latest. (Section of 11xV Oo Date as per ISSI/CC Spec (No. ISSI/CC Spec (2.0.5.2.3		Sets	4	0.0075881	0	0
Cash set consist of all 3 Phases Set	2.0.5.2.4	309/1969/Latest.	Sets	1	0.0179038	0	0
Canal Section Canal Sectio	2.0.5.2.5		Sets	1	0.0179038	0	0
20.5.2.17 No.3710/1888-286-C/1970/Latest. No. 1	2.0.5.2.6		Sets	4	0.0075881	0	0
Erection of 11kV HG fuse as per ISS/EC Spec IS-98S/Latest. (Each set consist of all 3 Phases) 2.0.5.2.10 Erection of 11kV HG fuse as per ISS/EC Latest. (Each set consist of all 3 Phases) 2.0.5.2.11 Erection of 11kV OO fuse as per ISS/EC Latest. (Each set consist of all 3 Phases) Erection of 11kV Oo fuse as per ISS/EC Latest. (Each set consist of all 3 Phases) 5ets 1 0.1308598 0 0 0 2.0.5.2.11 Erection of Pole SMB-250 11m for 11kV Overhead line two/four/six/eight pole steel structure at Sub Station. The erection includes excuration of earth of size 11x14. Bin depth, fusitenes, foundation bot, grouting with concrete of ratio 1 fusite in street of 11x1k Bin depth including supply of remet, sand, metal set for the foundation and coping of poles by 1 Nos. 12 0.117012 0 0 0 117012 0 0 0 117012 0 0 0 117012 0 0 0 1 1 0.5461037 0 0 0 1 1 0.5461037 0 0 0 Erection of ISMC-75 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. MT 1 0.5461037 0 0 0 Erection of ISMC-75 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. MT 1 0.5461037 0 0 0 2 0.52.13 Erection of ISMC-75 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. MT 1 0.5461037 0 0 0 Erection, testing and commissioning of 11kV Outdoor Vacuum Circuit Breaker (VEB) with outdoor bubar terminal specifications including 23 0V AC/220/110 VDC Power Pack/ SMPS Facility Power Supphy for control circuit inside the panel. 2.0.5.2.15 150AH 12 Vit Unbule lead and commissioning of Right MB land In Panel as applicable as per BHEI. Technical specifications including 23 0V AC/220/110 VDC Power Pack/ SMPS Facility Power Supphy for control circuit inside the panel. 2.0.5.2.15 150AH 12 Vit Unbule lead and batateries. Sets 1 0.1578839 0 0 0 Erection, testing and commissioning of Bill Bill Bill Bill Bill Bill Bill Bil	2.0.5.2.7	No.4710/1968-265-C/1970/Latest.	Nos.	1	0.2634202	0	0
2.0.5.2.10 Frection of Pole SMB-250 Lin for 11kV Overhead line two/four/six/eight pole steel structure at Sub Station. The left height. 2.0.5.2.11 Erection of Pole SMB-250 Lin for 11kV Overhead line two/four/six/eight pole steel structure at Sub Station. The left height. 2.0.5.2.12 Erection of SNB-250 Lin for 11kV Overhead line two/four/six/eight pole steel structure at Sub Station. The left height. 2.0.5.2.13 Erection of SISMC-100 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. MT 2.0.5.2.13 Erection of SISMC-100 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. MT 2.0.5.2.13 Erection of SISMC-100 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. MT 2.0.5.2.14 Erection of SISMC-150 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. MT 2.0.5.2.15 Erection of SISMC-150 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. MT 2.0.5.2.16 Erection, testing and commissioning of 11kV Outdoor Vacuum Circuit Breaker (VCB) with outdoor busbar terminal bushing connectors of Rerection, testing and commissioning of fight Main Unit Ponel as applicable as per BHEI Technical specifications including 230 V AC/220/110 V Dr Power Pax/ SMPS facility Power Supply for control creuit misdie the part of Vacuum Circuit Breaker VEB of reputed make with 2 nos. of exide make Sets 1 0.1578839 0 0 0 Erection, testing and commissioning of 2kVA 230Y 1 phase sine wave UPS of reputed make with 2 nos. of exide make Sets 1 0.1578839 0 0 0 Erection, testing and commissioning of Bill Main and Submission of oil test report of 50kVA 3 phase 4 wire 11kV/31.5kV busbet state oil batteries. Sets 1 0.1578839 0 0 0 Erection, testing and commissioning of Operator remote control desi/relay control panel with chair for operating the 11kV/31.5kV busbet state of batteries. Sets 1 0.3474645 0 0 0 Erection, testing and commissioning of operator remote c	2.0.5.2.8	Erection of 11kV Lightning arrestor set as per ISS/IEC Spec No. IS:3070/2-1985/Latest. (Each set consist of all 3 Phases).	Sets	1	0.0877589	0	0
Frection of Pole ISMB-250 11m for 11kV Overhead line two/lour/six/eight pole steel structure at Sub Station. The erection includes excavation of earth of size 11x1.8 m depth, fasteners, foundation bott, grouting with concrete of ratio rection includes excavation of earth of size 11x1.8 m depth including supply of cement, sand, metal etc for the foundation and coping of poles by 1 feet height. 20.5.2.12 Frection of ISMC-100 for cross beam for Overhead line two/lour/six/eight pole steel structure at Sub Station. MT 2 0.5461037 0 0 0 Erection of ISMC-75 for cross beam for Overhead line two/lour/six/eight pole steel structure at Sub Station. MT 1 0.5461037 0 0 0 Erection of ISMC-75 for cross beam for Overhead line two/lour/six/eight pole steel structure at Sub Station. MT 1 0.5461037 0 0 0 Erection, testing and commissioning of 11kV Outdoor Vacuum Circuit Breaker (VCB) with outdoor busbar terminal bushing connectors OR Frections (Prover Parks) MPRS facility Power Supply for control certur indice the panel. 20.5.2.15 Erection, testing and commissioning of Ring Main Line Panel as applicable as per BREL Technical spanel. 20.5.2.16 Erection, testing and commissioning of 2kVA 220V1 phase sine wave UPS of reputed make with 2 nos. of exide make 150AH 12V tubuler lead acid batteries. Erection, testing and commissioning of 2kVA 220V1 phase sine wave UPS of reputed make with 2 nos. of exide make 150AH 12V tubuler lead acid batteries. Erection, testing and commissioning of operator remote control desk/Relay control panel with chair for operating the 11kV/11.5kV sub station and illumination etc. Erection, testing and commissioning of operator remote control desk/Relay control panel with chair for operating the 11kV/11.5kV sub station is central control subpower supply to 11x1 kV sub station and illumination etc. Erection, testing and commissioning of operator remote control desk/Relay control panel shall control all poperation points of substation is centrol supply on status, UPS and battery healthiness, main supp	2.0.5.2.9		Sets	1	0.1308598	0	0
erection includes excavation of earth of size 1x1x1.8m depth, fasteners, control to the fact of the foundation and coping of poles by 1 feet height. Erection of SMC-100 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. 2.0.5.2.12 Erection of SMC-75 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station. MT	2.0.5.2.10		Sets	1	0.1308598	0	0
Erection, testing and commisioning of 11kV Outdoor Vacuum Circuit Breaker (VCB) with outdoor busbar terminal bushing connectors OR Frection, testing and commisioning of Ring Main Unit Panel as applicable as per BHEL. Technical Spot Control Supply of Control Supply (Proceedings) and Commisioning of Standard Commisioning of Ring Main Unit Panel as applicable as per BHEL. Technical Spot Control Supply (Proceedings) and Commisioning of Standard Commissioning of Ring Main Unit Panel as applicable as per BHEL. Technical Spot Control Supply (Proceedings) and Commissioning of Standard Commissioning including oil filteration and submission of oil test report of Standard Commissioning including oil filteration and submission of oil test report of Standard Commissioning oil Standard Commissioning C	2.0.5.2.11	erection includes excavation of earth of size 1x1x1.8m depth, fasteners, foundtation bolt, grouting with concrete of ratio 1:4:8 for size of 1x1x1.8m depth including supply of cement, sand, metal etc for the foundation and coping of poles by 1 feet height.	Nos.	12	0.117012	0	0
Erection, testing and commissioning of 11kV Outdoor Vacuum Circuit Breaker (VCB) with outdoor busbar terminal bushing connectors OR Erection, testing and commissioning of Ring Main Unit Panel as applicable as per BHEL Technical Specifications including 230 V AC/20/110 V DC Power Pack/ SMPS Facility Power Supply for control circuit inside the panel. 2.0.5.2.15 Erection, testing and commissioning of 2kVA 230V 1 phase sine wave UPS of reputed make with 2 nos. of exide make 150AH 12V tubuler lead acid batteries. Erection, testing and commissioning, including oil filteration and submission of oil test report of 50kVA 3 phase 4 wire 11kV/433V copper wound DYN11 oil filled out door plinth mounted Distribution transformer of reputed make to provide power supply to 11/11.5kV sub station and illumination etc. Erection, testing and commissioning of operator remote control desk/Relay control panel with chair for operating the 11kV/11.5kV Substation consisting of 02 Nos. of 2.5 MVA 11kV/ 11.5kV and 50kVA 11kV/ 0.440kV Transformers, 02 Nos. of 11kV Outdoor Ring Main Unit and 02 Nos. Outdoor Vacuum Circuit Breakers. This remote control desk/relay control panel shall control all operation points of Substation i.e control supply on status, UPS and battery healthiness, main supply on status for 11kV/11.5kV and 11kV/0.440kV transformers and VCB's/RMUs.Other healthiness monitoring which includes breaker on/off status, trip circuit healthy indication, relay coordinations & trip alarm annunciation window etc. The panel shall be approved by BHEL. Nos. 1 0.3474645 0 0 0.34746	2.0.5.2.12	Erection of ISMC-100 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station.	мт	2	0.5461037	0	0
bushing connectors OR Erection, testing and commissioning of Ring Main Unit Panel as applicable as per BHEL Technical Specifications including 230 V AC/20/110 V DC Power Pack/ SMPS Facility Power Supply for control circuit inside the panel. 2.0.5.2.15 Erection, testing and commissioning of 2kWA 230V 1 phase sine wave UPS of reputed make with 2 nos. of exide make 2.0.5.2.15 Erection, testing and commissioning including oil filteration and submission of oil test report of 50kWA 3 phase 4 wire 11kV/A33V copper wound DYN11 oil filled out door plinth mounted Distribution transformer of reputed make to provide power supply to 11/11.5kV sub station and illumination etc. Erection, testing and commissioning of operator remote control desk/Relay control panel with chair for operating the 11kV/11.5kV Substation and illumination etc. Erection, testing and commissioning of operator remote control desk/Relay control panel with chair for operating the 11kV/11.5kV Substation consisting of 02 Nos. of 2.5 MVA 11kV/ 11.5kV and 50kVA 11kV/ 0.440kV Transformers, 02 Nos. of 11kV Outdoor Ring Main Unit and 02 Nos. Outdoor Vacuum Circuit Breakers. This remote control desk/relay control panel shall control all operation in 11kV/10.440kV transformers and VCB's/RMUs. Other healthiness monitoring which includes breaker on/off status, trip circuit healthy indication, relay coordinations & trip alarm annunciation window etc. The panel shall be approved by BHEL. 2.0.6 11kV Overhead Ring Main Line Related Items.	2.0.5.2.13	Erection of ISMC-75 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station.	мт	1	0.5461037	0	0
2.0.5.2.15 ISOAH 12V tubuler lead acid batteries. Sets 1 0.1578839 0 0	2.0.5.2.14	bushing connectors OR Erection, testing and commisioning of Ring Main Unit Panel as applicable as per BHEL Technical Specifications including 230 V AC/220/110 V DC Power Pack/ SMPS Facility Power Supply for control circuit inside the	Nos.	2	0.8452516	0	0
11kV/333V copper wound DYN11 of filled out door plinth mounted Distribution transformer of reputed make to provide power supply to 11/11.5kV sub station and illumination etc. Erection, testing and commissioning of operator remote control desk/Relay control panel with chair for operating the 11kV/11.5kV Substation consisting of 02 Nos. of 2.5 MVA 11kV/ 11.5kV and 50kVA 11kV/ 0.440kV Transformers, 02 Nos. of 11kV Outdoor Ring Main Unit and 02 Nos. Outdoor Vacuum Circuit Breakers. This remote control desk/relay control panel shall control all operation operation operation 11kV/0.440kV transformers and VCB's/RMUs. Other healthiness monitoring which includes breaker on/off status, trip circuit healthy indication, relay coordinations & trip alarm annunciation window etc. The panel shall be approved by BHEL. 11kV Overhead Ring Main Line Related Items.	2.0.5.2.15		Sets	1	0.1578839	0	0
11kV/1.1.5kV Substation consisting of 02 Nos. of 2.5 MVA 11kV/ 11.5kV and 50kVA 11kV/ 0.440kV Transformers, 02 Nos. of 11kV Outdoor Ring Main Unit and 02 Nos. Outdoor Vacuum Circuit Breakers. This remote control desk/relay control panel shall control all operation points of Substation i.e control supply on status, UPS and battery healthiness, main supply on status for 11kV/11.5kV and 11kV/0.440kV transformers and VCB's/RMUs.Other healthiness monitoring which includes breaker on/off status, trip circuit healthy indication, relay coordinations & trip alarm annunciation window etc. The panel shall be approved by BHEL.	2.0.5.2.16	11kV/433V copper wound DYN11 oil filled out door plinth mounted Distribution transformer of reputed make to provide	Nos.	1	0.9663211	0	0
Stripping of ACCD DABRIT conductors or page 15-200 (1004 TTC most 3 above (lines)	2.0.5.2.17	11kV/11.5kV Substation consisting of 02 Nos. of 2.5 MVA 11kV/ 11.5kV and 50kVA 11kV/ 0.440kV Transformers, 02 Nos. of 11kV Outdoor Ring Main Unit and 02 Nos. Outdoor Vacuum Circuit Breakers. This remote control desk/relay control panel shall control all operation opints of Substation i.e control supply on status, UPS and battery healthiness, main supply on status for 11kV/11.5kV and 11kV/0.440kV transformers and VCB's/ RMUs.Other healthiness monitoring which includes breaker on/off status, trip circuit healthy	Nos.	1	0.3474645	0	0
Stripping of ACSD BARRIT conductors or pay IS 200/1064 /To most 3 physical lines	2.0.6	11kV Overhead Ring Main Line Related Items.		_			
	2.0.6.1	Stringing of ACSR RABBIT conductors as per IS:398/1961 (To meet 3 phases/lines)	Meters	6600	0.000874	0	0

S. No.	DESCRIPTION	иом	QUANTITY	Factor(F)	Rate per Qty= Factor(F) X quoted Value(A)/1000	Amount= Rate per UOM* Qty
2.0.6.2	Erection of 9 m long 280kg working load pre-stressed cement concrete poles (PSCC). The erection includes excavation of earth of size 1x1x1.8m depth, grouting with concrete of ratio 1:4.8 for size of 1x1x1.8m depth including supply of cement, sand, metal etc. for the foundation and coping of poles by 1 feet height.	Nos.	100	0.0658192	0	0
2.0.6.3	Erection of Pole ISMB-250 11 m Height for 11kV Overhead line two/four/six/eight pole steel structure at Sub Station. The erection includes excavation of earth of size 1x1x1.8m depth, fasteners, foundation bolt, grouting with concrete of ratio 1x4.8 for size of 1x1x1.8m depth including supply of cement, sand, metal etc for the foundation and coping of poles by 1 feet height.		30	0.117012	0	0
2.0.6.4	Erection of ISMC-100 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station.	мт	5	0.5470682	0	0
2.0.6.5	Erection of ISMC-75 for cross beam for Overhead line two/four/six/eight pole steel structure at Sub Station.	мт	1	0.5470682	0	0
2.0.6.6	Erection of 11kV "V" Cross arms/Straight Arm with suitable back clamps including erection of necessary fasteners as per IE specification.	Nos.	70	0.008952	0	0
2.0.6.7	Erection of 11kV Gi stay (7/3.15mm) sets with Guy, Bow, Stay Rod, wire etc. as per I.E. Specifications. (Each set consist of all 3 Phases).	Sets	70	0.035803	0	0
2.0.6.8	Erection of 11kV top fittings (I Clamp) with suitable back clamps including erection of necessary fasteners as per IE specification.	Nos.	70	0.004841	0	0
2.0.6.9	Erection of 11kV disc insulator with fixing & conductor and holding clamp as per IS: 3188/1965 & IEC 309/1969/Latest. (Each set consist of all 3 Phases).	Sets	20	0.0098311	0	0
2.0.6.10	Erection of 11kV pin insulator with pins as per IS: 2544/1963 AMD 125 & IEC 168/1969 Latest. (Each set consist of all 3 Phases).	Sets	70	0.0068485	0	0
2.0.6.11	Erection of 11kV 400A Air break switch-double break-horizontal mounting rotating type as per ISS/IEC Spec No.4710/1968-265-C/1970/Latest.	Nos.	15	0.3953982	0	0
2.0.6.12	Erection of 11kV 400A Air break switch-double break-vertical mounting rotating type as per ISS/IEC Spec No.4710/1968- 265-C/1970/Latest.	Nos.	10	0.2639571	0	0
2.0.6.13	Erection of 11kV Lightning arrestor set as per ISS/IEC Spec No. IS:3070/2-1985/Latest. (Each set consist of all 3 Phases).	Sets	10	0.0662751	0	0
2.0.6.14	Erection of 11kV HG fuse as per ISS/IEC Spec IS: 9385/Latest. (Each set consist of all 3 Phases)	Sets	10	0.1308598	0	0
2.0.6.15	Erection of 11kV DO fuse as per ISS/IEC Latest. (Each set consist of all 3 Phases)	Sets	10	0.1308598	0	0
2.0.6.16	Laying and Termination of 11kV 3Cx95sqmm Armoured HT Cable along with double compression type brass cable glands and required number of termination lugs of reputed make suitable for Inteconnection of OH line with respective PSS.	Meters	3000	0.0025635	0	0
2.0.6.17	Laying and Termination of 11kV 3Cx185sqmm Armoured HT Cable along with double compression type brass cable glands and required number of termination lugs of reputed make suitable (for Interconnection of Ring Main System).	Meters	500	0.0027444	0	0
2.0.6.18	Erection, testing and commisioning of out door type weather proof 630A capacity 11kV Pillar box IP 55 Protection as per IS with one no. Incoming and two nos. outgoing.	Nos.	3	0.2882969	0	0
2.0.6.19	Erection and fixing of anti climb device (barbed wire) roled on the poles at 2m height as per I.E. specification and numbering of poles.	Sets	70	0.0374942	0	0
2.0.6.20	Supply of materials as required for erection, testing & commissioning of 11kV/433V Package Substation. Supply of materials as required for erection, testing & commissioning of 11kV/433V Package Substation. A-Leveling of substation yard, supply and spreading of 40mm size stone aggregate of 75mm thick for an area of approximate approximate of the substation of Brick work with cement mortar 1:6 of 230 mm thick and 450 mm height all-round the substation yard, plastering the brick work in CM 1:6, white washing etc complete. (Per Sub Station). B-Supply and construction of foundation as per supplier foundation drawing for 500kVA. Package Substation. Apprx size 4400 mm x 4400 mm x500 mm height (size may slightly vary as per new order of PSS) from ground level and including excavation of plinth pit and base concreting and plastering, white washing etc as per the instruction of BHEL site engineer. C-Supply and fixing of 3.15mm GI chain linked wire fencing height 2m for the substation of size 8m x 6m including grouting of 3m height 15A 75 fabricated posts at an interval of 1.5m (2m vertical 0.5m slanting, 0.5m grouting) and three runs of barbed wire along with the fencing on the slanting angle post, fixing of mesh with post by 50x6mm MS flat with fasteners (2 nos./post) and earthing of fencing by 8 SWG GI wire and providing finish aluminum painting of all steel materials etc. Supplied structural steel materials are used for fencing posts (Per Sub Station) D-Supply and installation of 1m x 2m height MS gate made of MS Angle, channel/rolled sections including supply and fixing of hinges, locking arrangement etc including providing finish aluminum painting etc. (Per Sub Station) E-Supply and Erection of 3m long 50mm dia 3.6 mm thick medium class GI funnel type earth electrode with filling of bentonite earthing powder as per standard, four side brick work chamber with cement plastering, white washing and removable type RCC/ cast into cover plate. Scope includes supply of required betonite earthing powder, enement, br	Sets	10	5.4887631	0	0

Section Process Proc							
1.			иом	QUANTITY	Factor(F)		Amount= Rate per UOM* Qty
2-12	2.0.7	Common Items for 11kV OH Lines and Substation Equipments.					
1.00 1.00	2.0.7.1			500	0.001553	0	0
13 Section of Texas (Control of Control	2.0.7.2		Meters	2550	0.0017467	0	0
2.20 Compared to common of the Contingency of Programs and August Control Programs of Security (1997) Control Control Control Programs of Security (1997) Control Control Programs of Security (1997) Control Control Control Programs of Security (1997) Control Control Programs of Security (1997) Control Control Control Control Programs of Security (1997) Control Control Control Control Programs of Security (1997) Control Co	2.0.7.3		Meters	3250	0.0016833	0	0
Comparison controlled of the ministrative byte of frequency and because the following services and services of the control o	2.0.7.4		Meters	250	0.000886	0	0
Compared in terms and market or flammarises in the general register index includes for extending plants in marketime and protection of virtual positions of the protection o	2.0.7.5		Meters	500	0.0008606	0	0
20.23 Section of Section 400 Co.	2.0.7.6	and required number of termination lugs of reputed make suitable for extending alarm, annunciation and protection	Meters	500	0.0010969	0	0
Meteor 100 1	2.0.7.7			500	0.0008606	0	0
1.73 1.75	2.0.7.8	Erection of 65 x 10 mm GI earth flat.	Meters	155	0.002194	0	0
Accepted on 450 No are: Accepted to 450	2.0.7.9		Meters	321	0.0015579	0	0
Creation of Required ASI/Collinate colorium flustratures for exection of all Exection materials and consideration of enter works concreted under the speckage consideration of enter works concreted under the speckage consideration of enter shorts concreted under the speckage consideration of enter shorts concreted under the speckage consideration of the state of the state of the speckage consideration of the state of the state of the speckage consideration of the state	2.0.7.10		Meters	341	0.0012631	0	0
Consideration of entire works convent under this publishing (MMS to NIL) and Collection. In Fercition of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Announced Collection. Control of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Announced Collection. Control of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Announced Collection. Control of Heat Drivink type HT indoor termination ists of reputed make suitable for 111V 3Cx185 symm. Announced Collection. Control of Heat Drivink type HT indoor termination ists of reputed make suitable for 111V 3Cx185 symm. Collection. Control of Heat Drivink type HT indoor/Cultidors termination bits of reputed make suitable for 111V 3Cx185 symm. Collection. Control of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Collection. Collection of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Collection. No. 5 0.09915406 0 0 Collection of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Collection. No. 5 0.09915406 0 0 Collection of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Collection. No. 10 0.0000079 0 0 Collection of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Collection. No. 10 0.0000079 0 0 Collection of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Collection. No. 10 0.0000079 0 0 Collection of Heat Drivink type HT straight through jointing bits of reputed make suitable for 111V 3Cx185 symm. Collection. No. 10 0.0000079 0 0 Collection of Heat Drivink type HT straight type HT straight symm. No. 10 0.0000079 0 0 Collection of Heat Drivink type HT straight symm. No. 10 0.0000079 0 0 Collection	2.0.7.11			5800	0.0002846	0	0
Announced Cables. No. 3 0,0000079 0 0 0 7.7.14 Precision of Next shrink type HT straight through jointing Nts of reputed make for 11W 3CHES symm Announced Cables. No. 2 0,0915666 0 0 0 7.7.15 Precision of Next shrink type HT indoor termination lists of reputed make witable for 11W 3CHES symm Announced Cables. No. 13 0,0000079 0 0 7.7.16 Precision of Next shrink type HT outdoor termination lists of reputed make witable for 11W 3CHES symm Cables. No. 13 0,0000079 0 0 7.7.17 Precision of Next shrink type HT outdoor formination lists of reputed make witable for 11W 3CHES symm Cables. No. 13 0,0000079 0 0 7.7.17 Precision of Next shrink type HT straight through jointing lists of reputed make of 11W 3CHES symm (Cables. No. 5 0,0915666 0 0 7.7.18 Cables. No. 5 0,0915666 0 0 7.7.19 Precision of Next shrink type HT indoor/Outdoor termination lists of reputed make for 11W 3CHES symm Cables. No. 10 0,0000079 0 0 7.7.19 Precision of Next shrink type HT indoor/Outdoor termination lists of reputed make for 11W 3CHES symm Cables. No. 5 0,0915666 0 0 7.7.19 Precision of Next shrink type HT straight through jointing lists of reputed make for 11W 3CHES symm Cables. No. 10 0,0000079 0 0 7.7.10 Precision of Next shrink type HT straight through jointing lists of reputed make for 11W 3CHES symm Cables. No. 10 0,0000079 0 0 7.7.10 Precision of Next shrink type HT straight through jointing lists of reputed make for 11W 3CHES symm Cables. No. 10 0,0000079 0 0 7.7.10 Precision of Next shrink type HT straight through jointing lists of reputed make for 11W 3CHES symm Cables. No. 10 0,0000079 0 0 7.7.10 Precision of Next shrink type HT shring through jointing lists of reputed make for 11W 3CHES symm Symm Symm Symm Symm Symm Symm Sym	2.0.7.12	completion of entire works covered under this package		100	0.0025895	0	0
2.15 Creation of Neart shrink type HT indoor termination kits of reputed make suitable for 111V 3Cd5 spmm Cables. Nos. 13 0.0000079 0 0 0 7.16 Creation of Neart shrink type HT Outdoor termination kits of reputed make suitable for 111V 3Cd5 spmm Cables. Nos. 13 0.0000079 0 0 0 7.17 Creation of Neart shrink type HT indoor/Custoor termination kits of reputed make suitable for 11V 3Cd5 spmm spmm Cables. Nos. 13 0.0000079 0 0 0 7.18 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm spmm Cables. Nos. 5 0.0915506 0 0 0 7.18 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm spmm Cables. Nos. 5 0.005506 0 0 0 7.19 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm spmm Cables. Nos. 10 0.000079 0 0 0 7.19 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm spmm Cables. Nos. 10 0.005506 0 0 0 7.20 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm Cables. Nos. 10 0.005506 0 0 0 7.20 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm Cables. Nos. 10 0.005506 0 0 0 7.20 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm Cables. Nos. 10 0.005506 0 0 0 7.20 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm Cables. Nos. 10 0.005506 0 0 0 7.21 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm Spm Cables. Nos. 10 0.005566 0 0 0 0 7.22 Creation of Neart shrink type HT straight through jointing kits of reputed make suitable for 11V 3Cd5 spmm Spm Cables. Nos. 12 0.005666 0 0 0 0 7.22 Creation of Neart shrink type HT straight through spm Spm Cables spm Spm Spm Spm Spm Spm Spm Spm Sp	2.0.7.13	Armoured Cables.	Nos.	3	0.0600079	0	0
2.7.15 Erection of Neat shrink type HT Outdoor termination bits of reputed make suitable for 11N 3C05 symm Cables. 2.7.17 Erection of Neat shrink type HT Outdoor termination bits of reputed make suitable for 11N 3C05 symm Cables. 3.7.18 Erection of Neat shrink type HT straight through jointing bits of reputed make suitable for 11N 3C05 symm gamm Cables. 3.7.19 Erection of Neat shrink type HT straight through jointing bits of reputed make suitable for 11N 3C05 symm gamm Cables. 3.7.19 Erection of Neat shrink type HT straight through jointing bits of reputed make suitable for 11N 3C015 symm (Cables). 3.7.19 Erection of Neat shrink type HT straight through jointing bits of reputed make suitable for 11N 3C015 symm (Cables). 3.7.10 Erection of Neat shrink type HT straight through jointing bits of reputed make suitable for 11N 3C015 symm (Cables). 3.7.10 Erection of Neat shrink type HT straight through jointing bits of reputed make suitable for 11N 3C015 symm (Cables). 3.7.10 Erection of Short British and the straight through jointing bits of reputed make suitable for 11N 3C015 symm (Cables). 3.7.10 Erection of Short British and the straight through jointing bits of reputed make suitable for 11N 3C015 symm (Cables). 3.7.10 Erection of Short British and the straight through jointing bits of reputed make suitable for 11N 3C015 symm (Cables). 3.7.10 Erection of Short British and the suitable swith stand floor on counted type of rigid & good quality 4 not. 10 librar capacity fire buddets per for standard suitable swith standard so the swith In height angle support. 3.7.10 Erection of It cables route markers standard size with In height angle support. 3.7.10 Erection of It cables route markers standard size with In height angle support. 3.7.10 Erection of It cables route markers standard size with In height angle support. 3.7.10 Erection of It cables route markers standard size with In height angle support. 3.7.10 Erection of It cables route markers standard size with In height angle support. 3.7.10 Erection of It cables	2.0.7.14	Election of fleat similar type fit straight amough jointing kits of reputed make for 11kV 3Cx103 squiin Amoured Cables.	Nos.	2	0.0915606	0	0
0.7.10 Cretion of Heat shrink type HT straight through jointing lifts of reputed make for 11kV 3Cd55 spmm sgmm Cables. No. 5 0.0915606 0 0 0 Cretion of Heat shrink type HT straight through jointing lifts of reputed make suitable for 11kV 3Cd55 spmm sgmm Cables. No. 5 0.0915606 0 0 0 Cretion of Heat shrink type HT straight through jointing lifts of reputed make suitable for 11kV 3Cd55 spmm cables. No. 10 0.0915606 0 0 0 Cretion of Heat shrink type HT straight through jointing lifts of reputed make suitable for 11kV 3Cd55 spmm cables. No. 10 0.0915606 0 0 0 Cretion of 200 mm dia RCC hums pipes for rmake use of cable crossing where ever required such as existing culverts. Wheters 150 0.006969 0 0 0 Cretion of 200 mm dia RCC hums pipes for rmake use of cable crossing where ever required such as existing culverts. Fercition of 300 mm dia RCC hums pipes for rmake use of cable crossing where ever required such as existing culverts. Fercition of 15mm Na 4 Amn fam fam for mounted type of gd6 & god quality 4 nos. 10 liter capacity fire buckets per start of the Buckets with stand for mounted type of gd6 & god quality 4 nos. 10 liter capacity fire buckets per start of the Buckets with stand for mounted type of gd6 & god quality 4 nos. 10 liter capacity fire buckets per start of 15mm Na 4 Amn fam	2.0.7.15	Erection of Heat shrink type HT Indoor termination kits of reputed make suitable for 11kV 3Cx95 sqmm Cables.	Nos.	13	0.0600079	0	0
2.718 Crection of Heat shrink type HT indoor/Outdoor termination kits of reputed make suitable for 11xV 3Cx185 symm Nos. 2.718 Crection of Heat shrink type HT straight through jointing kits of reputed make for 11xV 3Cx185 symm Nos. 2.719 Exection of Heat shrink type HT straight through jointing kits of reputed make for 11xV 3Cx185 symm Cables. 2.720 Exection of Jean and RCC hume pipes for rmake use of cable crossing where ever required such as existing culverts. 2.721 Exection of Joint MT 4Cables. 2.722 Exection of Joint MT 4Cables. 2.722 Exection of Joint MT 4Cables. 2.723 Exection of Joint MT 4Cables. 2.723 Exection of Joint MT 4Cables. 2.724 Exection of Joint MT 4Cables. 2.725 Exection of Joint MT 4Cables. 2.725 Exection of Joint MT 4Cables. 2.725 Exection of Joint MT 4Cables. 2.726 Exection of Joint MT 4Cable provised by BHZ 4 regimes and Joint MT 4Cables. 2.727 Exection of Joint MT 4Cable provised by BHZ 4 regimes budgets and Joint MT 4Cables. 2.728 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 2.729 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.720 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.721 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.722 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.723 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.724 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.725 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.726 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.727 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.728 Exection of Joint MT 4Cable route markers standard size with 1m height angle support. 3.729 Exection of Joint MT 4Cable route markers standard size with 1m h	2.0.7.16	Erection of Heat shrink type HT Outdoor termination kits of reputed make suitable for 11kV 3Cx95 sqmm Cables.	Nos.	13	0.0600079	0	0
Cables. Nos. 20 0.0660079 0 0 Exection of Heat shrink type HT straight through jointing bits of reputed make for 111V 3Cx185 sqmm Cables. Nos. 10 0.0915606 0 0 Exection of 200 mm dia RCC hume pipes for make use of cable crossing where ever required such as existing culverst. Exection of 150 mm NB 4.8mm thick medium class Gi pipes for make use of cable crossing where ever required such as existing culverst. Exection of 150 mm NB 4.8mm thick medium class Gi pipes for make use of cable crossing where ever required such as existing culverst. Exection of 150 mm NB 4.8mm thick medium class Gi pipes for make use of cable crossing where ever required such as existing culverst. Exection of 150 mm NB 4.8mm thick medium class Gi pipes for make use of cable crossing where ever required such as existing culverst, trenches and road etc for for LT cables. Nos. 150 0.005866 0 0 Exection of 150 mm NB 4.8mm thick medium class Gi pipes for make use of cable crossing where ever required such as existing culverst, trenches and road etc for for LT cables. Nos. 150 0.005866 0 0 Exection of 150 mm NB 4.8mm thick medium class Gi pipes for make use of cable crossing where ever required such as existing culverst. Nos. 150 0.005866 0 0 Exection of 150 mm NB 4.8mm thick medium class Gi pipes for make use of cable crossing where ever required such as existing culverst. Nos. 12 0.0494422 0 0 Exection of 150 mm NB 4.8mm thick medium class Gi pipes for make use of cable crossing where ever required such as existing culverst. Nos. 175 0.0033714 0 0 Exection of 150 mm NB 4.8mm thick medium thick MS base plate for execting thick medium control medium can define of circles decided cards of length 15m, with 8 SWG GI Wire for Road crossing whin necessary fising a range even of the Cable recurrence of the cable of the control of the Cable recurrence of the Cable recur	2.0.7.17			5	0.0915606	0	0
Exection of 200 mm dia RCC hume pipes for rmake use of cable crossing where ever required such as existing culverty. 2.72.1 Exerction of 250 mm N8.4 Almm thick medium class GI pipes for make use of cable crossing where ever required such as existing culverty. 2.72.2 Exerction of 150 mm N8.4 Almm thick medium class GI pipes for make use of cable crossing where ever required such as existing culverty. 2.72.2 Exerction of 150 mm N8.4 Almm thick medium class GI pipes for make use of cable crossing where ever required such as existing culverty. 2.72.2 Exerction of Fire Buckets with stand floor mounted type of rigid & good quality-4 nos. 10 liter capacity Fire buckets per stand-Type & make shall be approved by BHEL/ regineer. 2.72.2 Exerction of Alminishm analyse, SQC Diff re extinguisher industrial type with SI Mark of reputed make. Type & make shall not approved by BHEL/ engineer. 2.72.3 Exerction of Fire Buckets with 1 m height angle support. 3.72.4 Exerction of Fire Buckets with 1 m height angle support. 3.72.5 Exerction and fixing of Girddie Guards of length 15m, with 8 SWG GI Wire for Road crossing with necessary fixing arrangement etc., as per IS Specification. 3.72.6 Exerction and fixing of Girddie Guards of length 15m, with 8 SWG GI Wire for Road crossing with necessary fixing arrangement etc., as per IS Specification. 3.8 FOR AREA LIGHTING Related Items. 3.8 Installation/Terction of stee lubular awaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg F/sq. mm conforming to 88: 2713 [gar-11] complete with 3000 comm thick M5 base plate for welling at site and site as a per configuration given in 85 or 410.9-28 Elling pole with 3000 bits or making 300 mm height and 300 mm dia including double earthing of good with suitable arrangement, duly parties with 1 correction of the parties of other parties due not coat of aluminalium pain to be applied after exerction, the length of pipe below ground to be painted win the vocation of their future. 3. In June 200 mm and hole at ab				20	0.0600079	0	0
trenches and road etc for HT Cables. 7.22 existing culverts, trenches and road etc for for LT Cables. 8. Meters 8. Meters 150 0.0059493 0 0 7.22 existing culverts, trenches and road etc for for LT Cables. 8. Meters 150 0.003686 0 0 7.22 Exection of 150mm NB 4.8mm thick medium class Gi pipes for make use of cable crossing where ever required such as factors and the control of the contro	2.0.7.19		Nos.	10	0.0915606	0	0
desisting culverts, trenches and road etc for for LT Cables. desisting culverts, trenches and road etc for for LT Cables. design of Fire Buckets with stand floor mounted type of rigid & good quality-4 nos. 10 liter capacity Fire buckets per Set 12 0.0494422 0 0 0 0 0 0 0 0 0	2.0.7.20		Meters	150	0.0069493	0	0
5ets 12 0.0494422 0 0 0 2.724 Erection of Aluminium alloy Sig CO2 fire extinguisher industrial type with ISI Mark of reputed make. Type & make shall be complete whether the provided by BHEL/ Engineer. 2.724 Erection of HIT cable route markers standard size with 1m height angle support. 3.725 Erection of HIT cable route markers standard size with 1m height angle support. 3.726 Erection of LIT cable route markers standard size with 1m height angle support. 3.727 Erection of LIT cable route markers standard size with 1m height angle support. 3.728 Erection of LIT cable route markers standard size with 1m height angle support. 3.729 Erection of LIT cable route markers standard size with 1m height angle support. 3.720 Erection and fixing of Griddle Guards of length 15m, with 8 SWG GI Wire for Road crossing with necessary fixing sensement ext, as per Specification. 3.720 Erection and fixing of Griddle Guards of length 15m, with 8 SWG GI Wire for Road crossing with necessary fixing sensement ext, as per Specification. 3.720 Erection and fixing of Griddle Guards of length 15m, with 8 SWG GI Wire for Road crossing with necessary fixing sensement ext, as per Specification. 3.721 Erection of Steel Libular swaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg F/sq. mm conforming to 85: 2713 (gart-II) complete with 300x300x6 mm thick MS base plate for welding at site and size as per configuration given in BiS for 410 PSP-26 [113 kg. pole weight) with 1.5 mt deep exacevation, concreting in 1.4.8 ratio size 45 cms x 45 cms x 150 cms and pole plinth in 1.36 cement concreting having 300 mm height and 300 mm daincluding double earthing of pole with suitable arrangement, duly painted with two coats of double carbing of pole with suitable arrangement, duly painted with two coats of black bituminus paint: the pole stable occupiete with B. fust and minor fabrication as below: 3.811 Injurishment of the pole of the street light bracket. 3.822 Injury Standard Standard Standard Standard Standar	2.0.7.21			150	0.003686	0	0
be approved by BHEL/ engineer. Nos. 12 0.0494422 0 0 0 0.7.24 Erection of HT cable route markers standard size with 1m height angle support. Nos. 175 0.0033714 0 0 0 0.7.25 Erection of HT cable route markers standard size with 1m height angle support. Nos. 175 0.0033714 0 0 0 0.7.26 Erection and fixing of Griddle Guards of length 15m, with 8 SWG GI Wire for Road crossing with necessary fixing a rangement etc, as per iS Specification. Nos. 153 0.0031601 0 0 0.7.28 Frection and fixing of Griddle Guards of length 15m, with 8 SWG GI Wire for Road crossing with necessary fixing standard size with 15m, with 8 SWG GI Wire for Road crossing with necessary fixing standard size specification. Nos. 153 0.0031601 0 0 0.7.38990	2.0.7.22		Sets	12	0.0494422	0	0
2.7.25 Erection of LT cable route markers standard size with 1m height angle support. No. 153 0.0031601 0 0 Prection and fixing of Griddle Guards of length 15m, with 8 SWG GI Wire for Road crossing with necessary fixing arrangement etc., as per iS Specification. POR AREA LIGHTING Related Items. Installation/Erection of steel tubular swaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg /F/sq. mm conforming to 8i5: 2713 (part-II) complete with 300x300x6 mm thick MS base plate for welding at site and size as per configuration given in BIS for 410 SP-28 (113 kg. pole weight) with 1.5 mtr deep exacavation, corner tension including double earthing of pole with suitable arrangement, duly painted with two coats of red oxide paint and one coat of aluminium paint to be applied after erection; the length of pole below ground to be painted with two coats of black bituminus paint. the pole shall be complete with 15 fi. use and minor fabrication as below: 1) Driling 20 mm dia hole at about 2.5 mtr from ground level for wire leads from junction box to light fixture. 1) Driling 15mm dia holes at about 2.5 mtr from ground level and welding 12 mm nuts for using a 12 mm Gi bolt for fastening earth conducters. 1) Welding required holes for fixing pole cap of street light bracket. 1) Welding required holes for fixing pole cap of street light bracket. 1) Welding diametrally 10 mm MS round 30 mm below pole top edge for clipping wire leads. Erection of Electrical junction box (GI/PVC)of good quality to suit the opening available in above lighting pole, one connector block for 3 Phase 4 wire incoming and outgoing cable to next street light pole with 01 no. 6A SP MCB for street light and earthing etc. Erection of 50 W LED street light fitting of make Philips/CGL/Baja/Havells only. Cable Laying and Termination of 2Cx2.5sqmm size copper PVC/ XLPE insulated cable confirming to 151554 (Part-II) IS	2.0.7.23		Nos.	12	0.0494422	0	0
Erection and fixing of Griddle Guards of length 15m, with 8 SWG GI Wire for Road crossing with necessary fixing arrangement etc, as per If Specification. 8 FOR AREA LIGHTING Related Items. Installation/Erection of steel tubular swaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg F/sq. mm conforming to BIS: 2713 (part-II) complete with 300x300x6 mm thick MS base plate for welding at site and size as per configuration given in BIS for 410 \$9-28 (113 kg- pole weight) with 1.5 mtr deep exacavation, concreting in 1.4.8 ratio size 45 cms x 45 cms x 150 cms and pole plint in 1.36 cement concreting having 300 mm height and 300 mm dial including double earthing of pole with suitable arrangement, duly painted with two coats of red oxide paint and one coat of aluminium paint: to be applied after erection; the length of pole below ground to be painted with two coats of black bituminus paint. the pole shall be complete with III, State and minor fabrication as below: i) Driling 15mm dia holes at about 7.5 mtr from ground level for wire leads from junction box to light fixture. ii) Driling 15mm dia holes at about 7.5 mtr from ground level and welding 12 mm nuts for using a 12 mm GI bolt for fastening earth conducters. iii) Welding required holes for fixing pole cap of street light bracket. iv) Welding required holes for fixing pole cap of street light bracket. iv) Welding diametrally 10 mm MS round 30 mm below pole top edge for clipping wire leads. 6 2 0.0087032 0 0 10 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2.0.7.24	Erection of HT cable route markers standard size with 1m height angle support.	Nos.	175	0.0033714	0	0
arrangement etc, as per IS Specification. Sets 10 0.7389901 0 0 0 Installation/Frection of steel tubular swaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg F/sq. mm conforming to BIS: 2713 (gart-II) complete with 300x300x6 mm thick MS base plate for welding at site and size as per configuration given in BIS for 410 SP-28 (113 kg- pole weight) with 1.5 mtr deep exacavation, concreting in 1:4:8 ratio size 45 cms x 45 cms x 150 cms and pole plinth in 1:3:6 cement concreting having 300 mm height and 300 mm dia including double earthing of pole with suitable arrangement, duly painted with two coats of red oxide paint and one coat of aluminum paint to be applied after erection; the length of pole below ground to be painted with two coats of black bituminus paint. the pole shall be complete with IB, five and minor fabrication as below: i) Driling 15mm dia holes at about 7.5 mtr from ground level for wire leads from junction box to light fixture. ii) Welding tesmined holes at about 7.5 mtr from ground level and welding 12 mm nuts for using a 12 mm Gl bolt for fastening earth conducters. iii) Welding required holes for fixing pole cap of street light bracket. iv) Welding diametrally 10 mm MS round 30 mm below pole top edge for clipping wire leads. Erection of Electrical junction box (GI/PVC)of good quality to suit the opening available in above lighting pole, one connector block for 3 Phase 4 wire incoming and outgoing cable to next street light pole with 01 no. 6A SP MCB for street light and earthing etc. 67 0.0087032 0 0 0 5 0.0087032 0 0 10 10 10 10 10 10 10 10 10 10 10 10 10 1	2.0.7.25			153	0.0031601	0	0
Installation/Erection of steel tubular swaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg F/sq. mm conforming to BIS: 2713 (part-II) complete with 300x300x6 mm thick MS base plate for welding at site and size as per configuration given in BIS for 410 SP-28 (I113 kg. pole weight) with 1.5 mtr deep exacavation, concreting in 1-4.8 ratio size 45 cms x 45 cms x 45 cms and pole plints in 1:3:36 cement concreting having 300 mm height and 300 mm dia including double earthing of pole with suitable arrangement, duly painted with two coats of red oxide paint and one coat of aluminium paint to be applied after erection; the length of pole below ground to be painted with two coats of black bituminus paint, the pole shall be complete with IIB, fuse and minor fabrication as below: i) Drilling 20 mm dis holes at about 2.5 mtr from ground level and welding 12 mm nuts for using a 12 mm GI ii) Drilling 20 mm dis holes at about 0.7 and at 2.5 mtr from ground level and welding 12 mm nuts for using a 12 mm GI ii) Drilling 40 mm dis holes at power of the proper of th	2.0.7.26		Sets	10	0.7389901	0	0
connector block for 3 Phase 4 wire incoming and outgoing cable to next street light pole with 01 no. 6A SP MCB for Nos. 67 0.0087032 0 0 8.8.3 Erection of 90W LED street light fitting of make Philips/CGL/Bajaj/Havells only. Cable Laying and Termination of 2Cx2.5sqmm size copper PVC/ XLPE insulated cable confirming to IS1554 (Part-I)/ IS	2.0.8.1	Installation/Erection of steel tubular swaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg F/sq. mm conforming to BIS: 2713 (part-II) complete with 300x300x6 mm thick MS base plate for welding at site and size as per configuration given in BIS for 410 SP-28 (113 kg: pole weight) with 15. Birt deep executation, concreting in 14.8 ratio size 45 cms x 45 cms x 150 cms and pole plinth in 1:35 cement concreting having 300 mm height and 300 mm did including double earthing of pole with suitable arrangement, duly painted with two costs of red oxide paint and one coat of aluminium paint to be applied after erection; the length of pole below ground to be painted with two costs of black bituminus paint. The pole shall be complete with IB, fuse and minor fabrication as below: 1) Driling 20 mm dia hole at about 1.25 mtr from ground level for wire leads from junction box to light fixture. ii) Driling 15mm dia holes at about 0.7 and at 2.5 mtr from ground level and welding 12 mm nuts for using a 12 mm Globit for fastening earth conducters.		63	0.1084657	0	0
Cable Laying and Termination of 2Cx2.5sqmm size copper PVC/ XLPE insulated cable confirming to IS1554 (Part-I)/ IS	2.0.8.2	connector block for 3 Phase 4 wire incoming and outgoing cable to next street light pole with 01 no. 6A SP MCB for street light and earthing etc.	Nos.	67	0.0087032	0	0
	2.0.8.3	Erection of 90W LED street light fitting of make Philips/CGL/Bajaj/Havells only.	Nos.	76	0.022303	0	0
	2.0.8.4			9800	0.0008479	0	0

S. No.	DESCRIPTION	иом	QUANTITY	Factor(F)	Rate per Qty= Factor(F) X quoted Value(A)/1000	Amount= Rate per UOM* Qty
2.0.8.5	Erection of 50mm NB 3.6mm thick medium class standard GI pipe for incoming and outgoing cables.	Meters	166	0.0024205	0	0
2.0.8.6	Erection, testing and commissioning of out door type metal clad Lighting distribution board (LDB) having IP-55 protection with double door type and one incomer with 100A TPN MCCB additionally with 3 nos. 32 A TPN ELCBs with 30mA tripping and timer & contactors for auto on/off street lights and 3 indicating lamps with fuse for indication bus supply ON, Digital Voltmeter & VSS 0-500V etc. Suitable busbar arrangement for Phase and Neutral. Sufficient space should be provided in the removable cable gland plate to accommodate incoming power cable and all outgoing cables.	Nos.	8	0.2840707	0	0
2.0.8.7	Civil Works, Erection, Earthing and Charging of High Mast (30 Meters) along with its Accessories.	Sets	10	2.5357547	0	0
	installation/Erection of steel tubular swaged poles, 9 mtr long made of sheet steel having ultimate tensile strength 42 kg Fk5, mm conforming to BIS: 271g (Jant-II) complete with 300×3006 mm thick MS base plate for welding at site and size as per configuration given in BIS for 410 SP-28 (113 kg- pole weight) with 1.5 mtr deep exacavation, concreting in 1:4:8 ratio size 45 cms x 45 cms x 150 cms and pole plinth in 1:3:5 cement concreting having 300 mm height and 300 mm die including double earthing of pole with suitable arrangement, duly panted with two coasts of red oxide paint and one coal of aluminium paint to be applied after erection; the length of pole below ground to be painted with two coats of black bituminus paint. the pole shall be complete with IRs, fuse and minor fabrication as below: 1) Driling 20 mm dia hole at about 2.5 mtr from ground level for wire leads from junction box to light fixture. 1) Driling 15mm dia holes at about 0.7 and at 2.5 mtr from ground level and welding 12 mm nuts for using a 12 mm G boit for fastening earth conducters. 11) Welding required holes for fixing pole cap of street light bracket. 12) Welding diametrally 10 mm MS round 30 mm below pole top edge for clipping wire leads.		186	0.1084657	O	0
2.0.8.9	installation/Erection & Commissioning of LED street light fitting 150 watt of Bajaj, crompton, Philips or equivalent make complete with one piece of appropriate driver (integral/non-intigral) and suitable for directly slipping over light mounting bracket made out of 40 mm OD pipe and suitable for lamps, JB, cabling & termination of items supplied.	Nos.	205	0.0174662	0	0
2.0.8.10	Providing suitable foundation for mounting AC distribution board as specified and Installation/Erection and Commissioning of 3-Phase metering and power distribution board complete with: (1) Incoming SFU TPN 400 Amps - 1no, (2) Outgoing SFU TPN 300 Amps - 1nos. (3) Outgoing SFU TPN 32 Amps - 7nos. 3) Outgoing SFU TPN 32 Amps - 7nos. 4) Outgoing SFU TPN 32 Amps - 7nos. 4) Outgoing SFU TPN 32 Amps - 7nos. 5) Phase Electronic Energy Meter - PHEL / L&T / GEC make. Ammeter, Voltmeter and Selector Switches for both - AE and Kaycee make. Phase indication lamps, HRC fuses for IC and OG feeders, cable glands, power terminals for cables termination, cable lugs and provision for doubly earthing the panel enclosure. Panel enclosure shall be made of sheet metal thichness not less than 1.6 mm and suitable for out door installation modular construction, hinged door with locking arrangement, base frame, should have slopped canopy, duly painted with first coat of primer and two coats of synthetic enamel paint (Interior with white paint and exterior with light grey as per shade 5, is 630) Internal power distribution to devices shall be with a busbasr or copper flexible single core PVC cables of 1.1 kV grade, control wiring with 1.5 sgmm, suitable stool made out of MS structure of 1.2 meter high for mounting of panel with anchoring arragement at foundation, suitable for bottom entry of cables.	Nos.	1	0.5071509	0	0
	Providing suitable foundation for mounting 415 Volt AC power feeder pillar board and installation/Erection and Commissioning of 415 Volt AC, 3 phase/four wire power feeder pillar board, board shall be comprises of three number and one number aluminium bus has for phase & neutral respectively. Bus bar rating shall be 200 amps and shall be mounted on epoxy insulator of 1.1 kV grade, each bus bar shall have drilled hole for connecting incoming /outgoing cables, provision for earthing the panel enclosure. Panel enclosure shall be made of sheet metal thichness not less than 1.6 mm and suitable for out door installation, hinged door with locking arragement, base frame, should have slopped canopy, duly palned with first coat with primer and two coats of synthetic enamel paint (interior with white paint and exterior with smoke grey as per IS), suitable stool made out of MS structure of 1.2 meter high for mounting of panel with anchoring arragement at foundation.	Nos.	6	0.3381006	0	0
2.0.8.12	Erection, testing and commissioning of out door type metal clad Lighting distribution board (LDB) having IP-55 protection with double door type and one incomer with 100A TPN MCCB additionally with 3 nos. 32 A TPN ELCBs with 30mA tripping and timer & contactors for auto no/f1 street lights and 3 indicating lamps with fuse for indication but supply ON, Digital Voltmeter & VSS 0-500V etc. Suitable busbar arrangement for Phase and Neutral. Sufficient space should be provided in the removable cable gland plate to accommodate incoming power cable and all outgoing cables.		6	0.2840707	0	0
2.0.8.13	Cable Laying and Termination of 2Cx6 sqmm Aluminium Armoured PVC/XLPE insulated cable confirming to IS 1554 (Part I)/ IS 7098 (part-I) respectively along with double compression type brass cable glands, required nos of termination lugs Jointing kits, Straight throughs and suitable glands and including laying of cable below ground, excavation of trench of 600 mm depth in all kind of soil, termination of cables cores with crimp type lugs, providing sand layer below/ above the cable, brick laying both side /above the above the cable and back filling etc complete. Cables are to be laid from 415 Voli AC power feeder pillar board to lighting poles & pole to pole.		18600	0.0006074	0	0
	Cable Laying and Termination of 3.5CX35 sqmm Al armoured PVC/XLPE insulated cable confirming to IS 1554 (Part-I)/ IS 7098 (part-I) respectively along with double compression type brass cable glands, required nos of termination lugs Jointing kits, Strainght throughs and suitable glands and including laying of cable below ground, excavation of trench of 600 mm depth in all kind of soil, termination of cables cores with crimp type luggs, providing sand layer below/ above the cable, brick laying both side /above the above the cable and back filling etc. Cables are to be laid from transformer sub station to 415 Volt AC distribution board to store yard & sheds.		2201	0.0011726	0	0
2.0.8.15	Cable Laying and Termination of 3.5CX95 sqmm Aluminium Cable Armoured PVC/XLPE insulated cable confirming to 15 1554 (Part-II) ¹ IS 7098 (part-I) ¹ respectively along with double compression type brass cable glands, required nos of termination lays, Jointing kits, Strainght throughs and suitable glands and including laying of cable below ground excavation of trench of 600 mm depth in all kind of soil, termination of cables cores with crimp type luggs, providing sand layer below/ above the cable, brick laying both side/above the above the cable and back filling etc complete. Cables are to be laid from 415 Volt AC distribution board to feeder pillar board, feeder pillar board to lighting mast / tower 8 for sheds.	Meters	2100	0.0017467	0	0

S. No.	DESCRIPTION	иом	QUANTITY	Factor(F)	Rate per Qty= Factor(F) X quoted	Amount= Rate per UOM* Qty
3. NO.	DESCRIPTION	UOIVI	QUANTITY	ractor(r)	Value(A)/1000	Amount- Rate per OOM Qty
2.0.8.16	Cable Laying and Termination of 3.5CX185 sqmm aluminium armoured PVC/XLPE insulated cable confirming to IS 1554 (Part-IV) IS 7098 (part-I) respectively along with double compression type brass cable glands, required nos of termination lugs, Jointing kits, Strainght throughs and suitable glands and including laying of cable below ground, excavation of trench of 600 mm depth in all kind of soil, termination of cables cores with crimp type luggs, providing sand layer below, above the cable, brick laying both side /above the above the cable and back filling etc. Cables are to be laid from transformer sub station to 415 Volt AC distribution board.		2522	0.0018735	0	0
2.0.9	SUPPLY & ERECTION PORTION OF BOM FOR CIVIL RELATED WORKS.					
2.0.9.1	Excavation of cable trench size 0.4x1.0 m depth in hard rock for HT cable and 0.4x0.8 m depth for LT cable. After cable laying, the trench will be back filled with excavated earth materials / other outside earth materials with compaction.	сим	5938	0.0044615	0	0
2.0.9.2	Supply & Erection and spreading of river sand in cable trench of 300 mm thick for protection of HT Power cable.	сим	900	0.0356396	0	0
2.0.9.3	Supply and laying of red/ash bricks in the cable trench for protection of HT Power cable.	No.s	75000	0.0003452	0	0
2.0.9.4	Construction of SmX 4m size 10 feet height Control room, including supply of required civil materials like cement, sand, bricks, metal, reinforcement rods etc. The control room is concrete roof, brick wall room with inside & out site plastering, cement flooring with necessary trench arrangements for control desk & UPS and two nos 4xf x ft glass all side type windows, one wooden door of normal size (2.1x 1.2m) with lock & key arrangement. Including painting of control room. Supply & providing of control room lighting with minimum 4 nos. of 40 W Tube light fitting , 2 nos. 1200 sweep ceiling fans and 4 nos of 40 W LED street light fitting for out side area lighting, necessary electrical wiring for fans & lights with 0.2 nos SA switched socket & 2 nos 15 A switched socket in lighting board, incoming main switch, earthing, incoming power connection etc. complete(Light fittings & fans are reputed make only).	Set	1	8.9192383	0	0
2.0.9.5	Supply and installation of One No. vertical air terminations, 6m height 50 mm NB 3.6mm thick medium class GI Pipe with Inn height lightning spike on the top (total height-7m) with suitable Base plate afoundation bolts for Lightning protection of PSS. Vertical air terminal shall be grounded with earth pits. Required toliw lovers for lightning pole erection and grouting including supply of grouting civil materials are in the scope of Contractor. (for 11/11.5kV substation.)		2	0.1029143	0	0
2.0.9.6	Supply and Erection of 3m long 50mm dia 3.6 mm thick medium class GI funnel type earth electrode with filling of bentonite earthing powder as per standard, four side brick work chamber with cement plastering, white washing and removable type RCC/ cast in oncore plate. Soon includes supply of required betonice eathing powder, cement, brick, sand, RCC/cast iron cover plate. Minium 02 earthpits per LDB. Earthing shall be carried out by using 50x6 and 25x3 mm earth flats (Supply and erection rates of earth flats is provided separately.)		20	0.1029143	0	0
2.0.9.7	Supply and erection of 600mm Ladder type tray along with all accessories	Meters	60	0.0205828	0	0
2.0.9.8	Supply and construction of RCC foundation as per scheme drawing for 11 kV VCB's/RMUs. Approx size 3.0m x 1.5m x2.6m (LXBXH)-2 nos., 11kV /11.5 kV, Tentative detail as specified under and may varry as per site conditions	set	3	1.6250617	0	0
Package B						
Bill of Quar	ntities of Operation and Maintenace Part-B					
2.1	Operation and running maintenance includ-ing attending breakdown jobs for the en-tire Construction Power Network and Area lighting covered in this contract (Erected and Commissioned under this sub-contract). There should be adequate amount of Electricians and helpers available at site round the clock for this Package along with a Site In charge during day shifts. The maintenance contract period will start after energizing of 10 Nos. of 11kV/433V Package substations and Main 11/11.5kV substation. The scope also includes O&M of High Masts, BHEL Offices, BHEL Stores, BHEL yard, etc.	Months	48	5.1008067	0	0
	Grand Total of Package-A & B (In Rupees)					
	1					