



भारतीय विमानपत्तन प्राधिकरण

AIRPORTS AUTHORITY OF INDIA

No. AAI/CA/AMED-VII/FMC-PS/2023/A-03

Date: 31.05.2023.

To

M/s. Chennai Engineering Services,
Plot No. 30, Door No.1-536,
Krishna Nagar, 1st Street,
Manapakkam, Chennai - 600 125.

Sub: M/R to Power Supply and Standby DG Sets at Chennai International Airport. SH: Facility Management Contract [FMC] of Power Supply Installations. (2 Years: Phase-I from 01.06.2023 to 31.05.2024 & Phase-II from 01.06.2024 to 31.05.2025).

Ref: Tender ID: 2023_AAI_151813_1

Tender Ref. No.: AAI/CHE/AMED-VII/2023/01

Dear Sir(s),

1. Your e-Tender for the above mentioned work is hereby accepted by the Competent Authority on behalf of Chairman, Airports Authority of India, at the items rates quoted by you totaling to **Rs. 6,93,70,174.00** (Rupees Six Crores Ninety Three Lakhs Seventy Thousand One Hundred Seventy Four Only) which is 24.12% below the Justified Cost of **Rs. 9,14,17,202.00** (Rupees Nine Crores Fourteen Lakhs Seventeen Thousand Two Hundred Two Only) which is inclusive of all the taxes, duties, levies and octroi etc., but exclusive of GST, EPF, ESI/Mediclaim and Difference in Minimum wages & Bonus which shall be reimbursed as per actual on submission of documentary proof.
2. Joint General Manager (Engg. -Elect)-I, AMED, Operational Office, Airport Authority of India, Chennai Airport, Chennai-600 016 shall be the Engineer-In-Charge of the work. You are requested to attend the office of Joint General Manager (Engg -Elect)-I, AMED, AAI, Chennai Airport on or before **09.06.2023** to sign and complete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value of Rs.100/- (Rupees One Hundred Only) and the cost of the stamp paper shall be borne by you.
3. As you are participated as MSME bidder registered under NSIC, the Earnest money deposit is exempted in the above e-Tender. You are requested to submit Bank Guarantees as below within 30 days of commencement of contract, whichever is later failing which, the same will be deducted as per conditions of GCC & TCS of contract agreement.
 - a) **Performance Guarantee: Rs. 34,68,509.00/-** (Rupees Thirty Four Lakhs Sixty Eight Thousand Five Hundred Nine Only) which is @ 5% of Contract value against Performance Guarantee in the form of Bank Guarantee as per Clause 1 of GCC 16 on the Proforma appended at Appendix -XI on Page No.110 to 111 of GCC of Contract Document.
 - b) **Security Deposit: Rs. 17,35,396.00/-** (Rupees Seventeen Lakhs Thirty Five Thousand Three Hundred Ninety Six Only) which is @ 5% of highest annual contract value (of Second year) towards Security Deposit within 10 days from the date of issue of this letter failing which the same will be deducted as per Clause-1A on of GCC 17 of General conditions of contract on the Proforma appended at Appendix -I on Page No. 94 to 95 of GCC of Contract Document.

Contd.....2

फैक्स: 044 - 2256 0008 ईपीएबीएक्स: 2256 0551, चेन्नईहवाईअड्डे, चेन्नई - 600 016.

Fax: 044 - 2256 0008 EPABX: 2256 0551, Chennai Airport, Chennai - 600 016.



भारतीय विमानपत्तन प्राधिकरण

AIRPORTS AUTHORITY OF INDIA

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4. You are also directed to contact the Joint General Manager (Engg-Elect)-I, Airport Maintenance Electrical Division, Operational Office, Airports Authority of India, Chennai Airport or his Authorised representative immediately for the execution of the above work.
5. You are requested to comply with the provision of Contract Labour (Regulation and Abolition) Act 1970 and Contract Labour (Regulation and Abolition) Central Rules 1971 Child labour (Prohibition & Regulation) Act 1986, Building and other Construction Workers Welfare Cess Act 1996 as specified in clause No. 19 of GCC of AAI and rules of Central and State Governments.
6. Please note that the time allowed for carrying out the work shall be **02 (Two) Years** and same shall be reckoned for **Phase-I: 1st Year from 01.06.2023 to 31.05.2024 and Phase-II: 2nd Year from 01.06.2024 to 31.05.2025.**
7. Any further correspondence in connection with the contract should normally be addressed to the Engineer-In-Charge.
8. Please acknowledge the receipt and return the duplicate copy of this letter enclosed herewith after signing it to the undersigned as a token of acceptance.

Encl: Schedule of Quantities (Page No. 1 to 34)

Yours faithfully,

Sd/-

(G.N.D. KENNEDY)

Jt. Gen. Manager (Engg - Elect)-I

Copy to:

External:

1. The Income-Tax Officer, Chennai – 600 034.
2. The Regional Labour Commissioner, Chennai-600006.
3. The Asst. Commercial Tax Officer, Chennai – 600 006.
4. Uploading online portal of mem.epfindia.gov.in.

Internal: Through mail:

1. The Airport Director, AAI, Chennai Airport.
2. The General Manager (Engg-Elect), Chennai Airport.
3. The General Manager (F&A), w.r.t FC No. FC/EE/23-24/44 under e-office file No.: SR 16021(14)/8/2023-APD-CHENNAI, Note No.: 29 dated: 30.05.2023
4. The Joint General Manager (Vigilance), SR, Chennai Airport.
5. The Asst. General Manager (Engg-Elect)-VII, Chennai Airport.
6. The Asst. General Manager (Engg-Elect)-Planning, Chennai Airport.
7. Agreement Copy.
8. Award Letter File.

(G.N.D. KENNEDY)

Jt. Gen. Manager (Engg - Elect)-I,
For and on behalf of the Chairman,
Airports Authority of India.

फैक्स: 044 - 2256 0008 ईपीएबीएक्स: 2256 0551, चेन्नईहवाईअड्डे, चेन्नई - 600 016.

Fax: 044 - 2256 0008 EPABX: 2256 0551, Chennai Airport, Chennai - 600 016.



AIRPORTS AUTHORITY OF INDIA
CHENNAI INTERNATIONAL AIRPORT
CHENNAI - 600 016

ABSTRACT OF COST - (First Year & Second Year)

NAME OF WORK: M/R to Power Supply and Standby DG Sets at Chennai International Airport.

SH : Facility Management Contract [FMC] of Power Supply Installations. (2 Years: Phase-I from 01.06.2023 to 31.05.2024 & Phase-II from 01.06.2024 to 31.05.2025)

Sl. No.	DETAILS	Phase-I 1st Year Amount	Phase-II 2nd Year Amount
1	SH- I:Monitoring and Maintenance of Power Supply Installations.	₹ 2,85,57,612.00	₹ 2,85,57,612.00
2	SH- II: ISC of HT Panels and LT ACBs of Power Supply Installations.	₹ 5,11,250.00	₹ 5,72,500.00
3	SH- III: Calibration of Relays and Testing of CTs and Meters	₹ 2,03,150.00	₹ 2,03,150.00
4	SH- IV : Filtration of Transformer Oil and Servicing of OLTCs.	₹ 2,95,000.00	₹ 2,95,000.00
5	SH - V: Rate Contract for Maintenance of Power Supply System.	₹ 16,51,150.00	₹ 16,93,150.00
6	SH -VI: Supply of Electrical Spares.	₹ 34,44,100.00	₹ 33,86,500.00
	Total Excluding GST(SH: I+II+III+IV+V+VI)	Rs. 3,46,62,262.00	Rs. 3,47,07,912.00

Total Excluding GST (1st Year Amount + 2nd Year Amount)	Rs. 6,93,70,174.00
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(Rupees Six Crores Ninety Three Lakhs Seventy Thousand One Hundred and Seventy Four Only)

Note: Applicable GST shall be paid on submission of taxable invoice.


31/05/2023

(G.N.D.KENNEDY)
Jt.General Manager (E-E) -I



AIRPORTS AUTHORITY OF INDIA

CHENNAI INTERNATIONAL AIRPORT

CHENNAI 600 016

SCHEDULE OF QUANTITIES

First Year

NAME OF WORK: M/R to Power Supply and Standby DG Sets at Chennai International Airport.

SH : Facility Management Contract [FMC] of Power Supply Installations (From 01.06.2023 to 31.05.2024).

Sl. No.	Description of Item	Quantity	Rate	Amount
1.00	Phase-I : 1st Year (12 Months)			
1.01	SH I: Monitoring and Maintenance of Power Supply Installations. (For First Year)			
1.02	Monitoring and Maintenance of Utility Services at Central Sub-Station [PS] and Maintenance of All area by deploying manpower in General shift, Central Sub-Station comprising of 11 KV VCB Panels (19 Nos. of Integrated Terminal Building Panels, 10 Nos. of AC Chiller Panels and 8 Nos. of AC Panels), Battery charger, 15 Nos, 2V batteries, 4 Nos. of 2 MVA 11 KV/433 V, Oil Type Transformers, ATS Panels (14 Nos. of 11 KV HT ATS and 4 Nos. of 3000 Amps LT ATS), Capacitor Banks (2 Nos. of 3000 KVAR 11 KV Detuned APFC Panels, 01 No 250 KVAR Detuned APFC panel, 03 No's 150 KVAR Detuned APFC Panels), 4 Nos of 150A Active Harmonic Filters, 3200 Amps LT Panel, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Manpower in Three Shift Basis - 8 Hours For One Shift +General shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with 110 KV Intake Sub-Station and other Sub-Stations and Power Houses, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation, Providing Supervisory Engineering Services and Services for Computer Skilled Document Assistance (for complete FMC) etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Services Tax, EPF, ESI/Mediclaim policy premium and Bonus)			
1.03	For First Year	12 Months	5,42,064.00	65,04,768.00
2.00	Monitoring and Maintenance of Utility Services at Central Sub-Station [DG SETS] comprising of 08 Nos. of 1500 KVA 11 KV HT DG Sets, 4 Nos. of 1500 KVA LT DG Sets, Battery charger, 15 Nos, 2V batteries, 27 Nos. 11 KV VCB Panels, Synchronization Panels for HT/LT DG Sets, LT Distribution Panel, DG Ventilation Panels and Ventilation System, DG Cooling System Panel (DG Auxiliary Panel 7.1) and 5 Nos. of 500 TR Paharpur Cooling Towers, 16 Nos of 15 HP Water pumps, DG Fuel System Panel (DG Auxiliary Panel 9.1) and Fuel Pumps, and all associated Sub-Systems -- Fuel Lines, Fuel Tanks (UG 30KL Fuel Tank and 13 Nos. Day Tanks), Water Lines, Valves, Pressure Gauges, Temperature Gauges, Exhaust Line, Aviation Obstruction Lights, Lightning Arrestors, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Central Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Services Tax, EPF, ESI/Mediclaim policy premium and Bonus)			
2.01	For First Year	12 Months	3,69,939.00	44,39,268.00

Sl. No.	Description of Item	Quantity		Rate	Amount
3.00	Monitoring and Maintenance of Utility Services at Domestic Basement Sub-Stations [SS] (Both East and West Side SS) comprising of 11 KV VCB Panels (12 Nos. Each at East and 10 Nos. Each West Side), Battery charger, 15 Nos, 2V batteries, 2MVA 11 KV/433 V Dry Type Transformers (3 Nos. at East and 4 No. at West Side SS), LT Panels, detuned APFC Panels (2 Nos. 250KVAR & 2 Nos. 150 KVAR at west side, 2 Nos. 150 KVAR & 1 No. 250KVAR at East Side), 6 Nos. of 300A active harmonic filters, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Central Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Service Tax, EPF, ESI/Medicaid policy premium and Bonus)				
3.01	For First Year	12	Months	3,60,276.00	43,23,312.00
4.00	Monitoring and Maintenance of Utility Services at International Basement Sub-Stations [SS] (Both East and West Side SS) comprising of 11 KV VCB Panels (10 Nos. Each at East and West Side), Battery charger, 15 Nos, 2V batteries, 2MVA 11 KV/433 V Dry Type Transformers (4 Nos. at East and 3 Nos. at West Side SS), LT Panels, 6 Nos. of 300A active harmonic filters, detuned APFC Panels (2 Nos. 250KVAR & 2 Nos. 150 KVAR at East side, 2 Nos. 150 KVAR & 1 No. 250KVAR at West Side), associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Central Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Service Tax, EPF, ESI/Medicaid policy premium and Bonus)				
4.01	For First Year	12	Months	3,60,276.00	43,23,312.00
5.00	Monitoring and Maintenance of Utility Services at Admin Power House Cum Sub-Station comprising of 10 Nos. of 11 KV VCB Panels, Battery charger, 15 Nos, 2V batteries, 2 Nos. of 2500 KVA 11 KV/433 V Oil Type Transformers, 2Nos. 500 KVA DG Sets with AMF Panels, LT Panels (Both Essential and Non-Essential), LT Detuned APFC Panels, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Cargo Power House, Intake SS, New Power House and Solar Power House, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices and as per TCS, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Service Tax, EPF, ESI/Medicaid policy premium and Bonus)				
5.01	For First Year	12	Months	2,37,760.00	28,53,120.00

Sl. No.	Description of Item	Quantity		Rate	Amount
6.00	Monitoring and Maintenance of Utility Services at Remote Bays Power House Cum Sub-Station comprising of 7 Nos. of 11 KV VCB Panels, Battery charger, 15 Nos, 2V batteries, 2 Nos. of 500 KVA, 11 KV/433 V Oil Type Transformers, 2 Nos. of 320 KVA DG Sets with AMF Panels, LT Panels, LT Capacitor Banks, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Cargo Power House and MSSR Power House Cum Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Service Tax, EPF, ESI/Medicaid policy premium and Bonus)				
6.01	For First Year	12	Months	2,37,760.00	28,53,120.00
7.00	Monitoring and Maintenance of Utility Services at New Power House Cum Sub-Station comprising of 8 Nos. of 11 KV VCB Panels, 2 Nos. of 1000 KVA, 11 KV/433 V Oil Type Transformers, 2 Nos. of 320 KVA DG Sets with AMF Panels, LT Panels, LT Detuned Capacitor Banks, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift+General shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Cargo Power House, Intake SS and MSSR Power House Cum Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices and as per TCS, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Services Tax, EPF, ESI/Medicaid Policy premium and Bonus)				
7.01	For First Year	12	Months	2,71,726.00	32,60,712.00
	Total for SH I: Monitoring and Maintenance of Power Supply Installations.				₹ 2,85,57,612.00
8.00	SH II: ISC of HT Panels and LT ACBs of Power Supply Installations. (For First Year)				
8.01	Overhauling and Servicing of (400 - 1250) Amp 11 KV HT VCBs by Deploying Authorised Service Personnel of Manufacturer/ Service Dealer, provided at Various Power Houses/ Substations including drawing out of the VCB, opening the same, Inspection, Servicing, Cleaning of Contact Surfaces, Overhauling of Operating Mechanism, Lubrication of Moving Parts, Cleaning of CTs, PTs, Busbars and Chambers, Checking of Busbars and bus links, Replacement of Gasket of Panel, Checking of Electrical and Mechanical Operation, measuring of Contact Resistance, Checking of IR values, Testing of ON OFF Time, replacement of minor defective spares supplied by AAI (excluding supply of spares), Testing and Commissioning etc., as required.				
8.02	For First Year				
8.03	ISC of VCBs [AREVA Make VCBs-76 Nos. + SCHNIDER Make-40 Nos. + MEI Make-6 Nos. + ABB Make-1 No. + CG Make-8 Nos.]	131	Nos	1,250.00	1,63,750.00

Sl. No.	Description of Item	Quantity		Rate	Amount
9.00	Overhauling and Servicing of Trip Circuit Battery Charging Unit by Deploying Authorised Service Personnel of Manufacturer/ Service Dealer/ Specialised agency experienced in similar nature of work, provided at Various Power Houses/ Substations including Inspection, Servicing, Cleaning of Charger, Checking of Charger Circuit (Control and Power Circuit) including Instruments/ Relays/ Meters/ Transformers/ Rectifiers/ Filters, attending faults, Replacement of Defective Components (Excluding Cost of Spares), Checking of Batteries, Terminals, Checking of Operation, ensuring serviceability of cubicle in all respect, replacement of minor defective spares supplied by AAI (excluding supply of spares), Testing and Commissioning etc., as required.				
9.01	For First Year	12	Nos	5,000.00	60,000.00
10.00	Inspection/Overhauling/Servicing of ACBs of L&T/ C&S/ GE/ CG/ ABB/ Merlin Gerin Make of Various Capacities provided in the various LT Panels at Various Power Houses/ SSs by Deploying Authorised Service Personnel of Manufacturer/ Service Dealer including cleaning of ACBs, opening the same, inspection, servicing, cleaning of contact surfaces, arc chutes, overhauling of operating mechanism, lubrication of moving parts, Checking of UV Coils, Trip Circuits, Checking of Control Circuits, replacement of minor defective spares supplied by AAI (excluding supply of spares), testing and commissioning etc., as required.				
10.01	For First Year	230	Nos	750.00	1,72,500.00
11.00	Calibration of Releases provided in various ACBs in various LT Panels, Testing of Tripping, Timing, etc., i/c adjustment of Settings if required at site by Secondary Injection Test as required.				
11.01	For First Year	230	Nos	500.00	1,15,000.00
Total for SH II: ISC of HT Panels and LT ACBs of Power Supply Installations.					₹ 5,11,250.00
12.00	SH III: Calibration of Relays and Testing of CTs and Meters (For First Year)				
12.01	Testing & Calibration of Relays [(Electro-Mechanical/ Static/ Digital/ Microprocessor Based Relays)-(O/C and E/F)] provided in various HV/LV Panels, Testing of Insulation Values, Pick-up Value, Timing, Burden, etc., i/c adjustment of Settings if required at site etc., as required, conforming to IS 9124 - 1979 by Secondary Injection Test as required.				
12.02	For First Year	120	Job	600.00	72,000.00
13.00	Testing & Calibration of Microprocessor Based Relays (O/C and E/F/ Transformer Differential Relay/Reverse Power Relay) provided in various EHV/HV/LV Panels, Testing of Insulation values, Pick-up Value, Timing, Burden, etc., i/c adjustment of Settings if required at site, conforming to IS 9124 - 1979 by Secondary Injection Test using Three Phase Automatic Relay Test Kits of Make ISA/GE/Doble/Megger/Omicron as required.				
13.01	For First Year	20	Job	2,000.00	40,000.00
14.00	Testing & Calibration of Auxillary Relays provided in various EHV/HV/LV Panels, Testing of Insulation values, Pick-up Value, Drop Off, Burden etc., as required, conforming to IS 9124 - 1979 by Secondary Injection Test as required.				
14.01	For First Year	160	Job	100.00	16,000.00
15.00	Testing of 11 KV CTs (3 Nos. of Current Rating each up to 400 Amps to be considered as 1 job) associated with Relays (OC/EF/Master) provided in various HV Panels, Tesing of Polarity, Ratio, Insulation values, Testing of Ammeter connected in the Panel, Marking of available CT Ratio, Checking of Trip Circuit and Breaker Operation/ Tripping etc., as required, conforming to IS 9124 - 1979 by Primary Injection Test (Testing at 50% and 100% Rating) as required.				
15.01	For First Year	114	Job	600.00	68,400.00
16.00	Testing of 11 KV CTs (3 Nos. of Current Rating of more than 400Amps and up to 1250 Amps to be considered as 1 job) associated with Relays (OC/EF/Master) provided in various HV Panels, Tesing of Polarity, Ratio, Insulation values, Testing of Ammeter connected in the Panel, Marking of available CT Ratio, Checking of Trip Circuit and Breaker Operation/ Tripping etc., as required, conforming to IS 9124 - 1979 by Primary Injection Test (Maximum upto 50% of Rating of CTs- Testing at 25% and 50% of Original Rating) as required.				
16.01	For First Year	9	Job	750.00	6,750.00
Total for SH III: Calibration of Relays and Testing of CTs and Meters					₹ 2,03,150.00

Sl. No.	Description of Item	Quantity	Rate	Amount
17.00	SH IV: Filtration of Transformer Oil and Servicing of OLTCs. (For First Year)			
17.01	Filtration of Transformer Oil of following Equipments conforming to IS 6792/72 and IS 1866 as required with up to date amendments, including transporting Filtration Plant and BDV Test Kit, Replacement of Silica Gel, Acidity Testing of Oil at Chemical Testing Lab, Submission of Reports, Checking of Cable Tightness, Gasketting of Cable End Boxes etc. as required.			
17.02	CCR HALL POWER HOUSE			
17.03	For First Year			
17.04	2.0 MVA 11KV/433V Transformer (Approx.1900 Ltrs)	2 Job	5,000.00	10,000.00
18.00	NEW POWER HOUSE			
18.01	For First Year			
18.02	1000 KVA 11KV / 433 V Transformer (Approx. 950 Ltrs)	2 Job	4,500.00	9,000.00
19.00	AAI RESIDENTIAL COLONY SUBSTATION			
19.01	For First Year			
19.02	500 KVA 11KV/433V Transformer (Approx. 670 Ltrs)	1 Job	5,000.00	5,000.00
20.00	CARGO (ICC) POWER HOUSE			
20.01	For First Year			
20.02	1.6 MVA 11KV/433V Transformer (Approx. 1095 Ltrs)	3 Job	5,000.00	15,000.00
20.03	2.5 MVA 11KV/433V Transformer (Approx. 1950 Ltrs)	1 Job	5,000.00	5,000.00
21.00	CISF BARRACKS			
21.01	For First Year			
21.02	250 KVA 11KV/433V Transformer (Approx. 330 Ltrs)	1 Job	4,500.00	4,500.00
22.00	CENTRAL SUBSTATION			
22.01	For First Year			
22.02	2.0 MVA 11KV/433V Transformer (Approx.1030 Ltrs)	4 Job	5,000.00	20,000.00
23.00	ADMIN POWER HOUSE			
23.01	For First Year			
23.02	2.5 MVA 11KV/433V Transformer (Approx. 1400 Ltrs)	2 Job	5,000.00	10,000.00
24.00	BAY 5 SUB STATION			
24.01	For First Year			
24.02	500 KVA 11KV/433V Indoor Transformers (Approx. 525 Ltrs)	2 Job	4,500.00	9,000.00
25.00	Supply of Transformer Oil conforming to IS 335/1983 for topping up of oil for Transformer during filtration of Oil.			
25.01	For First Year	5 Barrel	22,500.00	1,12,500.00
26.00	Arresting of Transformer Oil Leakage in various capacities of Transformers by changing Gasket, Oil Seal, Checking of Tightness of HV/LV Bushings, Bolts and Nuts including opening of Top Cover, dismantling of cables/busduct, Draining of Oil, lifting of core by crane if required, refilling the Oil after filtration as per Item No. 17.01 to 24.02 and closing of Top Cover etc., as required. [Cost of ITEM No: 17.01 to 24.02 (SH-IV) is not to be included in this Item]			
26.01	For First Year			
26.02	Upto 1000KVA 11KV/433V TR	3 Job	10,000.00	30,000.00
26.03	Above 1000 KVA Upto 2500 KVA 11KV/433 V Transformer	3 Job	12,000.00	36,000.00
27.00	Testing of Power Transformer of rating upto 1 MVA, 11 / 0.433 KV i/c testing of Insulation resistance, Magnetising current, winding resistance with micro-Ohm meter and Magnetic balance, etc., complete as required.			
27.01	For First Year	3 Job	4,000.00	12,000.00
28.00	Testing of Power Transformer of rating from 1MVA to 2.5 MVA, 11 / 0.433 KV i/c testing of Insulation resistance, Magnetising current, winding resistance with micro-Ohm meter and Magnetic balance etc., complete as required.			
28.01	For First Year	3 Job	2,000.00	6,000.00
29.00	Providing and Fixing Glass Cover, Rubber Beading for Marshalling Boxes of Transformers as required.			
29.01	For First Year	3 Job	2,000.00	6,000.00

Sl. No.	Description of Item	Quantity	Rate	Amount
30.00	Supply and fixing of Suitable Winding Temperature Indicator and Oil Temperature Indicator upto 1 MVA Transformer			
30.01	For First Year	2 Job	2,500.00	5,000.00
Total for SH IV: Filtration of Transformer Oil and Servicing of OLTCs.				₹ 2,95,000.00
31.00	SH -V: Rate Contract for Maintenance of Power Supply System. (For First Year)			
31.01	Part I Cabling			
31.02	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.			
31.03	Above 95 sq. mm and upto 185 sq. mm	50 Mtr	200.00	10,000.00
31.04	Above 185 sq. mm and upto 400 sq. mm	100 Mtr	200.00	20,000.00
33.00	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.			
33.01	Above 95 sq. mm and upto 185 sq. mm	50 Mtr	50.00	2,500.00
33.02	Above 185 sq. mm and upto 400 sq. mm	100 Mtr	60.00	6,000.00
34.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required.			
34.01	Above 95 sq. mm and upto 185 sq. mm	100 Mtr	40.00	4,000.00
34.02	Above 185 sq. mm and upto 400 sq. mm	200 Mtr	50.00	10,000.00
35.00	Laying and fixing of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size on wall surface as required.			
35.01	Above 95 sq. mm and upto 185 sq. mm (clamped with 25x3mm MS flat clamp)	100 Mtr	50.00	5,000.00
35.02	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	50 Mtr	60.00	3,000.00
36.00	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.			
36.01	Above 95 sq. mm and upto 185 sq. mm (clamped with 25x3mm MS flat clamp)	50 Mtr	60.00	3,000.00
36.02	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	100 Mtr	70.00	7,000.00
37.00	Supplying and making cable route marker with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	5 Nos	300.00	1,500.00
38.00	Supplying and fixing cable route marker with 10 cm X 10 cm X 5 mm thick G.I. plate with inscription there on, bolted /welded to 35 mm X 35 mm X 6 mm angle iron, 60 cm long and fixing the same in ground as required.	5 Nos	300.00	1,500.00
39.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.			
39.01	Above 120 sq. mm and upto 400 sq. mm	100 Mtr	150.00	15,000.00
40.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.			
40.01	Above 120 sq. mm and upto 400 sq. mm	100 Mtr	50.00	5,000.00
41.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.			
41.01	Above 120 sq. mm and upto 400 sq. mm	100 Mtr	50.00	5,000.00
42.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 1.1KV grade of size upto 400 Sqmm from ground including excavation and refilling the trench etc., as required.	50 Mtr	50.00	2,500.00
43.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 1.1KV grade of size upto 400 Sqmm from the existing RCC/ HUME/ STONEWARE/ METAL/ GI PIPES/ Duct/ TRAY/ TERRACE etc., as required.	100 Mtrs.	80.00	8,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
44.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 11KV grade of size upto 300 Sqmm from ground including excavation and refilling the trench etc.. as required.	50	Mtr	50.00	2,500.00
45.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 11KV grade of size upto 300 Sqmm from the existing RCC/ HUME/ STONEWARE/ METAL/ Duct/ GI Pipe etc., as required.	100	Mtrs.	50.00	5,000.00
46.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 1.1KV grade of size exceeding 120 sqmm but not exceeding upto 400 Sqmm from ground including excavation and relaying after fault rectification using same brick, fresh sand cushioning protective covering and refilling the trench etc.. as required.	50	Mtr	80.00	4,000.00
47.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 11KV grade of size exceeding 120 sqmm but not exceeding upto 300 Sqmm from ground including excavation and relaying after fault rectification using same brick, fresh sand cushioning protective covering and refilling the trench etc.. as required.	50	Mtr	80.00	4,000.00
48.00	Laying of one number PVC/XLPE insulated and PVC sheathed power cable of 1.1KV grade of size exceeding 120 sqmm but not exceeding 400 sqmm direct in ground including excavation upto 1.2 Mtr Depth, sand cushioning, protective covering and refilling the trench etc.. as required.	50	Mtr	80.00	4,000.00
49.00	Laying of one number PVC/XLPE insulated and PVC sheathed Power cable of 1.1KV grade of size exceeding 120 sqmm but not exceeding 400sqmm direct in ground including demolishing cement concrete/bituminous road, excavation of trench of upto 1.2 Mtr Depth refilling the trench making the surface to original finish with CC of 1:3:6 ratio on top (150 mm) etc. as required	50	Mtr	120.00	6,000.00
50.00	Supplying and making indoor end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/ XLPE aluminium conductor cable of 1.1 KV grade as required.				
50.01	3½ X 120 sq. mm (45mm)	2	Nos	500.00	1,000.00
50.02	3½ X 150 sq. mm (50mm)	2	Nos	500.00	1,000.00
50.03	3½ X 185 sq. mm (57mm)	4	Nos	600.00	2,400.00
50.04	3½ X 240 sq. mm (62mm)	4	Nos	700.00	2,800.00
50.05	3½ X 300 sq. mm (70mm)	4	Nos	700.00	2,800.00
50.06	3½ X 400 sq. mm (82mm)	4	Nos	700.00	2,800.00
51.00	Supplying and making straight through joint with heat shrinkable kit including ferrules and other insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
51.01	3½ X 120 Sq. mm	1	Nos	1,000.00	1,000.00
51.02	3½ X 150 Sq. mm	1	Nos	1,200.00	1,200.00
51.03	3½ X 185 Sq. mm	1	Nos	1,500.00	1,500.00
51.04	3½ X 240 Sq. mm	5	Nos	1,600.00	8,000.00
51.05	3½ X 300 Sq. mm	10	Nos	1,600.00	16,000.00
51.06	3½ X 400 Sq. mm	10	Nos	1,600.00	16,000.00
52.00	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 Core, XLPE Aluminium Conductor cable of 11 KV grade as required				
52.01	185 Sq. mm	4	Nos	2,500.00	10,000.00
52.02	300 Sq. mm	4	Nos	2,500.00	10,000.00
53.00	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 Core, XLPE Aluminium Conductor cable of 11 KV grade as required				
53.01	185 Sq. mm	10	Nos	2,500.00	25,000.00
53.02	300 Sq. mm	4	Nos	2,500.00	10,000.00
54.00	Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.				
54.01	300 mm (W) X 50 mm (D) X 2.0 mm Thickness	20	Mtr	100.00	2,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
55.00	Supplying and making end termination without brass compression gland but with aluminium lugs for following size of PVC/ XLPE insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade as required [FOR TEMPORARY BOLT NUT JOINTS OF CABLES]				
55.01	3½ x 120 Sq.mm	1	Nos	200.00	200.00
55.02	3½ x 150 Sq.mm	1	Nos	200.00	200.00
55.03	3½ x 185 Sq.mm	1	Nos	200.00	200.00
55.04	3½ x 240 Sq.mm	2	Nos	200.00	400.00
55.05	3½ x 300 Sq.mm	2	Nos	250.00	500.00
55.06	3½ x 400 Sq.mm	2	Nos	250.00	500.00
56.00	Supplying and making OF HEAT SHRINKABLE OUTER COVERING SLEEVE for following size of PVC/XLPE insulated and PVC sheathed Aluminium conductor cable of 1.1/11KV grade as required.				
56.01	Upto 3½ x 095-150 Sq.mm 1.1 KV	1	Mtr	500.00	500.00
56.02	Upto 3½ x 185-400 Sq.mm 1.1 KV	10	Mtr	500.00	5,000.00
56.03	Upto 3 x 120-185 Sq.mm 11 KV	2	Mtr	500.00	1,000.00
56.04	Upto 3 x 240-300 Sq.mm 11 KV	5	Mtr	1,000.00	5,000.00
57.00	Locating the Cable fault on LT/HT feeder cables laid directly in ground/ duct/ pipe including providing Cable Fault Tracer (Rental) etc., as required.				
57.01	LT CABLES [ONLY IN CASE OF EMERGENCY]	1	Job	15,000.00	15,000.00
57.02	HT CABLES	4	Job	15,000.00	60,000.00
58.00	Supplying and laying of 125 mm OD HDPE Pipe of PE 80 PN 6 ISI Marked along with all accessories like socket, bend etc., confirming to IS 4984 complete with fitting and cutting, jointing etc., direct in ground (0.75 mtr below the ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., as required.	50	Mtr	150.00	7,500.00
59.00	Part II Earthing				
59.01	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required	4	Set	2,500.00	10,000.00
60.00	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required	2	Set	8,500.00	17,000.00
61.00	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 Sets of brass nut bolt & spring washer spaced at 50mm)	25	Mtr	500.00	12,500.00
62.00	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 Sets of G.I. nut bolt & spring washer spaced at 50mm)	25	Mtr	50.00	1,250.00
63.00	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required	25	Mtr	700.00	17,500.00
64.00	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required	25	Mtr	500.00	12,500.00
65.00	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required	25	Mtr	600.00	15,000.00
66.00	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required	25	Mtr	150.00	3,750.00
67.00	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required	1	Nos	2,000.00	2,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
68.00	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required	25	Mtr	150.00	3,750.00
69.00	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required	25	Mtr	60.00	1,500.00
70.00	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	5	Nos	200.00	1,000.00
71.00	Providing and fixing MV danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	5	Nos	200.00	1,000.00
72.00	Part III Replacement, Testing and Commissioning of Switch Gear Works				
72.01	Supply, Replacement, Testing and Commissioning of Four Pole On Load Change Over Switch of 400 Amps rating with SS Enclosure, in the Existing Wall, including providing Handle, providing LED Display for Inputs and Output, suitable Bus Links for both at Input & Output Side, grouting, earthing etc., as required.	2	Job	35,000.00	70,000.00
73.00	Supply, Replacement, Testing and Commissioning of 400 A, 4P, 50KA, MCCB with Thermal Magnetic release protection, in the existing Panel with CT operated multifunction digital metering (EM 6459 of Conserve/ Equivalent), ON/OFF/Trip Indication Lamps and Phase Indication Lamps i/c providing Handle, providing and fixing 600 A Busbar, with all accessories, interconnection, connection, earthing, painting of door, etc. as required.	2	Job	55,000.00	1,10,000.00
74.00	Supply, Replacement, Testing and Commissioning of 250 A, 4P, 50KA MCCB with Thermal Magnetic release protection, in the existing Panel with CT operated multifunction digital metering (EM 6459 of Conserve/ Equivalent), ON/OFF/Trip Indication Lamps and Phase Indication Lamps i/c providing Handle, providing and fixing 400 A Busbar, with all accessories, interconnection, connection, earthing, painting of door, etc. as required.	1	Job	40,000.00	40,000.00
75.00	Supply, Replacement, Testing and Commissioning of 400 A 4P MCCB with thermal magnetic release in the existing Panel including providing Handle, with all accessories, interconnection, connection, earthing, painting of door, etc. as required.	1	Job	35,000.00	35,000.00
76.00	Supply, Replacement, Testing and Commissioning of 250 A 4P MCCB with thermal magnetic release in the existing Panel including providing Handle, with all accessories, with all accessories, interconnection, connection, earthing, painting of door, etc. as required.	1	Job	25,000.00	25,000.00
77.00	ITC of Meters/ Selector Switches/ CTs (3 Nos. in LT or One No in HT)/ Set of Indication Lamps (6 Nos) in the existing Panel i/c providing and fixing Control Wiring/ Interconnection/ Connection, earthing, etc. as required.	10	Jobs	500.00	5,000.00
78.00	Supply, Replacement, Testing and Commissioning of Meters of following Type in the existing location of HT/LT Panel Boards at various Power Houses and Substations including providing and fixing Control Wiring/ Interconnection/ Connection, earthing, testing, commissioning, dismantling of old meter and handing over to the Stores of AAI.				
78.01	Load Manager with Class 1.0 Accuracy	3	Nos	11,000.00	33,000.00
78.02	VAF Meter with Class 1.0 Accuracy	5	Nos	2,000.00	10,000.00
79.00	Servicing of 11KV Two Pole Structure including Checking the operation of closing & opening mechanism of Knife edge switches, Cleaning the structure, applying grease to the Moving parts, replacing the corroded Bolts & nuts with new galvanised coated bolts & nuts, cotton waste, cleaning agents, Grease, etc. complete as required.	1	Job	1,000.00	1,000.00
80.00	Supply & Fixing of 11KV Air break Switch including 3 Nos of 9KV (5KA) "LAMCO" Make Lightning Arrestor, 9 Nos of 11KV Post Insulator, 6 Nos of Aluminium Cast End connector, GI Clamps for 1" Pipe, Copper conductor connecting LA to Supply Bus, painting the complete structure with Aluminium paint, complete etc as required.	1	Job	4,000.00	4,000.00
81.00	Supply & Fixing of 12KV, 5KA, Metal Oxide gapless polymer based surge arrestor including disconnector, mounting brackets, complete etc, as required.	3	Jobs	1,000.00	3,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
82.00	Part IV Specialised Works				
82.01	HI POT Testing of HT Cable/ Transformer/ HT Panels at Site after Dis- Connection of Cable/ associated Items, reconnection after testing I/c providing Test Kit (rental) and labour/ assistants etc., as required.	6	Jobs	2,000.00	12,000.00
83.00	Rewinding of 15HP Motor including Dismantling the Motor, Taking to the Rewinder, returning back to the site after rewinding, Transportation, refixing the same, Testing & Commissioning etc., complete as required.	2	Job	2,000.00	4,000.00
84.00	Supply of nominal 2.5 mm thick (Width 1 Mtr) PVC synthetic, electric insulated mats conforming to IS 15652-2006 having Dielectric strength of 45 KV, no adverse effect of mineral oil, high insulation resistance (Minimum 1,00,000 M Ω on wet condition with 5 KV meggar) etc., as required.	10	Sq.Mtr.	200.00	2,000.00
85.00	Supply of nominal 2.0 mm thick (Width 1 Mtr) PVC synthetic, electric insulated mats conforming to IS 15652-2006 having Dielectric strength of 30 KV, no adverse effect of mineral oil, high insulation resistance (Minimum 1,00,000 M Ω on wet condition with 5 KV meggar) etc., as required.	25	Sq.Mtr.	200.00	5,000.00
86.00	Fixing of nominal 2.5 mm OR 2.0 mm (Width 1 Mtr) thick PVC synthetic, electric insulated mats conforming to IS 15652-2006 along with suitable adhesive/ chemibond, i/c providing water proofing of floor, (chipping of floor if required) sealing of all joints etc., as required.	35	Sq.Mtr.	100.00	3,500.00
87.00	Supply and Replacement of Silica Gel of Transformers at Various Power Houses and SS as required.	30	Kgs	100.00	3,000.00
87.01	Inspection/ Servicing/ Repair to Radiator of upto 500 KVA DG Set at Various Power Houses and SS comprising of following activities:				
87.02	Dismantling of fan guard, fan, radiator, including top and bottom tank, inlet and outlet pipes etc.. as required.				
87.03	General Cleaning of fan guard, fan, radiator, including top and bottom tank, inlet and outlet pipes etc.. as required.				
87.04	Chemical Cleaning of radiator, including top and bottom tank, inlet and outlet pipes and tubes etc.. as required.				
87.05	Plugging of core tubes with soldering as required.				
87.06	Refixing of radiator, including top and bottom tank, inlet and outlet pipes, fan, fan guard, providing distilled water etc.. as required.				
87.07	87 (87.01) -- (87.06)	2	Jobs	5,000.00	10,000.00
88.00	Inspection/Servicing/Repair to Radiator of upto 500 KVA DG Set at Various Power Houses and SS comprising of following activities:				
88.01	Dismantling of fan guard, fan, radiator, including top and bottom tank, inlet and outlet pipes etc.. as required.				
88.02	General Cleaning of fan guard, fan, radiator, top and bottom tank, inlet and outlet pipes including Chemical Cleaning of radiator, top and bottom tank, inlet and outlet pipes and tubes etc.. as required.				
88.03	Refixing of radiator, including top and bottom tank, inlet and outlet pipes, fan, fan guard, providing distilled water etc.. as required.				
88.04	88 (88.01) -- (88.03)	2	Jobs	5,000.00	10,000.00
89.00	Recharging of 12 V, 180 AH Battery as and when required including transportation of batteries as required.	2	Jobs	200.00	400.00
90.00	Reconditioning of one cell of 12 V, 180 AH Battery as and when required including replacement of cell plates and acid, recharging, transportation of batteries to works and Power House as required.	2	Jobs	1,000.00	2,000.00
91.00	Reconditioning of one cell of 2 V, 100 AH Battery as and when required including replacement of cell plates and acid, recharging, transportation of batteries to works and Power House as required.	2	Jobs	900.00	1,800.00
92.00	Replacement and Fixing of 4 KW Heater for Distilled Water Plant as required.	3	Jobs	1,000.00	3,000.00
93.00	Servicing of Distilled water plant including removal of scales in the Heating Chamber & Pipes, replacement float valve & Ball valve, Hose Pipes, painting, testing & commissioning etc., complete as required.	1	Job	500.00	500.00

Sl. No.	Description of Item	Quantity		Rate	Amount
94.00	Calibration of following Meters/ Instruments in Govt./ Govt. Approved/ NABL Accredited Testing Labs including Transportation of Meters/ Instruments, co-ordination, Collection and submission of Calibration Certificate, etc. as required.				
94.01	Megger				
94.02	Earth Tester				
94.03	Phase Sequence Meter				
94.04	Tong Tester				
94.05	94 [94.01 - 94.04]	1	Job	3,000.00	3,000.00
95.00	Supply of Distilled Water for Batteries as required.	250	Litr	10.00	2,500.00
96.00	Providing One No. Mobile Telephone Facility with Outgoing Call Provision unlimited calls and messages in a Month as required.				
96.01	FMC First Year	12	Monthss	200.00	2,400.00
97.00	Part V Labour Works				
97.01	Cleaning of cable trenches by lifting the cables, supporting the cables, removing waste materials I/c malba, debris etc., and transporting and dumping the same to waste dumping yard etc. as required.	100	Mtr	100.00	10,000.00
98.00	Cleaning of bus ducts I/c removing of covers, checking of bus bars, bus supports, tightening of busses and supports and re-fixing of covers, testing, commissioning etc., as required.	50	Mtr	100.00	5,000.00
99.00	Cleaning of Electrical, Mechanical and other Installations at Power Houses and Substations with necessary cleaning materials etc., as required by providing 2 Nos. of Helpers.	100	Day	1,500.00	1,50,000.00
100.00	Providing one Skilled Wireman and two Unskilled Khalasi to attend any urgent Preventive Maintenance/ Breakdown Maintenance/ Emergency Work at Electrical Installations provided in Main Power House/ Substations with necessary T&P as and when required.	6	Days	1,600.00	9,600.00
101.00	Providing Labour and Hire Charges for deploying Excavator (JCB) i/c Operator for tracing the cable faults, excavation and refilling of Cable trench after work etc., as required.	50	Hrs	500.00	25,000.00
102.00	Providing one FITTER and ONE Unskilled Khalasi to attend any urgent Preventive Maintenance/ Breakdown Maintenance/ Emergency Work at Electrical Installations provided in Main Power House/Substations with necessary T&P as and when required.	6	Days	1,000.00	6,000.00
103.00	Providing Labour and Hire Charges for deploying Gas Cutting MACHINE i/c Cutter, Gases in Cylinder etc., for cutting of Chequered Plates, MS Angles as required.	5	Hrs	500.00	2,500.00
104.00	Providing Labour and Hire Charges for deploying WELDING MACHINE i/c WELDER, Welding Rods etc., for WELDING WORKS as required.	8	Hrs	300.00	2,400.00
105.00	Providing Labour and Hire Charges for deploying Lorry/ Truck/ Tractor i/c Operator and loaders for shifting of debris/ wastes from Power Houses/ Substations etc., to waste dump yard as required.	5	Days	3,000.00	15,000.00
106.00	Hire Charges for deploying TEMPO/ SMALL TrucK i/c Operator for shifting of Diesel from Diesel Distribution Station/ Cables to Power Houses etc., as required.	10	Days	1,000.00	10,000.00
107.00	Providing labour and hire charges for deploying Crane (upto 10 Ton) i/c operator for lifting/ Shifting of Equipments/ Cable Drums, etc., as required.	40	Hrs	500.00	20,000.00
108.00	Checking of earth stations, earth strips from installation to earth station I/c measurement of earth resistance, providing funnel if required, salting and watering and marking the station, raising the level [if required] etc., as required.	50	Jobs	1,000.00	50,000.00
109.00	Part VI Civil Works				
110.00	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep) and re-filling etc as required				
110.01	100 mm dia	6	Mtr	1,000.00	6,000.00
110.02	150 mm dia	12	Mtr	1,000.00	12,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
111.00	Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required.				
111.01	300 mm dia	12	Mtr	1,000.00	12,000.00
112.00	Supplying and laying of "B" Class G.I pipe of following dia, i/c excavation of bituminous/ concrete road/ pavement, excavation of Soil to maximum depth of 0.70 Mtrs from ground refilling the Soil and with CC of ratio 1:3:6 on top for 0.15 Mtrs after laying Pipe and plastering, making good the same etc., as required.				
112.01	100 mm Dia	6	Mtr	1,000.00	6,000.00
112.02	150 mm Dia	6	Mtr	1,000.00	6,000.00
113.00	Supplying and laying of 2X300 mm dia non-pressure NP2 class (light duty) RCC pipe with collars jointed with stiff cement mortar i/c demolishing cement concrete/ bituminous road, excavation of trench of required (900 mm) width for pipe, depth upto 800 mm, providing and laying cement concrete of 1:4:8 ratio at bottom (100 mm) of pipe, refilling the trench with soil, ramming, watering, making the surface to original finish with CC of 1:3:6 ratio on top (150 mm) of CC of ratio 1:4:8 (100 mm) etc. as required.	12	Mtr	1,500.00	18,000.00
114.00	Supplying and laying of 250 mm dia non-pressure NP2 class (light duty) RCC pipe with collars jointed with stiff cement mortar i/c demolishing of cement concrete/ bituminous road, excavation of trench of required width for pipe (550 mm), depth upto 800 mm, providing and laying cement concrete of 1:4:8 ratio at bottom (100 mm) of pipe, refilling the trench with soil, ramming, watering, making the surface to original finish with CC of 1:3:6 ratio on top (150 mm) of CC of ratio 1:4:8 (100 mm) etc., as required.	12	Mtr	1,000.00	12,000.00
115.00	Constructing brick masonry manhole in cement mortar 1:4 (1 cement: 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement:4 coarse sand:8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement:3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement:4 coarse sand:4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as required. (as per standard design) Inside size (90X80 cm and 60 cm deep including C.I. cover with frame (light duty) 455X610 mm internal dimension total weight of cover and frame to be not less than 38 Kg (weight of cover 23Kg and weight of frame 15Kg) with F.P.S. bricks with class design 75	2	Jobs	3,000.00	6,000.00
116.00	Making of cable trenches of sizes 1 Mtr. (L) X 0.6 Mtr. (W) X 0.6 Mtr. (D) including demolishing of cement concrete/ flooring on existing floor, excavation of trenches of required width upto a depth of 0.8 Mtr. below the concrete area and getting out the excavated soil/sand within a lead of 50 M providing and laying in position 1:4:8 (1 cement : 4 sand : 8 graded stone graded stone 40 mm nominal size.) cement concrete at bottom [20 cm] excluding the cost of centring and shuttering, making of brick wall of thickness 9 inch as required with good quality bricks and cement mortar 1:6 (1 cement :6 coarse sand) and plastering the surface of walls of cable trenches with cement plaster 1:6 (1 cement : 6 fine sand) matching with existing trench etc., as required.	10	Mtrs.	1,500.00	15,000.00
117.00	Fabrication, Supply and Fixing of 6mm thick chequered plates including providing and fixing 40mmx40mmx6mm angle iron supports on cable trenches, 25mmx6mm MS flat around the chequered plate by welding, providing lifting hook etc., as required.	100	Kg	80.00	8,000.00
118.00	Supply, fabrication and installation of the MS channel/ angle/ flat for cable tray/ support including cutting, welding, drilling, fixing, grinding, painting etc., as required for composite M.S. works as & when required basis.	500	Kgs	90.00	45,000.00
119.00	Painting of Power Supply Installations with two coats of synthetic enamel paint of approved shade, quality and brand i/c scrapping and cleaning, providing putty wherever required, inscription etc., as required.				
119.01	Spraying	50	Sq Mtr	100.00	5,000.00
119.02	Brushing	50	Sq Mtr	100.00	5,000.00

Sl. No.	Description of Item	Quantity	Rate	Amount
120.00	Providing Civil Works as required as detailed below:			
120.01	Cement concrete in 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20mm nominal size)	2 Cum	2,000.00	4,000.00
120.02	Cement mortar in 1:6 (1 cement: 6 coarse sand)	2 Cum	1,000.00	2,000.00
120.03	Brick work with bricks of class designation 60 in foundation and plinth in 1:6 (1 cement: 6 coarse sand)	2 Cum	2,000.00	4,000.00
120.04	Cement plaster 12mm thick of mixture 1:6	10 Sq Mtr	200.00	2,000.00
120.05	Steel rod for RCC Slabs	100 Kgs	80.00	8,000.00
121.00	Part VII Supply of Cables & Insulation Tapes			
121.01	Supply of Aluminium Conductor, XLPE insulated, PVC sheathed, armoured power cable of 1.1 KV grade of following Sizes conforming to IS 7098 (Part-1) as amended upto date as required. [AS AND WHEN REQUIRED BASIS ONLY]			
121.02	3½ X 120 Sq. mm.	100 Mtr	450.00	45,000.00
121.03	3½ X 185 Sq. mm.	100 Mtr	700.00	70,000.00
121.04	3½ X 240 Sq. mm.	100 Mtr	750.00	75,000.00
122.00	Supply of compact circular stranded Al conductor provided with conductor screening of semi-conducting compound XLPE insulated provided with insulation screening over individual cores, consisting of extruded semi-conducting compound followed by lapped semi-conducting copper tapes, cores laid together with suitable filters, in the interscribes covered with inner sheath by extrusion, galvanized flat steel strip armoured and overall PVC sheathed cable, suitable for 11 KV (E) System conforming to IS 7098 (Part-II) 1985 as amended upto date and of following Size as required. [AS AND WHEN REQUIRED BASIS ONLY]			
122.01	3 X 185 Sq.mm	150 Mtr	900.00	1,35,000.00
123.00	Supply of LT Insulation PVC Tape of Size 1.8 cm x 4 Mtr, Qty. Red, Yellow, Blue and Black each 10 Nos. (Model: Steel Grip of Anchor Make)	100 Each	8.00	800.00
Total for SH -V: Rate Contract for Maintenance of Power Supply System.				₹ 16,51,150.00
124.00	SH VI: Supply of Electrical Spares.			
125.00	PART- I: Safety solvents & HT /LT Insulation tape			
126.00	Supply of Safety Solvent Co2 (Online), Model: 8060, Make: Stanvac (1 No. can = 700ML.).	10 Nos	1,500.00	15,000.00
127.00	Supply of Offline Contact Cleaner H.D.Co2, Model: 415, Make: Stanvac (1 No. can = 700ML.).	10 Nos	1,000.00	10,000.00
128.00	Supply of Electronic Component Cleaner Co2, Model: 8376, Make: Stanvac (1 No. can = 500ML.).	10 Nos	1,500.00	15,000.00
129.00	Supply of Electrical 88 Co2, Model: 8070, Make: Stanvac (1 No. can = 700ML.).	10 Nos	1,500.00	15,000.00
130.00	Supply of Crown Red Insulating Varnish, class F. Model: 6084, Make: Stanvac (1 No. can = 500ML.).	10 Nos	1,500.00	15,000.00
131.00	Supply of Corroclean (SP), Model: Z911, Make: Stanvac (1 No. can = 700ML.).	10 Nos	1,000.00	10,000.00
132.00	Supply of Battery Terminal Coating (Waxy film), Model: 6006, Make: Stanvac (1 No. can = 700ML.).	2 Nos	1,000.00	2,000.00
133.00	Supply of Plysafe Self adhesive HT Electrical insulating tape having water proof, moisture proof, corrosion and chemical resistive features of Size 25mm x 0.76 mm x 9.1M. (Make: Stanvac Plysafe #W963).	50 Nos	1,000.00	50,000.00
134.00	Supply of LED indication lamps of 22.5mm dia, 7 LED integral type of following colour suitable for operating on 220/240V AC, 50 Hz., single phase power supply as required (Make: SIEMENS/ SCHENIDER/ PRECIFINE / L&T)			
134.01	RED	30 Nos.	120.00	3,600.00
134.02	YELLOW	30 Nos.	120.00	3,600.00
134.03	BLUE	60 Nos.	220.00	13,200.00
134.04	GREEN	30 Nos.	120.00	3,600.00
134.05	AMBER	30 Nos.	120.00	3,600.00

Sl. No.	Description of Item	Quantity		Rate	Amount
135.00	Supply of LED indication lamps of 22.5mm dia, 7 LED integral type of following colour suitable for operating on 30 V, DC power supply as required (Make: SIEMENS/ SCHENIDER/ PRECIFINE / L&T).				
135.01	RED	60	Nos	120.00	7,200.00
135.02	YELLOW	30	Nos	120.00	3,600.00
135.03	AMBER	60	Nos	120.00	7,200.00
136.00	Supply of LED indication lamps of 22.5mm dia, 7 LED integral type of following colour suitable for operating on 110V AC, 50 Hz., single phase power supply as required (Make: SIEMENS/ SCHENIDER/ PRECIFINE / L&T).				
136.01	YELLOW	30	Nos	120.00	3,600.00
136.02	BLUE	30	Nos	220.00	6,600.00
136.03	GREEN	30	Nos	120.00	3,600.00
137.00	Supply of Illuminated push buttons of Normal head type with 22.5mm dia of following colour suitable for operating on 230V AC, 50Hz single phase supply with contact arrangement of (1NO+1 NC) as required (Make: KAY CEE / CONTROL & SWITCH GEARS / L&T / GE POWER / SIEMENS/ SCHENIDER).				
137.01	RED	30	Nos	300.00	9,000.00
137.02	YELLOW	30	Nos	300.00	9,000.00
137.03	BLUE	30	Nos	600.00	18,000.00
137.04	GREEN	30	Nos	300.00	9,000.00
138.00	PART- III: Selector switches & Relays				
139.00	Supply of Numerical Three Phase Overcurrent and earth fault relay with RS485 port (Make: GE/Schneider and Model: P111 of GE or equivalent).	15	Nos.	18,000.00	2,70,000.00
140.00	Supply of Numerical Three Phase Overcurrent and earth fault relay with RS485 port (Make: GE and Model: P141 of GE).	3	Nos.	25,000.00	75,000.00
141.00	Supply of O/C, E/F Relay (Make: GE / Schneider and Model: MICOM P122 or equivalent).	1	No.	45,000.00	45,000.00
142.00	Supply of Differential Relay (Make: GE and Model: MICOM P642).	1	No.	1,48,000.00	1,48,000.00
143.00	Supply of Trip Relay 86 (VAJ) (Make: GE and Model: VAJHM23ZG1268).	2	Nos.	5,000.00	10,000.00
144.00	Supply of Aux.OTI/WTI Temp (Trip 30AB), Temp (Alarm 30EF), Buch/ Prv (Trip 30CD), Buch/ Molg (Alarm 30GH) (Make: GE and Model: VAA23ZG8501FCH/ VAA23ZG2250BA).	2	Nos.	6,000.00	12,000.00
145.00	Supply of TC-1 CKT Supervison (VAX MK 11) 195 /295 (Make: GE and Model: VAX31ZG8072BCH/ VAX31ZG0250BA).	2	Nos.	5,000.00	10,000.00
146.00	Supply of Circuit Breaker Contact Aux Relay (Make: GE and Model: VAX31ZG8072BCH/ VAX31ZG0250BA, AUX. VOLTAGE: 24-50V DC).	2	No.	5,000.00	10,000.00
147.00	Supply of DC Supply Supervisor relay 80DC (Make: GE and Model: VAA21YF8019AHCH/ VAA21YF7503DA).	2	No.	5,000.00	10,000.00
148.00	Supply of Isolator Control Switch (Make: GE and Model: 4 WAY, S04N120SRPM101 Nonlock spring return).	2	Nos.	3,000.00	6,000.00
149.00	Supply of Breaker Control Switch (Make: GE and Model: 10 WAY, S10N120SRL2PM104 Nonlock spring return).	2	Nos.	5,000.00	10,000.00
150.00	Supply of Master trip relay (Make: GE and Model: VAJH13YF52A/ VAJH13YF0252ABA).	5	Nos.	3,000.00	15,000.00
151.00	Supply of Digital Multi Function Meter(Load Manager) of Class 1.0 Accuracy with RS 485 port (Make: Schneider, Model:EM 6400NG).	5	Nos.	6,000.00	30,000.00
152.00	Supply of Digital Multi Function Meter(VAF Meter) of Class 1.0 Accuracy (Make:Schneider, Model:EM 6459).	3	Nos.	3,000.00	9,000.00
153.00	Supply of Three Phase Digital Voltmeter of Class 1.0 Accuracy (Make:Schneider, Model:DM 3210).	5	Nos.	1,500.00	7,500.00
154.00	Supply of Three Phase Digital Ammeter of Class 1.0 Accuracy (Make:Schneider, Model:DM 3110).	5	Nos.	1,500.00	7,500.00
155.00	Supply of Auto manual Selector switch of 2 way, Make KAYCEE 230 V AC	10	Nos.	250.00	2,500.00
156.00	Limit Switch for Panel board of Make, Kaycee model KLS001X-OA ,10 A 230 V (1N/O,1N/C).	10	Nos.	200.00	2,000.00
157.00	Supply of Auto manual Selector switch of 3 way, Make KAYCEE 230 V AC	10	Nos.	300.00	3,000.00
158.00	Automatic Voltage Regulator 110 V ,Model EE-301 M, Make EMCO	2	Nos.	3,000.00	6,000.00

Sl. No.	Description of Item	Quantity	Rate	Amount
159.00	Supply of Tap Position indicator Make EMCO Model EE-601.	4 Nos.	300.00	1,200.00
160.00	PART- IV: 11 KV HT Panel Accessories:			
161.00	Supply of Spares for ABB make VCB - Auxiliary N/C N/O Contact, BB-1 (3 N/O +2 N/C) - ABB Vmax	4 Nos.	8,000.00	32,000.00
162.00	Supply of Spares for ABB make VCB - Auxiliary N/C N/O Contact, BB-2 (3 N/C +2 N/O) - ABB Vmax	4 Nos.	8,000.00	32,000.00
163.00	Supply of Spares for ABB make VCB - Rack in Rack out Mechanism - ABB Vmax	2 Nos.	32,000.00	64,000.00
164.00	Supply of Spares for ABB make VCB - Close / Open Operating Mechanism (EL3) - ABB Vmax	2 Nos.	55,000.00	1,10,000.00
165.00	Supply of Spares for ABB make VCB - Vacuum Bottole (Interrupter) - ABB Vmax	3 Nos.	35,000.00	1,05,000.00
166.00	Supply of Spares for ABB make VCB - Closing coil - 30 Volt DC - ABB Vmax	5 Nos.	8,000.00	40,000.00
167.00	Supply of Spares for ABB make VCB - Opening coil - 30 Volt DC - ABB Vmax	5 Nos.	6,000.00	30,000.00
168.00	Supply of Spares for ABB make VCB - Spring Charge Motor - 230 Volt AC - ABB Vmax	3 Nos.	11,000.00	33,000.00
169.00	Supply of Spares for Areva make Spring charge motor (Areva VCB) Model SG307-220, Rating 1.6A/ 150W/ 100RPM/ 220V AC	10 Nos.	28,000.00	2,80,000.00
170.00	Supply of Spares for Areva make VCB - Rack in mechanism (Areva VCB) Model HWX, 630 A	5 Nos.	42,000.00	2,10,000.00
171.00	Supply of opening buffer suitable for 11KV VCB (M/s. Areva/ Alstom/ Schneider) of HWX Type.	60 Nos.	700.00	42,000.00
172.00	Supply of closing buffer suitable for 11KV VCB (M/s. Areva/ Alstom/ Schneider) of HWX Type.	100 Nos.	1,200.00	1,20,000.00
173.00	Supply of Spares for Areva make VCB - Bridge Retifier Model MD5BU1010, Semikown.	2 Nos.	3,000.00	6,000.00
174.00	Supply of Spares for Areva make VCB Vacuum Bottole (Interrupter) - Model: VG2 BW524/99/Ro.	3 Nos.	35,000.00	1,05,000.00
175.00	Supply of Spares for Schneider make VCB Vacuum Bottole (Interrupter) - Model:VG2EN BW524/99/Ro.	3 Nos.	35,000.00	1,05,000.00
176.00	Supply of Opening coil (30V DC) suitable for 11KV VCB (Areva/ Schneider) of HWX Type.	10 Nos.	4,000.00	40,000.00
177.00	Supply of closing coil (30V DC) suitable for 11KV VCB (Areva/ Schneider) of HWX Type.	10 Nos.	7,000.00	70,000.00
178.00	Supply of Auxillary Contactor Relay (Make: Siemens, 110 V DC, 10A, :Model: 3TH3040-0BF4, 2NO+2NC)	3 Nos.	2,000.00	6,000.00
179.00	Supply of Auxillary Contactor Relay (Make: Siemens, 30 V DC, 10A, :Model: 3TH3040, 2NO+2NC)	3 Nos.	2,000.00	6,000.00
180.00	PART- V: AMF & Switch Gear Accessories			
181.00	Supply of Auxillary Contactor (Make: ABB, 690V AC, 16A, Model: N22E, 2NO+2NC), Control voltage 230V AC/24V DC.	20 Nos.	1,000.00	20,000.00
182.00	Supply of Auxillary Contactor (Make: ABB, 690V AC, 16A, Model: N31E, 3NO+1NC) With Add on block (Make: ABB, 690V AC, 16A, Model:CA5-22E, 2NO+2NC)	10 Nos.	1,000.00	10,000.00
183.00	Supply of 25 mm size Panel Board Door Lock of pin insert type.	100 Nos.	15.00	1,500.00
184.00	Supply of Spares for ABB make ACB Mechanism, Model Emax E1.	2 Nos.	15,000.00	30,000.00
185.00	Supply of Spares for ABB make ACB Mechanism, Model Emax E3.	1 Nos.	15,000.00	15,000.00
186.00	Supply of Spares for ABB make ACB Closing coil - 24 Volt DC	5 Nos.	5,000.00	25,000.00
187.00	Supply of Spares for ABB make ACB Opening coil - 24 Volt DC	5 Nos.	5,000.00	25,000.00
188.00	Supply of Spares for ABB make ACB Closing coil - 230 Volt AC	5 Nos.	5,000.00	25,000.00
189.00	Supply of Spares for ABB make ACB Opening coil - 230 Volt AC	5 Nos.	5,000.00	25,000.00

Sl. No.	Description of Item	Quantity	Rate	Amount
190.00	Supply of Spares for ABB make ACB Spring Charge Motor - 230 Volt AC	2 Nos	15,000.00	30,000.00
191.00	Supply of Cooling Fan of size: 4" for LT Panels - (Rating: 240V & 0.125A), Make: Hi Cool.	50 Nos	250.00	12,500.00
192.00	Supply of SMPS, Model S-250-24, Rating I/P:115-230V O/P:24V/10A with 1KVA UPS Microteck Technology make ABB for ACB Panel	6 Nos	3,000.00	18,000.00
193.00	Supply of Spares for ABB make Power Contactor 4P, 63 A 440 V AC -AF80-40-00	2 Nos	15,000.00	30,000.00
194.00	SH VI: Supply of Electrical ACB Spares.			
195.00	GE Make 'M' Pact ACB			
196.00	MWS Mechanism (2000A 4 Pole)	1 No.	15,000.00	15,000.00
197.00	MWS Front Plate	1 No.	500.00	500.00
198.00	MWS Rear Plate	1 No.	500.00	500.00
199.00	MWS Pull Rod Lever	1 No.	1,000.00	1,000.00
200.00	Spring limit Switch	1 No.	2,000.00	2,000.00
201.00	Spring Release lever	1 No.	3,000.00	3,000.00
202.00	Cam shaft Assembly	1 No.	3,500.00	3,500.00
203.00	220V AC U/V Coil	2 Nos.	2,500.00	5,000.00
204.00	GE Make Spectronic ACB			
205.00	1000A, 3P Front Box Ass	3 Nos.	2,000.00	6,000.00
206.00	1000A, 3P Front Facia	3 Nos.	2,200.00	6,600.00
207.00	Spring Charging Lever	2 Nos.	1,000.00	2,000.00
208.00	Spring Charging Handle	2 Nos.	1,000.00	2,000.00
209.00	PART- VII: Miscellaneous			
210.00	Amber Hydro meter (Battery Spcific gravity checking)	6 Nos	200.00	1,200.00
211.00	Supply of Hooter 230V AC	5 Nos	900.00	4,500.00
212.00	Supply of Battery Charger for HT Panel 30 V Tripping Unit, Three Stage : Float , Boost with Voltage Variack - (Rating: 240 V AC/30 V DC & 30 A)	1 Nos	15,000.00	15,000.00
213.00	Generator Control Unit, Make Woodward, Model Easygen -2500	1 Nos	1,20,000.00	1,20,000.00
214.00	Generator Production Relay, Make Schneider, Model -P127	1 Nos	90,000.00	90,000.00
215.00	1500VA UPS Make -APC model -Pro 1500	1 Nos	20,000.00	20,000.00
216.00	400A MCCB Motorized Drive, Make-ABB, Model -SACE Tmax, 220V AC	1 Nos	20,000.00	20,000.00
217.00	Supply of detuned 7% Copper Reactor, 440V, 50Hz of capacity 50KVAR, L& T make, Model No.: LTFR0750B2.	3 Nos	32,000.00	96,000.00
218.00	Supply of detuned 7% Copper Reactor, 440V, 50Hz of capacity 25KVAR, L& T make, Model No.: LTFR0725B2.	3 Nos	25,000.00	75,000.00
219.00	Supply of Super heavy duty Capacitor for Detuned APFC appliocation of capacity 33.3KVAR at Volatage rating 525V, Make: L&T, Model: LTCCR333M2	5 Nos	15,000.00	75,000.00
220.00	Supply of Super heavy duty Capacitor for Detuned APFC appliocation of capacity 25KVAR at Volatage rating 525V, Make: L&T, Model: LTCCR325M2	5 Nos	10,000.00	50,000.00
221.00	Supply of Capacitor duty Contactor of Make: L&T, Type: MO C20, Model No.: CS90021.	6 Nos	4,000.00	24,000.00
222.00	Supply of Capacitor duty Contactor of Make: L&T, Type: MO C25, Model No.: CS96322.	6 Nos	4,000.00	24,000.00
223.00	Supply of Capacitor duty Contactor of Make: L&T, Type: MO C30, Model No.: CS96148.	6 Nos	6,000.00	36,000.00
224.00	Supply of Capacitor duty Contactor of Make: L&T, Type: MO C60, Model No.: CS96149.	6 Nos	10,000.00	60,000.00
225.00	Supply of Winding Temperature Indicator with 2 contacts, 5Mtr. Capillary length, range 0-150 Degrees C, PT Sensor Diameter - 12MM and WTI Pocket diameter in transformer is 13MM and inner length is 195MM. Make: Precimeasure, Model: 1007 or equivalent.	1 Nos	20,000.00	20,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
226.00	PART- VIII: Supply of following HRC Fuses in different Make				
227.00	Clip on Fuse Links with Staggered Tags of NS Type of GE/Equivalent Make to suit the existing Fuse holder.				
227.01	06 AMPS	20	Nos	80.00	1,600.00
227.02	10 AMPS	20	Nos	80.00	1,600.00
227.03	16 AMPS	10	Nos	80.00	800.00
228.00	Cylindrical Fuse Link - Type HF of L&T Make				
228.01	6 AMPS	20	Nos	80.00	1,600.00
228.02	10 AMPS	20	Nos	80.00	1,600.00
229.00	PT HT FUSE Bussman 12KV				
229.01	3.15 AMPS	10	Nos	3,000.00	30,000.00
	Total for SH VI: Supply of Electrical Spares.				₹ 34,44,100.00
	Total for SH I: Monitoring and Maintenance of Power Supply Installations				₹ 2,85,57,612.00
	Total for SH II: ISC of HT Panels and LT ACBs of Power Supply Installations.				₹ 5,11,250.00
	Total for SH III: Calibration of Relays and Testing of CTs and Meters				₹ 2,03,150.00
	Total for SH IV: Filtration of Transformer Oil and Servicing of OLTCs.				₹ 2,95,000.00
	Total for SH -V: Rate Contract for Maintenance of Power Supply System.				₹ 16,51,150.00
	Total for SH VI: Supply of Electrical Spares.				₹ 34,44,100.00
	Total for First Year (SH-I +SH-II +SH-III +SH-IV +SH-V +SH-VI)				₹ 3,46,62,262.00

(Rupees Three Crores Forty Six Lakhs Sixty Two Thousand Two Hundred and Sixty Two Only)

Note: Applicable GST shall be paid on submission of taxable invoice.


 (G.N.D.KENNEDY)
 Jt.General Manager (E-E) -I



AIRPORTS AUTHORITY OF INDIA
CHENNAI INTERNATIONAL AIRPORT
CHENNAI 600 016

SCHEDULE OF QUANTITIES

**Second
Year**

NAME OF WORK: M/R to Power Supply and Standby DG Sets at Chennai International Airport.

SH : Facility Management Contract [FMC] of Power Supply Installations (From 01.06.2024 to 31.05.2025).

Sl. No.	Description of Item	Quantity	Rate	Amount
230.00	Phase-II : 2nd Year (12 Months)			
231.00	SH I: Monitoring and Maintenance of Power Supply Installations. (For Second Year)			
232.00	Monitoring and Maintenance of Utility Services at Central Sub-Station [PS] and Maintenance of All area by deploying manpower in General shift, Central Sub-Station comprising of 11 KV VCB Panels (19 Nos. of Integrated Terminal Building Panels, 10 Nos. of AC Chiller Panels and 8 Nos. of AC Panels), Battery charger, 15 Nos, 2V batteries, 4 Nos. of 2 MVA 11 KV/433 V, Oil Type Transformers, ATS Panels (14 Nos. of 11 KV HT ATS and 4 Nos. of 3000 Amps LT ATS), Capacitor Banks (2 Nos. of 3000 KVAR 11 KV Detuned APFC Panels, 01 No 250 KVAR Detuned APFC panel, 03 No's 150 KVAR Detuned APFC Panels), 4 Nos of 150A Active Harmonic Filters, 3200 Amps LT Panel, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Manpower in Three Shift Basis - 8 Hours For One Shift +General shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with 110 KV Intake Sub-Station and other Sub-Stations and Power Houses, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation, Providing Supervisory Engineering Services and Services for Computer Skilled Document Assistance (for complete FMC) etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Services Tax, EPF, ESI/Mediclaim policy premium and Bonus)			
232.01	For Second Year	12 Months	5,42,064.00	65,04,768.00
233.00	Monitoring and Maintenance of Utility Services at Central Sub-Station [DG SETS] comprising of 08 Nos. of 1500 KVA 11 KV HT DG Sets, 4 Nos. of 1500 KVA LT DG Sets, Battery charger, 15 Nos, 2V batteries, 27 Nos. 11 KV VCB Panels, Synchronization Panels for HT/LT DG Sets, LT Distribution Panel, DG Ventilation Panels and Ventilation System, DG Cooling System Panel (DG Auxiliary Panel 7.1) and 5 Nos. of 500 TR Paharpur Cooling Towers, 16 Nos of 15 HP Water pumps, DG Fuel System Panel (DG Auxiliary Panel 9.1) and Fuel Pumps, and all associated Sub-Systems -- Fuel Lines, Fuel Tanks (UG 30KL Fuel Tank and 13 Nos. Day Tanks), Water Lines, Valves, Pressure Gauges, Temperature Gauges, Exhaust Line, Aviation Obstruction Lights, Lightning Arrestors, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Central Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Services Tax, EPF, ESI/Mediclaim policy premium and Bonus)			
233.01	For Second Year	12 Months	3,69,939.00	44,39,268.00

Sl. No.	Description of Item	Quantity		Rate	Amount
234.00	Monitoring and Maintenance of Utility Services at Domestic Basement Sub-Stations [SS] (Both East and West Side SS) comprising of 11 KV VCB Panels (12 Nos. Each at East and 10 Nos. Each West Side), Battery charger, 15 Nos, 2V batteries, 2MVA 11 KV/433 V Dry Type Transformers (3 Nos. at East and 4 No. at West Side SS), LT Panels, detuned APFC Panels (2 Nos. 250KVAR & 2 Nos. 150 KVAR at west side, 2 Nos. 150 KVAR & 1 No. 250KVAR at East Side), 6 Nos. of 300A active harmonic filters, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Central Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Service Tax, EPF, ESI/Medicaid policy premium and Bonus)				
234.01	For Second Year	12	Months	3,60,276.00	43,23,312.00
235.00	Monitoring and Maintenance of Utility Services at International Basement Sub-Stations [SS] (Both East and West Side SS) comprising of 11 KV VCB Panels (10 Nos. Each at East and West Side), Battery charger, 15 Nos, 2V batteries, 2MVA 11 KV/433 V Dry Type Transformers (4 Nos. at East and 3 Nos. at West Side SS), LT Panels, 6 Nos. of 300A active harmonic filters, detuned APFC Panels (2 Nos. 250KVAR & 2 Nos. 150 KVAR at East side, 2 Nos. 150 KVAR & 1 No. 250KVAR at West Side), associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Central Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Service Tax, EPF, ESI/Medicaid policy premium and Bonus)				
235.01	For Second Year	12	Months	3,60,276.00	43,23,312.00
236.00	Monitoring and Maintenance of Utility Services at Admin Power House Cum Sub-Station comprising of 10 Nos. of 11 KV VCB Panels, Battery charger, 15 Nos, 2V batteries, 2 Nos. of 2500 KVA 11 KV/433 V Oil Type Transformers, 2Nos. 500 KVA DG Sets with AMF Panels, LT Panels (Both Essential and Non-Essential), LT Detuned APFC Panels, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Cargo Power House, Intake SS, New Power House and Solar Power House, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices and as per TCS, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Service Tax, EPF, ESI/Medicaid policy premium and Bonus)				
236.01	For Second Year	12	Months	2,37,760.00	28,53,120.00

Sl. No.	Description of Item	Quantity		Rate	Amount
237.00	Monitoring and Maintenance of Utility Services at Remote Bays Power House Cum Sub-Station comprising of 7 Nos. of 11 KV VCB Panels, Battery charger, 15 Nos. 2V batteries, 2 Nos. of 500 KVA, 11 KV/433 V Oil Type Transformers, 2 Nos. of 320 KVA DG Sets with AMF Panels, LT Panels, LT Capacitor Banks, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Cargo Power House and MSSR Power House Cum Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ Monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Service Tax, EPF, ESI/Medicaid policy premium and Bonus)				
237.01	For Second Year	12	Months	2,37,760.00	28,53,120.00
238.00	Monitoring and Maintenance of Utility Services at New Power House Cum Sub-Station comprising of 8 Nos. of 11 KV VCB Panels, 2 Nos. of 1000 KVA, 11 KV/433 V Oil Type Transformers, 2 Nos. of 320 KVA DG Sets with AMF Panels, LT Panels, LT Detuned Capacitor Banks, associated Earthing System etc., (As per Annexure 'II' - List of Inventories) for round the Clock 24X7 Basis (Three Shift Basis - 8 Hours For One Shift+General shift as per Annexure-'III'), Monitoring, Control and Maintenance for 100% Serviceability including Co-ordination with Cargo Power House, Intake SS and MSSR Power House Cum Sub-Station, attending minor faults/ repairs/ replacement of defective components with AAI Supplied New Components, ensuring 100% Serviceability/ satisfactory working condition of the systems, routine and general preventive maintenance on daily/ weekly/ monthly/ quarterly/ half yearly/ yearly basis as per standard manufacturers' practices and as per TCS, maintenance of records and log books and reporting as and when required, complete General Housekeeping and Upkeeping of the Installations and Substation etc., on all days including Sundays & Holidays as specified and as directed by Engineer-In-Charge as required. (Note: The quoted rate shall be exclusive of Goods and Services Tax, EPF, ESI/Medicaid Policy premium and Bonus)				
238.01	For Second Year	12	Months	2,71,726.00	32,60,712.00
Total for SH I: Monitoring and Maintenance of Power Supply Installations.					₹ 2,85,57,612.00
239.00	SH II: ISC of HT Panels and LT ACBs of Power Supply Installations. (For Second Year)				
240.00	Overhauling and Servicing of (400 - 1250) Amp 11 KV HT VCBs by Deploying Authorised Service Personnel of Manufacturer/ Service Dealer, provided at Various Power Houses/ Substations including drawing out of the VCB, opening the same, Inspection, Servicing, Cleaning of Contact Surfaces, Overhauling of Operating Mechanism, Lubrication of Moving Parts, Cleaning of CTs, PTs, Busbars and Chambers, Checking of Busbars and bus links, Replacement of Gasket of Panel, Checking of Electrical and Mechanical Operation, measuring of Contact Resistance, Checking of IR values, Testing of ON OFF Time, replacement of minor defective spares supplied by AAI (excluding supply of spares), Testing and Commissioning etc., as required.				
240.01	For Second Year				
240.02	ISC of VCBs [AREVA Make VCBs-100 Nos. + SCHNIDER Make-45 Nos. + MEI Make-6 Nos. + ABB Make-6 Nos. + CG Make-8 Nos.]	160	Nos	1,250.00	2,00,000.00
241.00	Overhauling and Servicing of Trip Circuit Battery Charging Unit by Deploying Authorised Service Personnel of Manufacturer/ Service Dealer/ Specialised agency experienced in similar nature of work, provided at Various Power Houses/ Substations including Inspection, Servicing, Cleaning of Charger, Checking of Charger Circuit (Control and Power Circuit) including Instruments/ Relays/ Meters/ Transformers/ Rectifiers/ Filters, attending faults, Replacement of Defective Components (Excluding Cost of Spares), Checking of Batteries, Terminals, Checking of Operation, ensuring serviceability of cubicle in all respect, replacement of minor defective spares supplied by AAI (excluding supply of spares), Testing and Commissioning etc., as required.				
241.01	For Second Year	12	Nos	5,000.00	60,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
242.00	Inspection/Overhauling/Servicing of ACBs of L&T/ C&S/ GE/ CG/ ABB/ Merlin Gerin Make of Various Capacities provided in the various LT Panels at Various Power Houses/ SSs by Deploying Authorised Service Personnel of Manufacturer/ Service Dealer including cleaning of ACBs, opening the same, inspection, servicing, cleaning of contact surfaces, arc chutes, overhauling of operating mechanism, lubrication of moving parts, Checking of UV Coils, Trip Circuits, Checking of Control Circuits, replacement of minor defective spares supplied by AAI (excluding supply of spares), testing and commissioning etc., as required.				
242.01	For Second Year	250	Nos	750.00	1,87,500.00
243.00	Calibration of Releases provided in various ACBs in various LT Panels, Testing of Tripping, Timing, etc., i/c adjustment of Settings if required at site by Secondary Injection Test as required.				
243.01	For Second Year	250	Nos	500.00	1,25,000.00
Total for SH II: ISC of HT Panels and LT ACBs of Power Supply Installations.					₹ 5,72,500.00
244.00	SH III: Calibration of Relays and Testing of CTs and Meters (For Second Year)				
245.00	Testing & Calibration of Relays [(Electro-Mechanical/ Static/ Digital/ Microprocessor Based Relays)-(O/C and E/F)] provided in various HV/LV Panels, Testing of Insulation Values, Pick-up Value, Timing, Burden, etc., i/c adjustment of Settings if required at site etc., as required, conforming to IS 9124 - 1979 by Secondary Injection Test as required.				
245.01	For Second Year	120	Job	600.00	72,000.00
246.00	Testing & Calibration of Microprocessor Based Relays (O/C and E/F/ Transformer Differential Relay/Reverse Power Relay) provided in various EHV/HV/LV Panels, Testing of Insulation values, Pick-up Value, Timing, Burden, etc., i/c adjustment of Settings if required at site, conforming to IS 9124 - 1979 by Secondary Injection Test using Three Phase Automatic Relay Test Kits of Make ISA/GE/Doble/Megger/Omicron as required.				
246.01	For Second Year	20	Job	2,000.00	40,000.00
247.00	Testing & Calibration of Auxillary Relays provided in various EHV/HV/LV Panels, Testing of Insulation values, Pick-up Value, Drop Off, Burden etc., as required, conforming to IS 9124 - 1979 by Secondary Injection Test as required.				
247.01	For Second Year	160	Job	100.00	16,000.00
248.00	Testing of 11 KV CTs (3 Nos. of Current Rating each up to 400 Amps to be considered as 1 job) associated with Relays (OC/EF/Master) provided in various HV Panels, Tesing of Polarity, Ratio, Insulation values, Testing of Ammeter connected in the Panel, Marking of available CT Ratio, Checking of Trip Circuit and Breaker Operation/ Tripping etc., as required, conforming to IS 9124 - 1979 by Primary Injection Test (Testing at 50% and 100% Rating) as required.				
248.01	For Second Year	114	Job	600.00	68,400.00
249.00	Testing of 11 KV CTs (3 Nos. of Current Rating of more than 400Amps and up to 1250 Amps to be considered as 1 job) associated with Relays (OC/EF/Master) provided in various HV Panels, Tesing of Polarity, Ratio, Insulation values, Testing of Ammeter connected in the Panel, Marking of available CT Ratio, Checking of Trip Circuit and Breaker Operation/Tripping etc., as required, conforming to IS 9124 - 1979 by Primary Injection Test (Maximum upto 50% of Rating of CTs- Testing at 25% and 50% of Original Rating) as required.				
249.01	For Second Year	9	Job	750.00	6,750.00
Total for SH III: Calibration of Relays and Testing of CTs and Meters					₹ 2,03,150.00
250.00	SH IV: Filtration of Transformer Oil and Servicing of OLTCs. (For Second Year)				
251.00	Filtration of Transformer Oil of following Equipments conforming to IS 6792/72 and IS 1866 as required with up to date amendments, including transporting Filtration Plant and BDV Test Kit, Replacement of Silica Gel, Acidity Testing of Oil at Chemical Testing Lab, Submission of Reports, Checking of Cable Tightness, Gasketting of Cable End Boxes etc. as required.				
252.00	CCR HALL POWER HOUSE				
252.01	For Second Year				
252.02	2.0 MVA 11KV/433V Transformer (Approx.1900 Ltrs)	2	Job	5,000.00	10,000.00

Sl. No.	Description of Item	Quantity	Rate	Amount
253.00	NEW POWER HOUSE			
253.01	For Second Year			
253.02	1000 KVA 11KV / 433 V Transformer (Approx. 950 Ltrs)	2 Job	4,500.00	9,000.00
254.00	AAI RESIDENTIAL COLONY SUBSTATION			
254.01	For Second Year			
254.02	500 KVA 11KV/433V Transformer (Approx. 670 Ltrs)	1 Job	5,000.00	5,000.00
255.00	CARGO (ICC) POWER HOUSE			
255.01	For Second Year			
255.02	1.6 MVA 11KV/433V Transformer (Approx. 1095 Ltrs)	3 Job	5,000.00	15,000.00
255.03	2.5 MVA 11KV/433V Transformer (Approx. 1950 Ltrs)	1 Job	5,000.00	5,000.00
256.00	CISF BARRACKS			
256.01	For Second Year			
256.02	250 KVA 11KV/433V Transformer (Approx. 330 Ltrs)	1 Job	4,500.00	4,500.00
257.00	CENTRAL SUBSTATION			
257.01	For Second Year			
257.02	2.0 MVA 11KV/433V Transformer (Approx.1030 Ltrs)	4 Job	5,000.00	20,000.00
258.00	ADMIN POWER HOUSE			
258.01	For Second Year			
258.02	2.5 MVA 11KV/433V Transformer (Approx. 1400 Ltrs)	2 Job	5,000.00	10,000.00
259.00	BAY 5 SUB STATION			
259.01	For Second Year			
259.02	500 KVA 11KV/433V Indoor Transformers (Approx. 525 Ltrs)	2 Job	4,500.00	9,000.00
260.00	Supply of Transformer Oil conforming to IS 335/1983 for topping up of oil for Transformer during filtration of Oil.			
260.01	For Second Year	5 Barrel	22,500.00	1,12,500.00
261.00	Arresting of Transformer Oil Leakage in various capacities of Transformers by changing Gasket, Oil Seal, Checking of Tightness of HV/LV Bushings, Bolts and Nuts including opening of Top Cover, dismantling of cables/busduct, Draining of Oil, lifting of core by crane if required, refilling the Oil after filtration as per Item No.251.00 to 259.02 and closing of Top Cover etc., as required. [Cost of ITEM No: 251.00 to 259.02(SH-IV) is not to be included in this Item]			
261.01	For Second Year			
261.02	Upto 1000KVA 11KV/433V TR	3 Job	10,000.00	30,000.00
261.03	Above 1000 KVA Upto 2500 KVA 11KV/433 V Transformer	3 Job	12,000.00	36,000.00
262.00	Testing of Power Transformer of rating upto 1 MVA, 11 / 0.433 KV i/c testing of Insulation resistance, Magnetising current, winding resistance with micro-Ohm meter and Magnetic balance, etc., complete as required.			
262.01	For Second Year	3 Job	4,000.00	12,000.00
263.00	Testing of Power Transformer of rating from 1MVA to 2.5 MVA, 11 / 0.433 KV i/c testing of Insulation resistance, Magnetising current, winding resistance with micro-Ohm meter and Magnetic balance etc., complete as required.			
263.01	For Second Year	3 Job	2,000.00	6,000.00
264.00	Providing and Fixing Glass Cover, Rubber Beading for Marshelling Boxes of Transformers as required.			
264.01	For Second Year	3 Job	2,000.00	6,000.00
265.00	Supply and fixing of Suitable Winding Temperature Indicator and Oil Temperature Indicator upto 1 MVA Transformer			
265.01	For Second Year	2 Job	2,500.00	5,000.00
	Total for SH IV: Filtration of Transformer Oil and Servicing of OLTCS.			₹ 2,95,000.00
266.00	SH - V: Rate Contract for Maintenance of Power Supply System. (For Second Year)			
267.00	Part I Cabling			
267.01	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.			
267.02	Above 95 sq. mm and upto 185 sq. mm	50 Mtr	200.00	10,000.00
267.03	Above 185 sq. mm and upto 400 sq. mm	100 Mtr	200.00	20,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
268.00	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
268.01	Above 95 sq. mm and upto 185 sq. mm	50	Mtr	50.00	2,500.00
268.02	Above 185 sq. mm and upto 400 sq. mm	100	Mtr	60.00	6,000.00
269.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing masonry open duct as required.				
269.01	Above 95 sq. mm and upto 185 sq. mm	100	Mtr	40.00	4,000.00
269.02	Above 185 sq. mm and upto 400 sq. mm	200	Mtr	50.00	10,000.00
270.00	Laying and fixing of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
270.01	Above 95 sq. mm and upto 185 sq. mm (clamped with 25x3mm MS flat clamp)	100	Mtr	50.00	5,000.00
270.02	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	50	Mtr	60.00	3,000.00
271.00	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on cable tray as required.				
271.01	Above 95 sq. mm and upto 185 sq. mm (clamped with 25x3mm MS flat clamp)	50	Mtr	60.00	3,000.00
271.02	Above 185 sq. mm and upto 400 sq. mm (clamped with 40x3mm MS flat clamp)	100	Mtr	70.00	7,000.00
272.00	Supplying and making cable route marker with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	5	Nos	300.00	1,500.00
279.00	Supplying and fixing cable route marker with 10 cm X 10 cm X 5 mm thick G.I. plate with inscription there on, bolted /welded to 35 mm X 35 mm X 6 mm angle iron, 60 cm long and fixing the same in ground as required.	5	Nos	300.00	1,500.00
280.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
280.01	Above 120 sq. mm and upto 400 sq. mm	100	Mtr	150.00	15,000.00
281.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
281.01	Above 120 sq. mm and upto 400 sq. mm	100	Mtr	50.00	5,000.00
282.00	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size in the existing masonry open duct as required.				
282.01	Above 120 sq. mm and upto 400 sq. mm	100	Mtr	50.00	5,000.00
283.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 1.1KV grade of size upto 400 Sqmm from ground including excavation and refilling the trench etc.. as required.	50	Mtr	50.00	2,500.00
284.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 1.1KV grade of size upto 400 Sqmm from the existing RCC/ HUME/ STONEWARE/ METAL/ GI PIPES/ Duct/ TRAY/ TERRACE etc., as required.	100	Mtrs.	80.00	8,000.00
285.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 11KV grade of size upto 300 Sqmm from ground including excavation and refilling the trench etc.. as required.	50	Mtr	50.00	2,500.00
286.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 11KV grade of size upto 300 Sqmm from the existing RCC/ HUME/ STONEWARE/ METAL/ Duct/ GI Pipe etc., as required.	100	Mtrs.	50.00	5,000.00
287.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 1.1KV grade of size exceeding 120 sqmm but not exceeding upto 400 Sqmm from ground including excavation and relaying after fault rectification using same brick, fresh sand cushioning protective covering and refilling the trench etc.. as required.	50	Mtr	80.00	4,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
288.00	Retrieval of one number PVC/XLPE insulated and PVC sheathed power cable of 11KV grade of size exceeding 120 sqmm but not exceeding upto 300 Sqmm from ground including excavation and relaying after fault rectification using same brick, fresh sand cushioning protective covering and refilling the trench etc.. as required.	50	Mtr	80.00	4,000.00
289.00	Laying of one number PVC/XLPE insulated and PVC sheathed power cable of 1.1KV grade of size exceeding 120 sqmm but not exceeding 400 sqmm direct in ground including excavation upto 1.2 Mtr Depth, sand cushioning, protective covering and refilling the trench etc.. as required.	50	Mtr	80.00	4,000.00
290.00	Laying of one number PVC/XLPE insulated and PVC sheathed Power cable of 1.1KV grade of size exceeding 120 sqmm but not exceeding 400sqmm direct in ground including demolishing cement concrete/bituminous road, excavation of trench of upto 1.2 Mtr Depth refilling the trench making the surface to original finish with CC of 1:3:6 ratio on top (150 mm) etc. as required	50	Mtr	120.00	6,000.00
291.00	Supplying and making indoor end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed/ XLPE aluminium conductor cable of 1.1 KV grade as required.				
291.01	3½ X 120 sq. mm (45mm)	2	Nos	500.00	1,000.00
291.02	3½ X 150 sq. mm (50mm)	2	Nos	500.00	1,000.00
291.03	3½ X 185 sq. mm (57mm)	4	Nos	600.00	2,400.00
291.04	3½ X 240 sq. mm (62mm)	4	Nos	700.00	2,800.00
291.05	3½ X 300 sq. mm (70mm)	4	Nos	700.00	2,800.00
291.06	3½ X 400 sq. mm (82mm)	4	Nos	700.00	2,800.00
292.00	Supplying and making straight through joint with heat shrinkable kit including ferrules and other insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
292.01	3½ X 120 Sq. mm	1	Nos	1,000.00	1,000.00
292.02	3½ X 150 Sq. mm	1	Nos	1,200.00	1,200.00
292.03	3½ X 185 Sq. mm	1	Nos	1,500.00	1,500.00
292.04	3½ X 240 Sq. mm	5	Nos	1,600.00	8,000.00
292.05	3½ X 300 Sq. mm	10	Nos	1,600.00	16,000.00
292.06	3½ X 400 Sq. mm	10	Nos	1,600.00	16,000.00
293.00	Supplying and making indoor cable end termination with heat shrinkable jointing kit complete with all accessories including lugs suitable for following size of 3 Core, XLPE Aluminium Conductor cable of 11 KV grade as required				
293.01	185 Sq. mm	4	Nos	2,500.00	10,000.00
293.02	300 Sq. mm	4	Nos	2,500.00	10,000.00
294.00	Supplying and making straight through cable jointing with heat shrinkable jointing kit complete with all accessories including ferrules suitable for following size of 3 Core, XLPE Aluminium Conductor cable of 11 KV grade as required				
294.01	185 Sq. mm	10	Nos	2,500.00	25,000.00
294.02	300 Sq. mm	4	Nos	2,500.00	10,000.00
295.00	Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.				
295.01	300 mm (W) X 50 mm (D) X 2.0 mm Thickness	20	Mtr	100.00	2,000.00
296.00	Supplying and making end termination without brass compression gland but with aluminium lugs for following size of PVC/ XLPE insulated and PVC sheathed aluminium conductor cable of 1.1 KV grade as required [FOR TEMPORARY BOLT NUT JOINTS OF CABLES]				
296.01	3½ x 120 Sq.mm	1	Nos	200.00	200.00
296.02	3½ x 150 Sq.mm	1	Nos	200.00	200.00
296.03	3½ x 185 Sq.mm	1	Nos	200.00	200.00
296.04	3½ x 240 Sq.mm	2	Nos	200.00	400.00
296.05	3½ x 300 Sq.mm	2	Nos	250.00	500.00
296.06	3½ x 400 Sq.mm	2	Nos	250.00	500.00

Sl. No.	Description of Item	Quantity	Rate	Amount
297.00	Supplying and making OF HEAT SHRINKABLE OUTER COVERING SLEEVE for following size of PVC/XLPE insulated and PVC sheathed Aluminium conductor cable of 1.1/11KV grade as required.			
297.01	Upto 3½ x 095-150 Sq.mm 1.1 KV	1 Mtr	500.00	500.00
297.02	Upto 3½ x 185-400 Sq.mm 1.1 KV	10 Mtr	500.00	5,000.00
297.03	Upto 3 x 120-185 Sq.mm 11 KV	2 Mtr	500.00	1,000.00
297.04	Upto 3 x 240-300 Sq.mm 11 KV	5 Mtr	1,000.00	5,000.00
298.00	Locating the Cable fault on LT/HT feeder cables laid directly in ground/ duct/ pipe including providing Cable Fault Tracer (Rental) etc., as required.			
298.01	LT CABLES [ONLY IN CASE OF EMERGENCY]	1 Job	15,000.00	15,000.00
298.02	HT CABLES	4 Job	15,000.00	60,000.00
299.00	Supplying and laying of 125 mm OD HDPE Pipe of PE 80 PN 6 ISI Marked along with all accessories like socket, bend etc., confirming to IS 4984 complete with fitting and cutting, jointing etc., direct in ground (0.75 mtr below the ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., as required.	50 Mtr	150.00	7,500.00
300.00	Part II Earthing			
300.01	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required	4 Set	2,500.00	10,000.00
301.00	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required	2 Set	8,500.00	17,000.00
302.00	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 Sets of brass nut bolt & spring washer spaced at 50mm)	25 Mtr	500.00	12,500.00
303.00	Supplying and laying 25 mm X 5 mm G.I. strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 Sets of G.I. nut bolt & spring washer spaced at 50mm)	25 Mtr	50.00	1,250.00
304.00	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required	25 Mtr	700.00	17,500.00
305.00	Providing and fixing 25 mm X 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode including connection with G.I. nut, bolt, spring, washer excavation and re-filling etc. as required	25 Mtr	500.00	12,500.00
306.00	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required	25 Mtr	600.00	15,000.00
307.00	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required	25 Mtr	150.00	3,750.00
308.00	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required	1 Nos	2,000.00	2,000.00
309.00	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required	25 Mtr	150.00	3,750.00
310.00	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required	25 Mtr	60.00	1,500.00
311.00	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	5 Nos	200.00	1,000.00
312.00	Providing and fixing MV danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	5 Nos	200.00	1,000.00

Sl. No.	Description of Item	Quantity	Rate	Amount
313.00	Part III Replacement, Testing and Commissioning of Switch Gear Works			
314.00	Supply, Replacement, Testing and Commissioning of Four Pole On Load Change Over Switch of 400 Amps rating with SS Enclosure, in the Existing Wall, including providing Handle, providing LED Display for Inputs and Output, suitable Bus Links for both at Input & Output Side, grouting, earthing etc., as required.	2 Job	35,000.00	70,000.00
315.00	Supply, Replacement, Testing and Commissioning of 400 A, 4P, 50KA, MCCB with Thermal Magnetic release protection, in the existing Panel with CT operated multifunction digital metering (EM 6459 of Conserve/ Equivalent), ON/OFF/Trip Indication Lamps and Phase Indication Lamps i/c providing Handle, providing and fixing 600 A Busbar, with all accessories, interconnection, connection, earthing, painting of door, etc. as required.	2 Job	55,000.00	1,10,000.00
316.00	Supply, Replacement, Testing and Commissioning of 250 A, 4P, 50KA MCCB with Thermal Magnetic release protection, in the existing Panel with CT operated multifunction digital metering (EM 6459 of Conserve/ Equivalent), ON/OFF/Trip Indication Lamps and Phase Indication Lamps i/c providing Handle, providing and fixing 400 A Busbar, with all accessories, interconnection, connection, earthing, painting of door, etc. as required.	1 Job	40,000.00	40,000.00
317.00	Supply, Replacement, Testing and Commissioning of 400 A 4P MCCB with thermal magnetic release in the existing Panel including providing Handle, with all accessories, interconnection, connection, earthing, painting of door, etc. as required.	1 Job	35,000.00	35,000.00
318.00	Supply, Replacement, Testing and Commissioning of 250 A 4P MCCB with thermal magnetic release in the existing Panel including providing Handle, with all accessories, with all accessories, interconnection, connection, earthing, painting of door, etc. as required.	1 Job	25,000.00	25,000.00
319.00	ITC of Meters/ Selector Switches/ CTs (3 Nos. in LT or One No in HT)/ Set of Indication Lamps (6 Nos) in the existing Panel i/c providing and fixing Control Wiring/ Interconnection/ Connection, earthing, etc. as required.	10 Jobs	5,000.00	50,000.00
320.00	Supply, Replacement, Testing and Commissioning of Meters of following Type in the existing location of HT/LT Panel Boards at various Power Houses and Substations including providing and fixing Control Wiring/ Interconnection/ Connection, earthing, testing, commissioning, dismantling of old meter and handing over to the Stores of AAI.			
320.01	Load Manager with Class 1.0 Accuracy	3 Nos	11,000.00	33,000.00
320.02	VAF Meter with Class 1.0 Accuracy	5 Nos	2,000.00	10,000.00
321.00	Servicing of 11KV Two Pole Structure including Checking the operation of closing & opening mechanism of Knife edge switches, Cleaning the structure, applying grease to the Moving parts, replacing the corroded Bolts & nuts with new galvanised coated bolts & nuts, cotton waste, cleaning agents, Grease, etc. complete as required.	1 Job	1,000.00	1,000.00
322.00	Supply & Fixing of 11KV Air break Switch including 3 Nos of 9KV (5KA) "LAMCO" Make Lightning Arrestor, 9 Nos of 11KV Post Insulator, 6 Nos of Aluminium Cast End connector, GI Clamps for 1" Pipe, Copper conductor connecting LA to Supply Bus, painting the complete structure with Aluminium paint, complete etc as required.	1 Job	4,000.00	4,000.00
323.00	Part IV Specialised Works			
324.00	HI POT Testing of HT Cable/ Transformer/ HT Panels at Site after Dis- Connection of Cable/ associated Items, reconnection after testing i/c providing Test Kit (rental) and labour/ assistants etc., as required.	6 Jobs	2,000.00	12,000.00
325.00	Rewinding of 15HP Motor including Dismantling the Motor, Taking to the Rewinder, returning back to the site after rewinding, Transportation, refixing the same, Testing & Commissioning etc., complete as required.	2 Job	2,000.00	4,000.00
326.00	Supply of nominal 2.5 mm thick (Width 1 Mtr) PVC synthetic, electric insulated mats conforming to IS 15652-2006 having Dielectric strength of 45 KV, no adverse effect of mineral oil, high insulation resistance (Minimum 1,00,000 M Ω on wet condition with 5 KV meggar) etc., as required.	10 Sq.Mtr.	200.00	2,000.00
327.00	Supply of nominal 2.0 mm thick (Width 1 Mtr) PVC synthetic, electric insulated mats conforming to IS 15652-2006 having Dielectric strength of 30 KV, no adverse effect of mineral oil, high insulation resistance (Minimum 1,00,000 M Ω on wet condition with 5 KV meggar) etc., as required.	25 Sq.Mtr.	200.00	5,000.00

Sl. No.	Description of Item	Quantity	Rate	Amount
328.00	Fixing of nominal 2.5 mm OR 2.0 mm (Width 1 Mtr) thick PVC synthetic, electric insulated mats conforming to IS 15652-2006 along with suitable adhesive/chemibond, i/c providing water proofing of floor, (chipping of floor if required) sealing of all joints etc., as required.	35 Sq.Mtr.	100.00	3,500.00
329.00	Supply and Replacement of Silica Gel of Transformers at Various Power Houses and SS as required.	30 Kgs	100.00	3,000.00
330.00	Inspection/ Servicing/ Repair to Radiator of upto 500 KVA DG Set at Various Power Houses and SS comprising of following activities:			
330.01	Dismantling of fan guard, fan, radiator, including top and bottom tank, inlet and outlet pipes etc.. as required.			
330.02	General Cleaning of fan guard, fan, radiator, including top and bottom tank, inlet and outlet pipes etc.. as required.			
330.03	Chemical Cleaning of radiator, including top and bottom tank, inlet and outlet pipes and tubes etc.. as required.			
330.04	Plugging of core tubes with soldering as required.			
330.05	Refixing of radiator, including top and bottom tank, inlet and outlet pipes, fan, fan guard, providing distilled water etc.. as required.			
330.06	330 (330.00) -- (330.05)	2 Jobs	5,000.00	10,000.00
331.00	Inspection/Servicing/Repair to Radiator of upto 500 KVA DG Set at Various Power Houses and SS comprising of following activities:			
331.01	Dismantling of fan guard, fan, radiator, including top and bottom tank, inlet and outlet pipes etc.. as required.			
331.02	General Cleaning of fan guard, fan, radiator, top and bottom tank, inlet and outlet pipes including Chemical Cleaning of radiator, top and bottom tank, inlet and outlet pipes and tubes etc.. as required.			
331.03	Refixing of radiator, including top and bottom tank, inlet and outlet pipes, fan, fan guard, providing distilled water etc.. as required.			
331.04	331 (331.01) -- (331.03)	2 Jobs	5,000.00	10,000.00
332.00	Recharging of 12 V, 180 AH Battery as and when required including transportation of batteries as required.	2 Jobs	200.00	400.00
333.00	Reconditioning of one cell of 12 V, 180 AH Battery as and when required including replacement of cell plates and acid, recharging, transportation of batteries to works and Power House as required.	2 Jobs	1,000.00	2,000.00
334.00	Reconditioning of one cell of 2 V, 100 AH Battery as and when required including replacement of cell plates and acid, recharging, transportation of batteries to works and Power House as required.	2 Jobs	900.00	1,800.00
335.00	Replacement and Fixing of 4 KW Heater for Distilled Water Plant as required.	3 Jobs	1,000.00	3,000.00
336.00	Servicing of Distilled water plant including removal of scales in the Heating Chamber & Pipes, replacement float valve & Ball valve, Hose Pipes, painting, testing & commissioning etc., complete as required.	1 Job	500.00	500.00
337.00	Calibration of following Meters/ Instruments in Govt./ Govt. Approved/ NABL Accredited Testing Labs including Transportation of Meters/ Instruments, co-ordination, Collection and submission of Calibration Certificate, etc. as required.			
337.01	Megger			
337.02	Earth Tester			
337.03	Phase Sequence Meter			
337.04	Tong Tester			
337.05	337 [337.01 - 337.04]	1 Job	3,000.00	3,000.00
338.00	Supply of Distilled Water for Batteries as required.	250 Litr	10.00	2,500.00
339.00	Providing One No. Mobile Telephone Facility with Outgoing Call Provision unlimited calls and messages in a Month as required.			
339.01	FMC First Year	12 Months	200.00	2,400.00
340.00	Part V Labour Works			
341.00	Cleaning of cable trenches by lifting the cables, supporting the cables, removing waste materials l/c malba, debris etc., and transporting and dumping the same to waste dumping yard etc. as required.	100 Mtr	100.00	10,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
342.00	Cleaning of bus ducts i/c removing of covers, checking of bus bars, bus supports, tightening of busses and supports and re-fixing of covers, testing, commissioning etc., as required.	50	Mtr	100.00	5,000.00
343.00	Cleaning of Electrical, Mechanical and other Installations at Power Houses and Substations with necessary cleaning materials etc., as required by providing 2 Nos. of Helpers.	100	Day	1,500.00	1,50,000.00
344.00	Providing one Skilled Wireman and two Unskilled Khalasi to attend any urgent Preventive Maintenance/ Breakdown Maintenance/ Emergency Work at Electrical Installations provided in Main Power House/ Substations with necessary T&P as and when required.	6	Days	1,600.00	9,600.00
345.00	Providing Labour and Hire Charges for deploying Excavator (JCB) i/c Operator for tracing the cable faults, excavation and refilling of Cable trench after work etc., as required.	50	Hrs	500.00	25,000.00
346.00	Providing one FITTER and ONE Unskilled Khalasi to attend any urgent Preventive Maintenance/ Breakdown Maintenance/ Emergency Work at Electrical Installations provided in Main Power House/Substations with necessary T&P as and when required.	6	Days	1,000.00	6,000.00
347.00	Providing Labour and Hire Charges for deploying Gas Cutting MACHINE i/c Cutter, Gases in Cylinder etc., for cutting of Chequered Plates, MS Angles as required.	5	Hrs	500.00	2,500.00
348.00	Providing Labour and Hire Charges for deploying WELDING MACHINE i/c WELDER, Welding Rods etc., for WELDING WORKS as required.	8	Hrs	300.00	2,400.00
349.00	Providing Labour and Hire Charges for deploying Lorry/ Truck/ Tractor i/c Operator and loaders for shifting of debris/ wastes from Power Houses/ Substations etc., to waste dump yard as required.	5	Days	3,000.00	15,000.00
350.00	Hire Charges for deploying TEMPO/ SMALL Truck i/c Operator for shifting of Diesel from Diesel Distribution Station/ Cables to Power Houses etc., as required.	10	Days	1,000.00	10,000.00
351.00	Providing labour and hire charges for deploying Crane (upto 10 Ton) i/c operator for lifting/ Shifting of Equipments/ Cable Drums, etc., as required.	40	Hrs	500.00	20,000.00
352.00	Checking of earth stations, earth strips from installation to earth station i/c measurement of earth resistance, providing funnel if required, salting and watering and marking the station, raising the level [if required] etc., as required.	50	Jobs	1,000.00	50,000.00
353.00	Part VI Civil Works				
353.01	Providing, laying and fixing following dia G.I. pipe (medium class) in ground complete with G.I. fittings including trenching (75 cm deep) and re-filling etc as required				
353.02	100 mm dia	6	Mtr	1,000.00	6,000.00
353.03	150 mm dia	12	Mtr	1,000.00	12,000.00
354.00	Providing, laying and fixing following dia RCC pipe NP2 class (light duty) in ground complete with RCC collars, jointing with cement mortar 1:2 (1 cement : 2 fine sand) including trenching (75 cm deep) and refilling etc as required.				
354.01	300 mm dia	12	Mtr	1,000.00	12,000.00
355.00	Supplying and laying of "B" Class G.I pipe of following dia, i/c excavation of bituminous/ concrete road/ pavement, excavation of Soil to maximum depth of 0.70 Mtrs from ground refilling the Soil and with CC of ratio 1:3:6 on top for 0.15 Mtrs after laying Pipe and plastering, making good the same etc., as required.				
355.01	100 mm Dia	6	Mtr	1,000.00	6,000.00
355.02	150 mm Dia	6	Mtr	1,000.00	6,000.00
356.00	Supplying and laying of 2X300 mm dia non-pressure NP2 class (light duty) RCC pipe with collars jointed with stiff cement mortar i/c demolishing cement concrete/ bituminous road, excavation of trench of required (900 mm) width for pipe, depth upto 800 mm, providing and laying cement concrete of 1:4:8 ratio at bottom (100 mm) of pipe, refilling the trench with soil, ramming, watering, making the surface to original finish with CC of 1:3:6 ratio on top (150 mm) of CC of ratio 1:4:8 (100 mm) etc. as required.	12	Mtr	1,500.00	18,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
357.00	Supplying and laying of 250 mm dia non-pressure NP2 class (light duty) RCC pipe with collars jointed with stiff cement mortar i/c demolishing of cement concrete/ bituminous road, excavation of trench of required width for pipe (550 mm), depth upto 800 mm, providing and laying cement concrete of 1:4:8 ratio at bottom (100 mm) of pipe, refilling the trench with soil, ramming, watering, making the surface to original finish with CC of 1:3:6 ratio on top (150 mm) of CC of ratio 1:4:8 (100 mm) etc., as required.	12	Mtr	1,000.00	12,000.00
358.00	Constructing brick masonry manhole in cement mortar 1:4 (1 cement: 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 mix (1 cement:4 coarse sand:8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement:3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement:4 coarse sand:4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as required. (as per standard design) Inside size (90X80 cm and 60 cm deep including C.I. cover with frame (light duty) 455X610 mm internal dimension total weight of cover and frame to be not less than 38 Kg (weight of cover 23Kg and weight of frame 15Kg) with F.P.S. bricks with class design 75	2	Jobs	3,000.00	6,000.00
359.00	Making of cable trenches of sizes 1 Mtr. (L) X 0.6 Mtr. (W) X 0.6 Mtr. (D) including demolishing of cement concrete/ flooring on existing floor, excavation of trenches of required width upto a depth of 0.8 Mtr. below the concrete area and getting out the excavated soil/sand within a lead of 50 M providing and laying in position 1:4:8 (1 cement : 4 sand : 8 graded stone graded stone 40 mm nominal size.) cement concrete at bottom [20 cm] excluding the cost of centring and shuttering, making of brick wall of thickness 9 inch as required with good quality bricks and cement mortar 1:6 (1 cement :6 coarse sand) and plastering the surface of walls of cable trenches with cement plaster 1:6 (1 cement : 6 fine sand) matching with existing trench etc., as required.	10	Mtrs.	1,500.00	15,000.00
360.00	Fabrication, Supply and Fixing of 6mm thick chequered plates including providing and fixing 40mmx40mmx6mm angle iron supports on cable trenches, 25mmx6mm MS flat around the chequered plate by welding, providing lifting hook etc., as required.	100	Kg	80.00	8,000.00
361.00	Supply, fabrication and installation of the MS channel/ angle/ flat for cable tray/ support including cutting, welding, drilling, fixing, grinding, painting etc., as required for composite M.S. works as & when required basis.	500	Kgs	90.00	45,000.00
362.00	Painting of Power Supply Installations with two coats of synthetic enamel paint of approved shade, quality and brand i/c scrapping and cleaning, providing putty wherever required, inscription etc., as required.				
362.01	Spraying	50	Sq Mtr	100.00	5,000.00
362.02	Brushing	50	Sq Mtr	100.00	5,000.00
363.00	Providing Civil Works as required as detailed below:				
363.01	Cement concrete in 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20mm nominal size)	2	Cum	2,000.00	4,000.00
363.02	Cement mortar in 1:6 (1 cement: 6 coarse sand)	2	Cum	1,000.00	2,000.00
363.03	Brick work with bricks of class designation 60 in foundation and plinth in 1:6 (1 cement: 6 coarse sand)	2	Cum	2,000.00	4,000.00
363.04	Cement plaster 12mm thick of mixture 1:6	10	Sq Mtr	200.00	2,000.00
363.05	Steel rod for RCC Slabs	100	Kgs	80.00	8,000.00
364.00	Part VII Supply of Cables & insulation Tapes				
364.01	Supply of Aluminium Conductor, XLPE insulated, PVC sheathed, armoured power cable of 1.1 KV grade of following Sizes conforming to IS 7098 (Part-1) as amended upto date as required. [AS AND WHEN REQUIRED BASIS ONLY]				
364.02	3½ X 120 Sq. mm.	100	Mtr	450.00	45,000.00
364.03	3½ X 185 Sq. mm.	100	Mtr	700.00	70,000.00
364.04	3½ X 240 Sq. mm.	100	Mtr	750.00	75,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
365.00	Supply of compact circular stranded Al conductor provided with conductor screening of semi-conducting compound XLPE insulated provided with insulation screening over individual cores, consisting of extruded semi-conducting compound followed by lapped semi-conducting copper tapes, cores laid together with suitable filters, in the interspices covered with inner sheath by extrusion, galvanized flat steel strip armoured and overall PVC sheathed cable, suitable for 11 KV (E) System conforming to IS 7098 (Part-II) 1985 as amended upto date and of following Size as required. [AS AND WHEN REQUIRED BASIS ONLY]				
365.01	3 X 185 Sq.mm	150	Mtr	900.00	1,35,000.00
366.00	Supply of LT Insulation PVC Tape of Size 1.8 cm x 4 Mtr, Qty. Red, Yellow, Blue and Black each 10 Nos. (Model: Steel Grip of Anchor Make)	100	Each	8.00	800.00
Total for SH -V: Rate Contract for Maitenance of Power Supply System.					₹ 16,93,150.00
367.00	SH VI: Supply of Electrical Spares.				
367.01	PART- I: Safety solvents & HT /LT Insulation tape				
367.02	Supply of Safety Solvent Co2 (Online), Model: 8060, Make: Stanvac (1 No. can = 700ML.).	10	Nos	1,500.00	15,000.00
368.00	Supply of Offline Contact Cleaner H.D.Co2, Model: 415, Make: Stanvac (1 No. can = 700ML.).	10	Nos	1,000.00	10,000.00
369.00	Supply of Electronic Component Cleaner Co2, Model: 8376, Make: Stanvac (1 No. can = 500ML.).	10	Nos	1,500.00	15,000.00
370.00	Supply of Electrical 88 Co2, Model: 8070, Make: Stanvac (1 No. can = 700ML.).	10	Nos	1,500.00	15,000.00
371.00	Supply of Crown Red Insulating Varnish, class F. Model: 6084, Make: Stanvac (1 No. can = 500ML.).	10	Nos	1,500.00	15,000.00
372.00	Supply of Corroclean (SP), Model: Z911, Make: Stanvac (1 No. can = 700ML.).	10	Nos	1,000.00	10,000.00
373.00	Supply of Battery Terminal Coating (Waxy film), Model: 6006, Make: Stanvac (1 No. can = 700ML.).	2	Nos	1,000.00	2,000.00
374.00	Supply of Plysafe Self adhesive HT Electrical insulating tape having water proof, moiture proof, corrosion and chemical resistive featureres of Size 25mm x 0.76 mm x 9.1M. (Make: Stanvac Plysafe #W963).	50	Nos	1,000.00	50,000.00
375.00	Supply of LED indication lamps of 22.5mm dia, 7 LED integral type of following colour suitable for operating on 220/240V AC, 50 Hz., single phase power supply as required (Make: SIEMENS/ SCHENIDER/ PRECIFINE / L&T)				
375.01	RED	30	Nos.	120.00	3,600.00
375.02	YELLOW	30	Nos.	120.00	3,600.00
375.03	BLUE	60	Nos.	220.00	13,200.00
375.04	GREEN	30	Nos.	120.00	3,600.00
375.05	AMBER	30	Nos.	120.00	3,600.00
376.00	Supply of LED indication lamps of 22.5mm dia, 7 LED integral type of following colour suitable for operating on 30 V, DC power supply as required (Make: SIEMENS/ SCHENIDER/ PRECIFINE / L&T).				
376.01	RED	60	Nos	120.00	7,200.00
376.02	YELLOW	30	Nos	120.00	3,600.00
376.03	AMBER	60	Nos	120.00	7,200.00
377.00	Supply of LED indication lamps of 22.5mm dia, 7 LED integral type of following colour suitable for operating on 110V AC, 50 Hz., single phase power supply as required (Make: SIEMENS/ SCHENIDER/ PRECIFINE / L&T).				
377.01	YELLOW	30	Nos	120.00	3,600.00
377.02	BLUE	30	Nos	220.00	6,600.00
377.03	GREEN	30	Nos	120.00	3,600.00
378.00	Supply of Illuminated push buttons of Normal head type with 22.5mm dia of following colour suitable for operating on 230V AC, 50Hz single phase supply with contact arrangement of (1NO+1 NC) as required (Make: KAY CEE / CONTROL & SWITCH GEARS / L&T / GE POWER / SIEMENS/ SCHENIDER).				
378.01	RED	30	Nos.	300.00	9,000.00
378.02	YELLOW	30	Nos.	300.00	9,000.00
378.03	BLUE	30	Nos.	600.00	18,000.00
378.04	GREEN	30	Nos.	300.00	9,000.00

Sl. No.	Description of Item	Quantity	Rate	Amount
379.00	PART- III: Selector switches & Relays			
380.00	Supply of Numerical Three Phase Overcurrent and earth fault relay with RS485 port (Make: GE/Schneider and Model: P111 of GE or equivalent).	15 Nos.	18,000.00	2,70,000.00
381.00	Supply of Numerical Three Phase Overcurrent and earth fault relay with RS485 port (Make: GE and Model: P141 of GE).	3 Nos.	25,000.00	75,000.00
382.00	Supply of O/C, E/F Relay (Make: GE / Schneider and Model: MICOM P122 or equivalent).	1 No.	45,000.00	45,000.00
383.00	Supply of Differential Relay (Make: GE and Model: MICOM P642).	1 No.	1,48,000.00	1,48,000.00
384.00	Supply of Trip Relay 86 (VAJ) (Make: GE and Model: VAJHM23ZG1268).	2 Nos.	5,000.00	10,000.00
385.00	Supply of Aux.OTI/WTI Temp (Trip 30AB), Temp (Alarm 30EF), Buch/ Prv (Trip 30CD), Buch/ Molg (Alarm 30GH) (Make: GE and Model: VAA23ZG8501FCH/VAA23ZG2250BA).	2 Nos.	6,000.00	12,000.00
386.00	Supply of TC-1 CKT Supervison (VAX MK 11) 195 /295 (Make: GE and Model: VAX31ZG8072BCH/ VAX31ZG0250BA).	2 Nos.	5,000.00	10,000.00
387.00	Supply of Circuit Breaker Contact Aux Relay (Make: GE and Model: VAX31ZG8072BCH/ VAX31ZG0250BA, AUX. VOLTAGE: 24-50V DC).	2 No.	5,000.00	10,000.00
388.00	Supply of DC Supply Supervisor relay 80DC (Make: GE and Model: VAA21YF8019AHCH/ VAA21YF7503DA).	2 No.	5,000.00	10,000.00
389.00	Supply of Isolator Control Switch (Make: GE and Model: 4 WAY, S04N120SRPM101 Nonlock spring return).	2 Nos.	3,000.00	6,000.00
390.00	Supply of Breaker Control Switch (Make: GE and Model: 10 WAY, S10N120SRL2PM104 Nonlock spring return).	2 Nos.	5,000.00	10,000.00
391.00	Supply of Master trip relay (Make: GE and Model: VAJH13YF52A/ VAJH13YF0252ABA).	5 Nos.	3,000.00	15,000.00
392.00	Supply of Digital Multi Function Meter(Load Manager) of Class 1.0 Accuracy with RS 485 port (Make: Schneider, Model:EM 6400NG).	5 Nos.	6,000.00	30,000.00
393.00	Supply of Digital Multi Function Meter(VAF Meter) of Class 1.0 Accuracy (Make:Schneider, Model:EM 6459).	3 Nos.	3,000.00	9,000.00
394.00	Supply of Three Phase Digital Voltmeter of Class 1.0 Accuracy (Make:Schneider, Model:DM 3210).	5 Nos.	1,500.00	7,500.00
395.00	Supply of Three Phase Digital Ammeter of Class 1.0 Accuracy (Make:Schneider, Model:DM 3110).	5 Nos.	1,500.00	7,500.00
396.00	Supply of Auto manual Selector switch of 2 way, Make KAYCEE 230 V AC	10 Nos.	250.00	2,500.00
397.00	Limit Switch for Panel board of Make, Kaycee model KLS001X-OA ,10 A 230 V (1N/O,1N/C).	10 Nos.	200.00	2,000.00
398.00	Supply of Auto manual Selector switch of 3 way, Make KAYCEE 230 V AC	10 Nos.	300.00	3,000.00
399.00	Automatic Voltage Regulator 110 V ,Model EE-301 M, Make EMCO	2 Nos.	3,000.00	6,000.00
400.00	Supply of Tap Position indicator Make EMCO Model EE-601.	4 Nos.	300.00	1,200.00
401.00	PART- IV: 11 KV HT Panel Accessories:			
402.00	Supply of Spares for ABB make VCB - Auxiliary N/C N/O Contact, BB-1 (3 N/O +2 N/C) - ABB Vmax	4 Nos.	8,000.00	32,000.00
403.00	Supply of Spares for ABB make VCB - Auxiliary N/C N/O Contact, BB-2 (3 N/C +2 N/O) - ABB Vmax	4 Nos.	8,000.00	32,000.00
404.00	Supply of Spares for ABB make VCB - Rack in Rack out Mechanism - ABB Vmax	2 Nos.	3,200.00	6,400.00
405.00	Supply of Spares for ABB make VCB - Close / Open Operating Mechanism (EL3) - ABB Vmax	2 Nos.	55,000.00	1,10,000.00
406.00	Supply of Spares for ABB make VCB - Vacuum Bottole (Interrupter) - ABB Vmax	3 Nos.	35,000.00	1,05,000.00
407.00	Supply of Spares for ABB make VCB - Closing coil - 30 Volt DC - ABB Vmax	5 Nos.	8,000.00	40,000.00
408.00	Supply of Spares for ABB make VCB - Opening coil - 30 Volt DC - ABB Vmax	5 Nos.	6,000.00	30,000.00
409.00	Supply of Spares for ABB make VCB - Spring Charge Motor - 230 Volt AC - ABB Vmax	3 Nos.	11,000.00	33,000.00
410.00	Supply of Spares for Areva make Spring charge motor (Areva VCB) Model SG307-220, Rating 1.6A/ 150W/ 100RPM/ 220V AC	10 Nos.	28,000.00	2,80,000.00
411.00	Supply of Spares for Areva make VCB - Rack in mechanism (Areva VCB) Model HWX, 630 A	5 Nos.	42,000.00	2,10,000.00
412.00	Supply of opening buffer suitable for 11KV VCB (M/s. Areva/ Alstom/ Schneider) of HWX Type.	60 Nos.	700.00	42,000.00

Sl. No.	Description of Item	Quantity		Rate	Amount
413.00	Supply of closing buffer suitable for 11KV VCB (M/s. Areva/ Alstom/ Schneider) of HWX Type.	100	Nos.	1,200.00	1,20,000.00
414.00	Supply of Spares for Areva make VCB - Bridge Rectifier Model MD5BU1010, Semikown.	2	Nos.	3,000.00	6,000.00
415.00	Supply of Spares for Areva make VCB Vacuum Bottole (Interrupter) - Model: VG2 BW524/99/Ro.	3	Nos.	35,000.00	1,05,000.00
416.00	Supply of Spares for Schneider make VCB Vacuum Bottole (Interrupter) - Model:VG2EN BW524/99/Ro.	3	Nos.	35,000.00	1,05,000.00
417.00	Supply of Opening coil (30V DC) suitable for 11KV VCB (Areva/ Schneider) of HWX Type.	10	Nos.	4,000.00	40,000.00
418.00	Supply of closing coil (30V DC) suitable for 11KV VCB (Areva/ Schneider) of HWX Type.	10	Nos.	7,000.00	70,000.00
419.00	Supply of Auxillary Contactor Relay (Make: Siemens, 110 V DC, 10A, :Model: 3TH3040-0BF4, 2NO+2NC)	3	Nos.	2,000.00	6,000.00
420.00	Supply of Auxillary Contactor Relay (Make: Siemens, 30 V DC, 10A, :Model: 3TH3040, 2NO+2NC)	3	Nos.	2,000.00	6,000.00
421.00	PART- V: AMF & Switch Gear Accessories				
422.00	Supply of Auxillary Contactor (Make: ABB, 690V AC, 16A, Model: N22E, 2NO+2NC), Control voltage 230V AC/24V DC.	20	Nos.	1,000.00	20,000.00
423.00	Supply of Auxillary Contactor (Make: ABB, 690V AC, 16A, Model: N31E, 3NO+1NC) With Add on block (Make: ABB, 690V AC, 16A, Model:CA5-22E, 2NO+2NC)	10	Nos	1,000.00	10,000.00
424.00	Supply of 25 mm size Panel Board Door Lock of pin insert type.	100	Nos	15.00	1,500.00
425.00	Supply of Spares for ABB make ACB Mechanism, Model Emax E1.	2	Nos	15,000.00	30,000.00
426.00	Supply of Spares for ABB make ACB Mechanism, Model Emax E3.	1	Nos	15,000.00	15,000.00
427.00	Supply of Spares for ABB make ACB Closing coil - 24 Volt DC	5	Nos	5,000.00	25,000.00
428.00	Supply of Spares for ABB make ACB Opening coil - 24 Volt DC	5	Nos	5,000.00	25,000.00
429.00	Supply of Spares for ABB make ACB Closing coil - 230 Volt AC	5	Nos	5,000.00	25,000.00
430.00	Supply of Spares for ABB make ACB Opening coil - 230 Volt AC	5	Nos	5,000.00	25,000.00
431.00	Supply of Spares for ABB make ACB Spring Charge Motor - 230 Volt AC	2	Nos	15,000.00	30,000.00
432.00	Supply of Cooling Fan of size: 4" for LT Panels - (Rating: 240V & 0.125A), Make: Hi-Cool.	50	Nos	250.00	12,500.00
433.00	Supply of SMPS, Model S-250-24, Rating I/P:115-230V O/P:24V/10A with 1KVA UPS Microteck Technology make ABB for ACB Panel	6	Nos	3,000.00	18,000.00
434.00	Supply of Spares for ABB make Power Contactor 4P, 63 A 440 V AC -AF80-40-00	2	Nos	15,000.00	30,000.00
435.00	SH VI: Supply of Electrical ACB Spares.				
436.00	GE Make 'M' Pact ACB				
437.00	MWS Mechanism (2000A 4 Pole)	1	No.	15,000.00	15,000.00
438.00	MWS Front Plate	1	No.	500.00	500.00
439.00	MWS Rear Plate	1	No.	500.00	500.00
440.00	MWS Pull Rod Lever	1	No.	1,000.00	1,000.00
441.00	Spring limit Switch	1	No.	2,000.00	2,000.00
442.00	Spring Release lever	1	No.	3,000.00	3,000.00
443.00	Cam shaft Assembly	1	No.	3,500.00	3,500.00
444.00	220V AC U/V Coil	2	Nos.	2,500.00	5,000.00
445.00	GE Make Spectronic ACB				
446.00	1000A, 3P Front Box Ass	3	Nos.	2,000.00	6,000.00
447.00	1000A, 3P Front Facia	3	Nos.	2,200.00	6,600.00
448.00	Spring Charging Lever	2	Nos.	1,000.00	2,000.00
449.00	Spring Charging Handle	2	Nos.	1,000.00	2,000.00
450.00	PART- VII: Miscellaneous				
451.00	Amber Hydro meter (Battery Spcific gravity checking)	6	Nos	200.00	1,200.00
452.00	Supply of Hooter 230V AC	5	Nos	900.00	4,500.00

Sl. No.	Description of Item	Quantity	Rate	Amount
453.00	Supply of Battery Charger for HT Panel 30 V Tripping Unit, Three Stage : Float , Boost with Voltage Variack - (Rating: 240 V AC/30 V DC & 30 A)	1 Nos	15,000.00	15,000.00
454.00	Generator Control Unit, Make Woodward, Model Easygen -2500	1 Nos	1,20,000.00	1,20,000.00
455.00	Generator Production Relay, Make Schneider, Model -P127	1 Nos	90,000.00	90,000.00
456.00	1500VA UPS Make -APC model -Pro 1500	1 Nos	20,000.00	20,000.00
457.00	400A MCCB Motorized Drive, Make-ABB, Model -SACE Tmax, 220V AC	1 Nos	20,000.00	20,000.00
458.00	Supply of detuned 7% Copper Reactor, 440V, 50Hz of capacity 50KVAR, L& T make, Model No.: LTFR0750B2.	3 Nos	32,000.00	96,000.00
459.00	Supply of detuned 7% Copper Reactor, 440V, 50Hz of capacity 25KVAR, L& T make, Model No.: LTFR0725B2.	3 Nos	25,000.00	75,000.00
460.00	Supply of Super heavy duty Capacitor for Detuned APFC appliocation of capacity 33.3KVAR at Volatage rating 525V, Make: L&T, Model: LTCCR333M2	5 Nos	15,000.00	75,000.00
461.00	Supply of Super heavy duty Capacitor for Detuned APFC appliocation of capacity 25KVAR at Volatage rating 525V, Make: L&T, Model: LTCCR325M2	5 Nos	10,000.00	50,000.00
462.00	Supply of Capacitor duty Contactor of Make: L&T, Type: MO C20, Model No.: CS90021.	6 Nos	4,000.00	24,000.00
463.00	Supply of Capacitor duty Contactor of Make: L&T, Type: MO C25, Model No.: CS96322.	6 Nos	4,000.00	24,000.00
464.00	Supply of Capacitor duty Contactor of Make: L&T, Type: MO C30, Model No.: CS96148.	6 Nos	6,000.00	36,000.00
465.00	Supply of Capacitor duty Contactor of Make: L&T, Type: MO C60, Model No.: CS96149.	6 Nos	10,000.00	60,000.00
466.00	Supply of Winding Temparature Indicator with 2 contacts, 5Mtr. Capillary length, range 0-150 Degrees C, PT Sensor Diameter - 12MM and WTI Pocket diameter in transformer is 13MM and inner length is 195MM. Make: Precimeasure, Model: 1007 or equivalent.	1 Nos	20,000.00	20,000.00
467.00	PART- VIII: Supply of following HRC Fuses in different Make			
468.00	Clip on Fuse Links with Staggered Tags of NS Type of GE/Equivalent Make to suit the existing Fuse holder.			
468.01	06 AMPS	20 Nos	80.00	1,600.00
468.02	10 AMPS	20 Nos	80.00	1,600.00
468.03	16 AMPS	10 Nos	80.00	800.00
469.00	Cylindrical Fuse Link - Type HF of L&T Make			
469.01	6 AMPS	20 Nos	80.00	1,600.00
469.02	10 AMPS	20 Nos	80.00	1,600.00
470.00	PT HT FUSE Bussman 12KV			
470.01	3.15 AMPS	10 Nos	3,000.00	30,000.00
	Total for SH VI: Supply of Electrical Spares.			₹ 33,86,500.00
	Total for SH I: Monitoring and Maintenance of Power Supply Installations			₹ 2,85,57,612.00
	Total for SH II: ISC of HT Panels and LT ACBs of Power Supply Installations.			₹ 5,72,500.00
	Total for SH III: Calibration of Relays and Testing of CTs and Meters			₹ 2,03,150.00
	Total for SH IV: Filtration of Transformer Oil and Servicing of OLTCs.			₹ 2,95,000.00
	Total for SH -V: Rate Contract for Maitenance of Power Supply System.			₹ 16,93,150.00
	Total for SH VI: Supply of Electrical Spares.			₹ 33,86,500.00
	Total for Second Year (SH-I +SH-II +SH-III +SH-IV +SH-V +SH-VI)			₹ 3,47,07,912.00

(Rupees Three Crores Forty Seven Lakhs Seven Thousand Nine Hundred and Twelve Only)

Note: Applicable GST shall be paid on submission of taxable invoice.


 (G.N.D.KENNEDY)
 Jt.General Manager (E-E) -I