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INDIA NON JUDICIAL

Government of Assam

₹300

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Certificate No. : IN-AS92144304790904W
Certificate Issued Date : 28-May-2024 11:36 AM
Account Reference : NONACC (SV)/ as17019004/ GOALPARA/ AS-GO
Unique Doc. Reference : SUBIN-ASAS1701900473130931548481W
Purchased by : NANGALBIBRA BONGAIGAON TRANSMISSION LIMITED
Description of Document : Article 5 Agreement or Memorandum of an agreement
Property Description : FOR AGREEMENT
Consideration Price (Rs.) : 0
(Zero)
First Party : NANGALBIBRA BONGAIGAON TRANSMISSION LIMITED
Second Party : ASSAM ELECTRICITY GRID CORPORATION LIMITED
Stamp Duty Paid By : NANGALBIBRA BONGAIGAON TRANSMISSION LIMITED
Stamp Duty Amount(Rs.) : 300
(Three Hundred only)



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2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.

O&M Agreement between Nangalbibra Bongaigaon Transmission Limited & Assam Electricity Grid Corporation Limited for 02 nos of 132kv Line Bays at Hatsinghmari substation (AEGCL) for 132kv D/C Hatsinghmari (Assam) - Ampati (Meghalaya) Transmission Line

This agreement is made on this ^{30th} day of May 2024 at Bijulee Bhawan, Guwahati.

By and Between

M/ s **NANGALBIBRA BONGAIGAON TRANSMISSION LIMITED**, a company incorporated under the Indian Companies Act, 1956/2013, CIN: U40106HR2021PLC113458, and having its registered office at 9th Floor, DLF Cyber Park, Sector 20, Udyog Vihar, Phase 3, Gurugram, Haryana 113208 represented by its authorized signatory Shri Ashish Patel, Chief Manager(O&M) duly authorized vide board resolution dated 1st Dec 2023 (herein referred to as "NBTL", which expression shall include its administrators, successors, executors and permitted assigns) of the one part)

And

M/s **ASSAM ELECTRICITY GRID CORPORATION LIMITED**, a company incorporated under Company's Act, 1956/2013, CIN: U40101AS2003SGC007238 having its registered office at 1st Floor, Bijulee Bhawan, Paltan Bazar, Guwahati, Assam 781001 represented by its authorized signatory Shri Arup Kumar Kalita, Chief General Manager, O&M (LAR) duly authorized vide authority letter - AEGCL/MD/Tech-310/O&M(LAR)/2023/Hatsingimari GSS/9(a-b) dated - 20.05.2024 (herein referred to as "AEGCL" which expression shall include its administrators, successors, executors and permitted assigns) of the other part)

Hereinafter, NBTL and the AEGCL are individually referred to as the "**Party**" and collectively referred to as the "**Parties**".

WHEREAS:

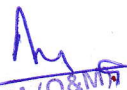
- A. NBTL has requested AEGCL to carry out the Operation & Maintenance ("**O&M**") of said **02 nos. 132kV Line Bays of 132KV D/C Hatsinghmari (Assam) - Ampati (Meghalaya) Transmission Line** situated at 132kV Hatsinghmari Grid Substation, Assam ("Substation")
- B. AEGCL has agreed to carry out O&M of the said **02 nos. 132kV Line Bays of 132kV D/C Hatsinghmari (Assam) - Ampati (Meghalaya) Transmission Line** as per power system operational requirements as per the terms and conditions of this Agreement.

NOW THEREFORE, THE PARTIES AGREE TO BE LEGALLY BOUND IN ACCORDANCE WITH THE TERMS CONTAINED HEREIN IN THIS AGREEMENT AS WITNESS AS UNDER:

For the purpose of this Agreement, the terms & conditions incorporated used herein shall unless repugnant to the context thereof shall have the meaning assigned to them as under:

1.0 PREAMBLE

- a) The following equipment is owned by NBTL and located at 132kV Hatsinghmari Grid Substation of AEGCL in accordance with requirement of transmission services agreement dated 06 July 2021, executed between NBTL and Long Term Transmission Customers.


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- i. All associated 02 nos. 132kV Line Bays of 132kV D/C Hatsinghmari - Ampati Transmission Line at 132kV Hatsinghmari substation as per RfP document/TSA (detailed list of equipment is provided as Annexure - I hereto) ("Equipment(s)")
- b) AEGCL agrees to undertake operation and maintenance works (the agreed Scope of Service with respect to operation and maintenance works is provided in clause 2.0 of this Agreement) of the said equipment.
- c) The Agreement should come into effect after Handing Over and Taking Over of element(s)/system installed by NBTL between NBTL and AEGCL.

2.0 SCOPE OF SERVICES:

The scope of the services to be provided by AEGCL for Operation & Maintenance for Equipment as per Clause 1.0 ("Scope of Services") without any additional charges shall be as under (subject to specific exclusions as per the Clause 3.0):

- a) To carry out routine operation & maintenance, periodic maintenance, testing as per relevant standards, regulations and as per Annexure-II.
- b) All expenses related to the personnel, labour, testing equipment and T&Ps for the preventive and routine maintenance of Equipment shall be borne by AEGCL.
- c) Maintain records of operation & maintenance carried out and provide quarterly to NBTL.
- d) Permit NBTL to go through the maintenance records pertaining to its equipment.
- e) Inform at least three days in advance, about the AEGCL's program for periodical testing & maintenance of the Equipment(s) to NBTL to enable NBTL for witnessing the testing and maintenance of its Equipment(s) (if NBTL desires so).
- f) Authorize NBTL to access the Substation (including control room and switchyard) for routine inspection and periodical testing of the Equipment(s) (in case of major breakdown maintenance); and also provide access of the Substation to NBTL and/or any contractor appointed by the NBTL for undertaking the activities which are excluded from the Scope of Services (as mentioned in Clause 3.0)
- g) Provide small spares as listed in Annexure IV and spares of a similar nature required for maintenance.
- h) Provide all consumables for various recording instruments i.e., disturbance recorders, voltage recorders, frequency recorders, event logger etc.
- i) Maintain in healthy condition all common facilities like Firefighting, LTAC supply, DG supply, DC supply, bus-bar protection, etc.
- j) Liaison with respective NERPC, NERLDC etc. for Operation & Maintenance work.
- k) Data transmission to NERLDC for grid operation shall be through AEGCL gateway. However, integration of data to gateway of AEGCL for the purpose of remote operation as well as NERLDC communication shall be in the scope of NBTL.
- l) After any tripping incident, AEGCL shall take necessary action for early restoration including co-ordination with NERLDC/SLDC on behalf of NBTL. However, in case of incident causing major breakdown (as per Annexure III), the responsibility for restoration shall lie with NBTL.
- m) In case of tripping, information to NBTL to be provided at the earliest.


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3.0 EXCLUSION FROM THE SCOPE OF SERVICES:

- a) Major breakdown / breakdown maintenance / overhauling involving failure of equipment/foundation damaged, etc., which are of capital nature.
- b) Rectification works due to any force majeure condition as defined in the TSA
- c) Insurance of Equipment(s)
- d) Hot line maintenance
- e) The liability of compensation towards Generation loss/availability loss due to outage of the equipment and any other third-party liability
- f) Settlement of any disputes with any public/statutory bodies/local authorities/tax authorities/state authorities
- g) Supply of any equipment/major spare/material for replacement
- h) The expenses towards outsourced services like that of OEM experts
- i) All required Statutory Clearances
- j) Any additional maintenance/testing as per the requirement of NBTL which is not covered under the scope of agreement, the same shall be carried out by AEGCL on mutual agreement at an additional cost to the NBTL.
- k) Any activity not mentioned specifically in the scope of AEGCL

4.0 SPARES AND O&M CHARGES:

- a) **MANDATORY SPARES:** Mandatory spares are crucial for quick restoration of the system, and it shall be in the interest of NBTL to maintain a minimum quantity of mandatory spares as per OEM recommendation (and also keeping in view CEA mandatory spare guidelines) at store of AEGCL or at its own store, as per its own discretion, which shall be the property of NBTL. AEGCL shall maintain the spares in healthy condition if stored by NBTL with AEGCL. In cases where spares are stored with NBTL and there is a delay in providing such spares to the AEGCL, the liability for such delay will fall on the NBTL. However, any expenditure towards repair of spares in cases where spares are stored with NBTL will be borne by NBTL.

Note: – Cost of all items that are not included in the list of minor consumables/small spares list (Annexure-IV) shall be borne by NBTL including maintenance/repairing of the same.

- b) **ANNUAL O&M CHARGES:**

i. **02 nos. 132kv Line Bays of 132KV D/C Hatsinghmari - Ampati Line:** The O&M charges for the relevant year shall be calculated @30% of the normative operation and maintenance expenses of relevant voltage level and year as specified in the Central Electricity Regulatory Commission (Term and conditions of tariff) Regulation issued from time to time (“Annual O&M Charges”)

ii. Accordingly, Annual O&M Charges to be paid by NBTL to AEGCL shall be in accordance with the following table.

Details of Bay terminal equipment	Financial Year	FY 2024-25	FY 2025-26	FY 2026-27	FY 2027-28	FY 2028-29

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02 nos 132kv Line Bays of 132kV D/C Hatsinghmari - Ampati Transmission Line at 132kV Hatsingimari GSS	INR (in Lakhs)	9.468	9.966	10.488	11.040	11.610
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*Proportionate O&M charges shall be paid from the date of commercial operation (COD)

- c) The aforementioned annual O&M Charge does not include any taxes & duties (GST). All applicable taxes & duties (GST) on annual O&M charge shall be paid by NBTL in addition to the annual O&M Charges.

5.0 INSURANCE

NBTL shall take mandatory and adequate insurance cover, to be periodically renewed at its own cost to cover the damage/Loss to its equipment resulting out of any cause and including theft incident. In the event of making any insurance claim by NBTL, it shall lodge claims with its insurer and get it processed for which AEGCL shall provide all required & necessary support.

6.0 AVAILABILITY OF SUBSTATION EQUIPMENT:

AEGCL shall maintain the Equipment on behalf of NBTL as per best industry practices, however following shall not be attributable to AEGCL:

- Outage of transmission elements due to force majeure.
- Outages on account of shutdown availed by other agencies.
- Outage due to overvoltage or as per the directions of NERLDC.
- Outage caused by grid incident or disturbance not attributable to AEGCL.

7.0 TERMS OF PAYMENT:

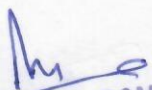
- Payments shall be made in advance by NBTL on a quarterly basis within 30 days of submission of invoice by AEGCL.
- In case NBTL fails to release the payment within 30 days of presenting the invoice, interest charges @ 15% per annum shall be levied.

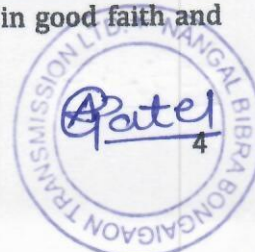
8.0 EFFECTIVE DATE & CONTRACT PERIOD:

The Agreement will remain in force till the expiry of 5 years from the date of signing of this Agreement or transmission license of AEGCL whichever is earlier or as directed by the Central Government. After 5 years, the Agreement will be renewed as per CEA prevailing guidelines for O&M

9.0 GENERAL TERMS & CONDITIONS:

- Liability of compensation towards generation/ load loss due to outage of the Equipment shall be the responsibility of NBTL. In no way, AEGCL shall be responsible for generation loss on account of outage of the line. However, AEGCL shall endeavor in good faith and best effort basis to restore the system on priority.


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- b) AEGCL shall arrange planned shutdown of the Equipment after written concurrence of NBTL as and when required. Annual maintenance of Equipment shall be coordinated among AEGCL and NBTL.
- c) Any delay due to limitation imposed on shutdown duration or non-performance of testing due to non-availability of shutdown will not be the responsibility of AEGCL. This will be treated as reasons beyond the control of AEGCL.
- d) To ensure proper coordination between AEGCL and NBTL for carrying out the O&M, both AEGCL and NBTL shall nominate Nodal officer, who shall be the focal point for all matters related to this Agreement.
- e) In case of any abnormalities in test results or during O&M of equipment are noticed, the same shall be brought to the notice of NBTL and any necessary corrective measures required shall be taken on mutual agreement.

10. PAYMENT TO OTHER AGENCIES:

The following payments, if required shall be paid by NBTL:

- a) Payments of statutory charges to electrical inspector, NERLDC, local authorities etc.,
- b) Compensation payable to third parties due to accidents/mishaps.
- c) Payment liabilities arising out of litigation between the NBTL and third parties with respect to the systems installed by NBTL.
- d) Any other charges not covered under Scope of Services.

11. TAKING OVER BY THE OWNER:

Upon expiry of this Agreement, responsibility of AEGCL for maintenance of Equipment shall cease unless NBTL and AEGCL agree in writing to renew the Agreement.

12. FORCE MAJEURE:

- a) The term Force Majeure shall be as per Transmission Service Agreement (TSA).
- b) AEGCL shall not be liable for any delays in performing its obligation resulting from force majeure causes as referred to and/or defined herein above. However, it shall be the responsibility of the AEGCL to take all reasonable steps to ensure mitigation of the situation/ delay. Should one or both Parties be prevented from fulfilling their obligations by state of force majeure lasting for a period of one month, both Parties shall consult each other and decide as to further course of action.

13. TERMINATION OF AGREEMENT:

- a) In the event when the Parties mutually agree to terminate the Agreement, on account of Force Majeure reasons, the termination shall take effect from the date and time be agreed upon mutually.


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- b) In the event of any directives given by Central Government, the agreement would be deemed terminated.
- c) In the event of termination of this Agreement, O&M Charges shall be paid to AEGCL for works performed by it up to the date of termination as per the terms and conditions of this Agreement. AEGCL shall be paid proportionately for such items of work, which have been completed/partially completed up to the date of termination.

14. SETTLEMENT OF DISPUTE AND ARBITRATION:

- a) This Agreement shall be governed by and construed in accordance with the law of India.
- b) All differences and/or disputes between the parties arising out of or in connection with these presents shall at first instance be settled through amicable settlement.
- c) In case of non-settlement of dispute or difference, matter shall be referred to CEA for the resolving the matter.
- d) In case where either of or both the parties are private entities, all dispute(s) or difference(s) between NBTL and AEGCL arising out of or in connection with this Agreement that could not be settled mutually or with mediation of CEA, the Parties shall resolve the dispute(s) or difference(s) in accordance with the arbitration procedures stipulated under the Arbitration and Conciliation Act 1996. and/ or any amendment/ reenactment ("**Arbitration Act**") thereof.
- e) The seat and venue of arbitration shall be at Guwahati.
- f) Notwithstanding existence of any disputes and differences referred to the arbitration, the parties herein shall continue to perform their respective obligations under this Agreement.

15. THIRD PARTY DISPUTE:

If any litigation/arbitration cases crop up due to various contract orders placed by AEGCL during the currency of this Agreement, AEGCL shall resolve the same on behalf of NBTL.

16. JURISDICTION:

All disputes arising out of and touching or relating to the subject matter of contract shall be subject to the jurisdiction of courts at Guwahati.

17. AMENDMENT:

This Agreement may be amended or modified, if any directions in this regard are issued by Central Government, by a written instrument signed by the Parties and the same shall be considered as an integral part of this document.

18. NOTICE OF DEFAULT:

Notice of default given by either party to other party under this Agreement shall be in writing and shall be deemed to have been duly and properly served upon the Parties hereto is delivered against acknowledgement due, addressed to the signatories to this Agreement.


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19. CORESPONDENCE:

- All communications from NBTL to AEGCL shall be addressed to the Assistant General Manager, Goalpara Transmission Division, AEGCL, Agia-783120
- All communications from AEGCL to NBTL shall be addressed to the Nodal officer nominated by NBTL in writing for the purpose of this Agreement at the following address of NBTL –
9th Floor, DLF Cyber Park, Sector-20, Udyog Vihar, Phase-3, Gurugram, Haryana- 113208

20. REPRESENTATIONS AND WARRANTIES

Each Party represents and warrants to the other Party that:

- a) it is duly constituted, validly existing under the laws of India.
- b) it has taken all necessary corporate and other actions to authorize the execution and delivery of this Agreement and to validly exercise its rights and perform its obligations under this Agreement; and
- c) it is not in violation of, or in default under, any laws which default, or violation would materially and adversely affect its ability to perform its obligations under this Agreement.

21. INDEMNITY AND LIMITATION OF LIABILITY

- a) Indemnity


Each Party ("**Indemnifying Party**") shall indemnify, defend and hold harmless the other Party ("**Indemnified Party**") against any and all demands, judgments and direct costs and expense, including in respect of any property damage, bodily injuries or death suffered by third parties resulting from breach of its obligations, fraud, negligence or willful default or any statutory non-compliance of the Indemnifying Party except to the extent that any such claim has arisen due to a negligent act or omission, breach of contract or breach of statutory duty on the part of the Indemnified Party.

- b) Limitation of Liability

Except as herein explicitly stated, no Party shall have any liability for any indirect, incidental and consequential damages. Notwithstanding anything to the contrary in this Agreement, the overall liability of the AEGCL under this Agreement, shall be limited to the Annual O&M Charges under this Agreement.

22. CONFIDENTIAL INFORMATION:

- a) All data, information, documents or reports furnished (whether in writing, verbally or by any other means and whether directly or indirectly) by either Party pursuant to this Agreement or in relation to the transactions contemplated under this Agreement, shall be treated, by the other Party, as confidential ("**Confidential Information**").
- b) Unless compelled to do so pursuant to applicable law, the Parties shall not disclose the Confidential Information to any third party without the prior consent in writing of the disclosing Party. The obligation of either Party as to confidentiality under this clause shall


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survive termination or expiration of this Agreement. However, disclosure of confidential information as per statutory requirement shall be exempted.



23. MISCELLANEOUS

- a) In no event shall either Party be liable for any special, incidental, indirect, consequential or exemplary damages arising out of this Agreement, including, without limitation, any costs, expenses or liabilities incurred as a result of lost profits or revenues.
- b) The Parties shall work and conduct themselves in compliance with all applicable laws.
- c) Binding Obligations: This Agreement is binding on the Parties in accordance with the terms agreed herein.
- d) Waiver: Any waiver by a Party of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach of the same or any other provision hereof.
- e) Severability: The invalidity or unenforceability of any provision of this Agreement shall not in any way effect, impair or render unenforceable this Agreement or any other provision contained herein, which shall remain in full force and effect.
- f) Assignment: NBTL shall have right to assign its rights and obligations under this Agreement to any of its affiliates, subsidiaries or group/ associate companies.
- g) Headings: Headings and subheadings are for convenience only and shall not be deemed to be a part of this Agreement.
- h) This Agreement and other documents or communications incorporated herein, represents the entire agreement between the Parties and supersedes all prior negotiations, understandings, and agreements, written or oral, relating to the subject matter herein.
- i) Nothing in this Agreement shall, or shall be deemed to create an agency, a partnership, or a relationship of employer and employee between the Parties and both the Parties are independent under this Agreement.
- j) This Agreement may be executed in one or more counterparts, each of which will be deemed to be an original copy of this Agreement and all of which, when taken together, will constitute one and the same instrument.

IN WITNESS WHEREOF AEGCL and NBTL hereto have fully executed this agreement and present through their authorized representatives on the Day, Month and Year mentioned above.


For & on behalf of AEGCL

Witnesses:

- 1)  (Durgajyoti Patra), O/o The MD, AEGCL.
- 2)  (Rupjyoti Saxena), O/o the MD, AEGCL.

For & on behalf of NBTL

Witnesses:

- 1)
- 2) 

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Annexure I

Detailed list of equipment to be undertaken for Operation and Maintenance works M/s NBTL assets at 132kV AEGCL Hatsinghmari substation

S.No.	Equipment Description	Unit	Qty
1	145 KV, 1250A, 40KA SF6 Circuit Breaker 3-phase with Support Structure	EA	2
2	145 KV, 600A, 40 KA, 1-phase Current Transformer	EA	6
3	145 KV, 4400 pF, 1-phase Capacitive Voltage Transformer	EA	6
4	145 KV, 1250A, 40KA, 3-phase Double Break Isolator without E/S	Set	2
5	145 KV, 1250A, 40KA, 3-phase Double Break Isolator with 1 E/S	Set	2
6	145 KV, 1250A, 40KA, 3-phase Double Break Tandem Isolator without E/S	Set	2
7	120 KV Surge Arrestors 1-phase	EA	6
8	132 KV, 800A, 40KA Line Trap	EA	2
9	FOTE	Panel	1
10	132 KV Control & Relay Panel for Line with Automation	Panel	2
11	PLCC	Panel	1
12	LT Switchgear (ACDB-1 & DCDB-2)	EA	3
13	Battery (110V-2 & 48V-1)	Set	3
14	Battery Charger (110V-2 & 48V-2)	Set	4
15	Illumination Systems	LS	1
16	DG (100 KVA)	Nos	1


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Annexure II

SWITCHYARD O&M ACTIVITIES

I. Current Transformer:

Sl. No.	Test Name/Maintenance Check	Frequency
1.	Measurement of Tan Delta & Capacitance	Yearly
2.	Measurement of Insulation Resistance (IR) value	SOS
3.	Measurement of Current Transformer (CT) secondary resistance	2 Yearly
4.	Magnetization characteristics	SOS
5.	CT ratio test	SOS
6.	DGA and testing of other parameter of oil	SOS
7.	Thermo-vision scanning of CT and top dome	Quarterly
8.	Checking of bellow expansion	Monthly
9.	Visual inspection of CT for oil leakage and crack	Monthly
10.	Checking of healthiness of marshalling box gaskets	Yearly
11.	Checking of space heater and illumination	Yearly
12.	Checking the tightness of all connections including earthing	Yearly
13.	Cleaning of marshalling box and junction box	Monthly

II. SF6 circuit breakers:

Sl. No.	Test Name/Maintenance Check	Frequency
1.	Checking of SF6 gas pressure (wherever pressure gauges are provided)	Daily
2.	Checking of oil leaks form grading capacitor	Monthly
3.	Status of healthiness of CSD relay	Monthly
4.	Tan delta and capacitance of grading capacitor	2 Yearly
5.	SF6 gas leakage test	SOS
6.	Dew point measurement of SF6 gas	2 Yearly
7.	Operating timing of Circuit Breaker (CB)/Pre-insertion Resistance(PIR)]	Yearly
8.	Static contact resistance	Yearly
9.	Checking of pole discrepancy relay	Yearly
10.	Checking of all operation lockouts	Yearly
11.	Checking of all interlocks	Yearly
12.	Cleaning of breaker interrupter, support insulators, PIRs and grading capacitors	Yearly
13.	Checking of healthiness of operation counter	Yearly
14.	Checking of tightness of all cable's termination in Marshalling Box (MB)	Yearly
15.	Checking of door sealing gaskets and replacement, if necessary	Yearly
16.	Repainting of metallic surfaces (if required)	2 Yearly
17.	Checking of space heater	Yearly
18.	Dynamic Contact Resistance Measurement (DCRM) test	2 Yearly

III. Capacitor Voltage Transformer:

1.	Visual checking of earthing HF (high-frequency) point [(in case it is not being used for Power Line Career Communication (PLCC)]	Yearly
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	system]	
2.	Checking for any breakage of cracks	Yearly
3.	Checking of oil leaks	Monthly
4.	Cleaning of Capacitive Voltage Transformer (CVT) capacitor stacks and tightness of terminal connections	Yearly
5.	Capacitance and tan-delta measurement	SOS
6.	Measurement of voltage ratio error	SOS
7.	Measurement of voltage at metering points in control room	Monthly
8.	Testing of EMU tank oil for Break Down voltage (BDV)	SOS
9.	Thermo vision scanning of capacitor stacks	Quarterly
10.	Checking of space heater and illumination	Yearly
11.	Checking and tightness of all connections including earth connections	Yearly
12.	Cleaning of marshalling box and junction box	Yearly
13.	Checking of healthiness of gaskets	Yearly

IV. Isolators:

1.	Maintenance of linkages and transmission gears	Yearly
2.	Cleaning of auxiliary switch contacts with rustolene spray	Yearly
3.	Lubrication of operating mechanism, hinges, locks, joints on leavers, bearings	Yearly
4.	Checking of all bolts for tightness	Yearly
5.	Cleaning and lubrication of main contacts	Yearly
6.	Alignment	Yearly
7.	Main contact resistance measurement	Yearly
8.	Tightness of bolts, nuts and pins etc	Yearly
9.	Cleaning of support insulators and checking of insulator cracks, if any	Yearly
10.	Thermo vision scanning of insulator hinges and contacts	Quarterly


V. Earth Switch:

1.	Checking & alignment of earthing blades	Yearly
2.	Cleaning of contacts	Yearly
3.	Contact resistance	Yearly
4.	Operation of earthing switch	Yearly
5.	Checking of aluminum/copper flexible conductor	Yearly
6.	Checking of earth connections of structure and Manual Operating Mechanism (MOM) box	Yearly
7.	Visual check of auxiliary contacts	Yearly
8.	Cleaning and terminal tightness in MOM box	Yearly
9.	Checking of space heater and illumination	Yearly
10.	Checking of healthiness of marshalling box gaskets Surge Arresters	Yearly

VI. Surge arrester:

1.	Checking of leakage current	Monthly
2.	Reading of surge counter	Daily
3.	Testing of counters	Yearly
4.	Cleaning of Lightning Arrester (LA) insulator	Yearly
5.	Measurement of capacitance and tan-delta	SOS

6.	Measurement of IR value	SOS
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7.	Stack meggering	SOS
8.	3rd harmonic resistive current measurement	4 Monthly

VII. Wave Traps:

1.	Tightness and cleanliness	Yearly
2.	General inspection	Yearly

VIII. Protection System:

1.	Testing of Disturbance Recorder and Event Logger	Monthly
2.	Calibration of panel meters (indicating / recording instruments along with the transducers)	Yearly
3.	Calibration of tariff/non-tariff energy meters	SOS
4.	Secondary injection test of individual protection schemes	5 Yearly
5.	Checking of voltage (in services) for relays	Half Yearly
6.	Checking of Direct Current (DC) logic circuits for trip and ammonization including timers and simulation	Yearly

IX. Line Protection Distance Protection:

1.	Reach check for all four (4) zones	Yearly
2.	Time measurement	Yearly

X. PLCC System:

1.	Power supply measurements	Yearly
2.	Checking of alarms	Yearly

XI. Miscellaneous:

1.	Measurement of station earth resistance	Yearly
2.	Cleaning of insulator for cracks	Yearly
3.	De-weeding of switchyard	Monthly
4.	Repainting, rust removal of all structures, equipment's etc	SOS
5.	Checking of switchyard lighting	Daily

XII. Thermal Imaging & Corona Scanning:

1.	Thermo vision scanning of all conductor joints, terminal connector/clamps	Quarterly
2.	Removal of hot spots	SOS
3.	Corona Scanning of Bay equipment	Yearly


XIII. Other Operational activities:

1.	Visual checking of the bay	Daily
2.	Isolation & restoration of bays as per LDC instruction	As required
3.	Mega Watt (MW)/Mega Volt Ampere Reactive (MVAR) meter reading (line flows)	Hourly
4.	Energy Meter readings	Daily
5.	PLCC counter readings	Daily
6.	Battery charger voltage and current	Daily
7.	Measurement of cell voltage	Monthly
8.	Healthiness of FF system	Daily
9.	Healthiness of SAS system/DR PC/Event Logger	Daily

10.	Providing trip related information/ documents to LDC/New TSP	As required
11.	Healthiness of AC plant system/KIOSK AC	Daily
12.	Defect Records	As required
13.	Healthiness of Emergency DC Lighting system	Monthly

SOS: As and when needed.

The above test / Maintenance check / Frequency shall be followed, however, can be modified if mutually agreed by both parties.



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Annexure III

List of Major Breakdown

1. **Equipment Failure resulting in replacement or repairing:**
 - (a) Failure of Circuit breaker
 - (b) Failure of CT/CVT
 - (c) Failure of LA/Wave trap
 - (d) Failure of Isolator
 - (e) Failure of bus bar/Jack bus
2. **Equipment Foundation issues**
3. **Failure/malfunction of Control Protection resulting in replacement:**
 - (a) Distance, differential, REF, PLCC/DTPC relay system etc.



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Annexure IV

Minor Consumable/ Small Spares List

S.No	Description
1	Nut & Bolts
2	Terminal Blocks
3	Ferrules
4	Wires
5	Indicating Lamps
6	Control switches
7	Grease
8	Fuses
9	FO cable (LC-ST--> 6 Mtre)
10	CAT6 LAN Cable
11	RJ45 Connector
12	CFL Bulb
13	Capacitor
14	Choke
15	Ignitor
16	CB Trip Coil
17	CB Closing coil
18	SF6 gas cylinder
19	DG Engine Oil
20	DG Coolant
21	DG Battery Water
22	Insulation Tape
23	Battery bank cell
24	Petroleum jelly
25	OFC cable
26	Basic testing equipments calibration
27	Diesel for DG set
28	Any other mutually agreed


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