

**NATIONAL INSTITUTE OF PLANT GENOME RESEARCH**  
(Department of Biotechnology, Ministry of Science and Technology, Govt. of India)  
Aruna Asaf Ali Marg, New Delhi-110067  
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**TENDER NOTICE**

Tender No.: NIPGR/Engg./6/7/2015-16/

Dated: 27.05.2015

Sealed item rate Tenders in single bid system are invited on behalf of the Director, NIPGR, New Delhi from the authorized agencies of Larsen & Toubro (L&T) / ABB having valid authorization to maintain / service, electrical switchgears, for the year 2015-16, so as to reach this office up to 3.00 P.M. on or before 16.06.2015 for the following work:

**Name of Work:** Annual Maintenance Contract (A.M.C.) non-comprehensive of Low Tension Switchgears at Main and Plant Growth Facility Substation at NIPGR Campus, New Delhi for the year 2015-16.

Sl. No.	Estimated Cost	EMD (In ₹)	Time for Completion	Last date & time for sale of Tender Documents	Last date & Time of receipt of Tender	Date & time of opening of tenders
1.	2.	3.	4.	5.	6.	7.
1.	₹ 3.55 lakhs	₹ 7,100.00	12 Months	15.06.2015 16.00 Hrs.	16.06.2015 15.00 Hrs.	16.06.2015 15.30 Hrs.

Tender document can be obtained up to 16.00 Hrs. on all working days on payment of ₹ 500.00 (₹ Five hundred only) in cash (Non-refundable) towards the cost of tender. The earnest money shall be in the form of Demand Draft of a Scheduled Bank issued in favour of the **Director, NIPGR, New Delhi**.

The tender document can also be downloaded from our website [www.nipgr.ac.in](http://www.nipgr.ac.in) and CPP Portal. The tender document downloaded from website must be accompanied with ₹ 500.00 (₹ Five hundred only) in the form of Demand draft in favour of the "**Director, NIPGR, New Delhi**" towards the cost of tender document, otherwise the tender will not be considered.

The earnest money shall be in the form of Demand Draft of a Scheduled Bank issued in favour of the **Director, NIPGR, New Delhi**.

The tenders will be accepted in respect of those contractors having successfully completed three similar works each costing not less than ₹ 1.42 lakhs or two similar works each costing not less than ₹ 1.78 lakhs or single similar work of costing not less than ₹ 2.85 lakhs and having minimum annual financial turnover of ₹ 3.50 lakhs, during the last three years ending April 2015. Similar works means "Service and Maintenance of ACBs & Capacitors Banks in Govt. organizations, Govt. Autonomous organizations, PSUs and reputed organizations. The agency must submit the copy of authorized certificate along with the tender. The preference shall be given to the agency having authorization of the companies i.e. Larsen & Toubro (L&T) / ABB.

Intending tenderers must enclose self-attested copies of Completion Certificate of having completed the work satisfactorily issued by an appropriate competent authority.

The Director, NIPGR, reserves the right to accept or reject all or any of the tender without assigning any reasons thereof.

**Consultant Engineer**  
**NIPGR, New Delhi**

### SCHEDULE OF QUANTITY

**SUB.:** Annual Maintenance Contract (A.M.C.) non-comprehensive of Low Tension Switchgears at Main and Plant Growth Facility Substation at NIPGR Campus, New Delhi for the year 2015-16.

**Part-A** (As per maintenance schedule given at Annexure A,B &C)

Sl. No.	Description	Qty.	Unit	Price / Unit	Amount
	Annual Preventive & breakdown maintenance of LT switchgears for the year 2015-16				
<b>Main Substation:</b>					
1.	ACB 800 A – 1600 A EDO L&T Make	07	Each		
2.	ACB 2000 A – 2500 A EDO L&T Make	07	Each		
3.	ACB 800A-1600A EDO ABB make	01	Each		
4.	ACB 2000 A – 2500 A EDO ABB Make	03	Each		
5.	Capacitor Bank L&T Make	1000 KVAR	Per KVAR		
6.	Capacitor Bank Neptune Make	550 KVAR	Per KVAR		
<b>Plant Growth Facility Substation:</b>					
7.	ACB 800 A – 1600 A EDO L&T Make	05	Each		
8.	Capacitor Bank	500 KVAR	Per KVAR		
<b>Total Amount</b>					
<b>[Amount in Words:.....]</b>					

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(सुनील कुमार शर्मा)  
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**LIST OF SPARES (IF AND WHEN REQUIRED)**

**Part-B**

Sl. No.	Description of items	Make	Make/Model No./Catalogue No./Code No.	Qty.	%age value of Discount on catalogue price of OEM
1.	Power Contactor	L&T	L&T make, MNX 225,3P	01	
2.	Power Contactor		L&T make, MNX 95,3P	01	
3.	MCCB		L&T make, 3P,DL 100, 63A, Th. Range-50-63A, Icu-50kA	01	
4.	Spring Charging Motor		For C-Power ACB, ACB Rating-1250A	01	
5.	Spring Charging Motor		For U-Power ACB, ACB Rating-1000A	01	
6.	Spare contact kit		L&T make, MNX 225,	01	
7.	Spare contact kit		L&T make, MNX 95	01	
8.	Three phase Voltage and Frequency relay with df/dt and dv/dt protection		L&T make, UFD34, 20 - 110V AC/ DC,	01	
9.	Over/Under Voltage Relay		L&T Make, MV12A, 20-110V AC/DC	01	
10.	Auxilliary Contactor	ABB	ABB make, N22E, 2NO+2NC	01	

**NOTE:** 1. The agency shall quote single discount value for each manufacturer i.e L&T and ABB. Any agency who will quote different discount value for each item of same manufacturer, the highest value of discount shall be considered for all items.

2. The spare parts other than above listed items shall also be arranged by the agency at quoted highest discount percentage value on manufacturer's (L&T and ABB) catalogue price and no extra cost shall be allowed.

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## TERMS & CONDITIONS

**SUB.: Annual Maintenance Contract (A.M.C.) non-comprehensive of Low Tension Switchgears at Main and Plant Growth Facility Substation at NIPGR Campus, New Delhi for the year 2015-16.**

1. The site of work is at NIPGR Campus, Aruna Asaf Ali Marg, New Delhi – 110067.
2. The contractor should quote the rates after visiting the site of work and assessing the quantum of work involved.
3. The quoted rates should be inclusive of transportation / traveling, lodging / boarding, loading, unloading & handling charges and nothing extra will be paid.
4. The rates are inclusive of VAT, Service Tax, other taxes, octroi, etc., and nothing extra will be paid.
5. The quotation must be accompanied with E.M.D. of Rs. 7100.00 (Rupees Seven thousand one hundred only) by way of D.D. drawn in favour of Director, NIPGR, payable at New Delhi.
6. The E.M.D. should be placed in a separate cover and will be opened first. The quotation not accompanied with E.M.D. will not be considered. The quotation shall be submitted in prescribed format issued by the institute.
7. All papers attached with this quotation should be signed & returned in original.
8. The quotation will be accepted in respect of those contractors having successfully completed three similar works each costing not less than Rs. 1.42 lakhs or two similar works each costing not less than Rs. 1.78 lakhs or single similar work of costing not less than Rs. 2.85 lakhs and having annual financial turnover of Rs. 3.50 lakhs, during the last three years ending Feb-2015. Similar works means "Service and Maintenance of ACBs & Capacitors Banks in Govt. organizations, Govt. Autonomous organizations and PSUs and reputed organizations. The preference shall be given to the agency having authorization of the companies i.e. L&T & ABB.
9. The tender will be accepted in respect of those agencies having valid authorization to maintain/service electrical switchgears of L&T/ABB electrical Switchgears for the year 2015-16. The agency must submit the copy of authorization certificate along with the tender.
10. The agency shall quote single discount value for each manufacturer i.e L&T and ABB. Any agency who will quote different discount value for each items of same manufacturer, the highest value of discount shall be considered for all items.
11. The Security Deposit @ 10% of the work done shall be recovered and refunded after completion of defect liability period. However, the E.M.D. will be adjusted against the security deposit.
12. The Institute is at liberty to accept tender in part or cancel any or all tenders without assigning any reason
13. Payment shall be made after completion of work on half yearly pro-rata basis.
14. Statutory variation: During the execution of the job, in case the Government levies any new taxes on service or supply of spares, etc., shall be to NIPGR account.
15. Services shall be carried out as per schedule fixed by the Institute including on Saturdays, Sundays and Holidays. However, one-week prior notice will be given of our planned shutdown to carryout the maintenance activity.
16. Service report: A detailed report after executing the job shall be submitted.
17. The above job shall be executed by the trained technicians from M/s L & T's/ABB authorized service centers under the supervision of agency's Engineers.
18. The contractor shall perform and record all the checks as per Annexure 'A, B & C' enclosed.
19. A detailed report after execution of work shall be submitted.
20. The below standard work shall be redone and nothing extra will be paid.



21. The contractor shall carry out preventive maintenance of all the equipments as required.
22. The preventive maintenance contract covers the following services:
- |                           |   |              |
|---------------------------|---|--------------|
| a. Preventive maintenance | - | Annexure - A |
| b. Regular maintenance    | - | Annexure - B |
| c. On-call services       | - | Annexure - C |
23. Spare parts shall be arranged by the contractor at quoted highest discounted percentage value on manufacturer price list. The payment shall however be made after supply and installation of spare parts. It shall be the responsibility of the contractor to arrange the genuine spares. The installation of spare parts shall be the part of AMC and nothing extra will be paid. The agency shall also provide manufacturer/authorized dealer's bill copy of spare parts from where the agency purchased the spare parts. The spare parts other than list of Part-B shall also be arranged by the agency at quoted discount percentage value on manufacturer's then price list and no extra cost will be given.
24. The agency shall have to arrange his own tools & plants necessary for maintenance of the work including laptop etc. No tools & plants shall be arranged by the department.
25. All the consumable materials viz. CRC, cleaning cloth, zero grade emery paper, required at the time of service and emergency breakdown shall be arranged by the agency.
26. The service personnel shall attend the emergency complaint within 4 hours.
27. In case of any faulty part taken out of any switchgear and replaced, the same shall be handed over to the Institute.
28. Any other defect observed during service, which will affect the performance of switchgear shall be recorded by the agency and the agency shall give a copy of the same to the Institute for records and further action.
29. Any damage to the existing installations during the execution of work will be the responsibility of the agency and will be made good to the satisfaction of the Engineer-In-Charge and nothing extra will be paid. In case the site clearance and damages are not attended, a recovery amounting to Rs.5000/- shall be made.
30. Any accident / electrocution caused due to negligence or during the course of normal work etc., shall be responsibility of the agency. The agency shall be directly responsible for all compensation to the staff engaged by him.
31. All safety precautions shall be taken so as to avoid any accident or inconvenience to the members of staff.
32. Any damage caused to the equipments, etc., during maintenance shall be made good by the agency and nothing extra will be paid.
33. The department reserves the right to terminate the work/contract at any time without assigning any reason.
34. The Institute also reserves the right to reduce/ increase the scope of work to a maximum of 50%.
35. The validity of rates is for one year which may be extended by mutual consent.
36. While quoting the rates PAN & TIN issued by concerned authorities must be mentioned.
37. The defect liability period of AMC shall be one month from date of completion and for spare parts, shall be for 12 months from date of installation.

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## **Annexure – A**

### **PREVENTIVE MAINTENANCE CHECKS**

- It covers two preventive maintenance checks during the AMC period.
- The activities for each routine maintenance shall be:
  - Check the ACB under contract for its general performance.
  - Terminations of all the products covered under AMC shall be checked for any abnormal temperature rise.
  - Product wise report on its performance shall be submitted.
  - Service engineer shall visit once in a month (in first week) at site for general checking.
  - All the checks that are performed in the regular maintenance service shall form a part of the preventive maintenance check
    - 1) Checking and adjust freeness of DN and volt metric release trip rod.
    - 2) Check condition of arcing contact and gap between fixed and moving arcing contacts shall be checked.
    - 3) Checking condition of arc chutes.
    - 4) Setting of release as per the load
    - 5) Checking the healthiness of CTs
    - 6) Checking motor operation in case of EDO ACB
    - 7) Checking closing coil operation in case of EDO ACB
    - 8) Checking the reset mechanism, tripping of breaker through push button

### **CAPACITOR**

- Measuring the capacitor current in each phase.
- Capacitor, which is out of circuit, the same, shall be checked by capacitance meter.
- Checking of the discharge resistor.
- Checking physical condition of each capacitor (like-oil leakage etc.).

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## Annexure – B

### Regular Maintenance Service

#### A. Air Circuit Breaker (A.C.B.).

- Cleaning of breaker with CRC-2-26
- Removal of old grease and re-greasing the same with recommended grease.
- Check condition of arcing contact and gap between fixed and moving arcing contacts shall be checked.
- Checking the reset mechanism, tripping of breaker through push button
- Checking tripping of ACB through protection release
- Tripping of ACB manually through volt metric release.
- Checking and adjust freeness of DN and volt metric release trip rod
- Checking presence and proper tightening of hardware.
- Checking presence of all cir clips
- Checking condition and alignment of jaw contact with cradle terminals
- Checking condition of ACB wiring and replace if required
- Checking and adjusting gap between hylam sheet and side plate
- Checking proper closing of all poles together
- Checking working of anti pumping device of ACB.
- Checking alignment of SIC and it's operation
- Checking condition of arc chutes
- Checking ACB tripping through shunt release
- Checking motor operation of EDO ACB
- Checking closing coil operation of ACB
- Checking continuity and proper changeover of aux contact block
- Checking of release by secondary injection for O/L, S/C, E/F
- Setting of release as per the load
- Checking the healthiness of CTs

#### B. Capacitor:

- Measuring the capacitor current in each phase.
- Capacitor which is out of circuit, the same shall be checked by capacitance meter.
- Checking of the discharge resistor.
- Checking physical condition each capacitor (like – oil leakage, etc.).

The spare parts, products or accessories required to fix the problem shall be provided by the Institute.

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## **Annexure – C**

### **ON CALL - EMERGENCY BREAK DOWN SERVICE:**

- Service personnel shall attend to the complaint within 4 hours.
- The above timelines are subject to modification depending on our need and other constraints.
- All tools, instruments etc shall be brought by your service personnel.
- The spare parts, products or accessories required to fix the problem shall be provided by NIPGR.
- A report of the complaint and action taken by the agency shall be submitted after attending/ rectifying the complaint.

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