BrahMos Aerospace Private Limited
Post-Dulania, Pilani, District-Jhunjhunu
Rajasthan-333031
Phone No : 01596-275202/201

BrahMos
An India-Russia Joint Venture

RFP No: BMP/Admin/RFP/26-27/001 **Date: 27 Oct 2026**

REQUEST FOR PROPOSAL (RFP) FOR SUBMISSION OF TECHNO-COMMERCIAL & PRICE BID FOR NON-COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (NC-AMC) FOR ELECTRICAL ASSETS, DG SETS, PUMP HOUSE, FIREFIGHTING, WATER TREATMENT, FIRE ALARM, BMS & HVAC SYSTEM OPERATIONS & MAINTENANCE INCLUDING MANPOWER DEPLOYMENT SERVICES AT BAPL PILANI

Dear Sir/ Madam,

1. BrahMos Aerospace Private Limited, hereinafter referred to as **Buyer**, intends for provisioning of Non-Comprehensive Annual Maintenance Contract (NC-AMC) For Electrical Assets, DG Sets, Pump House, Firefighting, Water Treatment, Fire Alarm, BMS & HVAC System Operations & Maintenance including manpower deployment services at BAPL, PILANI.

2. This RFP is divided into 7 Parts as follows:

PART I	:	General Information & Instructions for the Bidders
PART II	:	Scope of Work
PART III	:	Evaluation Criteria of Bids
PART IV	:	Special Terms & Conditions of RFP
PART V	:	Standard Terms & Conditions of RFP
PART VI	:	Format for Price Bids
PART VII	:	Compliance Statement

3. This RFP is neither an agreement and nor an offer by Buyer to the prospective Bidders or any other person. The purpose of this RFP is to provide interested parties with information that may be useful to them in submitting their proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by Buyer in relation to the Project. This RFP document and any assumptions, assessments and statements made herein do not purport to contain all the information that each Bidder may require. The Bidder shall bear all its costs associated with or relating to the preparation and submission of proposal pursuant to this RFP. Wherever necessary, Buyer reserves the right to amend or supplement the information, assessment or assumptions contained in this RFP. Buyer reserves the right to withdraw the RFP or foreclose the procurement case at any stage. The issuance of this RFP does not imply that Buyer is bound to shortlist a Bidder for the Project. Buyer also reserves the right to disqualify any Bidder should it be so necessary at any stage on grounds of National Security.

4. The receipt of the RFP may please be acknowledged.

Thanking you.

FOR BrahMos Aerospace Private Limited

General Manager
27/10/2026

27-10-26

PART-I: GENERAL INFORMATION AND INSTRUCTIONS FOR THE BIDDERS

5. The salient aspects and timelines of the acquisition are tabulated below. In case of any variation in the details furnished below or in any Annexures(s) with that mentioned in the RFP, information furnished in the main body of the RFP at referred Paragraph is to be followed.

(a) The address and contact numbers for sending Bids is given below:

Bids to be addressed to:	**S Srinivasa Rao** General Manager Mobile No- 01596-256-202
Postal address for sending the Bids	**BrahMos Aerospace Pvt Ltd.** **DRDO, PJ-10 Complex,** **Post Dulania,** **Pilani, Rajasthan-333031**
Contact Nos. & E-mail	bapipilani@brahmos.com Mobile-01596-256-202/201

(b) **LAST DATE AND TIME FOR DEPOSITING THE BIDS:** The sealed Bids under **Two-Bid *system (separate Techno-Commercial Bid & Price Bid)*** should reach at the above given address through post/courier/in person should be dropped in tender box. Tender box is placed in front of Reception area at BrahMos Security gate, latest by **dt: 18 Nov 2026.** The responsibility to ensure this lies with the Bidder. **Early submission of the Bids is acceptable to the Buyer. E-mail quotes shall not be entertained and rejected.**

(c) **FORWARDING OF BIDS:** Bids shall be forwarded by the Bidder under their original memo/letter pad inter alia furnishing details like GST number, Bank address with NEFT Account, if applicable, etc., and complete postal & e-mail address of their office. Two Separate Sealed Envelopes and then be put in a single outer envelope(sealed) with the **'Bidder Details, RFP No., Last Submission Date'** pasted on top.

(d) **PRE-BID CLARIFICATION:**

(i) Prior to preparation of the Techno-Commercial Bid, clarifications, if any, regarding the technical terms & conditions be obtained from the **Mr. Anil Badsara, Sr. Executive (Admin & Utility), Contact No. 01696-256-201, Mobile No- 7584073770 & Email:** anil840@brahmos.com **within 10** working days from the date of publish/receipt of RFP

(ii) Un-willingness of the Bidder to participate in Bid may be communicated to **Mr. Anil Kumar Badsara, Sr. Executive (Admin & Utility), Pilani, 01596-256-201, Mobile No-7584073770 within 10** working days from the date of publish/receipt of RFP.

(e) **CLARIFICATION REGARDING CONTENTS OF THE BIDS:** During evaluation and comparison of Bids, the Buyer may, at its discretion, ask the Bidder for clarification of his Bids. The request for clarification will be given in writing and no change in prices or substance of the

Bids will be sought, offered, or permitted. No post-Bid clarification on the initiative of the Bidder will be entertained.

(f) **CONDITIONS UNDER WHICH THIS RFP IS ISSUED:** This RFP is being issued with no financial commitment. The Buyer reserves the right to withdraw the RFP and change or vary any part thereof or foreclose the procurement case at any stage. The Buyer also reserves the right to disqualify the Bidder, should it be so necessary at any stage.

(g) **VALIDITY OF BIDS:** The Bids should remain valid till **90** Days from the last date of submission of the Bids.

PART-II: SCOPE OF WORK

6. This section will include the following:

6.1 General Scope of Work: Scope of work includes provisioning of Non-Comprehensive Annual Maintenance Contract (NC-AMC) for electrical assets, DG sets, pump house, firefighting, water treatment, fire alarm, BMS & HVAC system operations & maintenance including manpower deployment services.

6.2 The work shall be carried out in accordance with standard engineering practices/ codes, specifications/ drawings, and instructions of the Engineer-in-charge/ authorized representatives of BAPL, Pilani.

6.3 Detailed Scope of Work/Technical Requirements/Operations & Maintenance Services/ Specifications is enclosed as **Annexure–1.**

6.4 Validity of Contract: This contract shall be valid for period of **One year (12 Months).** The period is tentative and is liable for increase/ decrease by BAPL as per requirement and performance of the Contractor. The contract may be extended for a further period of One year on the same terms & conditions subject to satisfactory performance of contractor and on mutual agreement basis.

6.5 Any breakdown pertaining to critical machinery (DG Sets, HVAC, Transformers) shall be attended immediately with in 01hour. The minor breakdown attributable to service and maintenance carried by firm shall be repaired/ rectified within 24/48 hours, for major breakdown within 05 to 06 days by service provider. Major spares/repairs shall be dealt with separately as per requirement and approval of competent authority.

6.6 Site Visit: Before quoting, the service provider may visit the site for getting firsthand information on the site conditions, the locations, and other aspects. The bidders are advised to visit and examine the site of works and their surrounding and obtain for himself and on his own responsibility all information that may be necessary for preparation of the bid and entering contract. The costs of visiting the site shall be at bidders own expensive. No extra claim on account of non-familiarity of site conditions shall be entertained during execution of work. **Pre-bid meeting will be conducted on 05 Nov 2026.**

PART-III: EVALUATION CRITERIA OF BIDS

7. The Bidder is required to submit detailed Techno-Commercial Bid containing all Terms & Conditions as enumerated at **Part II, Part III, Part IV, Part V, Part VI** and **Part VII** of this RFP and give confirmation of their acceptance of all Terms & Conditions which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e., Seller in the Contract) as selected by the Buyer. The deviations, if any, may be clearly indicated in the Bid along with the Compliance Statement in the format enclosed at **Part-VII**. Failure to do so may result in rejection of Bid submitted by the Bidder.
Only those Bids will be evaluated, which are found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially. The bidder, whose price is arrived as lowest as per Evaluation criteria, will be declared as **L-1 bidder** by Buyer.

8. **EVALUATION OF TECHNO-COMMERCIAL BID:** The Techno-Commercial Bid forwarded by the Bidders will be evaluated by a Techno-Commercial Evaluation Committee (TCEC) to confirm that the items being offered meet the requirement. The TCEC will examine the extent of variations/differences, if any, in the technical characteristics of the items offered by Bidder.

9. **EVALUATION OF PRICE BID:**

(a) The Price Bids of only those Bidders will be evaluated, whose technical bids have been cleared by the TCEC committee. The unopened Price Bids will be evaluated based on complete scope and not individual line-item wise basis.

(b) Quoted Price will be evaluated to determine the L-1 vendor based on the following condition:

The evaluation will be based on the aggregate total cost, which includes Manpower deployment **(Annexure–F) &** List of compulsory service **(Annexure–E).**

Note: To facilitate L-1 evaluation, Bidders must submit the final, consolidated total prices for the **Annexures (F & E)** in **(Part VI, Format for Price Bid)**

(c) If there is a discrepancy between words and figures, the amount mentioned in words shall prevail.

10. **PROCEDURE FOR COST COMPARISON:** The basis for comparison of cost in different situations would be as follows:

(a) Price to be quoted in Indian Rupees only.

(b) The financial bids of the qualified bidders will be compared based on price quoted in the price bid format of the RFP/Bid document.

(c) If the competition is only among Indian bidders, the financial comparison should be considered based on FOR destination prices excluding statutory levies, taxes, and duties payable on final product.

PART-IV: SPECIAL TERMS & CONDITIONS OF RFP

The Bidder is required to give confirmation of their acceptance of Special Terms and Conditions of the RFP mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder as selected by the Buyer. Failure to do so may result in rejection of Bid submitted by the Bidder.

11. **NON-COMPREHENSIVE ANNUAL MAINTENANCE (NC-AMC):** The bidder must be a registered firm/company.

12. **Criteria:** The bidder must be an individual (Sole Proprietorship, Partnership / Company Firm, LLP), engaged in providing of maintenance services for electrical assets, DG sets, pump house, firefighting, water treatment, fire alarm, BMS & HVAC system operations & maintenance including manpower deployment services. The bidder must have all requisite licenses/certification from authorities and should have qualified and competent manpower in provision of maintenance services.

13. **ELIGIBILITY AND QUALIFYING REQUIREMENTS**: Bidder shall meet the following qualification criteria and bidder shall submit all the relevant documents supporting the qualification criteria. Bids not meeting the criteria will not be considered for evaluation:

    (a) Tenderer shall have a minimum of 03 years of experience in the field of maintenance of External & Internal Electrification, DG Sets, HVAC, BMS, Pump House Installations & Equipment for Defense PSUs/ PSUs/ Reputed private organizations/ Defense units/ MNCs, etc is preferred.
    (b) Electrical License from State Electricity board of applicable Grade – of LT (440V) or HT (11KV)
    (c) For Fire Alarm System and BMS system – Authorized service provider certification from Siemens is MUST.
    (d) Bidder should have executed similar work or should have similar set of experience:

    Definition of similar work(s): AMC contracts related to maintenance of External & Internal Electrification, HVAC, BMS, DG Sets, Pump House, Installations & Equipment.

    Note:

    i) Average Annual financial turnover during the last 3 financial years ending 31 March 2026 should be at least 1,50,000,00/- (Rupees 1.5 crores/year).

    ii) The Bidder must submit documentary proof **(PO,s/ work order/supply order/ contract executed in last 03 years as well as financial turnover certificate issued by CA indicating the financial status of firm)** in support of each of the above conditions along with the techno commercial bid Part-I. Offer by the bidders who fail to submit the supporting documents or fail to qualify as per qualifying criteria will not be considered. Work executed certificate from its client/contractor to be submitted as proof in support of para 14 & 15 as above.

14. Any damage/loss caused due to mis-handling or misuse of any equipment shall be repaired/replaced by the contractor at his own cost. All liabilities arising out of accident or death while on duty shall be borne by the contractor.

27/10/26

15. In case of any equipment or property of the BAPL is damaged by the service provider or his employees /agents, the same shall be rectified "free of any charge by the service provider within the period specified by the Engineer-in-charge. If the repair is not carried out within the specified period, the service provider shall pay immediately the amount specified by the BAPL for the damage otherwise the amount will be recovered from the payments due to the service provider.

16. **Penalty:** Failure to attend a breakdown call within 24 hours from the intimated time may lead to a penalty of Rs.5000/- per day. If the system is not restored within a reasonable time, the work may be done by other agencies at the risk and cost of the contractor. BAPL, Pilani may also issue notices for unsatisfactory / poor services, as and when required. However, the bidder/contractor will have no option to withdraw from the contract on his own during the Initial contract period. The assets shall be handed over at the end of the notice period to the BAPL engineer-in-charge.

17. **Personnel:** The persons employed shall possess requisite professional qualifications, experience, and competency in the specified field / area of work. The minimum qualification and experience shall be as given in scope of work. The contractor shall employ Indian nationals above age of 18 years and below age of 58 years. Contractor to ensure that the employees deployed are physically and mentally fit and do not have any criminal record.

i. The minimum of manpower for which payments reimbursed for the subject work is Twenty-One (21) persons including supervisors as per **Annexure- 'A'** enclosed.

ii. The contractor must ensure payment of wages to the manpower engaged by him **as per the Central Minimum Wages for Area Class 'C' as** specified in **Annexure 'F'**, including all amendments/revisions issued from time to time.

iii. Proper attendance register shall be maintained by the contractor. The monthly attendance statement should be approved by BAPL Admin / User dept should be attached with monthly bills.

iv. All mandatory payment levies Including EPF, ESI, Bonus, etc., as applicable shall be deemed to be included In the Contract amount. Apart from the above Income Tax and Professional Tax as applicable shall also be paid by the contractor and this amount also deemed to be included in the contractor amount.

v. The contractor shall pay all statutory/mandatory payments as applicable to the employees in their respective bank account. The names of employees paid with above statutory payments shall be the same as reflected in the attendance register.

vi. The contractor shall provide documentary evidence for the same along with all bills after the First billing cycle or at the mutually agreed periodicity failing which no bills will be accepted for payment.

vii. In case the firm does not fulfills/defaults the statutory payments/conditions mentioned above, then the contract is liable for termination with immediate effect and same will be operated at the risk and cost of the firm. Further, they will not be issued any tenders in future and the firm is liable for removal from enlistment without any notice. During the

currency of work, if the work is found to be unsatisfactory, not as per agreed terms and conditions. The work order will be cancelled by BrahMos Aerospace, Pilani, by giving one-month notice without assigning any reason thereof at any time.

viii. BAPL, Pilani may also issue notices for unsatisfactory / poor services, as and when required. However, the bidder/contractor will have no option to withdraw from the contract on his own during the Initial contract period. The assets shall be handed over all the end of the notice period to the BAPL Engineer-in-charge.

18. Safety Compliance: All staff must wear PPE and follow safety protocols, especially when working on overhead electrical components or in operational areas. The safety and security of all the assets / equipment thus handed over will be the responsibility of the maintaining agency throughout the contract period. The inventory of the same will be made out and kept in record duly signed by the maintaining agency and the authorized representative of Plant Head, BAPL, Pilani. Any damage/loss caused due to mishandling or misuse of any equipment shall be got repaired/replaced by the contractor at his own cost. On completion of contract period the complete equipment as per record shall be handed over to the BrahMos Aerospace, Pilani in fully working condition.

19. Material Quality: All replacement parts must be of original equipment manufacturer (OEM).

20. CONTRACTOR'S OBLIGATIONS:

i. The persons employed shall possess requisite professional qualifications, experience, and competency in the specified field / area of work. The minimum qualification and experience shall be as given in scope of work. The contractor shall employ Indian nationals above age of 18 years and below age of 58 years. Contractor to ensure that the employees deployed are physically and mentally fit and do not have any criminal record.

ii. The Bio-data of all persons employed shall be submitted to this office on assumption of contract along with the complete details of their qualifications, ESI. EPF, Bank Account and other relevant key information. Aadhar Card/ Enrolment No. of individuals shall also be submitted along with other details, if the same is available.

iii. The personnel employed shall be competent of operating all the required installations and equipment and must be familiar with all installations and equipment installed at site and familiar with sequence of operation. Authorized and competent engineer(s)/person(s) from OEM Shall be engaged wherever required or as directed by Engineer-in-Charge.

iv. The persons employed for operation shall follow the discipline and security regulations of the BAPL office. All persons employed by the contractor need to submit latest Police Verification. They shall be issued with necessary Identity Cards by the Contractor. They shall also wear approved industrial uniform while on duty and the costs Involved to this effect shall be deemed to be included in the quoted rates by the contractor.

v. The Contractor to provide a distinct uniform different from BAPL employees. The uniform should have logo of Contractor's firm / Company. The uniform should be kept in neat, tidy, and wearable condition. Contractor shall provide required PPEs such as Safety helmets, Safety

belts, Apron & Safety shoes to his employees at his own cost. The Contractor shall be responsible for enforcing all safety regulations as applicable. All log books, Service Reports, Inspection Reports, Ledgers and Records should be checked and signed by the nominated BAPL, Pilani official periodically or as and when required basis.

vi. Supervisors shall have basic mobile phone (without camera & without internet) at the contractors cost who shall coordinate with the concerned authorities as & when needed.

vii. Supervisors appointed by the contractor shall liaise with the nominated Representative(s) of User(s), concerned facility to carry out maintenance work, periodical services and shall obtain endorsement for the required services/replacements.

viii. All inventories handing over report shall be enclosed with the final bill on completion of duration of the contract duly stating the remarks on status/condition of equipment/plant.

ix. The final bill of the contract shall not be entertained/paid in case of non-compliance of the same. Any damage/loss caused due to mis-handling or misuse of any equipment shall be repaired/replaced by the contractor at his own cost. All liabilities arising out of accident or death while on duty shall be borne by the contractor.

x. BAPL, Pilani shall provide space for storage of machines, material and chemicals related to execution of contract (availability of space) for which no rentals for space will be recoverable. However, no extra payment shall be admissible for carriage/shifting etc.

xi. The service provider shall insure his staff against all risk, accidents for the duration of the contract period cost of which is deemed to be included in the contract value. The service provider shall produce proof or Workmen Compensation Policy and proof of payment before starting the work at BAPL Pilani. BAPL will not be responsible for any type of injury including death caused to the service provider's personnel during work.

xii. The service provider shall fulfil all the obligations required under workmen compensation act amended from time to time.

xiii. In case of any equipment or property of the BAPL is damaged by the service provider or his employees/agents, the same shall be rectified "free of any charge by the service provider within the period specified by the Engineer-in-charge. If the repair is not carried out within the specified period, the service provider shall pay immediately the amount specified by the BAPL for the damage otherwise the amount will be recovered from the payments due to the service provider.

xiv. The contractor should not remove or engage any person without the knowledge and concurrence of the Engineer-in-charge of BAPL Pilani.

21. TOWARDS STATUTORY LIABILITY

a) All statutory requirements under;

i. Minimum Wages Act, 1948, Payment of Wages Act, 1936,
ii. Workmen Compensation Act, 1923, EPF and MP Act, 1952,
iii. Payment of Gratuity Act, 1972, ESI Act, 1948,
iv. The Contract labour (R&A) Act, 1970, Payment of Bonus Act, 1965,
v. Income Tax Act, Service Tax Act, and all other applicable Acts & amendments thereof, shall be complied with, by the Contractor.
vi. GOI, Ministry of Labour & Employment Office of the Chief Labour Commissioner (c), New Delhi vide F.No /1/6(3)/2025-LS-II, dt: 30/03/2026.

b) Contractor shall comply with all statutory requirements, rules, regulations, notifications in relation to employment of his employees issued from time to time by the concerned authorities. Contractor shall be responsible for making payment of wages before expiry of 7 days from the last day of wage period that particular month.

c) Contractor shall ensure payment of statutorily prescribed minimum wages as applicable from time to time and maintain proper records of their timely disbursement These records need to be preserved for a period of at least 3 years and should be made available even after the contract is over for any verification of the statutory authorities / BAPL authorities.

d) Contractor to provide PF pass book to his employees and ensure payment of PF, EDU, pension dues under EPF and MP Act, 1952 to the RPFC.

e) Contractor shall ensure payment of ESI contribution under ESI Act, 1948 and provide ESI membership no. / Card of each employee. In case any exemption is claimed, copy of the exemption order shall be provided.

f) Contractor shall produce proof of deductions as well as remittances of PF, EDLI, Pension, ESI Contribution, administrative charges etc., wherever applicable and shall maintain proper records. Contractor to issue wage slips to his employees. The contractor will be required to comply PF/ESI and other statutory contribution payments of wages of his employees.

g) Contractor shall furnish proper returns to the concerned statutory authorities and provide a copy of the same to BAPL.

h) Contractor shall be solely responsible for non-payment/ delayed payment of wages/DA, contributions under EPF and MP Act, ESI Act etc.

i) In case the Contractor fails to make payment of wages to his employees or remittances of contributions to the concerned authorities, the security deposit/ other dues / running bills under the contract can be utilized by BAPL to discharge the liability of the Contractor.

j) Contractor shall indemnify BAPL against all claims and losses under various Labour Laws, Statutes or any Civil or Criminal Laws in connection with the employees deployed by him.

27/10/26

k) The liability for any compensation on account of injury sustained by an employee of the contractor, will be exclusively that of the Contractor only.

l) Contractor to obtain insurance cover for his employees / equipment / tools & tackles etc. and take Third party risk insurance coverage at his own cost. BAPL shall not be responsible for any loss, damage, pilferage of his property and/ or his employees.

m) Contractor should have independent code numbers/ exemptions under EPF and MP Act, 1952 and ESI Act, 1948 and shall cover his employees under the said codes.

n) Payment of Bonus under the Payment of Bonus Act, payment of gratuity under the Gratuity Act. and retrenchment compensation under the relevant Act will be the sole responsibility of the Contractor.

o) Over and above the daily wage rate, payment shall be made for leave with wages.

p) Contractor shall observe provisions of the Factories Act/Rules in respect of working hours, holidays, rest intervals, leave and overtime to his employees.

q) In case the contractor employs women as employees. he will discharge his obligation under law, in respect of such women workers as per rules.

r) Contractor to obtain license under CL(R&A) Act. 1970 (as applicable).

s) The service provider shall indemnify the purchaser/and/or any officer, employee or any assignee thereof harmless from any loss, damage, liability or expense, on account of damage to the property or environment and injuries including death, to any persons not limited to, employees or agents of the department, employees of the service provider or its sub-service provider, and all other persons performing any part of the work here under any occurrence caused by any act of commission / omission of the service provider or his subservice provider or any of them. The service provider shall at his expense defend any suits or proceedings brought against the department on account thereof and shall satisfy all judgments and pay all expenses which may be incurred by or rendered against them, or any of them in connection therewith. The service provider shall fulfill all the obligations required under workmen compensation act as amended from time to time. The service provider shall ensure minimum wages as per relevant act.

22. PAYMENT TERMS:

i. Payment will be made on monthly basis as per contracted rates. All the payments will be made only on satisfactory completion of maintenance of work/ services and submission of pre-receipted GST invoice. Bills of the previous month shall be submitted before 7th day, of the succeeding month, along with the proof of payment of salaries credited to the personal Bank Account of the workers employed by the contractor and the proof of the payment of PF, ESIC (both Employees and Employer's share) dues of the previous month. (For example, bill for the month of May 2026 would be submitted by the contractor for the payment before 7th June 2026 along with the proof of the payment of Salaries for the Month of May 2026 and EPF,

ESIC & other statutory dues for the month of April, 2026). Attendance details duly certified by BAPL Admin dept., or their nominated officials shall also be attached with the bills.

ii. Income Tax, Surcharge on IT, Education Cess, and any other taxes as applicable and as amended from time to time, will be deducted from your bill.

iii. Both Employees and employer's share of EPF and ESI in respect of the workers employed by the contractor for the maintenance services will be deposited by the contractor to the concerned statutory authorities as per the applicable rate and periodicity from time to time. Non-payment of EPF, ESI and Bonus will amount to statutory violation besides violation of laid down/agreed conditions as per work order/agreement. BrahMos Aerospace, Pilani reserves the right to cancel the work order without any notice in such an event and blacklist the firm for default.

iv. Payment of bonus as applicable to the workers employed by the contractor will be reimbursed to the contractor at half yearly intervals in the months of October and March on prorate basis, after payment is made by the contractor by credit in the respective personal Bank Account of their employees. Necessary pre-receipted Bills along with proof of payments, as per the statutory provision will be submitted by the contractor for claiming payment.

23. TAXES AND DUTIES: Only GST will be paid extra by the Buyer. The Bidders are required to indicate the unit & total costs of the items/services with and without GST, GST % with HSN/SAC separately as per the format enclosed. GST claimed by the Supplier shall be released by the Buyer only after it appears in the Buyer's GST Input Credit Register of GSTIN Online Portal.

24. EFFECTIVE DATE OF THE CONTRACT: The Date of this PO will be the Effective Date of Contract. The performance of the Supply Order shall commence from the Effective Date of Contract.

25. DOCUMENTS TO BE FURNISHED FOR CLAIMING PAYMENT: The payment of bills will be made on submission of the following documents by the Seller to the Buyer:

(a) Ink-signed copy of Invoice.
(b) Job Completion Certificate
(c) Details for electronic payment viz. Bank name, Branch name and address, Account Number, IFS Code, MICR Number (if these details are not already incorporated in the Contract).
(d) Copy of the Contract and amendments thereon, if any.
(e) Any other document/ certificate that may be provided for in the Contract.

26. BANK GUARANTEE FOR PERFORMANCE: The service provider shall submit a performance Bank Guaranty (PBG) from an amount equivalent to 10% of the PO Value, issued by an Indian nationalized bank OR any of the followings banks: Axis Bank, HDFC Bank, ICICI Bank, Kotak Mahindra Bank). The PBG shall remain valid for the entire delivery period 12 Months plus claim period of 03 (three) months. The PBG shall be submitted in the prescribed BAPL format within 25 days from the award of contract. In case of failure to submit the PBG within the stipulated period, an equivalent amount shall be deducted from the service provider's running bill.

i. The period of work order may be extended further If thought fit by BAPL. In case the validity of PBG required to be extended for such reason, the contractor shall make suitable arrangement lo make such extension. The Performance security shall not carry any interest and shall be returned by the service receiver on completion of all the contractual obligations.

ii. In case of breach of any conditions under the Work Order, the PBG shall be liable to be encashed. In addition, the Work Order(s) is also liable to be terminated and any amount due to the Service Provider against any other Work Order from the BAPL is also liable to be appropriated.

27. OPTION CLAUSE: NA

28. REPEAT ORDER CLAUSE: Not Applicable

29. PURCHASE PREFERENCE CLAUSE: Purchase preference will be granted as per Public Procurement (Preference to Make in India), Order – 2017 as amended, issued by DPIIT/Ministry of Commerce and Industry.

30. PERMISSIBLE TIME FRAME FOR SUBMISSION OF INVOICE: To claim payment (part or full), the Supplier shall submit the bill(s) along with the relevant documents within 90 days from the completion of the activity/ supply.

31. INVOICE PREPARATION: All original documents for payments including invoices are to be raised on and submitted to the Buyer's location at **Pilani**. GSTIN No. for the unit is **08AABCR8269E1Z5** and the same shall be mentioned in all invoices as applicable.

32. QUALITY & INSPECTION CLAUSE:

a) **QUALITY:** The quality of the items /Services shall correspond to the technical conditions and standards enumerated in the RFP.

b) **INSPECTION AND ACCEPTANCE:** The progress of services will be monitored by buyer's team of BAPL, Pilani. In case of any short comings, defect, non-conformance with the technical specifications or deficiencies in the maintenance of services, a defect report shall be raised & corrective-ness of services within a mutually agreed period without prejudice to the warranty period.

33. NOTICES/ CORRESPONDENCES: Any notice/correspondence required or permitted by the Contract shall be written in English language and may be delivered personally or may be sent by FAX/email or registered pre-paid mail/ airmail, addressed to the last known address of the party to whom it is sent.

34. TRANSPORTATION & TRANSIT INSURANCE: In vendor's scope

35. **AMENDMENTS:** No provision of the Contract shall be changed or modified in any way (including this provision) either in whole or in part except when both the parties are in written agreement for amending the Contract.

36. **RISK AND EXPENSE PURCHASE:** In case Seller fails to honor the contractual obligations within the stipulated delivery period and as amended, Buyer may procure the said contracted goods/services through a fresh supply order/contract and the defaulting Seller must bear the excess cost incurred, if any

PART-V: STANDARD TERMS & CONDITIONS OF RFP

The Bidder is required to give confirmation of their acceptance of the Standard Terms and Conditions of the RFP mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder as selected by the Buyer. Failure to do so may result in rejection of the Bid.

37. **LAW:** The Contract shall be considered and made in accordance with the laws of the Republic of India and shall be governed by and interpreted in accordance with the laws of the Republic of India.

38. **DISPUTES:** All disputes or differences arising out of or in connection with the present Contract including the ones connected with the validity of the present contract or any part thereof, shall be settled by bilateral discussions. Both, Buyer, and Seller, will make every effort to resolve the dispute if any, in a mutually acceptable manner.

39. **ARBITRATION:** In the event of any controversy, disputes or differences arising out of or in the interpretation of any of the terms and conditions of this agreement or on breach by any of the parties shall bring the said reason to the notice of each other and shall amicably try to settle any such issues within 30 days of such notice. In the event of the parties' failure to reach amicable settlement as mentioned herein, all unresolved controversies, disputes, or arbitration in accordance with Indian arbitration and conciliation Act, 1996 and the venue of arbitration shall be Pilani, India.

40. **PENALTY FOR USE OF UNDUE INFLUENCE:** The Seller undertakes that he has not given, offered, or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage, or inducement to any person in service of the Buyer.

41. **ACCESS TO BOOKS OF ACCOUNTS**: In case it is found to the satisfaction of the Buyer that the Bidder/ Seller has violated the provisions of use of undue influence and/ or employment of agent to obtain the Contract, the Bidder/ Seller, on a specific request of the Buyer, shall provide necessary information/ Inspection to the relevant financial documents/ information/ Books of Accounts.

42. **WITHHOLDING OF PAYMENT**: In the event of the Seller's failure to submit the Bonds, Guarantees and Documents, supply the stores/goods and conduct trials, installation of equipment, training, etc. as specified in the Contract, the Buyer may, at his discretion, withhold any payment until the completion of the Contract.

43. **PENALTY FOR NON-PERFORMANCE:**

(i) Any absentees/shortage in manpower or inferior Services will be liable for deduction in the payables due for the agency on pro-rata or as decided by this department

(ii) If during inspection. the worker is not found in uniform or is found working without safety PPEs, a penalty of Rs. 500/- will be charged per instance.

(iii) If the contractor fails to maintain/repair/replace the faulty item or fails to attend the scheduled periodic maintenance or any brake down maintenance under his scope of work (due to the fault of service provider) within the specified period in agreement, the penalty shall be imposed at the rate of Rs. 5000/- per day of delay and part thereof subject to maximum of 5% of the total contract value for one year.

44. CONFIDENTIALITY OF INFORMATION: No party shall disclose any information to any 'Third Party' concerning the matters under this RFP generally. Any information identified as 'Proprietary' in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub-contractors, consultants, advisors, or the employees engaged by a party with equal force.

45. SECRECY: Any Information of classified nature obtained, acquired during the manufacture, test and trails is not to be passed on to any Third party by you or your subcontractor(s). This clause shall survive on termination or completion of this order.

46. UNDERTAKING FROM THE BIDDERS: Bidder/firm/company/vendor will submit an undertaking that in the past they have never been banned/debarred for doing business dealings with Ministry of Defence/Govt. of India/any other Govt. organization and that there is no enquiry going on by CBI/ED/any other Govt. agency against them.

47. FORCE MAJEURE CLAUSE: Should any Force Majeure circumstances arise, each of the contracting party shall be excused for the non-fulfilment or for the delayed fulfilment of any of its contractual obligations, if the affected party within 30 (Thirty) days of its occurrence informs in a written form the other party. Force Majeure shall mean fires, floods, natural disasters, or other acts, that are unanticipated or unforeseeable, and not brought about at the instance of, the party claiming to be affected by such event, or which, if anticipated or foreseeable, could not be avoided or provided for, and which has caused the non-performance or delay in performance, such as war, turmoil, strikes, sabotage, explosions, quarantine restriction beyond the control of either party. A party claiming Force Majeure shall exercise reasonable diligence to seek to overcome the Force Majeure event and to mitigate the effects thereof on the performance of its obligations under this contract.

48. LIABILITY CLAUSE:

(a) Any damage caused to the property or suffered by the personnel of Buyer during the execution of Contract shall remain the liability of the Buyer. Such liability shall be fixed on Seller in case of grossly negligent act or omission on the part of Seller.

(b) This provision is limited to the relations between the Parties. It is without prejudice to the rights and actions to which the victims of damage, or any Social Security Organizations could prevail themselves legally.

(c) Either party would provide reasonable assistance to resolve the claim of other Party to mitigate loss or damage.

(d) Neither, the Seller shall be liable to the Buyer, nor shall the Buyer be liable to the Seller for any immaterial, punitive, indirect, special, incidental, or consequential loss or damage. This will hold good irrespective of whether such liability is based or claimed to be based on any breach of a Party's obligation under the Contract, or any negligent act or omission of a Party, its employees, servants, appointed representatives, sub-contractor or professional consultants, or such liability arises otherwise out of or in connection with the Contract.

(e) The Buyer shall not be liable for any compensation in any manner to the Seller for whatsoever reason.

(f) The Seller shall be liable to the Buyer for any compensation in any manner for whatsoever reasons for a sum not exceeding value of the Contract.

49. **FALL CLAUSE:** The prices charged for the stores supplied under the agreement by the Seller shall in no event exceed the lowest price at which the Seller sells the items of identical description to any other person/organization during the period till performance of all supply orders placed during the currency of the agreement is completed. If, at any time, during the period, the Seller reduces the sale price of such stores or sells stores to any other person/organization at a price lower than the price chargeable under the agreement, he shall forthwith notify such reduction or sale to the authority which has concluded the RC/PA; and the price payable under the agreement for the stores supplied after the date of coming into force of such reduction or sale shall stand correspondingly reduced.

50. **DENIAL CLAUSE:** Denial clause informs Seller that the Buyer reserves the right to admit additional payment due to upward revision of statutory levies beyond the original delivery schedule in case Seller fails to deliver the goods as per schedule. Variations in the rates of statutory levies within the original delivery schedule will be allowed if taxes are explicitly mentioned in the contract/supply order and delivery has not been made till the revision of the statutory levies. Buyer reserves the right not to reimburse the enhancement of cost due to increase in statutory levies beyond the original delivery period of the supply order/contract even if such extension is granted without imposition of LD.

51. **TERMINATION OF CONTRACT:** The Buyer shall have the right to terminate the Contract in part or in full in any of the following cases:

(a) The store/service is not received/rendered as per the contracted schedule(s) and the same has not been extended by the Buyer.

OR

The delivery of the store/service is delayed for causes not attributable to Force Majeure for more than 01 months after the scheduled date of delivery and the delivery period has not been extended by the Buyer.

(b) The delivery of store/service is delayed due to causes of Force Majeure by more than 06 months provided Force Majeure clause is included in the contract and the delivery period has not been extended by the Buyer.

(c) The Seller is declared bankrupt or becomes insolvent.

(d) The Buyer has noticed that the Seller has violated the provisions of Para 47 (Use of Undue Influence) and/or Para 49 (Employment of Agent) above to obtain the Contract.

(e) As per decision of the Arbitration Tribunal.

52. COMPETENCE OF PERSONNEL: Bidder to ensure the following:

(a) Necessary Competence of personnel, who involving in the execution of work

(b) Their Contribution to product / service conformity & importance towards ethical behavior.

(c) Competence to detect or prevent the counterfeit parts, monitoring, and reporting of the same during execution of contract.

53. COUNTERFEIT PARTS:

(a) Seller shall evolve necessary verification and test methodologies to detect the counterfeit Parts.

(b) Seller to ensure to prevention of counterfeit parts / products including from their sub-vendors, if any.

(c) Seller to ensure that only non-counterfeit parts / products shall be delivered to Buyer.

(d) Further to prevent inadvertent use of counterfeit parts, Seller shall only procure directly from the OEM (Original Equipment Manufacturer) or their authorized distribution chain unless approved by Buyer in writing.

(e) Seller also to ensure the necessary traceability of parts / components belonging to OEM and the same shall be provided to Buyer to eliminate the delivery of counterfeit parts.

(f) Seller to obtain the approval of Buyer in writing to source the inputs from Non-Franchised Distributors and to ensure parts that were procured are legitimate, authentic, non-counterfeit parts, if applicable.

(g) In case of detection of counterfeit parts / products upon inspection, same will not be accepted by Buyer and returned to Seller as they are and will be handled as per the policies of Buyer.

54. TRANSFER AND SUB-LETTING: The Seller has no right to give, bargain, sell, assign, or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the Contract or any part thereof without written consent of the Buyer.

55. USE OF PATENTS AND OTHER INDUSTRIAL PROPERTY RIGHTS: The prices stated in the Contract shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks, and payments for any other Industrial Property Rights. The Seller shall indemnify the Buyer against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The Seller shall be responsible for the completion of the supplies including spares, tools, technical literature, and training aggregates irrespective of the fact of infringement of the supplies or any or all the rights mentioned above.

56. NON-DISCLOSURE: The Bidding documents, including this RFP and all attached documents provided by Buyer, are and shall remain or become the property of Buyer. These are transmitted to the Bidders solely for the purpose of preparation and the submission of a proposal in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their proposal. The provisions of this Para shall also apply mutatis mutandis to Bids and all other documents submitted by the Bidders, and Buyer will not return to the Bidders any proposal, document or any information provided along therewith (except unopened Commercial Bid as relevant). Information relating to the examination, clarification, evaluation, and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or concerning the Bidding Process. Buyer will treat all information, submitted as part of the Bid, in confidence and will require all those who have access to such material to treat the same in confidence. Buyer may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or Buyer or as may be required by law or in connection with any legal process.

57. CONFIDENTIALITY OF INFORMATION: No party shall disclose any information to any 'Third Party' concerning the matters under this RFP generally. Any information identified as 'Proprietary' in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party. This clause shall apply to the sub-contractors, consultants, advisors, or the employees engaged by a party with equal force.

58. FRANKING CLAUSE:

(a) Franking Clause in the case of Acceptance of Goods " The fact that the goods have been inspected after the delivery period and passed by the Inspecting Officer will not have the effect of keeping the contract alive. The goods are being passed without prejudice to the rights of the Buyer under the terms and conditions of the contract".

(b) Franking Clause in the case of Rejection of Goods "The fact that the goods have been inspected after the delivery period and rejected by the Inspecting Officer will not bind the

Buyer in any manner. The goods are being rejected without prejudice to the rights of the Buyer under the terms and conditions of the contract."

59. CLAIMS:

(a) The quantity claims for deficiency of quantity and/ or the quality claims for defects or deficiencies in quality noticed during the inspection shall be presented within 45 days of completion of inspection.

(b) The Seller shall collect the defective or rejected goods from the location nominated by the Buyer and deliver the repaired or replaced goods at the same location, within mutually agreed period, under Seller's arrangement without any financial implication on the Buyer.

(c) The description and quantity of the stores are to be furnished to the Seller along with concrete reasons for making the claims. Copies of all the justifying documents will be enclosed to the presented claim. The Seller will settle the claims within 45 days from the date of the receipt of the claim at the Seller's office, subject to acceptance of the claim by the Seller. In case no response is received during this period the claim will be deemed to have been accepted.

(d) The Seller will collect the defective or rejected goods from the location nominated by the Buyer and deliver the repaired or replaced goods at the same location under Seller's arrangement.

(e) Claims may also be settled by reduction of cost of goods under claim from bonds submitted by the seller or payment of claim amount by seller through demand draft, in favor of Principal Controller/Controller of Defence Accounts concerned.

(f) The quality claims will be raised solely by the Buyer and without any certification/countersignature by the seller's representative stationed in India.

60. VALID POLICE CLEARANCE CERTIFICATE (PCC): The Bidder to ensure that they have undertaken rigorous verification of the nationality and antecedents of all the employees / personnel engaged / deputed for undertaking the work at the Buyer's location through Police verification. A copy of the valid Police Clearance Certificate (PCC) of all the employees / personnel to be deputed at the Buyer's location shall be submitted to the Project Team / CMM Dept prior to commencement of the work. Employee / personnel without a valid PCC shall not be allowed inside the Buyer's premises and the Bidder shall be solely responsible for the delays on account of non-availability of the PCC."

61. GOVERNMENT REGULATIONS: It may be confirmed that there are no Government restrictions or limitations in the country of the Bidder or countries from which subcomponents are being procured and/or for the export of any part of the deliverables being supplied.

ANNEXURE – I

Scope of Work / Technical Requirements/ Operation & Maintenance Services/Specifications

Provision of Maintenance Services by deploying qualified and competent manpower for Operation and Maintenance of External & Internal Electrification, Fire Fighting systems, Pump House, Fire alarm, Water Treatment Plant & HVAC installations, and equipment at BAPL, Pilani. In addition to routine operation and preventive maintenance of wiring & panels, periodical servicing for major equipment by authorized reps and break down maintenance including repair/ restoration, ensuring electrical safety conditions are also to be carried out under the scope as per specific provisions.

a) Manpower deployment/requirement is enumerated in RFP at **Annexure – A.**
b) List of Equipment's in RFP at **Annexure– B.**
c) The detailed technical scope & detailed checklists are enumerated in RFP at **Annexure– C.**
d) Tools and Accessories which form part of scope to be supplied by the contractor are mentioned under Special Conditions given at **Annexure – D.**
e) List of Compulsory Services – mandatory annual services to be carried out with respect to the services completion and acceptance by the BAPL is enumerated in RFP at **Annexure – E**
f) Cost matrix for Manpower on Monthly basis-**Annexure-F**

Annexure – A

1. **DEPLOYMENT OF MANPOWER**

The following staff shall be employed to the entire satisfaction of nominated BAPL Pilani rep: -

S. No.	Qualification	Role	Skill Category	No. of Persons
01	B Tech in Mechanical with minimum 07 years' experience	Site Engineer	Highly Skilled	01
02	Diploma in Electrical with minimum 05 years' experience	Supervisor	Highly Skilled	01
03	ITI in relevant field or minimum 03 years' experience of same field	BMS Technician	Highly Skilled	02
04		Electrician	Skilled	04
05		AC Technician	Skilled	03
06		DG Set Operator	Skilled	03
07		Pump Operator	Skilled	02
08		Plumber	Skilled	02
09	ITI (fitter/ electrician)	Helper	Semi-Skilled	03
Total				**21**

ATTENDANCE: The attendance sheet shall be forwarded along with the monthly bills.

Annexure – B

LIST OF EQUIPEMENTS

Sl. No.	Description	A/U	Qty.
	ELECTRICAL SYSTEM		
1.	Transformer 1000 KVA (Make: Voltamp), Capacity - 11KV/440V	Nos	1
2.	Transformer 250 KVA (Make: Voltamp), Capacity -11KV/440V	Nos	2
3.	11 KV HT Panel 3 Breaker (Make: Siemens)	Nos	2
4.	11 KV HT Panel Single Breaker (Make: Siemens)	Nos	1
5.	415V, 3 Phase LT Panel (Make: NEC)	Nos	10
6.	Fire Fighting Panel 415V, 3 Phase	Nos	1
7.	Capacitor Panel 350 KVA (Make: NEC)	Nos	1
8.	Diesel Generator 500 KVA (Make: Sudhir)	Nos	2
9.	Diesel Generator 180 KVA (Make: Sudhir)	Nos	2
10.	Capacitor Panel 75 KVA (Make: NEC)	Nos	2
	FIRE FIGHTING SYSTEM		
1.	Fire Pump 75 HP Induction motor (Kirloskar)	Nos	1
2.	Jockey Pump 15 HP Induction Motor (Kirloskar)	Nos	1
3.	Diesel engine fire pump 67.5 KW (92HP) (Kirloskar)	Nos	1
4.	Fire Hydrant	Nos	11
	WATER SUPPLY SYSTEM		
1.	Domestic water lifting centrifugal pump 5HP (Kirloskar)	Nos	4
2.	Domestic RAW water centrifugal pump 5 HP (Kirloskar)	Nos	4
3.	Vertical high-pressure pump 4 HP	Nos	2
4.	Chlorine Dosing System	Nos	2
5.	Blaesing Dosing System	Nos	2
6.	Pressure Filter (For Domestic Water)	Nos	2
7.	Water Softener	Nos	2
8.	Domestic RO (Make: Kent)	Nos	8
9.	Commercial RO (Make: Kent)	Nos	02
10.	Submersible Pump Set 5HP/7.5HP/15 HP	Nos	5
	HVAC/ AIR CONDITIONER		

1.	Air Cooled Screw chilled water plant of 180 TR (Voltas)	Nos	3
2.	480 USGPM at 15 Mtr head pump (Grundfos)	Nos	3
3.	490 USGPM at 35 MED head secondary pump (Grundfos)	Nos	3
4.	Air Handling Unit of 70TR - 28000 CFM (Zeco Aircon)	Nos	1
5.	Air Handling Unit of 46TR - 18000 CFM (Zeco Aircon)	Nos	1
6.	Air Handling Unit of 32TR - 14000 CFM (Zeco Aircon)	Nos	4
7.	Air Handling Unit of 34TR - 12200 CFM (Zeco Aircon)	Nos	1
8.	Air Handling Unit of 36TR - 13200 CFM (Zeco Aircon)	Nos	1
9.	CSU of 15 TR -7200 CFM (Zeco Aircon)	Nos	3
10.	CSU of 12 TR -5000 CFM (Zeco Aircon)	Nos	2
11.	CSU of 06 TR -2400 CFM (Zeco Aircon)	Nos	2
12.	CSU of 04 TR -1600 CFM (Zeco Aircon)	Nos	3
13.	CSU of 03 TR -1200 CFM (Zeco Aircon)	Nos	15
14.	CSU Starter Panel/Electrical Panel	Nos	9
15.	30 KW - Hot water generators (make Rapid Cool)	Nos	2
16.	60 KW - Hot water generators (make Rapid Cool)	Nos	3
17.	1 HP Pump with 25m head (make Grundfos)	Nos	1
18.	Split AC (Voltas, Hitachi, Carrier)	Nos	68
19.	CSU Starter Panel/Electrical Panel	Nos	9
	Building Management System		
1.	JACE controller WEB 600E (Make: Honeywell)	Nos	1
2.	BMS software (Make: Honeywell)	Nos	1
3.	42" LCD monitor (Make: Samsung)	Nos	5
4.	Printer (HP), mouse & keyboard	Nos	1
5.	Direct digital controller panel Including controller (Make: Honeywell)	Nos	15
6.	UPS 500 VA / 600 VA (APC)	Nos	14
7.	UPS 1000 VA (APC)	Nos	1
8.	CPU -HP	Nos	1
9.	D link with connector (Make: Honeywell)	Nos	1
10.	Router panel BMS (Make: Honeywell)	Nos	1
11.	Actuator (Make: Honeywell)	Nos	64
12.	Temperature & RH sensor (Make: Honeywell)	Nos	33
	Fire Alarm System		
1.	Fire Panel (Make: Siemens)	Nos	4

2.	Repeater Panel (Make: Siemens)	Nos	1
3.	Smoke Detector (Make: Siemens)	Nos	160
4.	Beam Detector (Make: system sensor)	Nos	13
5.	MCP (Make: Honeywell)	Nos	12
6.	Fire Hooter (Make: Honeywell)	Nos	12
7.	UPS 500 VA / 600 VA (APC)	Nos	04

1. TECHNICAL SCOPE & DETAILED CHECKLISTS

(a) In case of absence or shortfall of the manpower, the prorate recovery will be made from the current bill.
(b) Work shall be carried in shifts as specified by the Engineer-in-charge.
(c) The Operator and Electricians shall be qualified and experience in their trade to the entire satisfaction of nominated BAPL Pilani rep.
(d) All instruments, equipment's for checking and repairs shall be provided by the contractor.
(e) 04 Personnel, Including Site engineer, shall reside within 4 KM radius of BAPL Pilani premises and remains availeble 24X7 for emergency breakdown maintenance. Accommodation for these personnel shall be provide by vendor.
(f) The rates shall be inclusive of all taxes, Octroi excise duty, transportation, GST, etc., including price escalation, contractor overhead and profits. Nothing extra shall be admissible on any such account.
(g) The contractor must attend in person within 24- 48 hours for meetings called by engineer-in charge al BAPL Pilani office for resolving any issues related to contract/repair/replacement/manpower/any other issues etc. during contract period.

2. CONSUMABLE ITEMS

(a) All consumables required for routine/ normal maintenance such as coolant, Lubricants, Greasing Distilled water and Electrolyte for battery, M-Seal, Teflon Tape, Screws, Nipple, Hex Nipple, Washers, resources, etc shall be supplied by the contractor, up to 2.00 lakh is in scope of vendor. Major spares/repairs shall be dealt with separately as per requirement and approval of competent authority.
(b) Other essential consumables/ spare parts/ accessories which are not readily available with BAPL, Pilani are to be arranged by contractor with prior approval from BAPL & bill reimbursement will be made at actual cost to contractor Plus 10% to cover his overheads & profits against on submission of original paid bills. A consumption register shall be maintained and verified by the BAPL Pilani representative at regular intervals.

3. MAJOR REPAIRS / OVERHAULING

Any major repairs/ overhauling required will be brought to the notice to BAPL Pilani rep and get approved by competent authority before undertaking the work in hand against proper work order.

4. LIABILITIES FOR DAMAGES

(a) The contractor shall be responsible for damage caused to the system if any due to sheer negligence of the workers and shall be bound to restore the system to its original form at his own cost. The decision of BAPL Pilani rep shall be final and binding.

(b) The operator should have thorough knowledge of safety precautions during emergency cases and also conversant with Indian electricity rules/ regulations.

5. **SAFETY**

Contractor shall make all safety measures for "Operation & maintenance of E&M installation and Fire Fighting systems, Water Treatment Plant & HVAC System for BAPL Pilani site. Contract shall adhere to all labour laws, regulations applicable for BAPL Pilani. All employees under the contractor have to be covered with health and accidental life insurance, as applicable.

6. **TECHNICAL SCOPE & DETAILED CHECKLISTS**

(i) **LOGBOOKS**

(a) To submit weekly comments on the behavior of the plant.
(b) To submit a report on replacement of components once week and or as and when required.
(c) Logbook will be shown to the authorities weekly or as and when required.

(ii) **11KV Substation:**

a) Power Transformers & RTCC Panel: The transformer is the heart of the service block. Maintenance focus should be on insulation and cooling.

b) Oil Levels: Check main conservator and OLTC (On-Load Tap Changer) oil levels.

c) Silica Gel Breather: Inspect colour. If more than 50% is pink, replace or re-activate (blue indicates dry).

d) Oil Leakages & Gaskets: Inspect tank, radiators, and bushings for any weeping or seepage, replace gaskets/seals to arrest leakages.

e) Bushings: Clean porcelain bushings to remove coal dust/salt deposits (prevents flashovers). Check for cracks.

f) Cooling Fans: Manually test radiator fans to ensure they trigger at set temperatures.

g) RTCC Panel: Verify tap position matches between the transformer and the remote panel, servicing, and repair suitably as necessary.

h) Testing: Conduct annual BDV (Breakdown Voltage) before filtration and after filtration and DGA (Dissolved Gas Analysis) of oil with Oil replacement/top-up based on oil conditions

i) Instrumentation, Gauges and Relay: Healthiness and Integrity with reference to load conditions to be checked, replaced/corrected as necessary if fault.

j) Painting (Enamel type) of existing color ONE coat to cover the surface of the equipment suitably with necessary surface preparation.

k) Painting of Busbars duct 02 Nos also included in this scope.

l) New Oil top-up of suitable capacity

m) Transformer oil per litre cost to be quoted (Oil Capacity, 01 MVA – 750 Ltrs including OLTC)

(iii) **Air Circuit Breakers -ACB:**

a) Visual & Mechanical Inspection
Arc Chutes: Remove and inspect for soot, cracks, or burnt fins. If the chutes are clogged with carbon, the arc won't extinguish, potentially causing a panel explosion.

b) Cleaning & Lubrication: Vacuuming, Greasing

c) Electrical & Functional Testing:
Insulation Resistance (IR), Contact Resistance (CRM), Secondary Injection Test, Millivolt Drop Test.

d) The "Checklist" for Maintenance: Auxiliary Contacts, Shunt/Closing Coils, Under-Voltage Trip, Spring Motor, Terminal Tightness, Trip Unit Battery, Critical
Warning: "The First Trip"

(iv) **Service block, admin block & Transit facility electrical Equipment -VCB**

a) Vacuum Circuit Breakers (VCB): For a Yearly Preventive Maintenance (PM), the depth of inspection increases from simple visual checks to precision measurements. This ensures the VCB is capable of interrupting massive short-circuit currents without failing.

b) Physical & Environmental Inspection Structure: Inspect the VCB kiosk/structure for corrosion or rust. Touch up with zinc-rich paint if needed.

c) Foundation: Check for any sinking or cracks in the concrete plinth.

d) Vermin Proofing: Ensure all cable entry glands are sealed. Rats or lizards are the cause of bus bar flashovers.

e) Heaters: Confirm the space heaters and thermostats are working. (Crucial for preventing condensation on the vacuum bottles).

f) Mechanical System (The "Drive" Mechanism): Wipe down the drive mechanism and all insulating poles with Isopropyl.

g) Lubrication: Remove old, dried-out grease from the cam, latches, and springs. Re-apply a high-performance synthetic lubricant.

h) Spring Motor: Inspect the carbon brushes of the charging motor. Blow out any carbon dust with dry low-pressure air.

i) Fasteners: Check the tightness of all circlips, pins, and bolts.

j) Operations: Record the current reading on the Operations Counter to track the VCB's life cycle.

k) Vacuum Interrupter (The "Bottles") Erosion Check: View the wear-indicator mark on the moving contact stem. If the mark has disappeared, the contacts are too thin to be safe. Surface Integrity: Check the ceramic/epoxy surface of the bottles for tracking marks or hairline cracks.

l) Electrical Testing (Standard Yearly Values):

- Record these values in your logbook to track the "trend" of the breaker's health over the years.
- Insulation Resistance (IR) – with 5kV Megger, > 2500 Mohm (Phase to Earth / Across Contacts).
- Contact Resistance (CRM) – with 100A Micro-Ohm, < 50 - 100 micro-Ohm (Refer to OEM manual)
- Breaker Timing - Timing Kit Closing: < 60 ms / Opening: < 40 ms
- High Voltage (Hi-Pot) AC/DC HV Kit Must withstand rated voltage (e.g., 75kV for 1 min)

m) Current (CT) & Potential (PT) Transformers: Inspect for oil leakage and secondary terminal tightness, tightening primary terminals, checking for oil leaks/levels, winding testing etc, check for any "buzzing" sounds (corona discharge) or overheating.

n) Protection Relays & Instrumentation

- Relay Testing: Perform secondary injection tests on Overcurrent (OC) and Earth Fault (EF) relays.
- Battery Bank & Charger: * Check DC voltage (typically 110V or 220V). A dead battery bank means the breakers won't trip during a fault.
- Check electrolyte levels and clean terminal corrosion.
- Control Wiring: Inspect for rat/rodent damage in cable trenches and panels.

Monthly PM Schedule Summary Table – Substation

Equipment	Frequency	Key Action Item
Transformer	Monthly/ Annual	Check Silica Gel, Oil Temp, Gauges, Leakages, Oil levels, BDV test, Instrumentation & Relays
VCB	Annual	Mechanical Lubrication & Trip Test
Isolators	Annual	Contact alignment & Greasing
Earth Pits	Quarterly	Resistance Measurement, salt filling and Watering
Battery Bank	Weekly	Check Voltage & Specific Gravity
Substation Area	Monthly	Grass/weed cutting & Gravel levelling

(v) **DG SETS MAINTENANCE**

A Preventive Maintenance (PM) program for Diesel Generator (DG) sets is typically divided into A, B, C, and D Checks. Following this structured approach ensures high reliability for emergency backup power.

***500KVA DG sets must be serviced and spares/consumables replacements with OEM CUMMINS only as per their guideline's, given checklist is indicative, as per OEM and equipment condition service to be carried out and cost to be quoted accordingly.

A. Monthly Maintenance & Operational Testing

a. Test Run: Exercise the DG for 15–20 minutes.

b. Operational Parameters: Record Oil Pressure, Water Temperature, Voltage (415V+/- 1%), and Frequency (50Hz +/- 2%).

c. Belts: Check the tension and condition of the V-belt (Radiator fan/Charging alternator belt).

d. Air System: Check the air filter vacuum indicator. If it shows "Red," the filter needs cleaning or replacement.

B. Daily "A-Check" (Operator Level)

These checks are performed every morning to ensure the DG is ready to start instantly during a power failure.

a. Lubrication: Check oil level using the dipstick (must be between Min and Max).

b. Cooling System: Check coolant level in the radiator/recovery tank. Inspect for any hose leaks.

c. Air System: Check for air cleaner restriction and pre-cleaner

d. Fuel System: Check diesel level in the day tank. Drain water from the fuel-water separator.

e. Battery: Verify battery voltage (> 12.5V for 12V systems or > 25V for 24V systems). Clean terminals if sulphated.

f. Visual Inspection: Look for "sweating" or leaks of oil, fuel, or coolant on the floor.

g. Electrical System: Inspect for loose parts, damaged exhaust hoses and ensure the generator is in Auto mode.

h. General/Safety: Inspect for loose parts, damaged exhaust hoses.

i. Run Check: Start the Generator to check for abnormal noises or vibration.

C. "B" Check (Every 250-500 Hours or 6 Months)

The B-Check is the most common preventative service. It involves changing the "consumables" of the engine.

a. Oil Change: Drain old lube oil and refill with fresh oil (Valvoline Premium Blue 7800 Plus).

b. Oil Filter: Replace the full-flow lube oil filters and bypass oil filter. Record oil pressure.

c. Fuel Filters: Replace the primary and secondary fuel filters.

d. Change water separator and clean fuel tank breather.

e. Drain sediment from fuel tank.

f. Air Filters: Replace the filters, they may be clogged.

g. Clean the crankcase breather.

h. Check air piping and hoses for leaks or cracks.

i. Cooling System: Clean the radiator fins using low-pressure air or water to prevent overheating.

j. Replace with new Coolant Liquid with Corrosion inhibitor.

k. Clean Radiator exterior (with chemical if required)

l. Safety Controls: Test the "High Water Temperature" (HWT) and "Low Lube Oil Pressure" (LLOP) trip mechanisms.

m. Bypass Filter: Replace the bypass filter if the engine is equipped with one.

n. Flexible Hose - 02nos for each DG set

o. Electrical & Alternator system: Check battery electrolyte level and voltage (should be 24VDC)

p. Clean and tighten the battery terminals.

q. Inspect alternator for dust and dirt.

r. Check all the electrical connections for tightness.

s. Mechanical & Safety: Check for fan belt condition and tension (tighten if loose)

t. Check exhaust system for leakages.

u. Check engine mounting bolts and vibration pads.

v. Perform a test run, observing for abnormal noise or vibration.

In a Diesel Generator (DG) set, the C and D Checks are classified as "Top Overhaul" and "Major Overhaul" respectively. These are deep-maintenance procedures required after the engine has completed a significant number of running hours.

D. "C" Check (Every 1000-1500 Hours or 1-2 Years)

The C-Check is an "Intermediate Overhaul." It focuses on the engine's calibration and mechanical tuning.

a. Repeat A & B Checks

b. Valve Tappet Clearance: Check and adjust the intake and exhaust valve clearances (Tappet setting).

c. Fuel Injectors: Remove, clean, and "Nozzle test" the injectors for proper spray pattern and pressure.

d. Cylinder Head: Inspection of the top surface and gaskets for signs of leakage.

e. Turbocharger: Check for end-play in the turbine shaft and look for oil leaks. Inspecting the turbine and compressor wheels for axial play or carbon deposits.

f. Vibration Damper: Inspect for cracks or fluid leaks.

g. Alternator Maintenance: Check the winding insulation resistance (IR Value) and grease

the bearings.

h. Engine Mounting: Tighten all foundation bolts and check the anti-vibration mounts (AVM).

i. FIP Pump: Calibration and timing check of the Fuel Injection Pump (if required by the specific model).

j. Cooling system major service: Deep cleaning of the radiator and replacement of the thermostat valve.

k. Electrical & Performance checks

l. Fuel and Air system inspections

m. General Inspections: Engine mounts, External hardware, Electrical accessories

E. D-Check (Major Overhaul)

The D-Check is the most extensive maintenance level. It involves stripping the engine down to the block to replace worn internal components.

a. Frequency: Every 3,000 to 5,000 Running Hours or 4–5 Years (depending on engine manufacturer like Cummins, Caterpillar, or Kirloskar).

b. Key Technical Activities:

i. Pistons & Rings: Removal and replacement of piston rings and inspection of piston crowns.

ii. Cylinder Liners: Measuring liner wear; replacement if honed surface is polished.

c. Bearings: Replacement of Main Bearings and Connecting Rod (Big End) bearings.

d. Crankshaft: NDT (Non-Destructive Testing) or "Magnetic Particle Inspection" to check for micro-cracks and checking of "Crankshaft Deflection."

e. Valve Grinding: Lapping of intake and exhaust valves into the cylinder head.

f. Water Pump & Oil Pump: Complete overhauling or replacement of these critical pumps.

g. Alternator: Cleaning of windings (varnishing) and replacement of drive-end/non-drive-end bearings.

F. Electrical & Control System (AMF Panel)

The DG is only as good as its automation.

a. AMF Logic: Test the "Auto Start" functionality by simulating a mains failure. The DG should take the load within 7–15 seconds.

b. Safety Shutdowns: Periodically test the following trip sensors:

i. HWT: High Water Temperature (> 95°C}).

ii. LLOP: Low Lube Oil Pressure (< 1.5–2.0 kg/cm2).

iii. Over-speed: Typically, 110% of rated RPM.

c. Alternator: Inspect the AVR (Automatic Voltage Regulator) for loose connections. Conduct an Insulation Resistance (Megger) test annually (> 2MOhm).

G. Environment & Compliance

a. Exhaust: Check for excessive black smoke (indicates air blockage or injector issues) or white smoke (indicates coolant leakage into the chamber).

b. Acoustic Canopy: Ensure all foam insulation is intact to maintain noise levels as per CPCB norms.

c. Earth Pits: The DG body and neutral must be connected to separate, dedicated Cu earth pits.

(vi) Fire Pump House Operations - Fire Pumps, Borewell Pumps & Raw Water Distribution Pumps

Since the Fire Hydrant Pump House is the most critical safety system in our facility, its maintenance requires a rigorous, non-negotiable schedule. Below is the detailed PM checklist for the Pump House, including the Fire Pumps (Electric & Diesel), Jockey Pump, Raw Water pumps and Borewell system.

A. Pump House Operations Checklist – Fire Pumps, Borewell Pumps & Raw Water Distribution Pumps

The goal is to ensure the system always maintains a "Header Pressure" of 7.0 kg/cm².

- **Daily / Weekly Checks (Operational)**

a. System Pressure: Verify the pressure gauge on the main header. Any drop below 6.0 kg/cm² indicates a leak in the hydrant line.

b. Valve Positions: Ensure all suction and delivery valves are locked in the OPEN position.

c. Jockey Pump Test: Briefly reduce pressure to ensure the Jockey Pump starts automatically at ~6.0 kg/cm² and stops at 7.0 kg/cm².

d. Main Electric Pump Test: Ensure the main pump starts automatically at ~5.0 kg/cm².

e. Diesel Engine (Standby) Test: Manually start the Diesel Engine once a week for 5–10 minutes. Check the battery charging status.

- **Fire Diesel Engine PM Checklist**

a) Unlike a standard DG set, a Fire Engine must be capable of running at full load immediately without a warm-up period.

b) Battery Health: Check the specific gravity of the battery. Since these engines sit idle, battery failure is the #1 cause of system failure.

c) Cooling System: Ensure the heat exchanger/radiator is clean. Check the cooling water flow.

d) Fuel Level: The diesel tank must always be 100% full. Check for sediment at the bottom of the tank.

e) Emergency Start: Test the manual "Override" start button to ensure the engine runs even if the controller fails.

- **Borewell Pump Maintenance**

a) Current (Amps): Monitor the running current. An increase indicates mechanical friction or a jammed impeller; a decrease indicates dry running or a broken pipe.

b) Control Panel: Inspect the Star-Delta starter, contactors, and the Dry Run Protection relay.

c) Yield Check: Monitor the time taken to fill the overhead/underground tank to detect a dropping water table.

(vi) Light Fittings & Distribution Boards (DBs)

a. Yard Lighting: Inspect and rectify the high-mast lights and perimeter lighting. Ensure "Automatic Dusk-to-Dawn" (Timer/Photocell) switches are working.

b. Building DBs: * Clean and Check for "loose sparking" at MCB/RCCB terminals using a thermal gun, tighten all terminals in OFF condition.

c. Ensure RCCBs (Residual Current Circuit Breakers) are tested using the "Test" button monthly to prevent electrocution hazards.

(vii) Battery Charger:

The charger is a power electronics device. Heat and dust are its primary enemies.

a) Control Card Calibration: Verify that the digital meters on the panel match the actual values measured by a calibrated multi meter.

b) Ripple Voltage Test: Use an oscilloscope or a high-end multi meter to measure the AC ripple in the DC output.

c) *Standard:* Excessive ripple (usually >2%) can "cook" the batteries and damage sensitive protection relays.

d) Insulation Resistance (IR): Measure IR between AC Input to Earth and DC Output to Earth. (Target: >10MOhm).

- Alarm Simulation: Manually trigger alarms for:
- DC Overvoltage / Undervoltage.
- Mains Failure.
- Earth Fault (Positive and Negative).

e) **Component Health**: Inspect capacitors for bulging and power resistors for discoloration due to overheating.

f) This is where you determine if the batteries will last 10 minutes or 10 hours during an outage.

g) The Capacity (Discharge) Test.

h) This is the most important yearly task.

i) **Load Test**: Discharge the battery bank at a constant current (C10 or C5 rate) using a load

bank.

j) **Monitoring**: Record the voltage of every individual cell every 30–60 minutes.

k) **Pass/Fail**: If any cell drops below 1.8V (for Lead Acid) significantly faster than the others, that cell is failing. If the total bank voltage hits the cut off before 80% of its rated time, the bank needs replacement.

l) Torque Check: Re-torque all inter-cell connectors. High resistance at a single joint can lead to a fire during high-current discharge (like a VCB closing).

m) Specific Gravity: For flooded cells, compare current gravity readings with last year's. A downward trend across all cells indicates aging; a drop in one cell indicates a "shorted" or "dead" cell.

(viii) Electrical DB Preventive Maintenance Checklist

Category	Inspection Item	Status (✓/X)	Reference / Action
Physical	Panel Cleanliness		Vacuum dust/cobwebs; no moisture ingress.
	Door & Latches		Door swings freely and locks securely.
	Gland Plates		Unused knockouts are plugged (IP rating).
Safety	Labels/Directory		Every circuit is clearly and accurately labelled.
	Dead Front Cover		Screws present; no exposed live parts.
	Warning Signs		"Danger High Voltage" stickers are legible.
Protective	RCD/ELCB Test		Press "Test" button; must trip instantly.
	MCB Condition		No signs of melting, soot, or loose toggles.
	Phase Barriers		Insulating dividers are in place between phases.
Electrical	Connection Tightness		Check for "hot" or loose neutral/phase wires.
	Neutral/Earth Bar		Wires are tidy; no "double lugging" (2 wires in 1 hole).
	Voltage Balance		Verify consistent voltage across all phases.

(ix) Battery & Charger Maintenance Log

Category	Inspection Item	Status (✓/X)	Reference Value / Note

Category	Inspection Item	Status (✓/X)	Reference Value / Note
Charger	Output Voltage		Float: ~2.25V/cell; Equalize: ~2.35V/cell
	Output Amperage		Should be low if battery is fully charged
	Ground Fault Lamp		Must be OFF (indicates no leakage to ground)
	Cooling Fans/Vents		Clear of dust; fans spinning freely
Battery Bank	Case Integrity		No cracks, leaks, or bulging walls
	Electrolyte Level		Between MIN and MAX lines (Flooded only)
	Terminals/Lugs		No white "fuzz" (sulfation) or corrosion
	Inter-cell Links		Tight and coated with protective grease
	Cleanliness		Jars wiped down (prevent tracking current)
Environment	Room Temp		Ideal: 20°C–25°C (68°F–77°F)
	Ventilation		Exhaust fan functional
	Safety Gear		Eyewash station and spill kit present

(x) Water & Fire Pump Maintenance Checklist

Category	Task Item	Water Pump	Fire Pump	Notes/Standards
Mechanical	Packing Glands	✓	✓	Look for 1 drop/sec for cooling/lubrication.
	Bearing Lube	✓	✓	Check for grease levels or oil clarity.
	Coupling/Alignment	✓	✓	Inspect for rubber dust (sign of misalignment).
	Casing/Seals	✓	✓	Inspect for leaks or excessive vibration.
Electrical	Controller/Starter	✓	✓	Check for pitted contacts or loose wires.
	Motor Amperage	✓	✓	Compare against nameplate Full Load Amps.
Hydraulic	Suction/Discharge	✓	✓	Verify gauges show correct static pressure.
	Strainers	✓	✓	Clean debris to prevent cavitation.

Category	Task Item	Water Pump	Fire Pump	Notes/Standards
	Churn Test	-	✓	Run weekly (Electric) or daily (Diesel).
Diesel Only	Fuel Level	-	✓	Tank must be at least 2/3 full.
	Battery Health	-	✓	Check charger and electrolyte levels.
	Engine Cooling	-	✓	Inspect heat exchanger and water flow.

(xi) Street Light Preventive Maintenance Checklist

Category	Inspection Item	Status (✓/X)	Reference / Action
Physical	Pole Alignment		Check for leaning or structural damage.
	Foundation/Base		Inspect for concrete cracks or loose anchor bolts.
	Service Door		Ensure the base plate door is present and bolted.
Luminaire	Fixture Cleanliness		Clean the glass/polycarbonate cover (lens).
	Gasket Condition		Check for dry rot; ensures IP65/66 rating.
	Mounting Arm		Check for rust or loose mounting brackets/clamps.
Electrical	Internal Wiring		Inspect for frayed wires or heat damage at the base.
	Fuse/MCB		Verify the individual fuse in the pole base is intact.
	Grounding/Earthing		Test continuity from pole to the grounding rod.
	Surge Protection		Ensure SPD is functional (LED indicator Green).
Controls	Photocell/Timer		Cover sensor to test; light should turn on.
	Dimming Driver		(If LED) Check for flickering or reduced output.

(xii) <u>Electrical Panel Preventive Maintenance Checklist</u>

Category	Inspection Item	Status (✓/X)	Reference / Action

Category	Inspection Item	Status (✓/X)	Reference / Action
Safety & Access	Working Clearance		Maintain 36" (914mm) clear space in front.
	Arc Flash Labels		Ensure safety/PPE labels are present and legible.
	Panel Directory		Verify all circuit labels match actual loads.
Physical	Enclosure Condition		Check for rust, dents, or signs of water entry.
	Cleanliness		Vacuum dust/debris (use non-metallic nozzle).
	Seal / Gaskets		Ensure door gaskets are intact to block dust.
Electrical	Thermal Scan (IR)		Check for hot spots (lugs, breakers, cables).
	Termination Torque		Tighten loose bolts to manufacturer specs.
	Phase Balance		Measure amps: ensure variance is <10%
	Grounding/ Bonding		Confirm ground wire is secure and corrosion-free.
Protective	Breaker Exercise		Toggle breakers OFF/ON to prevent sticking.
	RCD/GFCI Test		Press "Test" button to ensure instant tripping.
	Indicator Lights		Replace any burnt-out phase or status bulbs.

(xiii) **Chiller Preventive Maintenance Checklist**

Category	Inspection Item	Status (✓/X)	Reference / Action
General	Chiller foundation		Check Tightness /Vibration.
	Abnormal Noise & Vibration		Investigate Source
	Refrigerant Leakage		Check joints/valves
	Oil Leakage		Check compressor & piping
Compressor	Suction Pressure		Compare with OEM Limit
	Discharge pressure		Compare with OEM Limit
	Suction Temp.		Compare with OEM Limit
	Discharge temp.		Compare with OEM Limit

Category	Inspection Item	Status (✓/X)	Reference / Action
	Compressor Ampere		Compare with rated Current
	Oil Level/Condition		Compare with sight glass mark
	Filter drier Condition		Check Temp. Drop
Electrical	Panel Cleanliness		Remove dust/moisture
	Compressor Contactor		Check Contacts/Overheating
	Fan Contactor		Check Contacts
	MCCB/MCB/Fuses		Check condition/rating
	Power & Control terminals		Tightness Check
	Control & safety		Functional test

(xiv) **Split A.C. Preventive Maintenance Checklist**

Category	Inspection Item	Status (✓/X)	Reference / Action
Indoor Unit	Air filter Cleaning		Check Tightness /Vibration.
	Evaporator coil & Blower cleaning		Investigate Source
	Drain tray & drain pipe		Check joints/valves
	Indoor fan Operation		Check compressor & piping
Outdoor Unit	Condenser coil cleaning		Compare with OEM Limit
	Compressor operation		Compare with OEM Limit
	Refrigeration piping /leakage		Compare with OEM Limit
Electrical	Supply voltage		Remove dust/moisture
	Running Current		Check Contacts/Overheating
	Terminal/Cables		Tighten/Check
Performance	Room Temp.		Record
	Set temp.		Record

Category	Inspection Item	Status (✓/X)	Reference / Action
	Cooling Performance		Verify
	Abnormal Noise/Vibration		Investigate Source

(xv) BMS Preventive Maintenance Checklist

Category	Inspection Item	Status (✓/X)	Reference / Action
BMS Panel & Controller	Panel Physical Condition		Check Cleanliness and damage
	Controller Status		Check for faults
	UPS/Battery backup		Check backup Status
Communication	Network communication Status		Check Connectivity
	Communication cables & terminals		Tighten/Check
Sensors & Field Devices	Temp. & RH Sensors		Verify Reading
	CHW Actuator		Check Operation
	HW Actuator		Check Operation
	DPS		Check Calibration
	Terminal/Cables		Tighten/Check
	Start/Stop command		Test operation
	Auto/Manual Mode		Verify Correct Mode
Software & back up	BMS Software operation		Check for errors
	Database backup		take Backup

(xvi) Fire Alarm System Preventive Maintenance Checklist

Category	Inspection Item	Status (✓/X)	Reference / Action
Fire Alarm Panel	Physical Condition		Check cleanliness/damage
	Power supply Status		Verify Supply
	Battery/Backup condition		Check voltage/Backup
	Panel Fault indication		Check & rectify
Detection Devices	Smoke Detector		Clean/Test
	Beam Detector		Check alignment, cleanliness & test
	Manual Call Point		Functional test
	Hooter/Sounder		Test alarm
Interface & communication	Fire alarm loop status		Check faults
	Module/interface status		Verify
	Fire alarm cables		Check damage/loose connection
Functional test	Fire alarm activation test		Test selected points
	Alarm reset function		Verify reset
	Fault/Alarm history		Review

(xvii) PUMPS

(a) General Clearing.
(b) Checking of terminals for overheating & loose connections.
(c) Inspection of cables & wiring.
(d) Oiling and greasing time to time.

(xviii) TOOLS, TRACKELES AND CALIBRATION OF EQUIPMENT'S

(a) The contractor shall provide all necessary tools, tackles and equipment for daily maintenance.
(b) periodic calibration of equipment's/instruments shall be carried out by the contractor with valid calibration certificates.
(c) Break down and external repairs shall be undertaken as per BAPL Pilani's instructions.

(xix) Summary of 24/7 Manpower Deliverables:

NC-AMC team should provide the following MIS report.

a. Summary of Key Highlights and Difficulties/Support required for each month.
b. Breakdown Analysis & its closure action: Total downtime of any critical equipment with Summary
c. Compliance Certificate: Ensuring all staff received Central Minimum Wages and safety PPE (Gloves, Helmets, Mats, etc) is in use.

RFP No: BMP/Admin/RFP/26-27/001, Date: 27 Oct 2026

ANNEXURE - D

LIST OF TOOLS AND EQUIPMENT'S TO BE MAINTAINED BY THE CONTRACTOR

Essential maintenance tools and accessories to be maintained by the contractor at his own cost.

Category	Primary Items required at site	Maintenance Frequency
HV Safety	Discharge rods – 03 Nos, HV Gloves - 11KV - 02 nos	Pre-use check
Diagnostic	Megger, BDV Kit, CRM Meter, Digital Clampmeter-02 Nos, Digital Multimeter-03 Nos	Annual Calibration
Hand Tools	Insulated Pliers, Torque Wrench, Spanners set (Ring + Flat), Box Spanner set, Drilling bits-6mm, 8mm, 16mm, Drilling chuck, Air Blower – 800W, cutting machine, Nose plier, Hole saw cutter, Wooden gutta, Crimping tools, Screwdriver set – small to big, Measurement tape. (50mtrs)-01nos, Steel rule-01mtrs-01nos, Allen keys set-01nos, Plumber tool kit- Pipe wrench, Adjustable spanner set, Hacksaw frame, Files – Round & Flat type. Insulated Ladder – 08ft	Monthly cleaning
Safety PPEs for Personnel	Safety Shoes – ISI marked, Safety Gloves(11kv)-02pairs, cut resistant gloves-05pairs, Hard hats, Googles, Cotton gloves, Emergency Torch Lights-02nos, Raincoat – 03nos, Umbrella – 05 Nos. First Aid Box with medicines – 02set (Substation & Pumphouse)	Annually to be issued/ replaced suitably on its wear & tear
Insulated Rubber Mats	At least 01-meter-wide in front of all panels. Qty-10 Nos (Qty should be based on available panels in the campus)	on start of the contract 1st replacement within 03 months is mandatory

Note:

i. The above list is only indicative. Contractor will deploy all such tools and equipment as may be required to meet all eventualities that might arise during execution of scope of work as per instructions of Engineer-in-charge of BAPL.

ii. All the instruments used should have been calibrated (as applicable) before use and the certificate to this effect should be shown to the Engineer-In–Charge, if demanded. If the BAPL authority demands re-calibration of instrument, it must be carried out immediately by the contractor.

RFP No: BMP/Admin/RFP/26-27/001, Date: 27 Oct 2026

ANNEXURE - E

LIST OF COMPULSORY SERVICES

Mandatory Annual Services to be carried out (starting of 1st quarter) as with respect to the services completion & its acceptance by BAPL, billing at actuals shall be claimed on respective services completion.

Sl. No	Service Description	Unit	Qty	Quoted Basic Rate (Rs)	Total Basic Amount (Rs)
1.	Periodical Servicing by OEM / authorised vendor including cost of replacement of all standard parts, consumables, top up oil, painting etc., as recommended by BAPL.				
	1.1) RTCC panel servicing.	Nos.	01		
	1.2) 1000KVA Transformer servicing with Oil filtration.	Nos.	01		
	1.3) 250 KVA Transformer servicing with Oil filtration.	Nos.	02		
	1.4) Transformer oil top-up/changes (billing at actuals)	Litres	750 Ltrs		
	1.5) Gaskets replacement if leak damage for each transformer	Set	03		
	1.6) Silica Gel Breather	Set	03		
2	LT Panels, Capacitor panels & DG Synchronisation panels– 440V (Shutdown Maintenance Service – Required Spares cost only to be quoted, Manpower utilization from Inhouse team) control relay panels service including cost of replacement of all standard parts, consumables etc.	No	14		
3	'C' Check for 500 KVA DG set by OEM (Make: Cummins) including	No	2		

Sl. No	Service Description	Unit	Qty	Quoted Basic Rate (Rs)	Total Basic Amount (Rs)
	cost of engine oil, grease, gaskets, consumables, and replaceable items as recommended by BAPL/OEM				
4	'C' Check for 180 KVA DG set by OEM (Make: Greaves) including cost of engine oil, grease, gaskets, consumables, and replaceable items as recommended by BAPL/OEM	Nos.	2		
5	Calibration of 11 KV H.T VCB by OEM including cost of consumables & standard item replacement as recommended by BAPL/OEM	Nos.	1		
	Periodical Servicing by OEM / authorised vendor including cost of replacement of all standard parts, consumables, top up oil, painting etc., as recommended by BAPL.	Nos.	3		
6	Preventive Maintenance of Air-Cooled chillers Chiller's including electrical control panels, by the OEM/authorised vendor, covering inspection, servicing, testing and repair/replacement of faulty spare parts and consumables etc., as recommended by BAPL.	Nos.	3		
	6.1) Servicing/repair of screw compressor, including compressor oil, refrigerant and filter drier replacement, as required and recommended by the OEM.	Nos.	6		
	6..2) Servicing of electrical control panels, including contactors, relays and other control components, replacement of standard/defective components, as required and recommended by OEM.	Nos.	3		

RFP No: BMP/Admin/RFP/26-27/001, Date: 27 Oct 2026

ANNEXURE - F

PRICE BID FORMAT

S.No	DESCRIPTION	(i) Rate per Day (Rs)	(ii) Basic Rate per month (i x 26 days)	Total Amount (Rs) (ii x 12 months)
Site Engineer (01)				
1	Salary	1111		
2	EPF			
3	ESI			
4	Employee Uniform/ Accessories*			
5	Bonus			
Total Amount per Site Engineer				
Total Amount				
Highly Skilled Manpower (03)				
1	Salary	933		
2	EPF			
3	ESI			
4	Employee Uniform/ Accessories*			
5	Bonus			
Total Amount per person				
Total Amount for 02 Nos				
Skilled Manpower -14				
1	Salary	794		
2	EPF			
3	ESI			
4	Employee Uniform/ Accessories*			
5	Bonus			
Total Amount per person				
Total Amount for 15 Person				
Semi-Skilled Manpower -03				
1	Salary	661		
2	EPF			
3	ESI			
4	Employee Uniform/ Accessories*			
5	Bonus			
Total Amount per person				
Total Amount for 03 Person				
Fuel Charges for internal movement for maintenance				
Service charges/ Profit (%)				
Total				
Bonus Per Month Rs. @ 8.33% per person				
Subtotal Per Month				
EPF per month (@ 13% of				

Workmen compensation per month (ESI not applicable as basic exceeds Rs.21,000/-)	
Cost of Safety PPEs & Uniform & PPEs per Month (= Rs. 3750/- per person per year X 21) / 12)	
Contractors profit in percentage %	
Total (Rs.)	
Note	
GST will be paid extra at actual.	
Each person will get Uniform – 2 sets and PPEs: Safety Shoes – 01 Pair, Winter Jackets, Safety helmet, Gloves & Goggles– 01 No).	
Workmen compensation policy to be taken by the vendor at his own cost.	
Wages calculated based on the prevailing central wages notified by GOI. Reimbursement will be considered for any change in statutory wages by GOI during the contract period & its extended period (if any).	
The wages are calculated for 26 days per month. However, bills will be admitted as per the actual number of days worked in a month. Considered wages as per Ministry of Labour & Employment, Notification No. F.No.1/6(3)/2025-LS-II, dated 30/09/2026. Latest wages revision if any as applicable shall be quoted/revised in the above table format.	
Reimbursement for spares/ consumables /repairs will be dealt as per the RFP.	
Period of Contract: One Year.	
Other T&C as per RFP.	
ITI qualified only comes under Skilled category, in case of non-ITI resource which is considered in Semi-Skilled category.	

Note: Wages must comply with the Central Govt. Minimum Wages with relevant categories like Highly Skilled/Skilled/Semiskilled/Unskilled (effective as on P.O release date) for Area 'A', 'B', or 'C' as applicable, including VDA, EPF, ESIC/Medical, Accidental Group Insurance and Bonus.

Penalty Clause:

Penalties would be applicable for Non-conformity and Lapses by the contractor.

Following are the classifications of Lapses.

- Ontime response to the User/requests (Minor)
- Ontime PM completion with sign closure from User/In charge (Minor)
- Punctuality as per BAPL rules/policy
- 95% attendance is mandatory for each day (Minor)
- Proper response and good Behavior with BrahMos Staff and within the site deployed vendor staff (Minor),
- Whistleblowing on office matters (Major)
- Secrecy and Security (Major)
- Penalty Amount for Minor – 0.5% of monthly billing
- Penalty Amount for Major will be considered case to case basis based on the Criticality; amount shall not exceed 03% of Monthly bill.

PART-VI: FORMAT FOR PRICE BID

Table - 1

Annexure No	NC-AMC Pricing Component Description	Total price (Rs.)
A	Manpower Deployment Services (As per Annexure-F)	
D	List of Compulsory Services (As per Annexure-E)	
Final Cost Price for one year (Rs.)		
In Words (Rs.)		

RFP No: BMP/Admin/RFP/26-27/001, Date: 27 Oct 2026

PART-VII: COMPLIANCE STATEMENT

The Bidder is required to submit detailed Compliance Statement containing all Terms & Conditions as enumerated at Part II, Part III, Part IV, Part V, Part VI and Part VII of this RFP and give confirmation of their acceptance of all Terms & Conditions. The deviations, if any, may be clearly indicated.

COMPLIANCE STATEMENT			
Sl. No.	**Clause**	**RFP Requirement**	**Comments by Bidder**
	Part-I	**GENERAL INFORMATION AND INSTRUCTIONS**	
	Sl. No. of Clause as per RFP	Terms & Conditions as per RFP	Complied (Yes / No) If No, give details
	Part-II	**SCOPE OF WORK**	
	Sl. No. of Clause as per RFP	Terms & Conditions as per RFP	Complied (Yes / No) If No, give details
	PART-III	**EVALUATION CRITERIA OF BIDS**	
	Sl. No. of Clause as per RFP	Terms & Conditions as per RFP	Complied (Yes / No) If No, give details
	Part-IV	**SPECIAL TERMS & CONDITIONS**	
	Sl. No. of Clause as per RFP	Terms & Conditions as per RFP	Complied (Yes / No) If No, give details
	Part-V	**STANDARD TERMS & CONDITIONS**	
	Sl. No. of Clause as per RFP	Terms & Conditions as per RFP	Complied (Yes / No) If No, give details
	PART-VI	**PRICE BID FORMAT**	
	Sl. No. of Clause as per RFP	Terms & Conditions as per RFP	Complied (Yes / No) If No, give details

- **There should be no discrepancy between the details mentioned in the Bid and the Compliance Statement.**
- **In case of any such discrepancies, the terms & conditions mentioned in the RFP and their compliances as mentioned in either of the two documents shall prevail.**