

Terms of Reference (TOR)
for
Engaging MEP Consultant for Detailed Engineering Assessment (DEA) of the whole MEP System of the University of Asia Pacific (UAP)

1. Background

The University of Asia Pacific (UAP) has been in operation since 2016, during which various Mechanical, Electrical, and Plumbing (MEP) systems, including electrical infrastructure, the Variable Refrigerant Flow (VRF) air conditioning system, Generator, Solar and the firefighting system were installed. These systems have been in continuous operation since their initial commissioning, but they have not been fully inspected or vetted since installation, leading to concerns about their current condition, efficiency, and safety compliance. Particular concern is the non-operational status of the firefighting system, which poses a significant safety risk.

In light of the above, the university seeks to engage a qualified MEP consultant to conduct Detailed Engineering Assessment (DEA) of MEP Systems a thorough assessment of the Electrical, VRF, Generator, Solar, Plumbing and firefighting systems to ensure their continued reliability, safety, and compliance with relevant regulations.

2. Objective

The primary objective of engaging a consultant is to conduct a Detailed Engineering Assessment (DEA) of the university's MEP systems, including the mechanical, electrical, VRF, and firefighting systems. The consultant will review these systems to identify deficiencies, ensure compliance with safety standards, and propose necessary repairs, upgrades, or replacements.

3. Scope of Work

The MEP consultant will be responsible for the following tasks:

- **Electrical Systems**
 - Conduct a comprehensive review of the university's electrical infrastructure.
 - Ensure compliance with current standards and identify any operational inefficiencies.
 - Assess the Generator & Solar System and suggest necessary recommendations for optimal performances.
 - Assess safety standards and recommend necessary improvements including energy efficient solutions.
- **VRF System (Variable Refrigerant Flow)**
 - Inspect the VRF air conditioning system to ensure its optimal functioning.
 - Identify any deficiencies, malfunctions, or needed repairs.
 - Provide recommendations for upgrades or maintenance requirements.
 - Propose replacement of the system with detailed budget (if necessary).



- **Firefighting System**
 - Inspect the firefighting system, which is currently non-operational.
 - Identify causes of malfunction and provide solutions to restore functionality.
 - Ensure compliance with fire safety regulations and recommend upgrades or replacements as necessary.
- **Plumbing System**
 - Inspection of leaks, corrosion and pipe damages.
 - Provide recommendations for upgrades or maintenance requirements.
- **Compliance and Regulatory Review**
 - Ensure all systems comply with applicable safety and regulatory standards, particularly those related to fire safety.
- **Report Preparation and Recommendations**
 - Provide a detailed report outlining the current condition of all MEP systems.
 - Identify deficiencies, propose repairs, upgrades, or replacements.
 - Provide guidelines for emergency preparedness of all MEP System.
 - Provide a roadmap for rectification, maintenance, and potential procurement strategies.
- **Procurement Assistance**
 - Assist the university in developing procurement strategies for maintenance, upgrades, or repairs based on the findings of the assessment.

4. Deliverables

Items to be provided by the Consultant:

- **Comprehensive Assessment Report:** A detailed document outlining the current condition of the electrical, VRF, and firefighting systems.
- **Recommendations:** Clear and actionable recommendations for repairs, upgrades, or replacements with detailed budgets.
- **Compliance Checklist:** A verification of compliance with all applicable safety and regulatory standards.
- **Maintenance Roadmap:** A proposed plan for maintaining the systems in optimal condition post-assessment.

Items to be provided by the University of Asia Pacific:

- All drawings related to the MEP System (if not available, the consultant will do it based on current condition).
- Specifications of all MEP items

5. Duration of Engagement

The engagement period for this consultancy is expected to be for months (to be filled up by consultant) from the date of commencement, with the final report due within (date to be filled up by consultant) after the consultant's site visit.

6. Work Schedule

Table of Work Schedule (to be filled up by the consultant)

Task No.	Name of Task	Duration in months						
		1	2	3	4	5	6	7
T-1	Kick off meeting							
T-2	Site visit							
T-3	Report on current condition of MEP System							
T-4	Report on deficiencies of current MEP System							
T-5	Report on road map of all possible improvements							
T-6	Report on budget for improvement							
T-7	Submission of Final Report							

7. Consultant's Qualifications

The selected MEP consultant must meet the following qualifications:

- Proven experience in conducting detailed assessments of MEP and HVAC systems, particularly in academic or large institutional environments.
- Expertise in Electrical system, Generator, Solar, VRF system, Plumbing and firefighting system.
- Familiarity with local and international regulatory and safety standards related to MEP systems.
- A track record of delivering comprehensive reports with actionable recommendations for system upgrades, repairs, or replacements.

8. Selection of Consultant

The consultant will be selected based on Quality and Cost Based Selection (QCBS) method. It is based on considerations: a) quality of the proposal and b) cost of the service.

- i) Request for proposal along with the TOR will be widely circulated/advertised to the interested consultants. The proposal should cover both the technical and financial aspects.
- ii) Proposals received shall be evaluated by expert committee formed by the UAP Authority. The evaluation will be done in two stages: evaluation of the technical proposal followed by evaluation of the financial proposal of technically responsive proposals.

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9. Submittals for being selected

The consultant will have to submit the following documents along with the proposal:

- Company Profile & History
- Relevant Experience Certificates in MEP & HVAC Consultancy including Electrical system, Generator, Solar, VRF system, Plumbing and firefighting system
- List of similar projects completed in past
- List of Key personnel who will be involved in the project, along with their qualifications and experience
- IEB MEMBERSHIP, ASHREA MEMBERSHIP, CFPS, ABC Supervisor license
- The trade license must only mention consultancy and a copy of the trade license for the last 10 years must be provided.
- VAT & Tax papers
- Work Completion Certificates from the clients.

8. Reporting and Communication

- The consultant will report to the University Engineer of the University Engineering Office.
- Regular updates will be required throughout the engagement period, and any major findings should be communicated immediately.
- The final report should be presented in both written and electronic formats.

9. Budget and Payment Terms


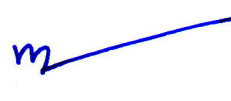

The consultant will be compensated according to the agreed-upon terms outlined in the contract. Payment will be made as per the approved payment terms & conditions based on the completion of specific milestones, such as submission of the draft report, final report, and post-assessment review meetings.

Table of Payment Schedule (to be filled up by the consultant)

Sl	Schedule of Payment	Schedule of Task	Amount	Comments
1				
2				
3				

10. Approval

This TOR is subject to approval by the University Development Advisory Group (UDA), Administration and the BOT. The consultant's engagement will commence upon formal approval and the signing of the contract.

11. Contact Information

For further inquiries or clarifications, please contact:

Md. Kausarul Haque


University Engineer, University of Asia Pacific

74/A, Green Road, Dhaka-1205.

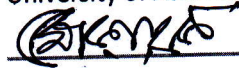
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Approval:

Signed by:


Registrar 10.2.25

University of Asia Pacific, 74/A, Green Road, Dhaka-1205.




Dr. G.R. Ahmed Jamal
Professor & Head
Department of EEE
University of Asia Pacific

This TOR provides a comprehensive framework for the engagement of a consultant to conduct a Detailed Engineering Assessment of the university's MEP systems and ensure their ongoing safety, compliance, and efficiency.