M/s AL Mirqab Facilities Management **Kind Attn: Mr. Abdul Hamid Bohlok** **Procurement Manager** **E-Mail: m.nisar@almirqabfm.com** **Mobile: +97466734578**	**QREF 06/01/25-7** **SUBJECT: Proposal for Dehumidification and HVAC Systems Consultancy** **TNR-0167-2024-AWP** **Location: AWP & WBBH**
DATE: 06-01-2025	**E-Mail: mes@mes.qa**

Dear Sir,

This proposal outlines our approach to evaluating, analyzing, and optimizing the HVAC systems and dehumidification performance for Al Wajba Palace and West Bay Beach House. Our methodology ensures precise identification of root causes, optimal system performance, and compliance with the required temperature and humidity conditions. Leveraging advanced engineering practices, we aim to deliver cost-effective, innovative, and sustainable solutions.

---

1. Scope of Work

Areas Covered Under this Scope:

A) Al Wajba Palace (Swimming Pool Area, Panic Room, Safe Room)

B) West Bay Beach House (Safe Room)

1.1 Current Scenario Asset Performance Analysis

- Detailed assessment of existing installed AHU and FCU performance.
- Validation of existing HVAC systems against design conditions.
- Cooling load modeling using advanced HVAC tools.
- Data collection and on-site performance testing.

1.2 Psychrometric Modeling and Analysis

- Psychrometric chart analysis.
- Identification and resolution of condensation, mold, and odor issues.
- Recommendations for HVAC system redesign.

1.3 Ventilation Effectiveness Assessment

- Airflow evaluation using calibrated equipment.
- Assessment of air exchange rates.
- Identification of ventilation inefficiencies causing mold and odor.

1.4 HVAC System Re-evaluation

- Proposals for air distribution, hydronic upgrades, and automation enhancements.
- Solutions for energy efficiency and improved indoor air quality.

1.5 Electrical System Impact Analysis

- Evaluation of electrical modifications required due to HVAC upgrades.
- Cost estimation for cabling, switchboards, and distribution boards.
- Compliance with local electrical regulations.

1.6 Building Automation and Controls

- Integration of additional sensors for real-time monitoring of temperature and humidity.
- Recommendations for Building Management System (BMS) upgrades.

1.7 Deliverables

- Assessment reports, schematic layouts, and control drawings.
- Proposals and execution plans.
- Implementation timeline with milestones and budget estimates.

---

2. Methodology

Phase 1: Data Collection and Analysis

- Conduct on-site inspections to collect performance data.
- Perform psychrometric and ventilation assessments.

Phase 2: Root Cause Identification

- Analyze data to identify inefficiencies and underlying issues.

Phase 3: System Redesign and Proposal Development

- Develop optimized HVAC and electrical system proposals.
- Create detailed drawings and technical documentation.

Phase 4: Reporting and Presentation

- Submit comprehensive reports and present findings to stakeholders.

---

3. Pricing

Total Price for the above scope=	**98,000 QAR**

---

4. Deliverables

1. **Assessment Reports**
   - Current scenario performance analysis.
   - Psychrometric evaluations and ventilation effectiveness results.
2. **Redesign Proposals**
   - HVAC system optimization/modification plans.
   - Electrical infrastructure modification plans.
3. **Technical Documentation**
   - Schematic layouts and control drawings.
   - Equipment specifications and selection criteria.
4. **Implementation Plan**
   - Detailed timelines and milestones.
   - Budget and cost breakdown.

---

5. Payment Terms

- 50% of the total amount upon proposal acceptance.
- 50% upon submission of final deliverables.

Closing Summary:

In conclusion, this proposal represents our commitment to delivering high-quality, innovative, and cost-effective solutions tailored to the specific needs of Al Wajba Palace and West Bay Beach House. With our extensive experience in HVAC engineering and a deep understanding of dehumidification challenges, we are confident in our ability to enhance the performance and reliability of your systems. By partnering with us, AMFM can expect precise, efficient, and sustainable outcomes that ensure optimal indoor air quality and comfort.

We look forward to collaborating with you on this prestigious project and are available to discuss any aspect of the proposal in further detail.

Thank you and regards,

Metri Engineering Services W.L.L
Eng. Fayez Metri (55572793 / 70500311)