

M/s LE MERIDIEN CITY CENTER DOHA HOTEL Kind Attn: Mr. KHALED EL AAWAR FINANCIAL CONTROLLER E-Mail: Waqar.Usman@marriott.com Mob: +97433522786 DATE: 08/01/2025	QREF 08/01/2025-10 Subject: Quotation for CHILLED WATER BALANCING <u>Location: LE MERIDIEN CITY CENTER DOHA HOTEL</u> Email: mes@mes.qa
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Dear Sir,

With reference to your email, please find below scope of works which covers the requested chilled water balancing activities.

1. Scope of Work

We propose to undertake the balancing of the chilled water system across the hotel from Level B3 to Level 35, encompassing approximately 690 test points related to chilled water network + 6 pumps. Our approach ensures optimal system performance, improved energy efficiency, and resolution of any cooling inconsistencies. This proposal considers the operational nature of the hotel and the associated access constraints.

2. Approach and Methodology

Phase 1: Pre-Balancing Preparations

- Review and validation of existing system drawings, specifications, and operational parameters.
- Conduct on-site surveys to verify the accessibility and operational status of all components.
- Record baseline data for flow rates, pressures, and temperatures.

Phase 2: System Testing

- Perform an initial check of system components (chillers pumps, and control valves, main DRVs).
- Measure flow rates, pressures, and temperatures at critical points in the system.

Phase 3: Balancing Process

- Adjust flow rates using balancing valves to meet design specifications.
- Balance primary and secondary loops, including air handling units (AHUs), fan coil units (FCUs), and terminal units.
- Perform rebalancing and re-validation after adjustments.

Phase 4: System Optimization

- Simulate varying load conditions to optimize performance.
- Evaluate and recommend energy efficiency improvements based on findings.

Phase 5: Documentation and Reporting

- Provide a comprehensive final report detailing:
 - Pre- and post-balancing data.
 - Adjustments made and deviations.
 - Recommendations for improved system performance.
- Update system drawings where required to reflect changes.

Phase 6: Post-Balancing Verification

- Conduct functional tests to ensure proper operation.

3. Project Timeline

Considering the operational constraints and access challenges, the estimated timeline for project completion is 25 working days, divided as follows:

- Pre-Balancing Preparations: 5 days
- System Testing and Balancing: 15 days
- Documentation and Verification: 5 days

4. Price

The total price for the balancing project is QAR 89,000, which includes:

- Manpower and supervision for phased execution.
- Specialized equipment and tools for balancing.
- Reporting and operator training.

Note: Costs for additional materials or repairs identified during the balancing process will be quoted separately.

5. Terms, Conditions & Exclusions

- Work will be coordinated with hotel management to minimize disruptions to guests.
Daily progress updates will be shared with the client.
- Ceiling openings & access where required for hidden test points DRVs to be provided by client
- Any kind of duct modification or accessories to the existing duct. Any required repair to the existing units or ducts is excluded and the above price doesn't include re-current visits and re-measurement.
- Any Leak rectification for ducts.
- Equipment Startup and Initial commissioning by Equipment Supplier.
- DRVs or PICVs where not available & Test Plugs.
- Ceiling openings where required for hidden DRVs to be provided by client
- Startup, Testing & Commissioning of Chillers, Pumps, AHUs, FCUs by Supplier.

- Any kind of water flushing and chemical treatment.
- Any Leak rectification from chilled water pipes.
- Strainers cleaning.
- Lifting equipment where needed to perform the measurement and adjustment.
- Anything not mentioned in the above scope.
- All work will comply with hotel safety policies and local regulations.
- All hotel-provided information will be treated as confidential.

6. Payment Terms

- Mobilization Fee: 40% of the total price upon project award.
- Mid-Project Payment: 40% of the total price upon completion of the balancing phase.
- Final Payment: 20% of the total price upon submission of the final reports

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