For: EVP Engineering · Chief Engineer · Director of Facilities

Typical IT / Analyst Prep: ~30 mins for 1 tower or hotel

# Delta Guard: 4-Week Cooling Bill & Night-Valve Audit (AED 0 Upfront)

Forwardable technical scope for your operational or IT lead. No live logins, VPNs or production changes are used at any point in this study.

## 01 · EXACT READ-ONLY HISTORICAL EXTRACTS (CSV / XLSX / PDF)

| EXTRACT / REGISTER | TYPICAL SOURCE | FIELDS / COLUMNS USED |
|---|---|---|
| 1. 12 Monthly District Cooling Bills | Provider Invoices (PDF/CSV) | `billing_month, contracted_rt, consumption_rthr, billed_low_dt_surcharge_aed, rd10_unit_or_other_charges_aed` |
| 2. Cooling Services Agreement (CSA) | Executed CSA + Schedule 3 | `agreement_execution_date (pre/post 31 Jul 2023 RSB RD04b), target_delta_t_c, max_primary_supply_c, min_primary_dp_kpa` |
| 3. 30-Day Primary BTU Meter & ETS Log | ETS / Provider Meter CSV | `timestamp_1h, primary_supply_c, primary_return_c, primary_dp_kpa, cooling_load_rt` |
| 4. 30-Day Secondary BMS Valve Trends | BACnet / Modbus BMS CSV | `timestamp_1h, ahu_fcu_id, valve_cmd_pct, return_water_c, secondary_pump_kw, worst_zone_rh_pct, penthouse_dp_kpa` |

## 02 · TWO SAFE EXECUTION PATHS (CLIENT CHOOSES)

### Option A · Read-Only Slice Under Mutual NDA

Your team shares the agreed read-only historical export above after bilateral NDA signature. Nodal processes it in an isolated UAE-compliant workspace, returns the report, and purges files on study close.

### Option B · Self-Run Inside Your Own UAE Network

Your IT team runs Nodal's auditable, dependency-pinned offline script locally on an isolated workstation inside your network and shares only the summary table if you choose.

**Strict Security & Scope Boundary (What Is Never Requested):**

No live BMS write access, no gateway hardware in weeks 1–4, and zero changes to provider meter seals.

## 03 · WRITTEN DELIVERABLE, STAGE HONESTY & COMMERCIAL TERMS

**WRITTEN OUTPUT**

Clause-by-clause RD04b/RD10 bill audit separating primary-supply breaches from building-side hours, plus a ranked short-list of night-time secondary valve suspects (note: the first design does not detect open plant-room bypasses). Proposed pilot target signed beforehand: ≥3 in 4 listed suspects confirmed on site by your engineer.

**PUBLISHED STAGE & LIMITS**

Stage: In design (no simulation figure is published; a first simulation on synthetic buildings did not pass in full because a strong engineer's analysis recovered more delta-T, and the first design does not detect open plant-room bypasses). Checks low delta-T and RD10 charges against your agreement (untested on real bills) and ranks night valve suspects. Proposed pilot target, signed beforehand: your engineer confirms on site at least 3 in 4 listed suspects, never padded (fewer than 4 listed are reported, not scored).

**MUTUAL NDA & FEE RULE**

AED 0 upfront for this 4-Week Cooling Bill & Night-Valve Audit. Zero obligation to continue; any subsequent shadow pilot or rollout runs strictly on terms agreed in writing after your team verifies the findings.

**Ready to run this check in writing — zero introductory call required**

Request bilateral NDA or local runner: santiago@nodal.systems · Full register: nodal.systems/delta-guard.html

AED 0 UPFRONT