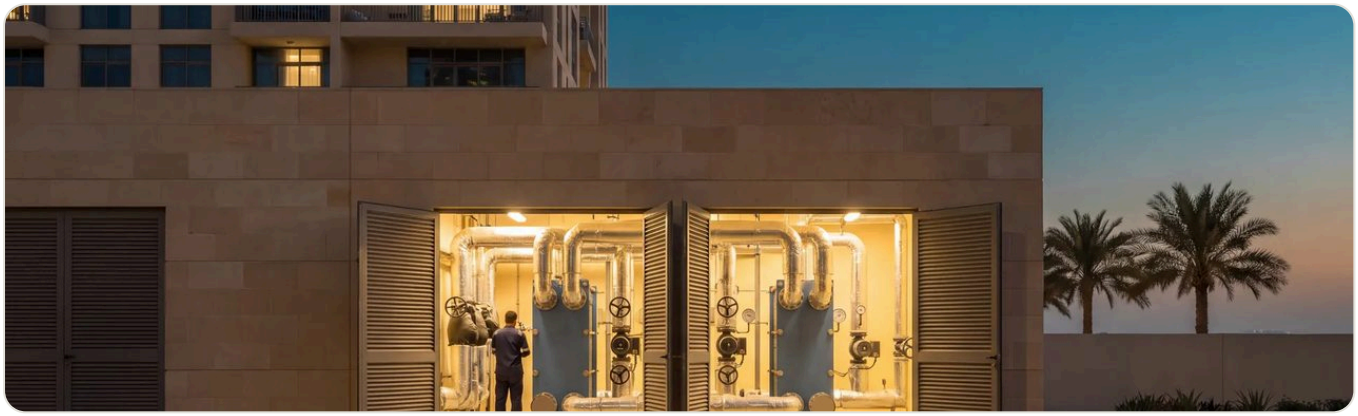
Energy & cooling · For hotel, tower & hospital owners (CFO, VP Engineering or Facilities)

Delta Guard — District cooling Low Delta-T bill & valve audit

Trace a cooling charge to the building fault behind it. Does this charge warrant a supplier query or a maintenance visit, and what should the engineer check first?



01 · UAE REGULATORY & OPERATIONAL SCALE

Empower reached ~1.7 million RT of connected district-cooling capacity across 1,747 Dubai buildings in 2025. For agreements signed from 31 July 2023, RSB regulation RD04b caps the delta-T target at 9 °C and requires RSB-protocol proof that the customer's secondary-system operation alone causes it plus at least 3 months to cure (1 month on recurrence); RD10 bars low delta-T penalties on unit bills.

02 · ZERO-RISK START (PRIVATE ENTERPRISE FAST-TRACK)

4-week bill and meter audit at AED 0 upfront on 12 monthly bills, your Cooling Services Agreement (with annexes and Schedule 3 rates), 1 month of provider meter data and 30 days of BMS trends. Zero hardware and zero BMS write access; any later pump tuning needs Chief Engineer approval with non-AI guards restoring settings if monitored humidity passes 55% or top-floor pressure drops.

03 · AUDITED STAGE, BENCHMARKS & OPERATING BOUNDARIES

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).

COMPATIBLE SYSTEMS & STANDARDS

BACnet & Modbus BMS CSVs · RSB Regulations RD04b, RD06 & RD10 · Provider BTU Meter Logs · Cooling Agreements

Verification Protocol · Zero Live Access

How the 4-week offline audit runs at AED 0 upfront.

Proven offline on your historical records before anything is switched on — with your own engineers, clinicians, surveyors or licensed customs staff keeping final sign-off.



Two safe ways to verify without system logins

NO VPN · NO LIVE CREDENTIALS

Option A · Read-only CSV/Excel slice under NDA

Share an agreed read-only historical export under mutual NDA. Nodal returns a quantified, line-referenced report in writing for your operational lead to verify.

Option B · Self-run by your own IT

Your IT runs Nodal's auditable offline checker locally on a standalone machine inside your UAE boundary and shares only the summary table if you choose.

How can a Dubai building owner audit district cooling Low Delta-T charges?

By checking 12 monthly bills and provider meter readings against your Cooling Services Agreement and RSB regulations RD04b (9 °C cap, sole-fault proof and 3-month cure on post-July 2023 agreements) and RD10, alongside ranking night-time secondary-valve suspects from BMS flow and temperature trends.

What are the main limits of Delta Guard's first design?

It has not yet been tested on real bills, its first design does not detect open plant-room bypasses, hospitals were not in the synthetic building set, and in simulation a tuned fault-detection tool met the three-in-four precision target almost as often.

Does the 4-week audit touch our live BMS or guest comfort?

No. The 4-week audit is strictly read-only on historical bills and CSV exports with zero BMS write access. Any later pump tuning requires your Chief Engineer's approval and fixed rules outside the AI that restore settings if monitored indoor humidity passes 55%.

Delegate in one forward — no introductory call required

Web dossier: nodal.systems/delta-guard.html · Written checklist & mutual NDA: santiago@nodal.systems

AED 0 UPFRONT