

CASE STUDY · COMMERCIAL / ENERGY MANAGEMENT SYSTEM

A Maharatna Building That Finally Knows Where Every Unit of Power Goes

REC Limited's corporate headquarters in Gurugram — one of India's most recognised green buildings — was consuming energy at scale with no real-time visibility into where, when, or why. EnSmart deployed Smart Nova EMS and changed that in a single month.

Client: REC Limited — Corporate HQ · Location: Sector 29, Gurugram, Haryana · Platform: Smart Nova EMS · Project Start: March 2026

At a Glance

Mar 2026 Project Start	1 Month Deployment	PSU HQ Maharatna Building
100% Zone-Level Energy Visibility	AI Insights Module Active	Active Ongoing Support

A Massive Building Running Blind at Night

The facility team at REC HQ had a problem that nobody could see on paper. The building had meters. The building had equipment. But every morning, no one knew what had happened overnight.

Which floor ran its HVAC at full load after everyone went home? Which zone spiked at midnight for no reason? Which feeder was quietly bleeding energy while the building sat empty? The data existed somewhere — but no system was collecting it, reading it, or turning it into something useful.

The team was managing one of India's most important office buildings entirely on instinct and monthly bills. That is not an energy problem. That is a data problem.

- **No real-time visibility into energy consumption**

Floors and zones ran unmonitored between manual checks — the building had meters but no system turning those readings into live intelligence.

- **Night-time and off-hours consumption completely invisible**

Wastage built up silently after staff left — equipment running through the night with no occupancy, and no one to see it until the monthly bill arrived.

- **No zone-level breakdown**

The entire building was treated as one big meter with no accountability by area — high-consumption zones hid behind the building-level aggregate.

- **Budgets were reactive**

The team only discovered high consumption after receiving the monthly bill — by which point the month was over and the cost was already locked in.

- **No way to separate baseline load from actual wastage**

Every spike looked the same as normal usage — there was no intelligence layer to distinguish expected consumption from avoidable waste.

- **Savings initiatives could not be measured**

There was no before-and-after data to prove any improvement — energy programmes ran on estimates, not evidence.

"Within the first week of go-live, the AI Insights module flagged significant off-hours consumption that had been invisible for years — equipment running through the night with no occupancy. The team could see it, quantify it, and act on it. For the first time."

A Green Building That Now Lives Up to Its Rating

- **Real-time zone visibility from Day One.**

Every zone, every meter, every feeder — tracked and visible from the moment Smart Nova EMS went live. The facility team could finally see the building floor by floor, hour by hour.

- **Night waste detected immediately.**

Within the first week of go-live, the AI Insights module flagged significant off-hours consumption that had been invisible for years — equipment running through the night with no occupancy.

- **Savings shifted from guesswork to certainty.**

With actual consumption data in hand, the team could target specific zones at specific times and measure the real impact of every action taken.

- **Green rating backed by live data.**

REC HQ holds one of India's most recognised green building credentials. Smart Nova EMS ensures that rating is now supported by real-time data, not just design intent.

- **Deployed in one month, zero disruption.**

Despite the scale of the building and the complexity of its metering infrastructure, Smart Nova EMS was live within a month without affecting day-to-day operations.

- **Budgets moved from reactive to proactive.**

For the first time, the facility team could forecast energy spend, set zone-level targets, and receive automatic alerts before the bill arrived.

From Dark Building to Full Visibility — One Month

Phase	Milestone
Mar 2026 Week 1	Site assessment, meter and feeder mapping, zone definition across all floors.
Mar 2026 Week 2	Smart Nova EMS configuration, meter integration, dashboard setup and zone tagging across all areas of the building.
Mar 2026 Week 3	System testing, parallel monitoring run, facility team training on dashboards, alerts, and AI Insights module.
Mar 2026 Week 4	Full go-live — real-time zone-level consumption visible across the entire building. All alerts active. AI Insights module running.
Apr 2026 onwards	First full month of consumption data reviewed — off-hours wastage identified and actioned, reporting cadence established for ongoing energy management.

What Changed After Smart Nova EMS Went Live

- **Night-time wastage made visible.**

Off-hours consumption is now monitored in real time — the team gets alerts, not surprises. Equipment running through the night with no occupancy was identified and actioned within the first week.

- **Every zone accountable.**

Floor-by-floor, zone-by-zone consumption is visible on a single dashboard — wastage can no longer hide behind a single building-level meter reading.

- **Savings are now provable.**

Before Smart Nova, energy savings were estimates. Now they are calculations — exact kWh saved, exact cost avoided, exact zone responsible.

- **Budgets built on data.**

The finance team can now forecast energy spend by month, by floor, by season — based on actual consumption patterns rather than last year's bill.

- **Green rating backed by live data.**

REC HQ's sustainability credentials are now supported by real-time consumption data that can be reported, audited, and shared with stakeholders at any time.

- **AI Insights working 24/7.**

The Smart Nova AI Insights module continuously analyses consumption patterns, flags anomalies, and surfaces saving opportunities — without anyone having to dig through numbers manually.

Results and Value Delivered

Area	Before Smart Nova EMS	After Smart Nova EMS
Energy Visibility	No real-time data — manual checks only	100% zone-level visibility — live, every hour
Night Monitoring	Invisible — wastage built up undetected overnight	Real-time off-hours monitoring — alerts on anomalies

Area	Before Smart Nova EMS	After Smart Nova EMS
Zone Accountability	One building-level aggregate — no floor breakdown	Floor-by-floor, zone-by-zone dashboard
Budget Management	Reactive — discovered at month-end bill	Proactive — zone targets, forecasts, and live alerts
Savings Proof	Estimates only — no before-and-after data	Exact kWh, cost, and zone — every saving provable
Green Rating	Design intent only — no live data to support it	Live consumption data — auditable, reportable, shareable
AI Insights	No pattern detection — anomalies discovered manually	AI Insights module — 24/7 automatic anomaly flagging
Deployment	No EMS — building running blind on monthly bills	Fully live in 1 month — zero operational disruption

Frequently Asked Questions

Q: What is Smart Nova EMS?

A: Smart Nova is EnSmart's energy management platform. It integrates with a building's existing meters and infrastructure to deliver real-time zone-level consumption visibility, alerts, trend analytics, and reporting — without requiring hardware replacement.

Q: Did REC need to replace any existing meters or equipment?

A: No. Smart Nova EMS integrates with existing metering and building infrastructure. The deployment is non-invasive and does not disrupt ongoing operations.

Q: How quickly can a facility team see results?

A: The REC HQ team identified measurable off-hours wastage within the first week of go-live — before the first monthly report was even generated.

Q: What does the AI Insights module do?

A: AI Insights continuously analyses consumption patterns every hour. It flags night waste, budget overruns, and unusual spikes automatically — giving the facility team actionable intelligence without manual data analysis.

Q: Is this relevant for other PSU or government buildings?

A: Yes. REC HQ is a direct proof point for how large government-owned and PSU buildings across India can move from manual energy tracking to real-time intelligence using Smart Nova EMS.

Q: Does the system support ESG and sustainability reporting?

A: Yes. Smart Nova provides consumption data at zone and feeder level with full audit trails — directly usable for ESG disclosures, green building recertification, and Ministry-level reporting.

REC HQ was already a landmark. An award-winning green building at the heart of India's power sector. But a green rating based on design intent is very different from a green building backed by live data. Smart Nova EMS closed that gap in one month. Today the facility team knows exactly what the building consumed last night, which zone is over budget this week, and where the next saving is waiting. A world-class building now has world-class energy management.

One of India's Most Recognised Green Buildings. Now With the Data to Prove It.

If your building is certified green but has no real-time energy data to back it — Smart Nova EMS closes that gap. Zone-level visibility. AI Insights. Live in one month.

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