

CASE STUDY · IT PARK / PREPAID ENERGY & THERMAL BILLING

The Facility Manager Who Had to Bill Electricity and Cooling as One System

Every month, the facility manager at a large IT park campus faced the same headache: tenants drew power from the grid, but many also depended on centralized chilled water for cooling. Two utilities, two sets of meters, and no single system that could turn both into one clean, prepaid bill. This is the story of how that changed — and stayed changed for seven years.

Client: SmartCity Kochi · Location: Kochi, Kerala · Platform: EnSmart Universal Billing Engine · Commissioned: July 2018

At a Glance

22	55	2	7+ Yrs
BTU (Thermal Energy) Meters Integrated	Dual-Source Energy Meters Integrated	Protocols Unified (BACnet IP + Modbus IP)	Continuous Operation Since Commissioning

I Don't Need Two Systems. I Need One Answer.

Imagine being the person responsible for billing dozens of tenants across an IT campus — not just for the electricity they use, but for the chilled water that keeps their server rooms and offices cool. Every tenant expects a fair, accurate, real-time bill. Every finance team expects predictable revenue. And every meter on site speaks its own language. In 2018, the facility manager overseeing this campus went looking for a platform that could read both energy and thermal consumption, convert it into a prepaid balance, and manage it all from one PC-based control point. Most vendors offered half the answer. None offered the whole thing.

Two Utilities. Two Languages. No Common System.

- **Two different meter types** — electrical and thermal (BTU) — with no common system to unify them.
- **Existing billing software could handle electricity**, but treated thermal energy as an afterthought or not at all.
- **Devices on the ground spoke two separate protocol languages** (BACnet IP and Modbus IP), and switching between systems to manage them wasn't practical.
- **Tenants wanted prepaid clarity**, not a surprise invoice at month's end.
- **The facility manager needed one control screen**, not a rack of disconnected tools.

"I don't need two systems. I need one answer."

When the Platform Had to Grow Up Fast

From "Good Enough" to "Built for This"

The team behind the deployment had just taken their billing platform from a basic tool to a genuine universal billing engine — and this was the first real test of whether it could handle a dual-utility, prepaid, multi-protocol environment at scale.

The Operator Got One Screen, Not Five

Instead of juggling separate interfaces for electrical and thermal metering, the facility manager could now see every tenant's consumption — power and cooling — in a single dashboard.

Prepaid Changed the Conversation with Tenants

Tenants stopped disputing bills after the fact and started managing their own consumption in real time, because they could see their balance before it ran out.

It Didn't Just Work on Day One

It kept working, year after year, without needing the operator to intervene, patch, or replace core components.

If This Sounds Like Your Building, This Is For You

Relevant for Teams Managing

- IT Parks & Business Campuses
- Smart City Developments
- Multi-Tenant Commercial Buildings
- Mixed-Use Developments

Relevant Roles

- Facility Managers
- BMS Operators
- System Integrators
- Property/Campus Administrators

Follow the Journey — From First Meter to Year Seven

- What it actually looks like when a facility manager tries to bill electrical and thermal energy through one prepaid system.
- How a mixed fleet of 77 meters (22 BTU + 55 energy) got unified under BACnet IP and Modbus IP on a single control point.
- Why prepaid billing changed the day-to-day relationship between the operator and tenants.
- What "it just kept running" looks like in practice, seven years after go-live.
- The lesson the operator's team took away: that innovation isn't always visible — sometimes it's just quiet, dependable uptime.

What Changed for the Person Running the Building

One Screen Replaced a Patchwork

The facility manager went from managing disconnected tools to overseeing every tenant's energy and thermal consumption from a single interface.

Fewer Billing Disputes

Because tenants could see their own prepaid balance in real time, the finance team stopped fielding end-of-month billing complaints.

No Midnight Calls

The system has run continuously since 2018, meaning the operator hasn't had to escalate a metering failure or replace core infrastructure.

A Platform That Scaled With Confidence

What started as a first-of-its-kind deployment became the template the team now trusts for future dual-utility, multi-tenant projects.

From Commissioning to Continuous Operation

Year	Milestone
2018	The facility manager's system goes live: 22 BTU meters + 55 dual-source energy meters integrated across BACnet IP and Modbus IP.
2018-2024	The operator runs prepaid tenant billing across the campus without a single major interruption.
2025	The system quietly completes 7+ years of continuous operation, still active today.

Frequently Asked Questions

Q: Why did the facility manager need one system instead of separate tools for electricity and cooling?

A: Managing two disconnected systems meant double the effort and no unified view of tenant consumption. One platform meant one screen, one bill, and one source of truth.

Q: How many meters and what protocols were unified?

A: 22 BTU meters and 55 dual-source energy meters, brought together across both BACnet IP and Modbus IP on a single platform.

Q: Did the operator have to intervene or replace parts of the system over the years?

A: No — the system has run continuously since July 2018 without requiring a major overhaul.

Q: Is this approach relevant to facility managers outside IT parks?

A: Yes — any operator managing multiple utility types across multiple tenants (electrical, thermal, or even water) faces the same core problem this solution was built to solve.

Commissioned in July 2018. Still running today, without interruption.

One Platform. Two Utilities. Seven Years and Counting.

If your facility is billing electricity and cooling as two separate headaches, SmartCity Kochi's story is exactly where your conversation with EnSmart should begin.

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