

EMS for businesses — from consumption profiles to an improvement plan

[Czytaj po polsku](#)

Process submetering, overnight demand, tariffs, PV and storage. Metrics, input data and commissioning checks.

Measure what you can influence

A business EMS should identify which sites, processes and operating periods drive consumption. The main meter shows the overall balance, while submeters separate production, cooling, compressed air, storage areas, offices and tenants. We design around decisions rather than the number of charts.

Start by asking: what runs after work ends, when does demand peak, what changed after a machine was installed, and how much locally generated energy is used on site?

Five views worth defining

1. **Site balance:** imported energy, PV generation, export and storage, with defined measurement boundaries.
2. **Loads and processes:** compare departments without double-counting the main meter and its submeters.
3. **Time profile:** shifts, shutdowns, nights and weekends.
4. **Cost:** an estimate based on the contract and tariff, clearly separate from the supplier invoice.
5. **Data quality:** latest reading, missing samples, transformer ratios and communication status.

Metrics for processes and buildings

kWh per item, tonne or operating hour requires reliable production quantities for the same period. Building analysis can use kWh/m² and out-of-hours demand. Lower production can reduce total consumption while making unit efficiency worse.

Illustrative calculation: an unnecessary constant 3 kW load for 12 hours a day over 22 days uses 792 kWh. Estimate the cost using the applicable rate and contract components. This is an example, not a measured customer result or a savings guarantee.

Tariffs, solar PV and storage

We distinguish the distribution network operator from the energy supplier. Purchase cost depends on the contract; the wholesale price alone is not the full cost of a kWh. Dynamic tariff analysis needs the relevant settlement periods, margins and distribution components, with correct time zones and daylight-saving treatment.

Battery scenarios require power and capacity, permitted state of charge, efficiency, reserve and import/export limits. We start with simulation. Automatic control requires confirmed compatibility and acceptance testing, including local protection and warranty conditions.

Implementation and acceptance

1. Gather bills, consumption profiles, operating hours and meter, inverter and storage models.
2. Define the measurement hierarchy, labels, units, transformer ratios and user access.
3. Commission readings and verify energy direction, timestamps and device agreement.
4. Define metrics, alerts and action owners.
5. Check period reports, gaps and export.
6. Compare outcomes under similar production and operating conditions.

The quotation separates equipment, installation, integration, reporting, optional automation and support. Data can support an ISO 50001 energy management system; the dashboard does not replace policies, targets, responsibilities or performance review. Regulatory assessment relates to the project location; British English is the language of this guide.

Choose your next guide

- [Opomiarowani — sensors, alerts and measurement history explained](#)
- [EMS for local authorities — energy across schools, offices and municipal sites](#)
- [Podlicznik — meter readings, tenant charges and reports: a property manager's guide](#)
- [EMS — Energy Monitoring System: measurements, solar PV, storage and cost optimisation](#)

Plan your installation with DATPOL

[View the service and implementation scope](#) · biuro@datpol.com · [+48 55 621 29 29](tel:+48556212929)

Updated 13 October 2026. Features are agreed for each installation.

Revision #2

Created 2026-10-13 11:19:29 UTC by Administrator DATPOL

Updated 2026-10-13 11:19:29 UTC by Administrator DATPOL