The business benefits of energy metering: a guide for executives

Drive cost savings, productivity and smarter decision-making

Who is this for?

CEOs, CFOs, energy procurement managers, site leaders and facility managers seeking to reduce operating costs, improve equipment performance and prioritise efficiency investments based on real data.

Why it matters

Energy is often one of the largest controllable operating costs, yet one of the least understood. Decision-makers frequently react to rising costs without clear, actionable insights.

Metering data helps translate energy usage from an invisible overhead into measurable, actionable and optimisable proactive opportunities.

It enables smarter capital allocation, enhances operational resilience and supports predictive maintenance and digital transformation. It builds the data infrastructure needed to pursue energy upgrades, respond to emerging regulations and attract investment.

Key metering benefits

- Find baseline inefficiencies in real-time.
- Quantify the impact of behavioural and technical changes.
- Enable ongoing optimisation, not just one-off audits.
- Help avoid unnecessary capital expenditure by right-sizing upgrades.
- Support internal reporting, benchmarking and KPI tracking.

Metering-related projects can readily yield 5-10% savings at the site level, and up to 15-30% are achievable.

How it works in practice

Most businesses rely on utility bills or broad usage summaries. These don't show which systems are using energy, when, or why.

Metering systems capture usage data at short intervals, often by zone, process or equipment group. This visibility exposes:

Real life success stories

1. **Agribusiness, regional NSW**
    - Meters installed on refrigeration, lighting and pumps.
    - Found ~70,000 kWh in waste from pump cycling.
    - Introduced staggered compressor starts, reducing peak demand by 15%.
    - Avoided unnecessary equipment replacement.
2. **Waste processing plant, regional NSW**
    - Connected gas meter to heated pipework.
    - Recovered 1,700 GJ/year through heat exchanger improvements.
    - Optimised insulation and recovery systems.
3. **NSW building products manufacturer**
    - Sub-metered boilers across production site.
    - Added economiser to recover waste heat.
    - Cut gas use by 10,000 GJ (11%), per year.
    - Reduced maintenance strain and extended boiler lifespan.
4. **University campus, metro NSW**
    - Submetering revealed one building using 22% more electricity per student FTE.
    - Triggered targeted HVAC and lighting upgrades.
    - Launched temperature reset campaign to reduce loads.

- inefficient overnight or idle loads
- short-cycling equipment
- drift in controls or temperature setpoints
- equipment running out of sync with operations.

What to look for in a good system:

- ability to submeter by zone, equipment, or process.
- real-time data with remote access and alerts.
- integration with building management or supervisory control and data acquisition systems.
- easy-to-use dashboards and anomaly detection features.
- vendor support for system design and staff training.

Implementation tips

- **Start small and targeted:** develop a metering priority plan and trial submetering on one high-consumption system.
- **Use data to tell a story:** link insights to cost savings or avoided upgrades.
- **Look beyond the meter:** combine energy data with occupancy, production or weather information.
- **Access support:** NSW Government programs like the Energy Savings Scheme can provide incentives for you to upgrade equipment.
- **Build engagement:** share early wins to build momentum across departments.

Related resources

NSW Energy Savings Scheme