ENERGY KPI AND REPORTING DESIGN / ILLUSTRATIVE CASE

What does rising energy use per unit tell us?

The management decision

Agree what a change in the indicator should prompt someone to investigate. Production volumes and fixed equipment loads can move the measure even when plant performance stays the same.

When sites calculate the same measure differently, a ranking can reward the wrong improvement or send a manager after a problem the site cannot control. This service gives each key figure a defined purpose and an owner. It helps leadership see when a change warrants action and when the figures need more context. That makes it easier to discuss both performance and spending at the same meeting.

Worked example

The site uses 48,000 kWh to produce 12,000 units, an average of 4 kWh per unit. The measure gives managers a way to track how energy use compares with production. Document the production unit and period so teams can reproduce it.

Example figure	What it represents
48,000 kWh	Energy used
12,000	Units produced
4 kWh	Energy per unit

What changes the answer

If production drops to 10,000 units at the same energy use, the figure rises to 4.8 kWh per unit. Check fixed loads and the mix of products before attributing the rise to equipment performance.

Energy KPI and reporting design

What to commission

Define one energy measure for a nominated decision and test it using two reporting periods with different production volumes.

We test the definitions on sample data and discuss what might make a fair comparison harder, such as operating hours, production mix or low output. We also agree what a manager should look at when a measure crosses a reporting threshold.

How to judge the result

A colleague can reproduce the measure, explain a change in output and identify who investigates a significant movement.

Check whether the measure changes a decision at the next review. Record production mix and operating hours beside the result before requesting an equipment change.

Decision worksheet

Project detail	Starting point for your team
Decision owner	Energy manager and finance reporting owner. Name the person who will approve the next step.
Records to gather	The decisions your reports support, a current scorecard and available source data.
Agreed output	A guide to the measures, their formulas and owners, plus a sample report.
Decision date	Record the deadline, any unresolved assumption and who will confirm it.

Discuss this case

Tell us who reads the report and which decision it currently makes difficult. Share the name of one measure teams interpret differently and say whether they compare sites, shifts or periods. That gives us enough to discuss the most useful place to start.

Email info@oxetc.co.uk and mention IT-14. All figures in the worked example are illustrative.