METER DATA QUALITY DIAGNOSTIC / ILLUSTRATIVE CASE

Is the overnight energy saving real?

The management decision

Hold the budget decision until someone can account for the missing readings. If the meter was retired, the expected count changes. If the file is incomplete, the apparent saving may disappear.

An overnight drop in reported consumption can look like a saving. If readings went missing when a file export changed, the same chart could lead you to move investment away from a site that still needs attention. This review helps finance, facilities and energy teams decide where they can rely on the figures and what needs checking.

Worked example

Ten ordinary days at 48 half-hour readings a day give 480 expected readings. The file contains 472 different readings, leaving eight missing, or 1.67%. Treat those periods as unknown until the source explains them.

Example figure	What it represents
480	Expected readings
472	Readings received
8	Missing readings

What changes the answer

Suppose a meter was retired before two of those readings were due. The expected total falls to 478, leaving six gaps or about 1.26%. Check clock changes separately because the expected daily count can also change.

Meter data quality diagnostic

What to commission

Review one meter or site for an agreed reporting period, including any change in meter status or export format.

We trace selected problems back to the file they came from and show where they could change the reported trend. We keep confirmed zero consumption, estimates and missing readings distinguishable so managers can see what is known.

How to judge the result

The owner can trace each sampled gap to its source and see which periods are reliable enough for the pending decision.

Recalculate the reported trend after confirmed corrections. Decide whether the difference still supports the investment decision or whether more readings are needed.

Decision worksheet

Project detail	Starting point for your team
Decision owner	Facilities director or energy reporting lead. Name the person who will approve the next step.
Records to gather	A sample of readings, the expected frequency and the meters or sites involved.
Agreed output	A data quality scorecard, flagged readings with notes and a ranked correction list.
Decision date	Record the deadline, any unresolved assumption and who will confirm it.

Discuss this case

Tell us which change you noticed, when it began and what decision depends on the figure. Mention whether a meter, export or reporting process changed around that time. A short summary of the affected period is enough before we agree how to share a representative file.

Email info@oxetc.co.uk and mention IT-13. All figures in the worked example are illustrative.