

Energy Audit Services

Canonical: <https://northmoregordon.com/services/energy-audits/>

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Turn energy data into an improvement plan

An energy audit helps a business understand where energy is used, where it is being wasted and which improvements deserve attention. Northmore Gordon provides energy audits for industrial facilities and large commercial operations, connecting technical investigation with decisions about operating costs, emissions and investment.

The work can examine equipment performance, operating practices, maintenance, controls and energy tariffs. The result should be a practical set of opportunities supported by evidence, with enough detail for the next decision. An audit identifies potential savings; implementing the measures and checking their performance are the steps that turn those opportunities into results.

Choose the audit type around the decision

Northmore Gordon describes its audits as aligned with AS/NZS 3598. The agreed scope determines the facilities, systems, measurements and deliverables included.

| Audit type | What it examines | Useful starting question | | --- | --- | --- | | Type 1 | A broad assessment using readily available information. | Where should investigation begin? | | Type 2 | A detailed site assessment of equipment, systems and operating performance, with financial evaluation of opportunities. | Which improvements deserve further work or investment? | | Type 3 | A more precise assessment of a major subsystem, supported by additional measurement. | What evidence is needed for a specific equipment upgrade? |

A Type 3 audit is focused on a subsystem, rather than automatically being a more detailed audit of the whole site. Agree the required estimate accuracy and outputs at the start; an audit does not automatically include construction design or a fixed installation price.

Look at equipment, operations and purchasing together

Energy waste can arise from poorly sized equipment, ineffective controls, avoidable running hours or deteriorating maintenance. Steam, compressed air, refrigeration and chilled-water systems are useful investigation areas because their performance depends on how the wider plant operates.

An audit can also examine demand peaks and tariff arrangements. Reducing electricity consumption, shifting demand and obtaining a better tariff are different benefits and should be identified separately. Equipment scheduling or load sharing should be assessed against the actual plant and duty, rather than applying one operating rule to every installation.

Reducing on-site fuel use can lower direct emissions, while reducing purchased electricity can lower the associated electricity demand and emissions. The accounting result also depends on the applicable emissions factors and electricity arrangements.

Prepare the information that explains your site

Start with about a year of available electricity and fuel history, then add interval data, production records, operating schedules and equipment information. Identify shutdowns, changes in production and gaps in the data. These details help distinguish normal energy demand from unusual conditions.

Explain the decision the audit must support, whether it is reducing avoidable running costs, ranking capital projects or investigating equipment approaching replacement. Missing data can be discussed when setting the scope, including whether temporary metering is needed.

Ask for an opportunity register you can act on

The original service scope includes technical descriptions, capital cost estimates, projected annual savings, cost-benefit analysis, greenhouse gas savings and tariff analysis. Make those outputs useful by recording the boundary, assumptions, evidence quality and implementation dependencies for each opportunity.

Keep energy savings, tariff savings, maintenance benefits and potential certificate income visible as separate components. Check interactions between projects before adding their benefits together. Assign an owner, a next decision and a plan for verifying performance to each selected measure.

The Nomad Coffee case study illustrates a Type 2 audit that identified energy and emissions opportunities. Those reported opportunities are forecasts from that project, rather than a promised saving for another facility.

Related services and guidance

Plan measurement and verification

Turn audit findings into an action plan

Review environmental certificate pathways

Connect energy opportunities with a carbon strategy

Start with your site and your decision

Contact Northmore Gordon with the site location, main energy uses, available records and the decision or deadline you are working towards. The audit scope can then be matched to the evidence and level of detail required. For the next stage, see what to do after an energy audit .

How do I choose between a Type 1, Type 2 and Type 3 audit?

Choose according to the decision you need to make. Type 1 provides an initial overview, Type 2 examines site-wide opportunities in more detail, and Type 3 investigates a major subsystem with greater measurement precision. Agree the scope and required outputs before commissioning the work.

What information should I provide before an energy audit?

Provide available electricity and fuel records, interval data, production volumes, operating schedules and equipment details. About a year of history is a useful starting point. Flag missing data and unusual shutdowns or production changes so the assessment can account for them.

Can an audit help if equipment is already operating reliably?

Yes. Reliability alone does not show whether equipment is operating efficiently. The assessment can examine controls, running hours, load matching, maintenance and tariff arrangements as well as equipment replacement opportunities.

Does an audit guarantee a particular percentage saving?

No. It identifies and assesses opportunities for the conditions investigated. Results depend on the measures selected, implementation and subsequent operation. Case-study estimates should not be treated as a guaranteed outcome for another site.

What should happen after the report is delivered?

Prioritise the opportunities, assign an owner to each selected measure and identify the evidence needed for approval. Plan how performance will be checked after implementation, and account for interactions between projects before combining their savings.