
An AEES Group Energy Audit – with Cost Benefit Analysis ... Explained

What does an energy audit with cost benefit analysis measure?

Our approach gauges the impact of energy efficiency measures and ensures that any proposed investments & installations of renewable energy generation infrastructure, such as solar PV modules, will come from savings made on current 'retail' electricity costs. The audit model (proprietary software) is live and interactive, with the ability to present changes in real time such as impacts of different interest rates or loan periods, savings associated with changing consumption patterns, size of the solar system and the impact of power price rises or reductions.

Below we provide a glossary of terms – to help clarify

If you have any questions, please contact our friendly team who will be more than happy to discuss further.

Consumption & Production

a) Current Consumption (kWh) The power consumed by our customers every 30 minutes over the past 12 months, using the interval data provided by the smart meter. This tells us how much power you are consuming and when – peak/off peak, by month/season;

b) Solar Production (kWh) The potential for solar energy to replace your peak consumption using Bureau of Meteorology (BOM) irradiance data for your geographic area. The solar power system is sized to maximise the replacement of your peak grid consumption, your highest cost power;

c) Solar Value (\$) The recommended solar system production is then valued (\$) based on your current peak power price. This allows us to compare the costs of purchasing the system against the value (\$) of the power it will deliver.

Demand Capacity Charges – If applicable

a) Current Demand (kW) - The peak demand (different from your consumption which is measured in kWh) is graphed over a 12 month period based on the 30min interval data. This is used to identify the month/s in which your demand peaks and your peak demand charge is set.

b) Solar Demand Reduction (kW) Solar production is graphed over the 12 month period and its impact quantified against your current peak demand. This enables us to quantify the impact of the solar system on your highest demand months and your highest demand times during the day;

c) Lowest Solar Production Days The lowest solar production days in the highest demand months are identified using BOM irradiance data, and used to identify how many kW of demand are above a targeted peak demand and for how long. This data can then be used to assist customers in managing consumption to achieve peak demand savings on your power bill.

AEES Group Reporting – Ongoing managed services

Our "Renewable Energy Audit" provides you with a baseline for your power consumption, solar production and demand charges. Reporting provides you with the ability to confirm these projections, assess the impacts of any changes that you make to your power consumption (variable speed drives, power factor correction, shutting down particular equipment to reduce peak demand or moving power consumption).

Consumption and Production - Our integrated reporting platform reports on the solar production and where it goes, both internally and to the grid.

Major Equipment Consumption - The power consumption of all major equipment can be recorded and monitored on the integrated platform with the ability to make changes instantaneously (e.g. reaching site demand threshold so turn off cool room b for 2 hours)

Power Factor - The power factor of the site can be monitored and recorded;

Other – Our platform can provide reporting on any critical business variables such as temperature, moisture levels, fruit core temperature, water flow rates etc.

Consulting – Quality and timely reporting along with AEES Group managed services provides your business with the ongoing measurement capability to effectively manage your power consumption and understand its impacts on your core business processes.

Reduce business costs

The power savings (\$) achieved by the solar system are compared to a fully costed loan from your preferred financial institution, with the Commonwealth Bank and NAB offering energy efficient loans at 4-6% interest p.a. Savings must be realised from day 1, so that the money which would have originally gone to your retailer is now being used to pay off your power generation asset.:

For more information about installing Solar PV, or to arrange an obligation-free assessment, please call 03 9596 9800 or info@aesgroup.com.au. We have CEC accredited installers in your area.