

SOLUTIONS FOR ENERGY AUDIT



Pay less save more! As there is no lock without a key, similarly, there is no problem without a solution. If You Can't Measure, Estimate, Evaluate & Assess, You can't Manage, Mitigate Hazards & Prevent Loss.



OVERVIEW

iEngineering Group Electrical Safety and Energy Audit provides clients with an assessment of their energy use and electrical installation safety and compliance as per Safety Integrity Level (SIL) and Safety Category Assessment (CAT levels).

WHY CHOOSE US

- ✓ With a worldwide network of auditors, we have the assets in place to help you undertake an efficient and effective energy audit. Working with iEngineering gives you local know-how backed by international expertise.

CONTACT US

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SERVICES

- ENERGY AUDIT
- ASP L3 DESIGN/ SUBSTATION AND INDUSTRIAL DESIGN
- POWER SYSTEM STUDIES & DESIGN
- EARTHING STUDIES & EMFI ANALYSIS
- INDUSTRIAL ENGINEERING
- GREEN & RENEWABLE ENERGY
- HV PANEL DESIGN
- BATTERY ENERGY STORAGE SYSTEM DESIGN
- MAINTENANCE EXCELLENCE & COSTING
- TELECOM



ENERGY AUDIT

- An energy audit can help you reach your objectives of lowering energy use, which will enable you to save money and cut down on carbon emissions. iEngineering Group will offer you a wide range of techniques for lowering energy consumption, initiatives for efficient energy utilization, and identification of energy leakage and waste by conducting a thorough audit.
- Read here [The Energy Efficiency Opportunities Act 2006 requires large energy using businesses to undertake an assessment of their energy efficiency opportunities to a minimum standard, in order to improve the way in which opportunities are identified and evaluated, and to report publicly on the outcomes of that assessment in order to demonstrate to the community that those businesses are effectively managing their energy needs.]
- In this current environment of escalating energy bills, an energy audit helps our clients achieve reduction in energy use, locate energy inefficiencies and leakages and realize cost savings. We will also provide alternative renewable energy solutions options.
- Energy audit we not only assess energy usage, but our clients are provided with savings strategies, assistance in EMP development and establishment of inventory of plant and equipment.
- undertake audits to a recognised standard – in Australia either AS/NZS 3598.1 (2014) Commercial Energy Audits or AS/NZS 3598.2 (2014) Industrial Energy Audits

OUR DOMAIN

- Hotels & Commercial Establishments
- Thermal Power Plant (coal, Gas)/ Co-Gen Unit
- Boilers
- Steam Distribution
- Insulation
- Ventilation System
- Hydraulic Systems
- Heat Exchangers
- Furnaces, Boilers, Ovens
- Steam Traps
- Sugar industries
- Electrical Distribution Network and Transformers
- Motors, Belt,Pump,Fans & Drives
- Illumination System
- Compressed Air System
- Cooling Tower
- Refrigeration Systems, AHU, Chillers, HVAC,VAM
- DG sets





SERVICES

- On site Energy Audit
- Detailed Energy Audit
- Monitoring of Energy Efficiency Projects (Includes undertaking, implementation and task monitoring).
- Our clients have finished enormous and tangible advantages in phrases of money waft and greater productivity. The crux of our advisory offerings lies in redesigning the manufacturing cycles to limit power consumption and acquire greater efficiency.
- We have developed a complete methodology for conducting manufacturing value determinations and demonstrating the direct advantages of tasks undertaken in phrases of money drift and as income gadgets on your stability sheet.
- The center of attention of our Energy Audit is to enforce No Cost and Low Cost measures which can assist our clients see instantaneous savings.

ENERGY AUDIT PROCEDURE

Audit is aimed at enhancing the power effectivity of their facility and aligning modern consumption with modern enterprise benchmarks.

1.Step One

A entire survey of the facility/ plant will be performed by way of us, detailing the cutting-edge strength consumption taking place.Measuring and monitoring is accomplished the use of all splendid instrumentation.

2.Step two

Exhaustive strength audit is carried out on the facility by way of a licensed strength auditor, who evaluates the current consumption of strength in the plant in opposition to the set enterprise benchmarks.In depth evaluation are done.

3.Step three

Recommendations are made on the foundation of the auditor's findings.The document consists of low cost/no fee measures and any strength idea wanting capital expenditure alongside with compensation of extraordinary debt.

4.Step four

We would assist you put in force these findings and convert them into electricity savings.



CHALLENGES

The commercial viability of many Australian manufacturing businesses is being impacted by rapidly escalating costs of natural gas, electricity, coal and other fuels. Action is needed to maintain sustainable margins and profitability.

BENEFITS

The benefits of engaging iEngineering to assist in optimising energy efficiency may include:

- Reduced energy consumption and operating costs.
- Increased efficiency of production.
- Access to government funds.
- Identification of baseline energy use and projects that may be suitable for other financial assistance (e.g. Emissions Reduction Fund).
- Generation of additional revenue streams such as tradeable state based "Energy Savings Certificates".
- Increased value and/or use of waste products.
- Improved business planning.
- Improved corporate image.

TECHNICAL SUPPORT

- From energy auditing, process modelling, and design, all the way through turn-key implementation or "owners engineer" assistance, iEngineering offers a comprehensive service
- between the discovery of energy-saving options and their practical implementation, iEngineering provides a bridge.
- An internal analytical lab, bench and pilot-scale process development capabilities, cutting-edge desktop modelling tools, plant performance testing capabilities, and the capacity to project manage the implementation of solutions are key differentiators for iEngineering.





LIST OF ENERGY AUDIT EQUIPMENTS

- **Three Phase & Single Phase Power Analyser**



Intended use:

Used to measure, record real time Power Consumption Analysis of electrical load, demand control, harmonics and transient. It is done without interrupting the connections.

- **Luxmeter**



intended use:

Used for measurement of illumination level

- **Non-Contact Tachometer**



Intended use:

Used for measurement of speed of rotation.

- **Anemometer**



Intended use:

Used for measuring the flow and speed of Air in air conditioning

- **Flue Gas Analysers**



Intended use:

Used for optimizing the combustion efficiency by measuring/monitoring the oxygen and CO levels in flue gas of boilers, furnaces etc. and calculation of CO₂ percentage in excess air level and efficiency.

- **Thermal Insulation scanner/Thermal Imager**



Intended use:

Used for measuring loss of energy from hot/cold insulated surfaces. Temperatures is measured from a distance using infrared technology

- **Digital Manometer**

Intended use:

Used for measurement of differential pressure.

