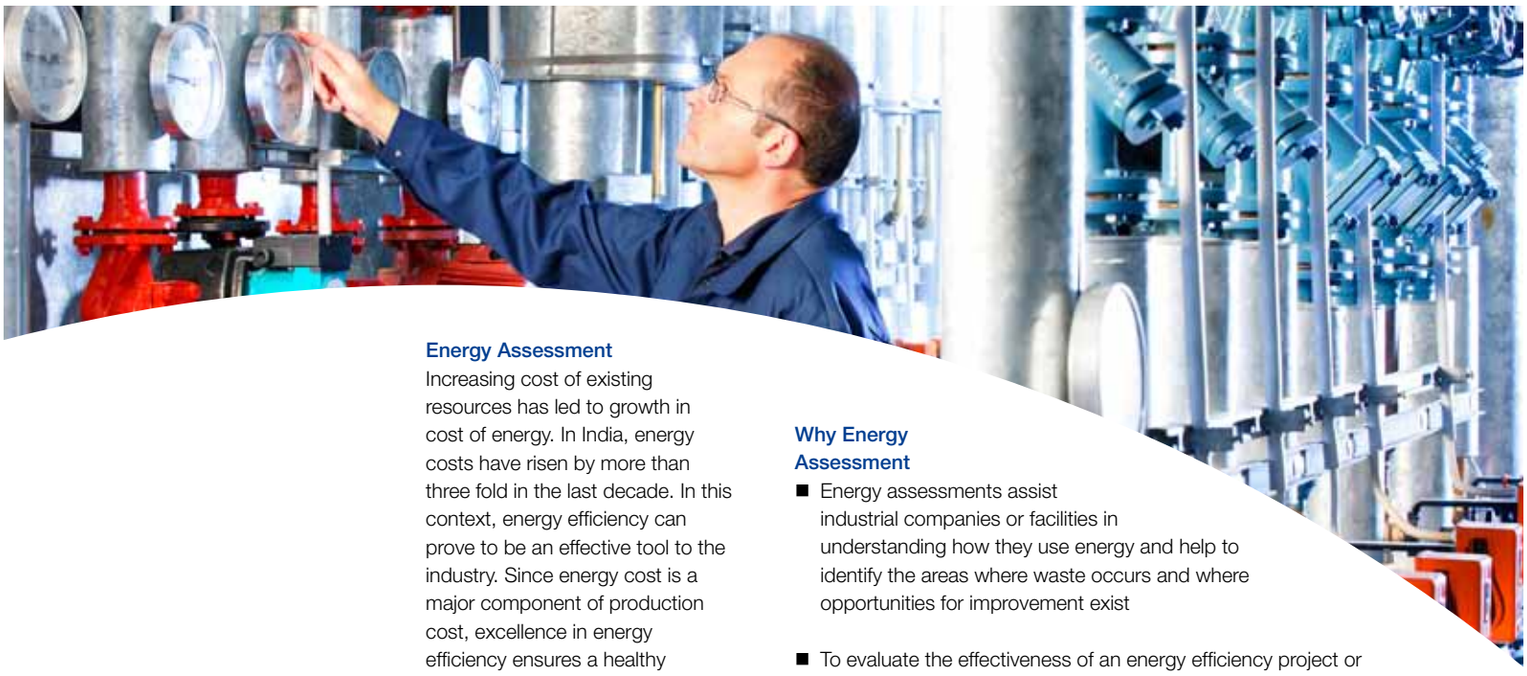
Energy Efficiency - A Journey... Not a destination.

TUV India - Energy Assessments



Energy Assessment

Increasing cost of existing resources has led to growth in cost of energy. In India, energy costs have risen by more than three fold in the last decade. In this context, energy efficiency can prove to be an effective tool to the industry. Since energy cost is a major component of production cost, excellence in energy efficiency ensures a healthy bottom line through the most productive consumption of energy. Realizing the importance of Energy efficiency, Govt. of India had enacted the Energy Conservation Act 2001 and constituted Bureau of Energy Efficiency (BEE), as a statutory body under the Ministry of Power. The Act facilitates an enabling regulatory framework to encourage, implement and adoption of new energy efficient technologies.

Energy efficiency also enables resource conservation and hence energy cost reduction. It also leads to reduced Green House Gas (GHG) emissions, lesser pollution levels and a healthier environment.

Why Energy Assessment

- Energy assessments assist industrial companies or facilities in understanding how they use energy and help to identify the areas where waste occurs and where opportunities for improvement exist
- To evaluate the effectiveness of an energy efficiency project or program
- Improve specific energy consumption at different levels of an organization

Preliminary Assessment; also called the Walk-Through Audit

Involves the collection of “Preliminary Assessment” data and its analysis to arrive at an energy consumption index while identifying the major energy consumption centres, obvious energy wastages and instituting recommendations.

Further, it would identify areas wherein the investigating team feels that detailed study is required. This step will also help in realizing a scope of the audit for a subsequent detailed audit to follow this preliminary assessment.

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Detailed Energy Assessment

Measurements, data collection and analysis are usually conducted for different processes as well as energy systems (i.e. pump, fan, compressed air, steam, process heating, etc.). The results of these assessments are more comprehensive and beneficial since they give a more accurate representation of the energy performance of the plant and more specific recommendation for improvements. The economic analysis conducted for the efficiency measures is followed by simple pay back period/ROI.

TUV India Offers

- Boiler Efficiency Testing as per BS 845, ASME Standard: PTC-4-1 Power Test Code for Steam Generating Units, and IS 8753
- Preliminary energy audits
- Comprehensive energy audits for the entire plant / facility (both thermal & electrical)
- Thermography
- PAT (Perform, achieve and Trade) Facilitation
- Power Quality Audit (Harmonic Testing)

Our Approach

Offer from TUV India based on the Information provided

Signing the agreement

Preparation and Planning based on the Audit creteria, scope

Data collection, review, Preliminary analysis

Site Visit, Data inventory and measurements,
Analyzing energy use patterns

Observation and review of operating practices

Data documentation and analysis
Identifying energy efficiency potentials

Recommendations of Energy Saving proposals with cost benefit analysis

Detailed Energy Audit Report

Post Audit

The energy audit results can provide an indication of the technical performance of the plant and its gap with the efficient performance. Based on this, opportunities for energy-efficiency improvement can be identified and prioritized. Three key steps are:

- **Create performance targets** for each facility, department, and operation of the organization to track progress towards achieving the goals
- **Set timelines for actions**, including regular meetings among key personnel to evaluate progress, completion dates, milestones and expected outcomes
- **Establish a monitoring system** to track and monitor the progress of actions taken. This system should track and measure energy use and project/program activities

Our Expertise

TUV India has been very closely associated with energy efficiency improvement projects of the Indian industry. TUV India has a pool of experienced team of Energy auditors, GHG auditors, Energy managers and field Engineers to conduct Detailed Energy Audit/assessment in all types of industries e.g. Chemical & Petrochemical, Cement, Power, Tyres, Sugar, Paper, Automobile, Textile & Textile Processing, Pesticides, Fertilizer, Paints, Aluminium, Casting Foundry, Steel, Engineering, Ceramic, Synthetic Fibers, Hotel & Commercial Buildings etc.

TUV India has carried out extensive GHG Audits globally. The know-how of TUV India is already in demand all over the world in this sector. Our objective is to identify energy potentials which can be implemented realistically despite the investments needed. For the most important aim of any advice given on the subject of energy is long-term reduction in energy consumption and therefore lower operating costs, greater cost-efficiency equipment.

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