

# ENERGY AUDITS

## WHAT DO ENERGY AUDITS TELL US?

An Energy Audit is the basis of any energy management strategy for your organisation. Its objective is to:

- 1. Give Clear Visibility and provide an overview of**
  - Energy consumption  
Broken down by users and where and when energy is being used
  - Energy used
  - Energy cost
- 2. Identify Energy Conservation Opportunities**
  - Tells how energy is used and wasted
  - Describe energy saving alternatives

### Uncover Energy Deficiencies in Energy Consuming Systems

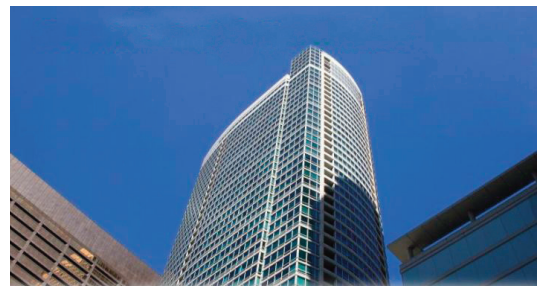
- Pumps
- Ventilation
- Lighting
- Compressed Air
- Steam
- Refrigeration
- HVAC
- Vacuum
- Process Machinery

### Other Areas influencing Energy use

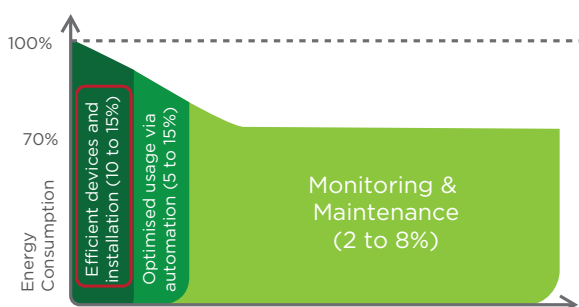
- Controls
- Operations and maintenance
- Employee Awareness



In many industrial facilities, the largest energy wasters are failed steam traps and compressed air leaks



While HVAC systems and lighting can be the largest energy wasters in commercial buildings.



Identifying Energy Conservation opportunities allows you to implement an energy reduction strategy for your organisation. To be successful it needs to be monitored and maintained.

**The greenest unit of energy is the energy you didn't need to use.**

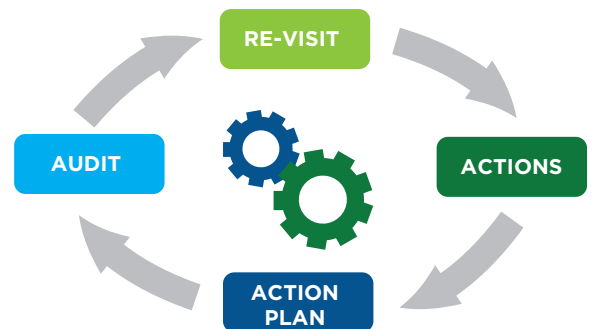
Identifying quick savings is a relatively simple and straightforward process. **72% of energy consumption** comes from industry, residences, commercial and public buildings. Inefficient lighting, pumps and motors account for a large portion of this. With solutions available today, you can reduce your consumption by up to 25%.



### 3. Prioritise your actions

#### Provide an Energy Management Plan (EMP)

- Recommendations
- Cost benefit analysis
- Prioritisation
- Best practice
- Quick wins (Low hanging fruit)
- Easily implemented solutions



## TYPES OF ENERGY AUDITS

There are two main types of energy audit. A walkthrough audit and a comprehensive audit. The basic principals are the same - the main difference lies in the level of detailed data gathered. A comprehensive audit is more costly and takes a lot longer to complete.

### Walkthrough Audit

- Light audit
- Brief inspection of the facility to identify
  - Maintenance
  - Operational
  - Deficient equipment
  - Areas for further evaluation

### Comprehensive Audit

- Thorough audit
- Measuring & Monitoring
- Detailed evaluation
- Energy consuming systems
- Economic evaluation
- Identified opportunities
- Cost and benefit

## How do I decide which type of audit would best suit our organisation?

The comprehensive audit provides the most information and is certainly the more substantial of the audit types, however, it may not be the best option for your organisation. The audit itself will not reduce consumption. The results of the audit require work and management input in order to succeed.

### Key factors affecting audit selection

- Available funding for audit
- Cost and energy conservation opportunities potential
- Level of accuracy required
- Type, function and processes within the facility

