

OP23 – Energy and Water Management

What is this?

The purpose of this document is to outline the operational requirements for managing the energy and water usage on site.

What does the responsible manager need to do?

The responsible manager must ensure that:

- All employees are provided with all energy and water policies that have been implemented within the business
- All energy consumption is identified and recorded (if appropriate using an energy management matrix), which is periodically reviewed and updated if circumstances change
- A water management plan is drawn up, which should cover:
 - Surface water courses flowing on or near to the site
 - Groundwater and the impact of site operations on it
 - Rainwater catchment and surface water run-off
 - Dewatering activities
 - Abstraction activities
 - Process waters and overflows
 - Treatment facilities (settlement lagoons, filters, presses, etc)
 - Interceptors
 - Discharges (including to water courses, sewers, from septic tanks, from vehicle washing and plant cleaning, and run-off onto neighbouring land)
 - Monitoring systems as required by licence conditions or best practice.
- A water audit is undertaken to ascertain water origins, usage, losses and discharges, which will include a site survey and detail all tanks, meters etc
- Key performance indicators are introduced to measure the energy and water consumption for the site. These indicators should include the following:
 - How much is being used?
 - Where is it being used on site?
 - How much is it costing?
- All processes involving energy and water usage are continually monitored
- New initiatives are introduced to improve awareness amongst employees about energy and water saving
- Consideration is given to improving plant design or systems and procedures with regards to improving plant efficiencies, and capital expenditure papers are drawn up as appropriate for such projects



- Any reporting of energy and/or water consumption required by regulatory bodies, as detailed in the planning permission, waste management licence/permit, or related documentation, is undertaken and submitted when appropriate.

What does the employee need to do?

All employees must ensure that:

- All plant, equipment and lighting is switched off when not in use
- All water outlets (including taps) are completely turned off when not in use
- They report any leakages to pipes, valves or taps.

Example of Energy Management Matrix

	Policy	Organising	Training	Performance measurement	Communicating	Investment
4	Energy policy action plan and regular review have active commitment of top management <input type="checkbox"/>	Fully integrated into management structure with clear accountability for energy consumption <input type="checkbox"/>	Appropriate and comprehensive training tailored to identified needs with evaluation <input type="checkbox"/>	Comprehensive performance measurement against targets with effective management reporting <input type="checkbox"/>	Extensive communication of energy issues within and outside organisation <input type="checkbox"/>	Resources routinely committed to energy efficiency in support of business objectives <input type="checkbox"/>
3	Formal policy but not active commitment <input checked="" type="checkbox"/>	Clear line management accountability for consumption and responsibility for improvement <input type="checkbox"/>	Energy training targeted at major users following training needs analysis <input type="checkbox"/>	Weekly performance measurement for each process, unit or building <input type="checkbox"/>	Regular staff briefing, performance reporting and energy promotion <input type="checkbox"/>	Same appraisal criteria used as for other cost-reduction projects <input type="checkbox"/>
2	Unadopted policy <input type="checkbox"/>	Some delegation of responsibility but line management and authority unclear <input checked="" type="checkbox"/>	Ad-hoc internal training for selected people as required <input type="checkbox"/>	Monthly monitoring by fuel type <input type="checkbox"/>	Some use of company communication mechanisms to promote energy efficiency <input type="checkbox"/>	Low or medium cost measures considered if short payback period <input checked="" type="checkbox"/>
1	Unwritten set of guidelines <input type="checkbox"/>	Informal mainly focused on energy supply <input type="checkbox"/>	Technical staff occasionally attend specialist courses <input checked="" type="checkbox"/>	Invoice checking only <input checked="" type="checkbox"/>	Ad-hoc informal contacts used to promote energy efficiency <input checked="" type="checkbox"/>	Only low cost or no cost measures taken <input type="checkbox"/>
0	No explicit energy policy <input type="checkbox"/>	No delegation of responsibility for managing energy <input type="checkbox"/>	No energy related staff training provided <input type="checkbox"/>	No measurement of energy costs or consumption <input type="checkbox"/>	No communication or promotion of energy issues <input type="checkbox"/>	No investment in improving energy efficiency <input type="checkbox"/>



Associated documentation

EMS Section

- Operational Control

Environmental Procedure

- EP05 – Setting Key Performance Indicators (KPIs)

Forms

- EF03 – Internal Communication
- EF15 – Incident Investigation
- EF19 – Energy Management Matrix

