

Energy Audits

31-10-2019

The Energy Efficiency Directive (EED) mandates large organisations to complete energy audits every four years. This requirement was transposed into Irish legislation in SI 426 of 2014. If your organisation employs 250 people or more, or has an annual turnover in excess of €50m and an annual balance sheet total in excess of €43m, then you are legally required to demonstrate compliance with Statutory Instrument (SI) 426 of 2014 by undertaking an energy audit or using certification to ISO 50001 or ISO 14001 as an alternative route to compliance.

WEW Engineering in association with PowerPoint Engineering provide a focused Energy Auditing Service, formal audit report and recommended modifications to concur with Best Available Techniques (BAT). We also provide solutions and recommendations for use at existing water, wastewater, energy, and process plants.

Sustainability Audits of existing plants is also provided as part of our specialist consulting engineering services.

Energy Monitoring Surveys include the following:

- Quantify Energy Use and Costs and apportion to relevant plant cost centres.
- Assess and evaluate appropriate energy supply tariff (MIC).
- Load Study Profiles to establish accurately dimensioned back-up generator and UPS equipment required.
- Assess building electrical energy efficiency.
- Provide option for Permanent Energy Metering System
- For companies implementing ISO 5001 – Energy Management this EN standard ensures energy is being used efficiently.

Power Quality surveys may also be completed which include:

- Investigation of Electrical Equipment Failure/ Malfunction
 - Harmonics
 - Voltage Transient Disturbances
 - Voltage Sags/Swell
- Assessment of Voltage Supply Quality and Capacity
 - Establish baselines and standards, compliance (EN 50160, G5-4) Voltage, Current, Harmonics, THD, Individual Order Harmonics, Power Harmonics, Voltage Unbalance, Power Frequency, Flicker
 - Prior to new equipment installations/expansion



Methods and programme

WEW Engineering and PowerPoint Engineering, as key partners for each project, after discussing the project and its associated technical details, with the Client. Monitoring is conducted and results are recorded for analysis. Process plant capacity trends and performance are also recorded. The audit report is concluded with recommendations for modification/upgrade to minimise energy consumption. Future implementation of recommendations may be engineered and supervised by WEW Engineering as the Client's Representative.

WEW Engineering Expertise:

- Complies with the provisions of the standard Quality Management System I.S. EN ISO 9001:2015 for Consulting Engineering Services.
- Integrated Process/Mechanical/Electrical/CA/SCADA dedicated to the water/waste/process industries agriculture/bio-energy sectors.
- 40 years' experience, 500+ projects water/energy dedicated project experience.
- Chemist, Chartered Engineers, R&D Experts, 3D CAD Designers
- Energy/Water/Carbon/Nutrient/Co-product Engineering with costed alternatives
- Turnkey BAT design with PSDP, tender documentation assessment and project management.
- Mainstream AD with high-quality polishing/product recovery.
- Renewables park design.
- Sustainable Innovation Engineering: low energy nitrogen reduction, ABPR, Water reuse, etc.

Powerpoint Engineering Expertise:

- Continued commitment to design and supply specialist field equipment to the international high voltage electrical industry.
- Application of forefront technology (BAT) at design and production.
- ISO 9001:2015 certified and complies with the provisions of the standard Quality Management System I.S. EN ISO 9001:2015
- The provision of the standard Measurement Management Systems to ISO 10012:2013 in respect of calibration and repair of electrical test and monitoring instruments.



WATER



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