

Level 3 Training – Energy Champion Coaching

Your organisation's employees can be your most powerful asset in achieving and sustaining energy and cost savings. Training encourages and empowers staff to take ownership of implementing energy saving opportunities identified.

JRP Solutions' structured Energy Awareness Training Programme has four levels of training to suit different organisations' requirements.

Level 3 – The course structure will be developed to suit the individual requirements of your particular organisation, typically being made up of between 10 and 20 half day sessions, each covering a specific topic. The course content below is for illustrative purposes only. As part of the course, delegates will be guided to develop an Energy Action plan. The course tutor will work with the delegates to deliver their plan over the duration of the course providing advice and guidance based on extensive experience of delivering Action Plans in other organisations. Progress will be monitored and reporting procedures developed.

Level 3

- A modular course tailored to meet client-specific requirements following a training needs audit which will determine what is required to meet client objectives.
- Up to 15 x ½ day modules available, with a minimum of 5 modules.
- Suitable for delegates with an understanding of the organisation's processes or some technical ability/knowledge.
- Delegates will work to create an Energy Action Plan which the course tutor will guide delegates to deliver over the duration of the course.
- Delegates attending this training course will be issued with a course manual and a CPD certificate.
- From £1320 per delegate*, with a minimum of 5 delegates.

Module summary

- 1. Tariff and energy costs overview:** This module will help delegates understand energy tariffs and their own organisation's energy costs
- 2. Compressed air:** Compressed air is one of the most expensive utilities on a site and is often the most wasted. This module will investigate how compressed air is generated, distributed and used and what practical measures can be taken to improve its management and reduce wastage from the point of generation to the point of use.
- 3. Blowers:** This technology is widely used within a number of industry sectors to aerate liquids and this module will look at the different technologies used and provide the top ten observations.
- 4. Heating, ventilation and air conditioning:** VAC systems are found in almost all work environments and represents another key area where significant improvements may be implemented. A number of common technologies will be considered and some typical areas for improvement investigated.
- 5. Lighting:** Lighting is a key and very visible technology where significant energy and cost savings can be realised particularly in large open plan offices and warehouses. A number of lighting types will be considered together with their effective control and system design exemplified by a case study.
- 6. Electrical Services:** This module will examine the principles of power and energy, how it is measured, used and the factors affecting electrical services. Motive power is a key area where significant energy and cost savings can be achieved and a number of typical opportunities will be discussed including motor efficiencies, variable speed drives and maintenance.

7. Pumps and pumping: Certain manufacturers and specific industries such as Water have a large number of pumps and pumping systems in operation and is an area that accounts for a sizable proportion of their total energy consumption. This module will include areas such as thermodynamic testing, best efficiency point, impeller characteristics and pump system design and will identify some typical energy saving opportunities.

8. Engagement and motivation: Stakeholder engagement is vital in the delivery of a truly sustainable energy reduction plan and this module will help you to explore and understand the different phases of engagement and motivation of everyone from the Board Room to the shop floor.

9. Renewables: Renewable Energy is likely to play an increasingly important part in the UK's energy mix particularly as generating capacity continues to diminish, legislation becomes tougher and energy prices increase. This module looks at the different sources of renewable energy from an environmental, commercial, operational and cost perspective.

10. Refrigeration: Particularly relevant to the food and drink and retail sectors this module will examine different technologies taking account of the advantages and disadvantages of each, the impact on emissions and energy consumption and identifying some typical improvement opportunities.

11. Process Energy (including heat recovery): In energy intensive industries such as food and drink, chemicals, pharma and heavy engineering up to 95% of the site's energy is consumed within the manufacturing processes. The focus of this module is to consider how processes can be optimised to help reduce energy consumption and in some cases improve the manufacturing process itself.

12. Boilers, combustion and steam distribution: Centralised boiler systems raising steam or hot water can be inherently inefficient with losses occurring both within the boilerhouse and throughout the distribution system. This module will provide an understanding of how these systems operate and will focus upon improving the operating efficiency of the plant, minimising distribution losses and optimising demand side usage.

13. Power generation and CHP: Combined heat and power, or CHP as it is otherwise known, can offer a number of economic and operational advantages over imported power and traditionally generated heat particularly as the UK's generating capacity diminishes. This module will take a look at a typical CHP plant to understand the principles of operation, CHPQA, relevant legislation, technical options, fundamental system economics and the advantages and disadvantages of CHP systems in general.

14. Building the energy financial case: A critical aspect of an energy plan is to develop a credible business case for the implementation of the prioritised energy reduction opportunities and measures particularly so for enabling technologies such as metering and energy data systems or where the financial case might be considered marginal. This module will demonstrate how to build a robust business case that will engage the relevant stakeholders and key decision makers and maximise success in a challenging business environment.

15. Energy Legislation (including ISO 50001): Energy related legislation is constantly changing and is likely to intensify in order that UK Plc achieve its CO₂ reduction targets. This module examines current legislation and its impacts upon energy costs and company strategies and how standards including ISO50001 can help achieve sustainable reductions in energy consumption.

Each of the above training sessions would also incorporate:

- More detailed practical sessions in the workplace to look at reducing energy use and cost
- How to identify savings and implement them
- Analysing the data
- Regression analysis
- Hourly electricity profiles
- Sankey diagrams
- Carrying out a walkabout survey
- Examining the process
- How to identify opportunities
- How to qualify opportunities
- Production of an action plan
- Summary of common themes in identifying energy savings

For more information, please contact info@jrpsolutions.com or telephone 0800 6127 567

www.jrpsolutions.com