COURSE OVERVIEW

Course Title	**ENERGY AUDITING TECHNIQUES**
Course Aim	Energy auditing is a relatively specialist skill but one that can identify and produce major savings in energy use and cost. While energy audits will always be specific to each building, this course aims to inform participants about the basic techniques and the key elements to look out for during an audit.
Course Description	The course will describe the basic techniques of energy auditing, from initial data analysis through to the on-site process or equipment identification and operational review. It will explain the main types of opportunities that are likely to be identified, the types of equipment that can be replaced or upgraded and will discuss the control of energy consuming process and equipment where much of the savings can be made. It will also cover the basic outcomes of an audit in relation to reporting and calculation of savings and return on investments.

Course Outcomes	The course will help you to:
	• Understand the basic process for energy auditing
	• Prepare and conduct an energy audit
	• Scope and interpret site data before an audit commences
	• Grasp auditing techniques that will be addressed for the systems below, but they can be applied to most energy consuming items:
	  ◦ Heating systems
	  ◦ Cooling systems
	  ◦ Pumping systems
	  ◦ Air handling systems
	  ◦ Lighting
	  ◦ Compressed air
	• Identify appropriate control systems
	• Gain understanding of basic reporting techniques
	• Undertake basic calculation of savings and return on investment

Course Structure and Features	This course is delivered as a 1-day virtual, tutor-led and participatory session via Zoom. The course structure outlined below is indicative as some sections may be amended to assure the best outcomes for participants. Participants are encouraged to contribute with their own experiences and examples. The course material such as slide pack and any other necessary information will be issued by the course administrator ahead of the course. Course Structure: 1. Opening 2. Basic process for energy auditing 3. Pre-audit analysis

	4. Energy auditing techniques 5. Control systems 6. Basic reporting and costing 7. Post course assessment
Who Should Attend the Course	Any professional or team assigned with, or planning to undertake energy audits of organisations or clients, or any professional interested in gaining or refreshing the energy auditing skills and knowledge. As a guide, participants with the following job titles may be appropriate for the course: • Energy Trainees and Energy Managers • Energy Graduates • Energy Assessors • ESOS Assessors • Estates staff/Managers • Facilities staff/Managers • Sustainability staff/Managers • Building Managers
Prerequisites	The minimum recommended requirements for admission are: • Basic energy management knowledge and understanding of what the most common energy consuming equipment (heating systems, cooling systems, pumping systems, AHU, lighting) is and does. If this is not the case, we recommend attending the Energy Management in Building Services course prior to the Energy Auditing Techniques course. • Educated to a relevant foundation degree /NVQ / Level 3+ apprenticeship standard, or an equivalent business-based experience • For those whose first language is not English, and who have not undertaken a course of study where the principal medium of instruction is English, certificate of competency in one of the standard language tests (e.g. IELTS, TOEFL) will normally be required
Further Information	Post course assessment: After the course participants will be required to complete an assessment to test their knowledge, understanding, and application of the contents covered in this course. The assessment consists of a set of open-ended questions and participants will have 7 days to complete and submit their answers. Certification: Participants who complete and pass the assessment will receive a certificate including 5 hours of Continuing Professional Development recognition.
Other Related Training Courses	Energy Assessments, Monitoring, Targeting and Validation Energy Management in Building Services Essential HVAC Controls and Optimisation Lighting – Basic Understanding On-site Electricity Generation