

CERTIFIED CARBON AUDITOR TRAINING COURSE

(Course Code: CA/10/14)

10th Intake

19 – 22 February 2014

Organiser

Implementation by



Supporting Organisations



Hong Kong Branch

(TBC)



(TBC)

Background

The emissions of carbon dioxide (CO₂) and greenhouse gas due to power generation, transportation and other industrial/commercial activities are contributing to climate change and environmental impacts worldwide. Each corporation should immediately implement carbon-reducing measures to mitigate the problems. The first important step is to carry out a carbon audit to identify the sources of carbon emission and quantify the carbon footprint of a corporation. As energy consumption is one of the major sources of carbon emissions, it is always effective to reduce carbon footprint through implementing energy saving measures.

As an active professional institution and one of the green partners in Hong Kong, the Energy Institute is active in providing timely and quality certified carbon auditor training course to train up more engineers and professionals to appreciate carbon audit and to acquire the necessary skills to conduct the professional carbon audits.

Course Objectives

The Certified Carbon Auditor Training Course is designed for engineers and professionals in Hong Kong. After taking the course, the participants will be able to:

- appreciate the function of carbon audits as a means to help business sectors and corporations in estimating their carbon footprints thereby setting objectives to manage and reduce the footprints;
- understand the basic carbon audit processes and learn the skills to undertake such audit, with an appreciation of Hong Kong's requirements in carbon auditing; and
- establish network in the carbon business through certification as certified carbon auditor with the Energy Institute in UK, which has a membership of over 14,000 individuals and 300 companies all over the world.

Main Topics

1. Climate Change and Potential Local Challenges
2. Energy Management
 - Policy and process
 - Data metering and monitoring
 - Data analytical methods
 - Management tools and assessment
3. Energy Auditing
 - Building energy consumption
 - Energy data assessment
 - Quantification of energy waste
 - Risk assessment of energy waste
 - Energy management opportunities
 - Finance and life cycle assessments
4. Carbon Management
 - Environmental management
 - Environmental impact reduction
 - Carbon auditing
 - Green house gas protocols
 - Internal and external verification
 - Trading schemes
 - Carbon audit guidelines in Hong Kong
5. Carbon Footprint Calculator
 - Emissions factors and calculations
 - Reductions versus offset approaches

- Low carbon approaches and opportunities
- Energy and carbon reducing solutions: HVAC, heating, lighting, motors, plant/building facilities, controls and maintenance

Note: Contents are subject to minor change without prior notice.

Examination

- Participants should pass the examination in order to receive the certificate.
- Time period: 2 hours
- For those who failed the examination they may re-sit the examination at the next course organised within one year.

Key Speakers

Mr Trevor FLOYD, CEnv, CEng, MEI, CMarEng, MIMarEST, ACIBSE, MCMI, has been independent energy auditor and trainer for 20 years. Mr FLOYD had 13 years working as a marine engineer for Shell, and has vast experience working on government contracts. He is an accredited Carbon Trust auditor and has audited many facilities in Hong Kong and Southern China including Hong Kong Airport and is an authority on Energy and Carbon related matters and has spoken at, and chaired conferences throughout the world, including Hong Kong and Sydney. Mr. FLOYD is the speaker for the past nine courses continuously and he agrees to take up the speaker role for this course again.

Mr FLOYD is taking active role in the promotion of the Energy Management Standard ISO50001 as well as the development of the new Energy Auditing Standard BS EN 16247 and he is the International Convenor for the task group developing a Standard for Qualifications required of Energy Auditors.

Related Qualifications and Experience:

- United Nations Industrial Development Organisation (UNIDO) – Accredited Energy Expert (ISO50001)
- Chartered Marine Engineer
- Chartered Energy Engineer
- Chartered Environmentalist
- BSI – Associate Consultant (14001 / 16001)
- Accredited Carbon Trust Consultant
- Registered Low Carbon Consultant (CIBSE) – EPCs and DECs
- Accredited Carbon Trust Standard Assessor
- EU - Emissions Trading Scheme verifier
- MSc - Energy / Environmental Technology & Economics
- MBA – Business growth programme
- 1st and 2nd Class Marine Engineering registration (BEng Hons. Equivalent)
- Chairman – West Midlands & Mid Wales branch – Energy Institute
- Chairman – Independent Energy Consultants Group – Energy Services and Technology Association
- Various Post Graduate Certificates and Diplomas related to Business Excellence, Quality Systems and People Coaching


Ir Dr Michael KH LEUNG, PhD, CEng, MEI, RPE, MHKIE, is the Immediate Past Chairman of Energy Institute (Hong Kong Branch). He is also an Associate Professor of School of Energy and Environment of City University of Hong Kong. The main areas of his teaching and research are energy efficiency, renewable energy and building services engineering. He is also experienced in energy audit and carbon audit.

Ir Richard LEE is a Senior Consultant of Hong Kong Productivity Council (HKPC) responsible for

energy management and consultancy services and has been working for HKPC for 13 years. He is specialized in the area of energy management consultancy, carbon and energy audit, building automation, energy conservation system design and retrofit. Richard was involved and responsible for the project implementation and development of energy benchmarking system, energy indicators and benchmarks, updating of energy end-use database in various consultancy projects for Electrical and Mechanical Services Department for HKSAR in the past decade. Richard is also helping Drainage Services Department in developing the carbon audit guideline for the major sewage treatment works in Hong Kong in 2010. Mr Lee possesses the following academic and professional qualifications:

- BEng (Hons) in Building Services Engineering of Hong Kong Polytechnic University
- MSc in Mechanical Engineering of Hong Kong University
- MHKIE, Corporate Member of the Hong Kong Institution of Engineers
- CEM, Certified Energy Management of the Association of Energy Engineer
- CEA, Certified Energy Auditor of the Association of Energy Engineer
- Certified Cleaner Production Assessor in China

General Information

Date & Time:	Lectures: 19 – 21 February 2014 (Wednesday - Friday); 09:30 am to 17:00 pm 22 February 2014 (Saturday); 09:30 am to 12:00 pm
	Examination 22 February 2014 (Saturday); 14:00 pm to 17:00 pm (1-hour preparation time and 2-hour examination time)
Venue:	HKPC Building, 78 Tat Chee Ave, Kowloon Tong Lectures, assignments and examination
Teaching & Learning Activities:	<i>Note: Lecture and examination will be postponed if typhoon signal No. 8 or above OR a black rainstorm warning is hoisted in that morning or afternoon.</i>
Medium of Instruction:	English
Target:	Practicing Engineers, Energy Managers, Energy Auditors, Environmental Officers, Building Services Managers, Plant Managers, etc.
Course Fee:	HK\$11,000 for Member of Organiser or Supporting Organisations HK\$12,000 for Non-member <i>Note: Complimentary refreshment and lunch will be provided every day.</i>
Registration:	 <ul style="list-style-type: none"> • Maximum 35 enrolments on a first-come-first-served basis • Please register through on-line system at the link http://goo.gl/G4lwHk. We shall reply to you immediately to acknowledge the receipt of your registration and give you instruction to pay the course fee. Your enrolment is confirmed only after we receive your payment. • Last day of registration: 9 January 2014. • The Organiser reserved the right to cancel the course in the case of low registration rate. All registrants will be informed of the cancellation and refund arrangement on or before 29 January 2014.
Certificate:	• Certificate will be issued by Energy Institute and carry CIBSE CPD accreditation approval.
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