

Organizer



Implemented by



# CERTIFIED CARBON AUDITOR TRAINING COURSE

(16<sup>th</sup> Intake)

4 -7 November 2020

## Supporting Organizations



TBC



## Background

The emissions of carbon dioxide (CO<sup>2</sup>) and other greenhouse gases 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 courses to train engineers and other professionals to understand the audit process and to acquire the necessary skills to conduct professional carbon audits.

## Course Objectives

The Certified Carbon Auditor Training Course is designed for engineers and other professionals who have an interest or involvement with greenhouse gas accounting, reporting and management 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 (greenhouse gas) 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 & Carbon Auditing

- Building energy consumption
- Quantification and risk assessment of energy waste
- Energy management opportunities
- Finance and life cycle assessments

### 4. Carbon Management

- Environmental impact reduction
- Carbon auditing
- International Greenhouse Gas protocol
- Internal and external verification
- Trading schemes
- Carbon audit guidelines in Hong Kong
- Energy and carbon reducing solutions: air conditioning , lighting, motors, plant / building facilities, controls and maintenance issues

### 5. Greenhouse gas accounting and reporting

- Hong Kong greenhouse gas accounting and reporting guide
- Emissions factors and calculations
- Reductions versus offset approaches
- Applying the HK greenhouse gas guide to a case study building (HK office building)
- Preparing a greenhouse gas emissions report
- Low carbon approaches and opportunities

## Course Delivery

The course will include a mixture of tutor led training, group discussion and delegate activities and will be assessed through a 2 hour written examination. Training will focus on the greenhouse gas reporting protocol developed by the Hong Kong Government and will also cover practical energy management and carbon auditing skills. Delegates will gain practical experience by completing a carbon audit on a case study Hong Kong office building.

## Examination

- Participants must 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 with special arrangement by the Organizer. Handling fee may be charged on the 2<sup>nd</sup> attempt and onwards for the re-examination.

## Key Speakers

Mr Chris BURGESS, BSc, CEng, MEI, has a degree in Mechanical Engineering and over 35 years' experience within the energy industry and fifteen years as an independent energy consultant. Chris had a number of technical and marketing roles within British Gas and Midlands Electricity over 18 years before establishing Alpha Energy Consultancy in 1998 and is now Head Energy Management Trainer for the Energy Institute - London.

Chris specializes in implementing energy management and technical solutions to reduce cost and carbon emissions. He has carried out energy audits for a wide range of public and private sector organizations and is experienced in identifying, and implementing energy efficiency measures based on both capital investment and staff engagement solutions.

He delivers bespoke energy management and carbon audit training courses on behalf of the Energy Institute. He is a lecturer on Combined Heat & Power (CHP), building energy efficiency and staff engagement for the Energy Institute Level 3 - Advanced Energy Manager qualification and is tutor for the Energy Institute Level 1 online and classroom courses. Chris is an author of CPD training modules for Energy in Buildings and Industry magazine.

Chris has been an accredited Assessor for the Carbon Trust Standard (UK carbon management certification scheme), trained as Lead Verifier for EN 16001. He has been accredited as Lead Verifier (ISO 14064), under the Climate Registry Scheme, for Green House Gas verification in the US following the verification of GHG emissions at Stanford University, California and Utah Transit Authority, Utah.

Ir Prof Michael KH LEUNG, PhD, CEng, MEI, RPE, MHKIE, is the Past Chairman of Energy Institute Hong Kong. He is also Professor and Director of the Ability R&D Energy Research Centre of the 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 Gary CHIANG, BEng, MEng, CEng, MHKIE, MCIBSE, MEI, REA, BEAM Pro, Past Chairman, Energy Institute Hong Kong / Acting Senior Residential Market Development Manager, Residential Customer Experience, CLP Power Hong Kong Limited.

## General Information

Date & Time :	Lectures : 4 - 6 November 2020 (Wed - Fri): 09:30 - 17:00 7 November 2020 (Sat): 09:30 - 12:00
	Examination : 7 November 2020 (Sat): 15:00 - 17:00 (1.5-hour preparation time and 2-hour examination time)
Venue :	HKPC Building, 78 Tat Chee Avenue, Kowloon Tong
Teaching & Learning Activities :	Lectures, Assignments and Examination
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 Organizer or Supporting Organizations 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"> <li>• Maximum 35 enrolments on a first-come-first-served basis</li> <li>• Please register through online system: <a href="http://bit.ly/CCATC16_reg">http://bit.ly/CCATC16_reg</a> . 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</li> <li>• Last day of registration: <b>9 October</b> 2020</li> <li>• The Organizer 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 <b>23 October</b> 2020</li> </ul>
Certificate :	Certificate will be issued by Energy Institute and carry CIBSE CPD accreditation approval
Remarks :	Eligible to apply for Certified Carbon Auditor (CCA) and Validation and Verification Body (VVB) to conduct the Carbon Footprint of Products (CFP) quantification and reporting for a particular product category under the Carbon Labelling Scheme for Construction Products operated by Construction Industry Council (CIC)
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