

# CERTIFIED CARBON AUDITOR TRAINING COURSE

**(Course Code: CA/14/18)**

14<sup>th</sup> Intake

25 – 28 July 2018

## Organizer

## Implementation by



Energy Institute Hong Kong

## Supporting Organizations



(TBC)



(TBC)



Gas & Energy Division  
燃氣及能源分部



(TBC)



(TBC)



engineering success  
soe hong kong region  
營運工程師學會 香港分會

## Background

The emissions of carbon dioxide (CO<sub>2</sub>) 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
  - Energy data assessment
  - 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

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

### 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 at the next course organized within one year.

### Key Speakers

**Mr Chris BURGESS**, has a degree in Mechanical Engineering and is a Chartered Engineer. He has around 30 years' experience within the energy industry and for the past 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.

Chris specializes in implementing energy management and technical solutions to reduce cost and carbon emissions. He has carried out energy surveys, audits and strategic reviews 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 staff awareness workshops, bespoke energy management and carbon footprint training courses on behalf of the Energy Institute and other organizations. He is a lecturer on Combined Heat & Power (CHP), building energy efficiency and staff engagement for the Energy Institute Advanced Energy Manager (Level 3) 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), and is qualified 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 an Associate Dean and 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.

### General Information

<b>Date &amp; Time:</b>	Lectures: 25 – 27 July 2018 (Wed - Sat); 09:30 am to 16:30 pm 28 July 2018 (Sat); 09:30 am to 12:00 pm Examination: 28 July 2018 (Sat); 13:30 pm to 16:30 pm (1-hour preparation time and 2-hour examination time)
<b>Venue:</b>	HKPC Building, 78 Tat Chee Ave, Kowloon Tong
<b>Teaching &amp; Learning Activities:</b>	Lectures, assignments and examination
<b>Medium of Instruction:</b>	English
<b>Target:</b>	Practicing Engineers, Energy Managers, Energy Auditors, Environmental Officers, Building Services Managers, Plant Managers, etc.
<b>Course Fee:</b>	<b>HK\$11,000</b> for Member of Organizer or Supporting Organizations <b>HK\$12,000</b> for Non-member
<b>Registration:</b>	<p><i>Note: Complimentary refreshment and lunch will be provided every day.</i></p> <ul style="list-style-type: none"> <li>(registration link &amp; QR coder to be updated)</li> <li><b>Maximum 35 enrolments</b> on a first-come-first-served basis</li> <li>Please register through on-line system at the link <a href="https://goo.gl/Feix7M">https://goo.gl/Feix7M</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: 14 June 2018.</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 5 July 2018.</li> </ul>
<b>Certificate:</b>	<ul style="list-style-type: none"> <li>Certificate will be issued by <b>Energy Institute</b> and carry <b>CIBSE CPD accreditation approval</b>.</li> </ul>
<b>Enquiry:</b>	Ms April Li Tel: 2967 8855, Email: <a href="mailto:aprilagc@gmail.com">aprilagc@gmail.com</a>

