



# WEBINAR CERTIFIED CARBON AUDITOR TRAINING COURSE

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

10 - 13 November 2021

### **Supporting Organizations**































#### **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

#### 3. Energy & Carbon Auditing

- Building energy consumption
- Quantification and risk assessment of energy waste

#### 4. Carbon Management

- Environmental impact reduction
- Carbon auditing
- International Greenhouse Gas protocol
- Internal and external verification
- Trading schemes

#### 5. Greenhouse Gas Accounting and Reporting

- Hong Kong greenhouse gas accounting and reporting guide
- Emissions factors and calculations
- Reductions versus offset approaches

- Data analytical methods
- Management tools and assessment
- Energy management opportunities
- Finance and life cycle assessments
- Carbon audit guidelines in Hong Kong
- Energy and carbon reducing solutions:
   air conditioning, lighting, motors, plant / building facilities, controls and maintenance issues
- 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



#### 6. Net Zero Activity

- Science Based Targets
- Net Zero pathways
- Review of the recast ISO GHG accounting & reporting standard
- Developing carbon accounting practice beyond the Hong Kong Guide

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 2.5 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: 2.5 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, 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 specialized in implementing energy management and technical solutions to reduce operational cost and carbon emissions. He has carried out energy and carbon audits for a wide range of public and private sector organizations and is experienced in identifying, and implementing 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 and is 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 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. Chris also trained as Lead Verifier for EN 16001.

Ir Prof Michael KH LEUNG, PhD, CEng, MEI, RPE, MHKIE, is the Past Chairman of Energy Institute Hong Kong. He is also a Professor of School of Energy and Environment of City University of Hong Kong and Shun Hing Education and Charity Fund Professor of Energy and Environment. 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**

General information		
	Lectures (Webinar)	10-12 November 2021 (Wed - Fri); 13:30 - 20:30 13 November 2021 (Sat): 12:00 - 19:30
Date & Time:	Online Examination (for either course delivery format)	20 <i>OR</i> 27 November 2021 (Sat): 14:00 - 16:30 (2.5 hour online examination)
Mean	Webinar (Link to be advised)	
Teaching & Learning Activities:	Lectures, Assignments and Examination	
Medium of Instruction:	ion: English	
Target:	Practicing Engineers, Energy Managers, Energy Auditors, Environmental Officers, Building Services Managers, Plant Managers, etc.	
Course Fee:	Webinar	HK\$10,000 for Member of Organizer or Supporting Organizations HK\$11,000 for Non-member.
Registration:	<ul> <li>Please register through online system: <a href="http://bit.ly/3ccMs0D">http://bit.ly/3ccMs0D</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: 10 October 2021</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 20 October 2021</li> </ul>	
Certificate:	Certificate will be issued by Energy Institute and carry CIBSE CPD accreditation approval. (Certificate sample is attached on the next page)	
Remarks:	Eligible to qualify for Certified Carbon Auditor (CCA) to conduct the Carbon Footprint of Products (CFP) quantification and reporting for a particular product category under CIC Green Product Certification owned by Construction Industry Council (CIC). For detail information about the qualification of CCA, please visit at <a href="http://cicgpc.hkgbc.org.hk/">http://cicgpc.hkgbc.org.hk/</a> .	
Enquiries:	Ms April Li Tel: 29	





This is to certify that

# Chan Tai Man

has successfully completed the Energy Institute's

## Certified Carbon Auditor rai ling Course

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delivered virtually in partnership with

The Energy Institute Hong Kong Planch

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Chris Burgess Course Lecturer Energy Institute Louise Kingham Chief Executive Energy Institute

Issued by: Energy Institute, 61 New Cavendish Street London W1G 7AR, UK.

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