5 DAYS INTENSIVE WORKSHOP

INTRODUCTION TO FUNDAMENTALS AND BEST PRACTICES OF GHG ACCOUNTING FOR PROJECTS

A **2 day** workshop provides an introduction to GHG accounting for projects, for both internal activities within companies and for external stand-alone projects.
This workshop is a pre-requisite for the 3 day workshop on GHG MRV of energy efficiency projects.

ADVANCED GHG ACCOUNTING FOR ENERGY EFFICIENCY PROJECTS

This **3 day** workshop focuses on GHG MRV for energy efficiency projects and includes an exam.
A 2 day introductory workshop on GHG MRV for projects is required.

Patrick Hardy
Greenhouse Gas Management Institute

Doha, Qatar | 7th - 11th June 2015

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MICE EVENTS
2015

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WORKSHOP OVERVIEW

Many countries and organizations are taking action to manage their greenhouse gas (GHG) emissions, a cause of climate change. Projects can reduce or avoid GHG emissions that cause climate change. These actions can reduce the overall emissions of a company or create tradable credits to offset emissions in order to become carbon neutral. This workshop introduces the fundamentals and best practices of GHG accounting for projects. The course material is based on ISO 14064: Part 2 GHG Standard for Projects and the WRI/WBCSD GHG Protocol for Projects. The workshop also serves as an introduction for the UN Clean Development Mechanism (CDM), the Verified Carbon Standard and other project-level initiatives.

KEY BENEFITS OF ATTENDING

Delegates will be able to gain knowledge of:

- Engage in an intensive 2 day training course from the Greenhouse Gas Management Institute (GHGMI), the leading global GHG training provider
- Learn about the leading GHG standards from some of the leading experts that helped develop them and have been delivering GHG courses for over 10 years
- Receive copies of the ISO 14064 series of international GHG standards
- Improve your knowledge of best practice for GHG project accounting

COURSE LESSONS

- ***Introduction to GHG Projects and Project Level Accounting***
- ***GHG Project Standards, Protocols and Programs***
- ***Introduction to Key Concepts and Accounting Processes (e.g., Additionality, Leakage)***
- ***Describing the Project, Determining Project Boundaries***
- ***Determining the Baseline of a GHG Project***
- ***Quantifying GHG Emissions or Removals***
- ***Monitoring and Data Management for GHG Projects***
- ***Documentation, Validation and Verification of GHG Projects***

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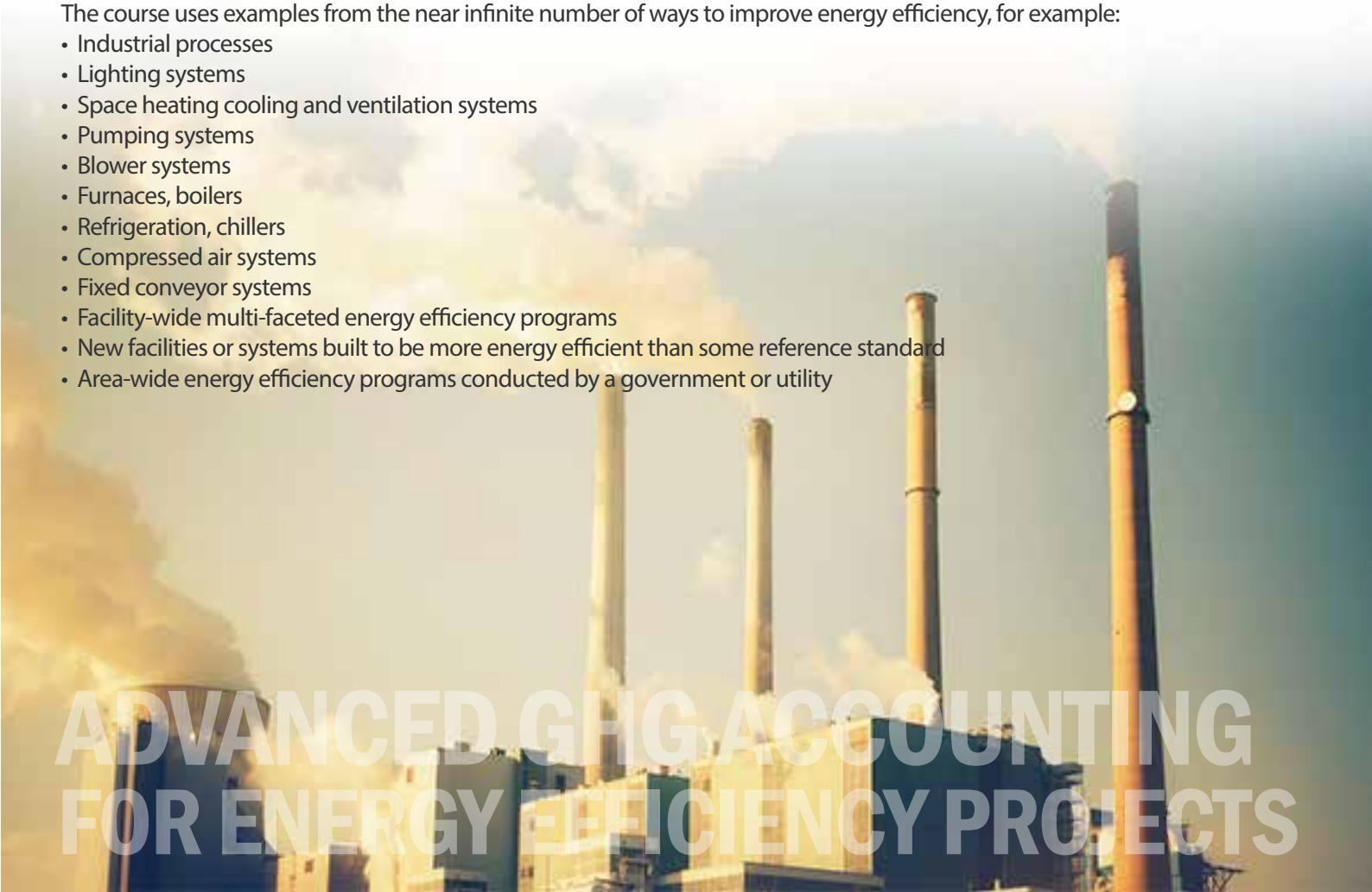
Workshop Overview

Energy efficiency projects offer the most significant and widely accessible means of reducing greenhouse gas (GHG) emissions. This workshop presents the terms and methods needed to transparently account for the GHG emission reductions created by energy efficiency (EE) projects or programs. It trains experts from both the EE community and carbon management community in the special aspects of GHG accounting for EE projects. The workshop presumes participants have a good understanding of the basics of energy savings accounting, for example as documented in the widely recognized International Performance Measurement and Verification Protocol, Volume I (IPMVP®). Good grounding on the IPMVP may be obtained through independent study, the two-day live workshops offered by the Efficiency Valuation Organization (EVO®) and the Association of Energy Engineers (AEE), or equivalent. Participants carrying the CMVP® designation (Certified Measurement and Verification Professional) will already have such grounding. In addition, participants are required to have completed the 2 day workshop on GHG project accounting.

This workshop provides in-depth training on the process of GHG accounting for energy efficiency actions conducted at a single end user's site, or at multiple users' sites included in area-wide programs. The course includes a step-by-step process that marries the common requirements of the energy efficiency community (IPMVP and other energy efficiency industry references) with the requirements of common international GHG accounting (such as ISO 14064-2 and the UNFCCC's CDM program).

The course uses examples from the near infinite number of ways to improve energy efficiency, for example:

- Industrial processes
- Lighting systems
- Space heating cooling and ventilation systems
- Pumping systems
- Blower systems
- Furnaces, boilers
- Refrigeration, chillers
- Compressed air systems
- Fixed conveyor systems
- Facility-wide multi-faceted energy efficiency programs
- New facilities or systems built to be more energy efficient than some reference standard
- Area-wide energy efficiency programs conducted by a government or utility



Key Benefits of Attending

Specifically, after completing this course you will understand:

- the eligible portion of the actual energy savings, considering the common possibility of competing claims to the ownership of emission reductions, and additionality
- the relevant IPMVP Option (A, B, C or D), measurement boundaries, baselines, baseline adjustments, and energy computations not in IPMVP
- area-wide EE programs or policies: common evaluation techniques, the role of deemed values, net-to-gross factors
- GHG emission factors for on-site and off-site GHG source reductions: reference fuel values, electrical grid factors, transmission losses, and converting different GHGs to CO_2 equivalent
- evaluation and management of offset quality
- offset marketing
- requirements for transparent documentation throughout a project's life

Course Lessons

- Introduction to Energy Savings and GHG Reductions
- Eligible Energy Savings
- Overview of the International Performance Measurement and Verification Protocol (IPMVP) for GHGs
- Programs of Energy Efficiency Activities
- GHG Quantification for Energy Efficiency Projects
- GHG Emission Offset Quality and Marketability
- Documentation for Energy Efficiency Projects
- Current Issues for Energy Efficiency Projects

Who Should Attend

Anyone wanting to present energy efficiency projects or programs under a GHG Program, including people who are working with an energy efficiency project or program: designers, developers, managers, consultants, auditors (i.e. validators and verifiers), investors and policy makers. This course is especially relevant to EE professionals seeking to understand the application of GHG accounting principles to their projects, and to carbon management professionals seeking to understand how to use the EE community's capacity to create carbon offset projects.

About Our Workshop Facilitator

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Patrick Hardy
Greenhouse Gas Management Institute

Patrick Hardy has worked in the climate change sector since 2003. Patrick is co-founder of ClimateCHECK (2007) and Collaborase and is a faculty member of the Greenhouse Gas Management Institute (GHGMI).

Patrick has been developing and delivering training related to greenhouse gas accounting, validation, verification and accreditation for the past 10 years. He has provided training on the ISO 14064 series of standards, the ISO 14065 standard and the GHG Protocol. He has delivered GHG training tailored to specific sectors including oil and gas and energy efficiency.

Patrick has worked with oil and gas companies offering a wide range of services including the development of greenhouse gas inventories, the development of greenhouse gas handbooks and data management procedures, due diligence on greenhouse gas offset projects, verification against the requirements for the Alberta GHG Regulation and the Quebec GHG Regulation. Patrick has also validated natural gas project for the Clean Development Mechanism. Since 2009, Patrick is qualified as a GHG technical expert in the oil and gas and energy efficiency sector for the Standards Council of Canada, where he performs GHG assessments for the accreditation of validation and verification bodies.

Patrick has also worked extensively in the energy efficiency sector. Patrick led the development of the GHG energy efficiency quantification protocol for commercial and industrial buildings, for the Alberta GHG offset system. In addition, Patrick developed and applied GHG quantification for a variety of GHG energy efficiency projects including building, lighting and HVAC retrofits, zero energy homes and other energy efficiency measures in a variety of sectors.

Patrick's previous experience includes a position as Manager of Climate Change Services of Eastern and Central Canada for Det Norske Veritas (DNV), a leading international certification body. He managed and delivered Greenhouse Gas inventory verifications for multinational corporations while developing and delivering Greenhouse Gas training courses (ISO 14064 and GHG Protocol) to a variety of organizations. In addition, Patrick performed clean technology GHG strategic assessments and quantifications. He began his career as a lab manager for a leading Canadian clean technology company operating in the biomass processing and petroleum upgrading sectors.