

CAGBC's Low Carbon Training Foundations Course



Modes of delivery

Participants may choose to complete CAGBC's Low Carbon Training Foundations course in one of three modes of delivery:

1. In-person, one-day workshop events;
2. Live, one-day webinar events, and;
3. An online, on-demand course that can be completed at your own pace.

The Low Carbon Training Foundations course creates baseline knowledge for a variety of key professions in the building sector and equips them with the knowledge needed to adopt low-carbon concepts in their roles.

Learning objectives

All three modes of delivery cover the same five (5) modules of content with the following learning objectives.

1. Environmental, Social, and Governance (ESG):

An overview of ESG, which is an approach to measuring and evaluating the sustainability and ethical impact of businesses based on their environmental practices, social responsibility, and corporate governance.

Learning Objectives:

- Explain key concepts, growth drivers, and the business case for ESG.
- Define environmental, social, and governance themes as they relate to businesses.
- Understand the concepts of opportunity analysis and risks avoidance as they relate to environmental performance in buildings.

2. Integrated Design Process (IDP):

An introduction to IDP, which is a collaborative approach that involves multiple stakeholders in the design and decision-making process to create sustainable and efficient building designs.

Learning Objectives:

- Describe IDP including its key steps, attributes, and roles of key professionals.
- Contrast the conventional design process and the integrated design process.
- Identify the benefits and challenges of IDP and some lessons learned.

3. **Operational Carbon:**

Distinguishes and defines the greenhouse gas emissions produced during the day-to-day operations of a building, including energy consumption, transportation, waste management, etc.

Learning Objectives:

- Explain the sources of carbon emissions, including the differences between operational and embodied carbon, energy end uses and types, and the link between energy use and carbon emissions.
- Understand how operational carbon refers to the total greenhouse gas emissions associated with building energy consumption (heating, cooling, ventilation, lighting, and power).
- Define how and when energy modelling, management, benchmarking, and reporting are leveraged to improve building performance.

4. **Embodied Carbon:**

Provides an overview of carbon emissions associated with the extraction, manufacturing, transportation, and construction of materials used in buildings or infrastructure projects.

Learning Objectives:

- Understand embodied carbon emissions in buildings.
- Describe whole building Life Cycle Assessments (LCAs) and Environmental Product Declarations (EPDs).
- Calculate and reduce embodied carbon.
- Identify standards and considerations for embodied carbon in the market.

5. **Transition Planning:**

An introduction to a Zero Carbon Transition Plan, which is a costed plan that outlines how a building will adapt over time to remove combustion from building operations. Effective transition planning leverages the natural intervention points in a building's capital plan when retrofits would normally be required.

Learning Objectives:

- Understanding of why buildings need a transition plan and how it helps.
- Explain the components of a transition plan including energy use assessment, mechanical system review, opportunity analysis, adaptation measures, and financial assessment.
- Practice formulating a transition plan for buildings and asset portfolios.