



# Energy Efficiency Training Week

## Introductory Roundtable

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Buildings

 IEA #energyefficientworld

*Buildings energy efficiency sessions in partnership with:*

**UCL ENERGY**  
INSTITUTE



1. **Where to start:** Energy use in buildings
2. **Where to start:** Energy efficiency potential in buildings
3. **Toolkit:** Energy efficient building design
4. **Toolkit:** Energy efficient building technologies  
**Special session.** Technology demonstration  
**Where do I get help?** IEA's Technology Collaboration Programmes
5. **Toolkit:** Energy efficiency policies and target setting
6. **What are the steps?** Enabling investment with energy efficiency policies
7. **What are the steps?** Implementing building energy codes and standards
8. **What are the steps?** Building operations and procurement  
**Special session.** The multiple benefits of energy efficiency
9. **Did it work?** Evaluation and energy efficiency indicators  
**Where do I get help?** International and regional energy efficiency initiatives
10. **Energy efficiency quiz:** Understanding energy efficiency in buildings

- **Brian Dean:** International Energy Agency
- **Pierre Jaboyedoff:** Building Energy Efficiency Project (BEEP India)
- **Ian Hamilton:** UCL Energy Institute, University College London
- **Maxine Jordan:** International Energy Agency



- **Introduce yourself:**

- Name
- Organization
- Country
- What do you want out of this week?

- **The next 3 days:**

- Speak up and engage with others
- Ask questions, give answers

## 1. **Where to start:** Energy use in buildings

**Trainers:** Brian Dean and Ian Hamilton

**Purpose:** To teach the fundamentals of how and why buildings use energy.

**Scenario:** An influential NGO is urging for all new construction to be zero emission or net zero energy buildings. *What factors are key to achieving zero emission or net zero energy buildings?*

## 2. **Where to start:** Energy efficiency potential in buildings

**Trainers:** Brian Dean and Maxine Jordan

**Purpose:** To teach the fundamentals of the energy efficiency potential in buildings. This includes information on IEA's scenarios analysis modelling to determine potential impacts.

**Scenario:** You have been asked to create new policies for energy efficient buildings. *How do you determine where to start?*

## 3. Toolkit: Energy efficient building design

**Trainers:** Brian Dean and Pierre Jaboyedoff

**Purpose:** To teach the fundamentals of how building design can reduce energy use in buildings. This course will also describe how an integrated design process and the use of simulation tools can achieve cost effective and energy efficient buildings.

**Scenario:** Builders are saying that construction timelines are short and it is not possible to design more efficient buildings because it is too complicated. *What changes in building design can enable more energy efficiency in buildings?*

## 4. Toolkit: Energy efficient building technologies

**Trainers:** Brian Dean and Ian Hamilton

**Purpose:** To teach the fundamentals of building technologies and energy efficiency products that can reduce energy use in buildings. This course will discuss building technologies including building envelope, HVAC systems, lighting and controls.

**Scenario:** Stakeholders are saying that new policies are not possible because the technology is not available that enables increased energy efficiency. *What technologies could change your market for energy efficiency?*



## Where do I get help: IEA's Technology Collaboration Programmes

**Trainers:** Brian Dean and Ian Hamilton

**Purpose:** To discuss the international network of experts working on research projects, including Energy in Buildings and Communities (EBC), District Heating and Cooling (DHC), Heat pump technology (HPT), and Energy Efficient End-Use Equipment (4E) TCPs.

## 5. Toolkit. Energy efficiency policies and target setting

**Trainers:** Brian Dean and Maxine Jordan

**Purpose:** To teach the fundamentals of how energy efficiency targets and policies can be used in tandem to reduce energy use in buildings and meet energy and development goals.

**Scenario:** There has been a change of government and the incoming government wants a range of options for interventions to rapidly increase energy efficiency. *How do you identify, prioritise and quantify these policy options?*

## 6. What are the steps? Enabling investment with energy efficiency policies

**Trainers:** Brian Dean

**Purpose:** To teach the fundamentals of energy efficiency policies that can enable effective investment and finance for energy efficiency in buildings.

**Scenario:** You continue to hear from stakeholders that all they need is money and then they will consider doing energy efficiency in buildings. *What policy approaches can be used to enable energy efficiency investment?*

## 7. What are the steps?: Implementing codes and standards

**Trainers:** Brian Dean and Pierre Jaboyedoff

**Purpose:** To teach the fundamentals of building energy codes and standards. This course will include discussions of regulation types (e.g. mandatory, voluntary and stretch codes) and compliance paths (e.g. prescriptive, performance and outcome-based).

**Scenario:** A respected industry association claims that the building energy codes are out of date. *How do you advance building energy codes in your jurisdiction?*

## 8. What are the steps? Building operations and procurement

**Trainers:** Brian Dean and Pierre Jaboyedoff

**Purpose:** To teach the fundamentals of how energy efficiency can be used in operations and management of buildings to reduce energy consumption.

**Scenario:** Citizens are asking why government-operated buildings are not efficient. *What measures can enable the government to lead by example with efficient buildings?*

**Special session:** The multiple benefits of energy efficiency

**Trainers:** Brian Dean and Maxine Jordan

**Purpose:** To teach the fundamentals of how to evaluate both energy and non-energy benefits (the multiple benefits) of energy efficiency for buildings. This session will examine how to evaluate the monetised value of energy efficiency measures using numerous categories for multiple benefits.

## 9. Did it work? Evaluation and energy efficiency indicators

**Trainers:** Brian Dean and Ian Hamilton

**Purpose:** To teach the fundamentals of tracking progress with energy efficiency indicators that are applicable to the buildings sectors. The course will include a discussion of IEA's methodologies and how to collect or model data that can be used to estimate progress from energy efficiency efforts.

**Scenario:** Leadership wants to know how effective the building energy efficiency policies have been. *How do you determine the benefits of your policies and programmes?*

**Where do I get help?** International and regional initiatives that can help

**Trainers:** Brian Dean and Pierre Jaboyedoff

**Purpose:** To discuss the Building Efficiency Accelerator, GlobalABC, WorldGBC, BEEP India, PEEB, and other international and regional initiatives.



## 10. Energy Efficiency Quiz: Understanding energy efficiency in buildings

**Trainers:** Brian Dean and Maxine Jordan

**Purpose:** To test knowledge and discuss the fundamentals of energy efficiency in buildings that were learned throughout this week's 3-day buildings course.



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