

# Working Group on Building Energy Codes

**Status:** Ongoing (2019 - 2022)

## DRAFT WORKPLAN

### Participants and Modalities of Cooperation

Confirmed participants in the WG include: Australia, Canada, China, Ireland, Italy, Japan, New Zealand, Portugal, Singapore, Sweden, United Kingdom, United States, as well as ASHRAE and the International Code Council. Other EBC members are also welcome to join the WG by expressing their intent in writing.

Each participant will provide in-kind contributions to support the cooperation. Participants, at a minimum, will share information on building energy code practices through a survey, webinars, in-person meetings and review of documents. Participating countries will also be invited to take on larger leadership roles on a rotating, optional basis, for example, leading reports, studies, study components or meetings.

### Activities

The WG proposes to undertake several activities to achieve these objectives. These activities include:

- Activity 1: Exchange on Building Energy Code Practices
- Activity 2: Comparative Analysis
- Activity 3: Dissemination

Each broad activity includes a description and proposed outputs. The WG will review the work on an annual basis and, based on this, may make adjustments as needed.

#### *Activity 1: Exchange on Building Energy Code Practices*

This activity will include several opportunities for countries to exchange information on their building energy code systems, including a webinar series (with approximately one webinar every 2-3 months). The WG will also hold in-person meetings on the sidelines of EBC Executive Committee meetings to better coordinate and share research progress. One recurring meeting will be the Annual Building Energy Code Symposium, which will typically be held on the sidelines of EBC Executive Committee meetings and hosted by the Executive Committee meeting host. The symposium will allow WG members to exchange ideas on 1-3 topics of interest. For example, the WG has expressed interest in holding a meeting on implementation practices that would help countries understand the range of implementation options available.

#### *Activity 2: Comparative Analysis*

This activity will include a survey on basic codes information to help WG members understand the range of practices across nations. The WG will draw from this survey to develop an overview report that will establish key areas for comparison. As part of this activity, the WG will also develop reports around various topics of interest. Proposed topics include:

- Information on how building energy codes link to targets;
- Case studies of how new technologies impact and are integrated into national codes;

- Analysis on the benefits on net-zero energy buildings (such as implications for energy use, emissions and costs) as well as potential pathways to achieve those benefits;
- A comparative report on implementation practices and joint research study to measure key parameters of compliant buildings (with the study methods worked out by participating countries); and
- Building energy codes in existing buildings.

### Activity 3: Dissemination

In addition to establishing collaboration and conducting analyses, it is equally important to disseminate the analysis and knowledge obtained back to the community and work together with a diverse group of stakeholders to encourage improvements and innovation in practices. The WG will disseminate information in the following three major ways.

- Post key information on the EBC website. The WG will develop a basic web portal for WG reports that EBC will host. In addition, the IEA is considering hosting a portal on national codes and code implementation systems. The WG would help IEA Secretariat develop a structure and methods for populating this portal with data, which the IEA Secretariat would then maintain.
- Publish results and lessons learned in conference papers, peer-reviewed journals or trade journals, with careful selection on the type of publication in order to reach the right audience and attain the desired impact. For example, typically peer-reviewed articles reach a much wider audience than technical reports, so peer-reviewed journals are usually preferable.
- Develop a quarterly e-mail newsletter (e-newsletter) consisting of short snippets of information that highlights and links information found on the website and other relevant sources (information on official activities of the WG, product releases, links to announcements of events of broad general interest to the WG membership, call for papers, peer-review/evaluation requests, etc.). Unlike the EBC website, the e-newsletter will also serve as a platform in which any WG member can share information of interest with the rest of the group. In addition to WG members, other members of the community will be able to sign-up to the mailing list, albeit only with permission from the WG co-chairs.

WG members will discuss a strategy for dissemination early on, for example, decisions about what information is communicated, who will be involved, in what ways, and using what mediums.

Table 1 below lists the respective tasks for each WG activity.

Table 1. Outputs

Activity/Output	Lead(s)	Contributor(s)	Completed by
<b>Activity 1: Exchange on Building Energy Code Practices</b>			
Webinar series (4 or more per year)	Rotating	All WG members, including Australia (Q1'20), Canada (Q2'20) and UK (Q3 '20)	Ongoing
Annual Building Energy Code Symposium	Japan (Nov. 2020); TBD fall 2021	All WG members	Ongoing
<b>Activity 2: Comparative Analysis</b>			

Survey and glossary of terms on building energy codes in WG countries (Survey targeted toward key topics)	WG Team	WG Team, PNNL, All WG members	November 2020
Overview report comparing building energy codes in WG countries and defining methods and terminology	<i>U.S. and New Zealand (TBC)</i>	WG Team, PNNL, Australia, Brazil, Canada, Japan, New Zealand	December 2021
Topical report: Building energy codes in existing buildings	<i>Australia (and UK, TBC)</i>	<i>Canada, U.S. (Army Corps of Engineers)</i>	November 2020
Topical report: Compliance best practices, including means of assessing compliance in first five years of a building's life	<i>U.S.</i>	<i>Australia, Brazil, Canada, New Zealand, Singapore, South Korea, UK</i>	September 2021
Case studies and report on integrating new technologies into building energy codes (including need and options for collaboration on R&D regarding building energy codes)	<i>Japan</i>	WG members for case studies: <i>Australia, Singapore, UK, U.S.</i>	Case studies in September 2022/ Report in January 2022
<b>Activity 3</b>			
EBC WG web portal systems and e-mail newsletter	EBC Operating Agent	All WG members	Launch in June 2020 or when first WG publication is issued
Publication in conference papers, peer-reviewed journals, or trade journals	Any interested WG member(s)	A sub-set or all WG members	Ongoing