

Building Energy Codes

EBC WORKING GROUP

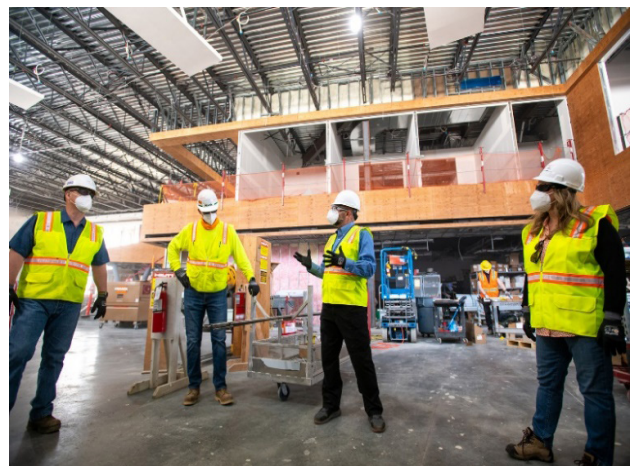
Several countries are adopting increasingly stringent, yet cost-effective building energy codes. This is a result of the significant reductions in energy use these countries have observed after introducing updated codes. However, even in jurisdictions with extensive history in this area, building energy codes are facing key challenges, including the need to meet ambitious policy objectives, such as zero net energy construction standards and the substantial amount of time it takes for building codes to integrate research and technology breakthroughs, thus limiting the energy savings potential of building energy codes.

In 2018, the International Energy Agency's Energy in Buildings and Communities Program (EBC) launched the Building Energy Codes Working Group to address these challenges. The Building Energy Codes Working Group goals are centered around furthering building energy codes research and collaboration efforts to advance energy efficiency in buildings and communities. The Building Energy Codes Working Group is dedicated to the consideration of building energy codes in EBC projects, along with the integration of project results into enhancing the existing building energy codes.



PROJECT OBJECTIVES

- 1** enhancing understanding of impactful options and practices regarding building energy codes across different countries;
- 2** providing methods for cross-national comparisons that lead to meaningful information sharing;
- 3** fostering collaboration on building energy code issues that leads to enhanced building energy code programmes by incorporating new technologies, practices, and issues.



Construction of Energy Sciences Building at the Pacific Northwest National Laboratory, United States. While building energy codes have been a central tool for many jurisdictions to increase the energy performance of newly constructed buildings, contemporary codes are increasingly expanding to cover existing buildings at times of major renovations.

Source: Pacific Northwest National Laboratory, 2021.

INTERNATIONAL ENERGY AGENCY

The International Energy Agency (IEA) was established as an autonomous body within the Organisation for Economic Co-operation and Development (OECD) in 1974, with the purpose of strengthening co-operation in the vital area of energy policy. As one element of this programme, member countries take part in various energy research, development and demonstration activities. The Energy in Buildings and Communities Programme has co-ordinated various research projects associated with energy prediction, monitoring and energy efficiency measures in both new and existing buildings. The results have provided much valuable information about the state of the art of building analysis and have led to further IEA co-ordinated research.

EBC VISION

By 2030, near-zero primary energy use and carbon dioxide emissions solutions have been adopted in new buildings and communities, and a wide range of reliable technical solutions have been made available for the existing building stock.

EBC MISSION

To accelerate the transformation of the built environment towards more energy efficient and sustainable buildings and communities, by the development and dissemination of knowledge and technologies through international collaborative research and innovation.

The following project deliverables are planned:

- Analysis and technical reports. The project will conduct surveys on basic codes information to understand the range of practices across participating nations. Drawing on the results of these surveys, the project will develop reports around various topics of interest such as building energy codes for existing buildings and best practices for code compliance.
- Organization and facilitation of webinars. The project will host and facilitate several workshops and webinars for participating countries to exchange information on their building energy code systems. The project will also host an Annual Building Energy Code Symposium, which will allow the project members to exchange ideas on relevant topics of interest.
- Dissemination. In addition to conducting analyses and facilitating webinars, the project will work towards disseminating their research findings to wide range of regional stakeholders and collaborate with them closely to promote code improvements and implementation of best practices. The project will disseminate their findings through the EBC website, conference papers, and quarterly newsletters.

Project duration

Ongoing (2018 - 2024)

Operating Agents

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Participating countries

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Further information

www.iea-ebc.org