

IEA Energy in Buildings and Communities (EBC) Technology Collaboration Programme

Working Group on Building Energy Codes





Session Objectives

- 1) To review the Building Energy Codes Working Group (BECWG) work plan
- 2) To agree to the content of the work plan

Bonus: To have leads and contributors for every activity/output included in the work plan



Background

- ☐ Building energy codes (or building performance requirements in construction standards) are an effective policy tool for improving the energy efficiency of buildings.
- ☐ However, even in communities with extensive history, building energy codes and standards are facing key issues, including:
 - The need for faster and easier methods to check compliance
 - The need for greater reliability in the evaluation of code compliance
 - The gap between building codes, and research and technology breakthroughs
 - The challenge of incorporating energy efficiency into major retrofits
 - The need to meet ambitious policy objectives
 - The challenge of integrating various distributed energy resources



BECWG Objectives

- To enhance understanding of impactful options and practices regarding building energy codes across different countries
- To provide methods for cross national comparison that lead to meaningful information sharing
- To foster collaboration on building energy code issues that leads to enhanced building energy code programs by incorporating new issues and practices



Activities

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



The objective of this activity is to provide regular opportunities for countries to exchange information on their building energy code systems

Activities/Outputs:

- Webinar Series
- Annual Building Energy Code Symposium

Comparative Analysis



The objective of this activity is to provide information on how building codes are handled in different countries. 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 of net-zero energy buildings
- Report on implementation practices
- Joint study to measure key parameters of compliant buildings
- Building energy codes in existing buildings

Comparative Analysis



Activities/Outputs:

- Survey and glossary of terms on building energy codes
- Overview report comparing building energy codes in working group countries
- Topical Reports:
 - Linking codes to targets
 - Benefits and pathways for net zero energy buildings
 - Building energy codes in existing buildings
 - Compliance best practices
- Case studies and report on integrating new technologies into building energy codes

Dissemination



The objective of this activity is to share our findings

Activities/Outputs:

- BECWG website
- BECWG newsletter
- Include information from reports on IEA website
- Publication of findings



BECWG Leadership Team

- David Nemtzow Building Technologies Office, U.S. DOE david.nemtzow@ee.doe.gov
- Michael Dunn Victoria University Wellington michael.donn@vuw.ac.nz
- Jack Mayernik National Renewable Energy Lab john.mayernik@nrel.gov
- Jeremy Williams Building Technologies Office, U.S. DOE jeremy.williams@ee.doe.gov
- Meredydd Evans Pacific Northwest National Lab <u>m.evans@pnnl.gov</u>



Thank you!