



Mapping of Existing Energy Efficiency Standards in Buildings in the UNECE region

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UNECE studies on Energy Efficiency in Buildings

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Energy Efficiency in Buildings

Admitting holistic approach to building design, delivery and operation and a paradigm that envisions buildings as energy producers and not solely or primarily as energy sinks, UNECE develops framework guidelines for energy efficiency standards in buildings, conducts research on existing energy efficiency standards and technologies in buildings in the UNECE region, etc.

Documents

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Study on Mapping of Existing Technologies to Enhance Energy Efficiency in Buildings in the UNECE Region (March 2019):

PDF

1. Country Sheets CIS Countries
2. Country Sheets EU-North America

PDF

PDF

Study on Mapping Energy Efficiency Standards and Technologies in Buildings in the UNECE Region (August 2018)

PDF

PDF

Framework guidelines for energy efficiency standards in buildings
ECE/ENERGY/GE.6/2017/4

PDF

PDF

PDF

Meetings

Outcomes of the UNECE project on Energy Efficiency Standards in Buildings - Fifth Meeting of the UNECE Joint Task Force on Energy Efficiency Standards in Buildings, Yerevan, Armenia (14-15 March 2019)

This web page is available at:
<http://www.unece.org/energy/welcome/areas-of-work/energy-efficiency/activities/energy-efficiency-in-buildings.html>

Objectives of the study

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- To examine the current status of the energy efficiency standards in buildings in the UNECE region
- To form a basis to improve knowledge of UNECE member States of existing energy efficiency standards in buildings
- To collect best practices related to existing standards
- To provide a gap analysis and harmonization of data and standards
- To prepare an initial assessment of energy efficiency technologies in buildings in relation to the existing standards



Gap analysis

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Objective: to **evaluate** the **most effective policies** and **identify best practices** to help member States **learn from one another**

- Comprehensiveness and stringency of the building energy codes
- Technical requirements of the building energy codes
- Comprehensiveness and stringency of the EPC
- Enforcement mechanisms, including incentive packages and penalties
- Energy efficiency materials and products requirements in building energy codes



Selected conclusions

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- Some countries apply building energy codes only to specific types of buildings
- Large variance in Energy Performance Certificates (EPC) implementation
- Lack of data in the field of energy performance measurement
- Closing the energy performance gap is set to become an increasingly important issue over the next decade
- Easier to achieve change in public buildings than in residential ones. Financial incentives are necessary to encourage homeowners to engage in energy-efficient retrofits.



Selected recommendations

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- To harmonize building codes and coverage of all kinds of buildings
- To create a national EE target
- To strengthen the requirements for insulation, ventilation and technical installations
- To introduce or strengthen quality assurance measures, especially during the early stage of the certification process
- To establish proper monitoring systems of compliance, enforcement and quality control processes through a qualified workforce
- To establish a regular inspection of boilers and air-conditioning systems



Selected recommendations (cont.)

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- To continuously monitor, analyze and adjust energy usage in building energy codes
- To create incentives for companies for improving EE through appropriate policies, tax incentives and low-interest loans
- To facilitate the harmonization process of energy efficient materials and products testing and certification
- To assist in the establishment of new harmonized building materials test mechanisms
- To make codes publicly available





Thank you!

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UNECE

12 April 2019, Tbilisi
Workshop on Energy Performance Building Standards