

REPORT

on the implementation of the Energy Performance of Buildings Directive

North Macedonia

(Update November 2020)

The Directive 2010/31/EU on the energy performance of buildings (EPBD)¹ is one of the most complex energy efficiency directive for implementation in the Energy Community, and requires cooperation between various stakeholders and broader spectrum of activities, besides work on development of legislation. The overall deadline for the transposition of EPBD was 30 September 2012.

1. General framework for implementation for implementation of EPBD

< Please report what is the status of implementation, further activities and planned deadlines for completion in your country >

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
1.	Main requirements of the EPBD included in the National Law(s)	The Energy Performance of Buildings Directive is partially transposed in the existing Rulebook on Energy Performance of Buildings and the Rulebook on Energy Audits. The Ministry of Economy plans to request technical assistance from the EBRD for preparation of the secondary legislation deriving from the Building Directive and the new Law on Energy Efficiency (Q2 2021).

2. Building Stock Inventory

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
2.	Decision to establish a Building Stock Inventory, and necessary resources and funds for its	The Ministry of Economy has signed letter of interest with Habitat for Humanity Macedonia for their involvement in the Strategy for reconstruction of residential, public and commercial buildings in the country. Habitat shall conduct a Study with a typological approach for

¹ Directive 2010/31/EU of 19 May 2010 on the energy performance of buildings, as incorporated and adapted by Ministerial Council Decision 2010/02/MC-EnC of 24 September 2010: https://www.energy-community.org/dam/jcr:6b3f4de1-fa7e-4b51-bc72-7918ace7fe54/Directive_2010_31_EE.pdf

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
	development and operation allocated or secured	<p>energy assessment of the residential buildings in the country in accordance with the TABULA methodology. The financial support for the project was secured by several donors while the Project was presented promotionally to the Macedonian public. The whole process is now carried by Habitat. Typology Approach for Building Stock Energy Assessment started in September 2020. The activities in the past 2.5 months are concentrated on the development of the typology (classification) which should include:</p> <ol style="list-style-type: none"> 1. Periodization of residential buildings in accordance with national specifics (minimum 4, maximum 8 time periods); 2. Classification of residential buildings according to construction and technical characteristics, for each period separately, including: <ol style="list-style-type: none"> a. Types of individual (single-family / simple) houses (at least 2, at most 4 types); b. Types of collective (multi-family / multi-apartment buildings, at least 3, at most 6 types). <p>For this purpose, expert assistance is used, supplemented with data from Habitat Macedonia collected during the registration of the housing stock in 28 municipalities.</p>
3.	Establishment and operation of national Building Stock Inventory	<p>The national building stock inventory shall be established by the end of 2022. There is a detail database for more than 60 municipalities in North Macedonia including the city of Skopje. It includes about 600 public buildings such as kindergartens, primary and secondary schools, university buildings, healthcare buildings, police buildings, libraries, cultural buildings, municipal administrative buildings, sport halls, etc. For the majority of these buildings there is detail data that includes address, energy consumption and cost for the year of 2007, 2008 and 2009, year and type of construction, building envelope, conditioned area and volume usage, energy efficiency measures that have been undertaken, type of heating system and fuel used, condition of windows and doors, use of renewable energy if any, fans and pumps, cooling and ventilation systems, lighting, solar water heaters, etc.</p> <p>There is a database of typology of buildings that covers the period from 1963 until present. This database could be used to calculate the U values of the buildings as well as propose solutions for energy efficiency improvements. Additionally, the Ministry of Economy, in cooperation with the General Affairs and Common Affairs Office, in August prepared the list (inventory) of the buildings used by Central Government bodies (Article 5 of the DEE). Out of 22 identified Central Government bodies 6 buildings are not fulfilling the minimal requirements for the energy performance of buildings. The others are either exempted or renovated..</p>

3. Calculation methodology

These requirements are given in Article 3 of EPBD; Adoption of a methodology for calculating the energy performance of buildings.

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
4.	Development of national calculation methodology with national annexes (default input values) - National Standard	The Ministry of Economy plans to request technical assistance from the EBRD to prepare the national calculation methodology within the secondary legislation deriving from the Building Directive and the new Law on Energy Efficiency.
5.	Adoption of relevant supporting CEN standards	Under competence of ISRM.(standardisation Institute)
6.	Development of climatic data base	The Ministry of Economy plans with to request technical assistance from the EBRD to prepare the climate database within the secondary legislation deriving from the Building Directive and new Law on Energy Efficiency.
7.	Development of software for energy performance certification (new or adoption/adjustment of existing software)	<p>In usage ISBEM, ENSI, National Developed Software.</p> <p>Additionally, there is a National developed software for EPBD in the country. The Ministry has received TA proposal from Fraunhofer (through KfW) for preparation of a software package and calculation methodology (poss. incl. cost-optimal calculations, definition of reference</p>

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
	(could be developed commercially or nationally by public means)	building(s), energy monitoring etc.). The software needs to include information requested with the national secondary legislation such as construction materials used, climate data, seismic data, etc.
8.	Training of experts in the calculation methodology and in proper use of the software	The Ministry has received TA proposal from Fraunhofer (through KfW) for preparation of the software package and calculation methodology (poss. incl. cost-optimal calculations, definition of reference building(s), energy monitoring etc.).

4. Energy performance requirements

Requirements given in several Articles of the EPBD:

- Article 4 Setting of minimum energy performance requirements
- Article 5 Calculation of cost-optimal levels of minimum energy performance requirements
- Article 6 New buildings
- Article 7 Existing buildings
- Article 8 Technical building systems
- Article 9 Nearly zero-energy buildings

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
9.	Adoption of minimum energy performance requirements	Transposed in the existing Rulebook on Energy Performance of Buildings and will be updated with a technical assistance from the EBRD
10.	Calculation of cost-optimal level of energy performance	Transposed in the existing Rulebook on Energy Performance of Buildings and will be updated with a technical assistance from the EBRD
11.	Information/training of key stakeholders in the construction industry	According to provisions of the existing Rulebook on Energy Audits 300 EE auditors and 76 legal entities are trained in the construction industry.
12.	Updating/development of routines and specifications for documentation and checking of the energy performance requirements	EE proof requested by the municipalities for construction permit of new buildings in the country.
13.	Training of national and regional "building inspectorates"	None.

5. Energy performance certificate

Requirements given in several Articles of the EPBD:

- Article 11 Energy performance certificates
- Article 12 Issue of energy performance certificates
- Article 13 Display of energy performance certificates
- Article 17 Independent experts
- Article 18 Independent control system

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
14.	Development of Regulation on Energy Performance Certification of buildings, incl. national values for each class (A, B, C, etc.)	Transposed in the existing Rulebook on Energy Performance of Buildings and will be updated with a technical assistance from the EBRD.
15.	Development of Guidelines for energy performance certification of buildings	Transposed in the existing Rulebook on Energy Performance of Buildings and will be updated with a technical assistance from the EBRD
16.	Development of Certification Tool (Issue, statistics, information dissemination, reporting)	Statistics, reporting.
17.	Training, examination and accreditation of experts	The Ministry of Economy plans to request a technical assistance from the EBRD to prepare it within the secondary legislation deriving from the Building Directive and the new Law on Energy Efficiency.
18.	Establishment of Independent Control System and Registry (system and institution) – combined with the control system for inspections if applicable. The Control system should provide information enabling evaluation of the effectiveness of the Certification Scheme.	Transposed in the existing Rulebook on Energy Performance of Buildings and will be updated with a technical assistance from the EBRD.

6. Inspection of heating and air-conditioning systems

Requirements given in several Articles of the EPBD:

- Article 14 Inspection of heating systems
- Article 15 Inspection of air-conditioning systems
- Article 16 Reports on the inspection of heating and air-conditioning systems
- Article 17 Independent experts
- Article 18 Independent control system

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
19.	Development of Regulation on Inspection of heating systems ²	Transposed in the existing Rulebook on Energy Performance of Buildings and will be updated with a technical assistance from the EBRD and by UNIDO&UNOPS in the Rulebook for Industry.
20.	Development of Regulation on Inspection of air-conditioning systems	Transposed in the existing Rulebook on Energy Performance of Buildings and will be updated with a technical assistance from the EBRD and by UNIDO&UNOPS in the Rulebook for Industry.
21.	Development of Guidelines for inspections, incl. report templates	Transposed in the existing Rulebook on Energy Performance of Buildings and will be updated with a technical assistance from the EBRD and by UNIDO&UNOPS in the Rulebook for Industry.
22.	Establishment of Independent Control System and Registry (system and institution) – combined with the control system for energy certification if applicable. The Control system should provide information enabling evaluation of the effectiveness of the Certification Scheme.	Transposed in the existing Rulebook on Energy Performance of Buildings and will be updated with a technical assistance from the EBRD and by UNIDO&UNOPS in the Rulebook for Industry.
23.	Training and accreditation of experts	According to provisions of the existing Rulebook on Energy Audits(which was exempted) and will be updated with a technical assistance from the EBRD and by UNIDO&UNOPS in the Rulebook for Industry.

7. Penalties

Requirements given in Article 27of EPBD.

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
24.	Develop rules on penalties for infringements of the national provisions adopted and include them into relevant laws/regulations. Penalties	They are all prescribed in the new Law on Energy Efficiency in Articles 49, 50, 51, 52, 53, 54, 55, 56 and 57.

² Could be combined with regulation on Inspection of air-conditioning systems and developed as one regulation

	Main steps/activities	Status of implementation, further activities and planned deadlines for completion
	could be imposed for noncompliance to: <ul style="list-style-type: none"> • Minimum energy performance requirements • Certification (non-existing and/or quality and/or registration) • Inspections (non-existing and/or quality and/or registration) 	
25.	Establishment of a monitoring system (system and institution) for checking compliance with national provisions and for issuing and collecting penalties	
26.	Operation of the monitoring system	