CONCERTED ACTION
ENERGY PERFORMANCE OF BUILDINGS

EPBD Key Implementation Decisions in **Hungary**

Status in December 2016

AUTHORS

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NATIONAL WEBSITES

www.unideb.hu, www.e-epites.hu, www.miniszterelnokseg.hu

1. Key Implementation Decisions, KIDs

no	**Key Implementation Decisions - General Background**	**Description / value / response**	**Comments**	**Description**
1.1	Definition of public buildings (according to article 9 b)	Buildings having official function, owned by the state and non-profit.		
1.2	Definition of public buildings used by the public (according to article 13)	Buildings where more than 50% of the total floor area is used by the state or governmental authorities for administrative purposes	Governmental decree 176/2008	
1.3	Number of residential buildings	2,702,183	Hungarian Central Statistical Office, 2011	Total number
1.4	Number of non-residential buildings	287,032	Hungarian Central Statistical Office, 2005	Total number incl. commercial, educational, health care, public administration, social, cultural and other buildings
1.5	If possible, share of public buildings included in the number given in 1.4	66,883	Hungarian Central Statistical Office, 2005	Total number
1.6	If possible, share of commercial buildings included in the number given in 1.4	220,149	Hungarian Central Statistical Office, 2005	Total number
1.7	Number of buildings constructed per year (estimate)	approximately 19,000	Hungarian Central Statistical Office, 2016	Based on year 2016, because the period 2010-2015 was a recession
1.8	If possible, share of residential buildings constructed per year (estimate, included in the number given in 1.7)	60%	Hungarian Central Statistical Office, 2016	Based on year 2016, because the period 2010-2015 was a recession

1.9	If possible, share of non-residential buildings constructed per year (estimate, included in the number given in 1.7)	40%	Hungarian Central Statistical Office, 2016	Based on year 2016, because the period 2010-2015 was a recession
1.10	Useful floor area of buildings constructed per year in million square meters (estimate)	approximately 400 m^2	Hungarian Central Statistical Office, 2016	Based on year 2016, because the period 2010-2015 was a recession

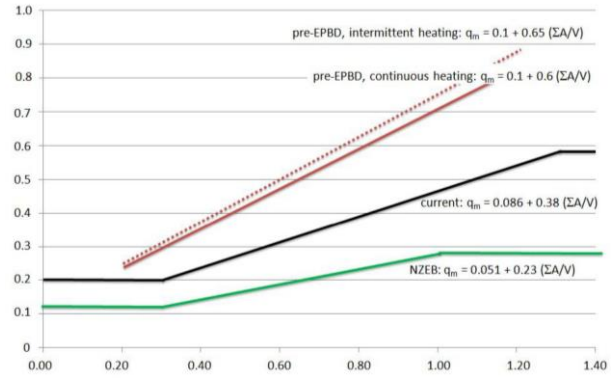
2. KIDs for New Buildings

<table>
<tr><th>no</th><th>Key Implementation Decision - New Buildings</th><th>Description / value / response</th><th>Comments</th><th>Description</th></tr>
<tr>
<td>2.1</td>
<td>Requirements for energy performance of residential buildings in current building code</td>
<td>U values

<table>
<tr><th></th><th>Current requirement</th><th>Foreseen NZEB requirements</th></tr>
<tr><th>Building element</th><th>U W/m^2.K</th><th>U W/m^2.K</th></tr>
<tr><td>Exposed wall</td><td>0.45</td><td>0.20</td></tr>
<tr><td>Flat roof</td><td>0.25</td><td>0.15</td></tr>
<tr><td>Attic floor slab</td><td>0.30</td><td>0.15</td></tr>
<tr><td>Floor slab over basement</td><td>0.50</td><td>0.25</td></tr>
<tr><td>Window, non-metal frame</td><td>1.60</td><td>1.00</td></tr>
<tr><td>Window, metal frame</td><td>2.00</td><td>1.30</td></tr>
<tr><td>Entrance door</td><td>3.00</td><td>1.30</td></tr>
</table>

Specific heat loss coefficient:

q=1/V(ΣAU+ΣlΨ-(Qsd+Qsid)/72))



Total primary energy factor:

Ep=EH+EDHW+EV+EC+EL+ETR</td>
<td>Development steps of requirements on medium term “standard” in force till 2017, cost optimal 2018 - 2020 and nZEB after 2020.

3 basic and 3 supplementary requirement levels:

-U-values of building shell elements

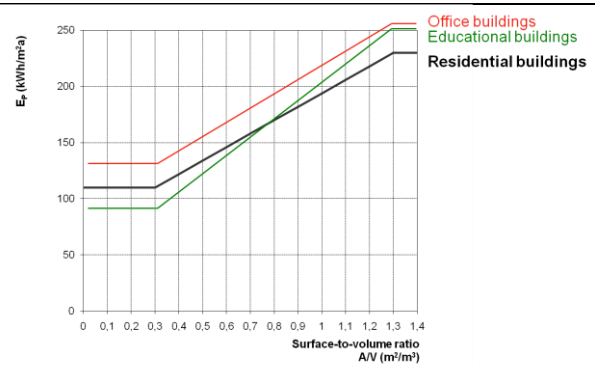
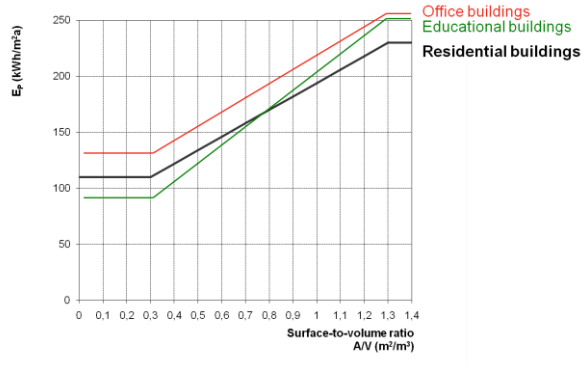
-Specific heat loss coefficient

-Total primary energy factor

-Summer overheating

-Technical building system elements

-Minimum share of RES (only nZEB)</td>
<td></td>
</tr>
</table>

				
2.2	Requirements for energy performance of non-residential buildings in current building code		For building types other than residential, educational and office a reference building method is applied.	
2.3	Is the performance level of nearby zero energy (NZEB) for new buildings set in national legislation?	Yes	7/2006. (V. 24.) decree of the Minister without portfolio	
2.4	Nearly zero energy (NZEB) level for residential buildings (if set)	100 kWh/m^{2}a primary energy and minimum 25% of renewable to non-renewable ratio		
2.5	Nearly zero energy (NZEB) level for non-residential buildings (if set)	offices: 90 kWh/m^{2}a primary energy (110 if air-conditioned building) and 25% renewable share educational: 85 kWh/m^{2}a primary energy (110 if air-conditioned building) and min. 25% renewable share other: reference building method must be applied and min. 25% renewable share		

2.6	Are nearly zero energy buildings (NZEB) defined using a carbon or environment indicator	No		
2.7	Year for nearly zero energy (NZEB) to be implemented for residential buildings	From 01.01.2021		
2.8	Year for nearly zero energy (NZEB) to be implemented for non-residential buildings	From 01.12.2019	Only for buildings used by public authorities	
2.9	Is renewable energy a part of the overall or an additional requirement	Yes, min. 25% of the fossil energy		
2.10	Specific comfort criteria for new buildings, provide specific parameters for instance for airtightness, minimum ventilation rates	Requirements are similar as in standard EN 15251.		

3. KIDs for Existing Buildings

no	Key Implementation Decision – Existing Buildings	Description / value / response	Comments	Description
3.1	Is the level of nearly zero energy (NZEB) for existing buildings set in national legislation?	No		
3.2	Is the level of nearly zero energy (NZEB) for existing buildings similar to the levels for new buildings?	No		
3.3	Definition of nearly zero energy (NZEB) for existing residential buildings (if different from new buildings)			
3.4	Definition of nearly zero energy (NZEB) for existing non-residential buildings (if different from new buildings)			
3.5	Overall minimum requirements in case of major-renovation	Till end 2017 standard requirements, from 2018 on cost optimum requirements must be fulfilled.	See 2.1 and 2.2.	Major renovation: if min. 25% of building shell area is subject to energy retrofit.
3.6	Minimum requirements for individual building parts in case of renovation	Till end 2017 standard requirements, from 2018 on cost optimum requirements must be fulfilled.	See 2.1.	

4. KIDs for Energy Performance Certificates, EPCs

no	Key Implementation Decision – Energy Performance Certificates	Description / value / response	Comments	Description
4.1	National database for EPCs	The national database is operated by Lechner Knowledge Centre. Only main data of EPC are stored, but calculation details not.	https://entan.e-epites.hu/	
4.2	Number of energy performance certificates per year (for instance average of 3 years)	approximately 150,000	Based on year 2016. The number is continuously increasing since 2013 (start of electronic registration).	
4.3	Number of EPCs since start of scheme	approximately 500,000	Number of EPCs issued before 2013 is unknown.	
4.4	Number of assessors	approximately 2,000		
4.5	Basic education requirements for assessors	BSc engineer	Several types of BSc diplomas (e.g. architects, mechanical engineers, civil engineers, environmental engineers, electric engineers) are accepted, but not all.	
4.5	Additional training demands for assessors	No specific training is required. An exam has to be taken operated by the Chamber of Engineers and the Chamber of Architects. However, there are several courses available on the market on a voluntary basis.		
4.6	Quality assurance system	Quality assurance system is operated by the Chamber of Engineers since 2013. 2.5% of EPCs undergo an office check and 0.5% undergo an onsite survey.	The online submission system also serves as a first level of quality control (e.g. checks for unrealistic figures).	If the quality control detects a miscalculation of a difference by more than two energy classes, the expert loses his licence for 3 years. From 2017 further sanctions can be applied including fines and penalties.

			The second level is a random office check, the third level is an on-site survey carried out by independent experts. Control results are registered in an electronic database. From the beginning of 2017 targeted controls are also possible.	

5. KIDs for Inspection Systems

no	Key Implementation Decision - Inspection Systems	Description / value / response	Comments	Description
5.1	Is there a national database for heating inspections	No		
5.2	Is there a national database for cooling inspections / AC	No		
5.3	Are inspection databases combined with EPC database for registration of EPCs and inspection reports	No		
5.4	Chosen option A or B for heating systems (inspection or other measures)	B		
5.5	Number of heating inspections; reports per year (if option A)	0		
5.5	Chosen option A or B for heating systems (inspection or other measures)	B		
5.6	Number of air-condition / cooling system inspections; reports per year (if option A)	0		

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