



CONCERTED ACTION
ENERGY PERFORMANCE OF BUILDINGS

EPBD Key Implementation Decisions in Italy

Status in December 2016

AUTHORS

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NATIONAL WEBSITES

<http://dati-censimentopopolazione.istat.it/Index.aspx?lang=it>

http://dati.istat.it/Index.aspx?DataSetCode=DCSC_PERM_RAP&Lang=

<http://www.sviluppoeconomico.gov.it/index.php/it/energia/efficienza-energetica/edifici>

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 9b)	Building owned by the State, the Regions, the local authorities or other public bodies used for the owner's activities or other activities, including dwelling	(Decree 192/2005 EPBD implementation)	
1.2	Definition of public buildings used by the public (according to article 13)	No related definition set	No definition corresponding to art.13 EPBD, since the definition in DPR 412/93 and decree 192/2005 EPBD implementation is: <i>"Building where the institution activity of public bodies is carried out"</i>	
1.3	Number of residential buildings	12,187,698	Source: ISTAT Census 2011	
1.4	Number of non-residential buildings	2,264,982	buildings total: 14,452,680 residential buildings: 12,187,698 Source: ISTAT Census 2011	
1.5	Share of public buildings included in the number given in 1.4	Not available Nearly 3,534 building units owned by the central government	Only some specific categories are known: public schools, public offices. As for governmental buildings, the source is an ENEA estimate	
1.6	Share of commercial buildings included in the number given in 1.4	246,082	Source: ISTAT Census 2011)	
1.7	Number of buildings constructed per year	Not available. Building permits for 2015: 11.57x10 ⁶ m ²	ISTAT, Building Permits 2015	

1.8	Share of residential buildings constructed per year	Not available. Building permits for 2015: 3.5×10^6 m ²	ISTAT, Building Permits 2015	
1.9	Share of non-residential buildings constructed per year	Not available. Building permits for 2015: 8.07×10^6 m ²	ISTAT, Building Permits 201)	
1.10	Useful floor area of buildings constructed per year in million square meters	11,567,008 m ²	ISTAT, Building Permits 2015	

2. KIDs for New Buildings

no	Key Implementation Decision - New Buildings	Description / value / response	Comments	Description
2.1	Requirements for energy performance of residential buildings in current building code	<p>Better energy indexes (listed below) than the corresponding values of the “reference building” 2015:</p> <ul style="list-style-type: none"> • Global EP_{gl} index [kWh/m²] (heating, cooling, hot water, ventilation services) • Specific energy needs for heating and cooling • Efficiencies of the technical systems (η_H, η_C, η_W, η_V) <p>Additional limits for the building envelope:</p> <ul style="list-style-type: none"> • H'T Transmission heat transfer coefficient • Summer effective solar area • Mass of external walls (or, alternatively, their periodical transmittance) • U-values of inter-building walls/floors <p>RES integration</p> <ul style="list-style-type: none"> • 35% share for heating, cooling and domestic hot water • 50% share only for domestic hot water • Electric power installed per building footprint unit surface [kW/m²]: 0.015 (0.02 from 2017) <p>In the case the required RES integration should not be feasible, the building has to respect a proportionally lower EP_{gl} limit value</p>	<ul style="list-style-type: none"> • Minimum requirements are defined according to the “reference building”, being a virtual building which has the same localisation and is geometrically equivalent to that considered in the project, but with thermo-physical characteristics corresponding to the minimum energy requirements in force • EP indexes are expressed in non-renewable and in total primary energy [kWh/m²] • Energy parameters of the reference building are listed in Table 2 and Table 3 of the Italian Country Report (Year 2015). • Summer effective solar area limits are illustrated in Table 5 of the Italian Country Report. • H'T limits are illustrated in Table 4 of the Italian Country Report. 	

2.2	Requirements for energy performance of non-residential buildings in current building code	Same as 2.1 (residential) but also considering EP indexes for lighting, lifts and escalators.	Same as comment in 2.1	
2.3	Is the performance level of NZEB for new buildings set in national legislation?	Yes	In decree 26/06/2015 “Minimum requirements”	
2.4	Nearly zero energy (NZEB) level for residential buildings (if set)	<p>(new or existing) NZEBs must have better energy indexes (listed below) than the corresponding values of the “reference building” 2019/2021</p> <ul style="list-style-type: none"> • Global EP_{gt} index [kWh/m²] (heating, cooling, hot water, ventilation services) • Specific energy needs for heating and cooling • Efficiencies of the technical systems (η_H, η_C, η_W, η_V) <p>Additional limits for the building envelope:</p> <ul style="list-style-type: none"> • H'T Transmission heat transfer coefficient • Summer effective solar area • Mass of external walls (or, alternatively, their periodical transmittance) • U-values of inter-building walls/floors <p>RES integration</p> <ul style="list-style-type: none"> • 35% share for heating, cooling and domestic hot water • 50% share only for domestic hot water • Electric power installed per building footprint unit surface [kW/m²]: 0.015 (0.02 from 2017) <p>In the case the required RES integration should not be feasible, the building has to respect a proportionally lower EP_{gt} limit value</p>	<ul style="list-style-type: none"> • NZEB must have the same requirements/limits as new buildings but the energy indexes shall be better than the corresponding values of the “reference building” 2019/2021. • The “reference building” is defined as a virtual building which has the same localisation and is geometrically equivalent to that considered in the project, but with thermo-physical characteristics corresponding to the minimum energy requirements in force • EP indexes are expressed in non-renewable and in total primary energy [kWh/m²] • Energy parameters of the reference building 2019/2021 are listed in Table 2 and Table 3 of the Italian Country Report (Year 2015). • Summer effective solar area limits are illustrated in Table 5 of the Italian Country Report. • H'T limits are illustrated in Table 4 of the Italian Country Report. 	

2.5	Nearly zero energy (NZEB) level for non-residential buildings	Same as 2.4 (residential) but also considering EP indexes for lighting, lifts and escalators.	Same as comment in 2.4	
2.6	Are nearly zero energy buildings (NZEB) defined using a carbon or environment indicator	No, they are not		
2.7	Year for nearly zero energy (NZEB) to be implemented for residential buildings	January 2019 for public Buildings January 2021 for all new and major renovated buildings		
2.8	Year for nearly zero energy (NZEB) to be implemented for non-residential buildings	Same as 2.7 for residential buildings		
2.9	Is renewable energy a part of the overall or an additional requirement	Yes, Part of overall requirement: See 2.1 and 2.4	Part as set in RESD implementation Decree N. 28/2011	
2.10	Specific comfort criteria for new buildings, provide specific parameters for instance for air tightness, minimum ventilation rates	Depending on the destination of the building: <ul style="list-style-type: none"> • Internal temperature and humidity • minimum ventilation rates • domestic hot water temperature • minimum lighting levels (for non-residential buildings) 		

3. KIDs for Existing Buildings

no	Key Implementation Decision - Existing Buildings	Description / value / response	Comments (replace text)	Description
3.1	Is the level of nearly zero energy (NZEB) for existing buildings set in national legislation?	Yes	In decree 26/06/2015 "Minimum requirements"	
3.2	Is the level of nearly zero energy (NZEB) for existing buildings similar to the levels for new buildings?	Yes		
3.3	Definition of nearly zero energy (NZEB) for existing residential buildings	Identical to new buildings: see 2.4		
3.4	Definition of nearly zero energy (NZEB) for existing non-residential buildings	Identical to new buildings: see 2.5		
3.5	Overall minimum requirements in case of major-renovation	<p>According to decree 26/06/2015, the requirements in case of major renovation are graduated as follow:</p> <p>Major renovation - First level: same requirements as new buildings (see 2.1 and 2.2)</p> <p>Major renovation - Second level:</p> <ul style="list-style-type: none"> • U-value of the concerned surfaces lower than the limit values • H'T mean transmission heat transfer coefficient of refurbished building elements lower than the limit value. • Mean efficiencies of renovated technical systems higher than reference values. 	<p>1st Level and 2nd Level major renovation are defined in the Italian Country Report II:</p> <ul style="list-style-type: none"> • Major renovation - first level: "refurbishment of at least 50% of the envelope and renovation of the heating and/or cooling plant of the entire building". • Major renovation - Second level: "refurbishment of at least 25% of the external surfaces of the building with or without renovation of the heating and/or cooling plant". <p>For U limit values - see Country Report Table 6</p> <p>For HT limit values - see Country Report Table 4</p>	

			For mean efficiencies limit values - see Country Report Table 3	
3.6	Minimum requirements for individual building parts in case of renovation	<p>In case of minor renovation:</p> <ul style="list-style-type: none"> • U-value of the concerned surfaces lower than the limit values • Mean efficiencies of renovated technical systems higher than reference values. 	<p>Minor renovation is defined as “refurbishment of less than 25% of the external surfaces of the building and/or modification of the heating and/or cooling plants”.</p> <p>For U limit values - see Country Report Table 6</p> <p>For mean efficiencies limit values - see Country Report Table 3</p>	

4. KIDs for Energy Performance Certificates, EPCs

no	Key Implementation Decision - Energy Performance Certificates	Description / value / response	Comments (replace text)	Description
4.1	National database for EPCs	Partly Established in 2016, collection of data started in 2017	The SIAPE - National Information System of EPCs, collecting EPC data from Regions, has been established in 2016 according to 2015 "EPC Guidelines Decree". The SIAPE is currently being fed for the first time. 15 Regions/autonomous districts out of 21 will be able to send digital EPC data (xml format) by the end of 2017	
4.2	Number of energy performance certificates per year	2015: around 1.4×10^6 2014: 1.26×10^6 2013: 0.42×10^6 (+50% compared to the previous year)	Source ENEA Estimate (2015) and CTI (2013, 2014). Numbers look very different in the last 3 years. Average is not meaningful	
4.3	Number of EPCs since start of scheme	Over 5×10^6	ENEA estimate based on an inquiry in sample regions. Start of the certification system at different times in the various regions (from 2007 onwards)	
4.4	Number of assessors	Data not available for the whole national territory	Nearly 100,000 in the 8 regions with a list of accredited experts (2014, CTI) (Italian Regions/autonomous districts are 21)	
4.5	Basic education requirements for assessors	Registered experts (architect, engineer, industrial technical expert, surveyor) or, in case of different degrees or diplomas, attendance of a 80 hours course and final examinations Accreditation is provided by regions	Independent expert national requirements set in the Presidential Decree DPR N. 75/2013 The expert must not have any relationship with the client, the designer, the installer, the manufacturers of products used in the construction.	

4.6	Additional training demands for assessors	Some regions (8 regions/districts) have set lists of regionally accredited experts and/or periodically establish additional training demands to the national requirements such as: course programmes, procedure of accreditation, long-life training.	Requirements vary and are being updated continuously at regional level and in time.	
4.7	Quality assurance system	Regions are responsible for quality assurance of the EPCs. Some regions have started to perform compliance controls (few hundreds per year) 2% of EPCs have to be checked per year. Penalties: 300-10,000 €	Five additional regions established or started establishing	

5. KIDs for Inspection Systems

no	Key Implementation Decision - Inspection Systems	Description / value / response	Comments (replace text)	Description
5.1	Is there a national database for heating inspections	Partly	The National database for EPCs (see 4.1) will gather data from regional databases for heating inspection through a national harmonised routine (XML file)	
5.2	Is there a national database for cooling inspections / AC	Partly	The National database for EPCs (see 4.1) will gather data from regional databases for cooling inspections / AC through a national harmonised routine (XML file)	
5.3	Are inspection databases combined with EPC database for registration of EPCs and inspection reports	Yes	By means of the ID number of Technical Building Systems in the regional database	
5.4	Chosen option A or B for heating systems (inspection or other measures)	A		
5.5	Number of heating inspections; reports per year	Not available	Responsibility lies with regions/ autonomous districts A lower rate compared to 2014 (previous CA reporting period) due to the new scheme of logbook and inspection report	
5.6	Chosen option A or B for heating systems (inspection or other measures)	A		
5.7	Number of air-condition / cooling system inspections; reports per year	Not available	Responsibility lies with regions/ autonomous districts	



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