



CONCERTED ACTION  
ENERGY PERFORMANCE OF BUILDINGS

# EPBD Key Implementation Decisions in Portugal

Status in December 2016

AUTHORS

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NATIONAL WEBSITES

[www.adene.pt](http://www.adene.pt)

## 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)	Non-residential buildings with floor area above 1,000 m <sup>2</sup> , or 500 m <sup>2</sup> for shopping center, supermarkets and covered pools.		
1.2	Definition of public buildings used by the public (according to article 13)	Non-residential buildings owned by a public entity, with floor area above 250 m <sup>2</sup> occupied by public entity, and frequently visited by the public.		
1.3	Number of residential buildings	3.52 million	Mostly residential, data from 2011 Census (National Institute of Statistics - INE)	
1.4	Number of non-residential buildings	26,237	Mostly non-residential, data from 2011 Census (National Institute of Statistics - INE)	
1.5	If possible, share of public buildings included in the number given in 1.4	(no information available)		
1.6	If possible, share of commercial buildings included in the number given in 1.4	(no information available)		
1.7	Number of buildings constructed per year (estimate)	13,329	Average of last 3 years (National Institute of Statistics - INE)	
1.8	If possible, share of residential buildings constructed per year (estimate, included in the number given in 1.7)	8,548 residential buildings - 64%	Average of last 3 years (National Institute of Statistics - INE)	
1.9	If possible, share of non-residential buildings constructed per year (estimate, included in the number given in 1.7)	(no information available)		

1.10	Useful floor area of buildings constructed per year in million square meters (estimate)	5,398 million	Average of last 3 years (National Institute of Statistics - INE)	
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## 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	I1 - 73 kWhep/m <sup>2</sup> I2 - 97 kWhep/m <sup>2</sup> I3 - 140 kWhep/m <sup>2</sup>	Average calculated primary energy needs, for new residential buildings, according to the different winter climatic zones	
2.2	Requirements for energy performance of non-residential buildings in current building code	I1 - 456 kWhep/m <sup>2</sup> I2 - 273 kWhep/m <sup>2</sup> I3 - 291 kWhep/m <sup>2</sup>	Average calculated primary energy needs, for new commercial buildings (hotels and office buildings, floor area above 1,000 m <sup>2</sup> ), according to the different winter climatic zones.	
2.3	Is the performance level of nearby zero energy (NZEB) for new buildings set in national legislation?	No		
2.4	Nearly zero energy (NZEB) level for residential buildings (if set)	No		
2.5	Nearly zero energy (NZEB) level for non-residential buildings (if set)	No		
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	2020 for residential buildings		
2.8	Year for nearly zero energy (NZEB) to be implemented for non-residential buildings	2020 for commercial buildings 2018 for public buildings		

2.9	Is renewable energy a part of the overall or an additional requirement	Additional requirement	Additional requirements exist for renewable energy sources are mandatory (solar thermal collectors)	
2.10	Specific comfort criteria for new buildings, provide specific parameters for instance for airtightness, minimum ventilation rates	Yes	Minimum ventilation rate for residential buildings	

### 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?	-		
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	Additional requirements exist when a major renovation occurs	Major renovation is when >25% of the building value is spend on building elements	
3.6	Minimum requirements for individual building parts in case of renovation	Yes, minimum requirements for renovated building parts exist, and must comply with following levels:		

$U_{ref}$ [W/(m <sup>2</sup> .°C)]		Climatic Zone					
Portugal Continental							
Building envelope elements:		From 1 <sup>st</sup> December 2013			From 1 <sup>st</sup> January 2016		
		I1	I2	I3	I1	I2	I3
In contact with exterior or non-useful spaces, with a loss reduction coefficient $b_{tr}>0.7$	Vertical opaque elements	0.50	0.40	0.35	0.50	0.40	0.35
	Horizontal opaque elements	0.40	0.35	0.30	0.40	0.35	0.30
In contact with other buildings or non-useful spaces, with a loss reduction coefficient $b_{tr}\leq 0.7$	Vertical opaque elements	1.00	0.80	0.70	0.80	0.70	0.60
	Horizontal opaque elements	0.80	0.70	0.60	0.60	0.60	0.50
Glazed elements (doors and windows) ( $U_w$ )		2.90	2.60	2.40	2.80	2.40	2.20
Ground contact elements		0.50			0.50		
Autonomous Regions							

Building envelope elements:		From 1 <sup>st</sup> December 2013			From 1 <sup>st</sup> January 2016		
		I1	I2	I3	I1	I2	I3
In contact with exterior or non-useful spaces, with a loss reduction coefficient $b_{tr} > 0.7$	Vertical opaque elements	0.80	0.65	0.50	0.70	0.60	0.45
	Horizontal opaque elements	0.55	0.50	0.45	0.45	0.40	0.35
In contact with other buildings or non-useful spaces, with a loss reduction coefficient $b_{tr} \leq 0.7$	Vertical opaque elements	1.60	1.50	1.40	0.90	0.80	0.70
	Horizontal opaque elements	1.00	0.90	0.80	0.70	0.70	0.60
Glazed elements (doors and windows) ( $U_w$ )		2.90	2.60	2.40	2.80	2.40	2.20
Ground contact elements		0.50			0.50		



## 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	Yes	Two databases exist. One including the mainland and Madeira island and another one including Azores island	
4.2	Number of energy performance certificates per year (for instance average of 3 years)	Residential - 154,691 Non-residential - 32,589	From mainland and Madeira island database	
4.3	Number of EPCs since start of scheme	1,173,197 million EPC issued 1,035,992 for residential buildings 137,205 for non-residential buildings, of which 10,141 refer to large buildings (>1,000 m <sup>2</sup> )		
4.4	Number of assessors	QE - 1,767 <ul style="list-style-type: none"> <li>• Exclusively residential - 1,473</li> <li>• Exclusively non-residential - 93</li> <li>• Both scopes - 201</li> </ul> TIM - 1844	QE - Qualified Expert TIM - Install and maintenance technician, only applicable for non-residential buildings	
4.5	Basic education requirements for assessors	Engineer or architectural degree + 5 years' experience for residential and small non-residential buildings Mechanical engineer for non-residential buildings		
4.5	Additional training demands for assessors	Assessors must have approval on an exam, however they are not obliged to attend training, although they are advised to do so		

4.6	Quality assurance system	<p>QA is implemented at different levels, apart from the input validation embedded in the platform.</p> <p>From 2009 to 2013, QA was divided into Detailed (D) and Simple (S) checks, divided as follow:</p> <table border="1" data-bbox="752 373 1301 568"> <thead> <tr> <th></th> <th>2009</th> <th>2010</th> <th>2011</th> <th>2012</th> <th>2013</th> </tr> </thead> <tbody> <tr> <td>D</td> <td>3,257</td> <td>2,567</td> <td>790</td> <td>287</td> <td>175</td> </tr> <tr> <td>S</td> <td></td> <td>2,160</td> <td>3,447</td> <td>2,247</td> <td>1,118</td> </tr> </tbody> </table> <p>From 2014, only a single type of QA was made - summary checks.</p> <table border="1" data-bbox="752 662 1097 979"> <thead> <tr> <th></th> <th>2014</th> <th>2015</th> <th>2016</th> </tr> </thead> <tbody> <tr> <td>S u m m a r y</td> <td>2,907</td> <td>2,310</td> <td>2,281</td> </tr> </tbody> </table> <p>QA procedures are currently being revised, and a new QA system is expected to be implemented in the upcoming months, supported by a “cost-optimal” approach.</p>		2009	2010	2011	2012	2013	D	3,257	2,567	790	287	175	S		2,160	3,447	2,247	1,118		2014	2015	2016	S u m m a r y	2,907	2,310	2,281		
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## 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	It is embedded in the EPC database. It is registered, if exists an inspection, on the EPC database.	
5.2	Is there a national database for cooling inspections / AC	Partly	It is embedded in the EPC database. It is registered, if exists an inspection, on the EPC database.	
5.3	Are inspection databases combined with EPC database for registration of EPCs and inspection reports	Partly	Currently only for storage purposes. Not able to search or use the database on that subject	
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)	-		
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)	-		



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