

Energy Performance Certificates

Disclaimer: The graphs below show data available in the EU Building Stock Observatory: a country not represented only means data was not available for this specific country.

Introduction

The Energy Performance Certificates (EPCs) are an important instrument, which should contribute to the improvement of the energy performance of buildings in Europe. EPCs play a central role in the context of the Article 20 (2) of the EPBD, which asks Member States to "provide information to the owners or tenants of buildings on energy performance certificates and inspection reports, their purpose and objectives, on cost-effective ways to improve the energy performance of the building and, where appropriate, on financial instruments available to improve the energy performance of the building."

The recast of the EPBD in 2010 strengthened the role of EPCs. Several EPBD articles elaborate on the purpose, the content and the contexts in which EPCs are meant to be used, as follows:

- Article 12 (1): EPCs need to be produced for every building and building unit that is newly constructed, undergoes major renovation or where the total useful floor area over 250 m² (from 7 July 2015) is owned and occupied by a public authority.
- Article 12 (2): A copy of the EPC for buildings that are constructed, sold or rented out to a new tenant or buyer shall be shown and handed over to them.
- Article 13: EPCs shall be displayed for buildings with a total floor area of over 250 m² (from 7 of July 2015) and occupied by a public authority and for those frequently visited by the public. There is no obligation yet to display the recommendations.
- Article 11(1): EPCs shall include the energy performance of a building and its reference values such as the minimum energy performance requirements.
- Article 11 (2): The EPC shall include recommendations for the cost-optimal or cost-effective improvements of the energy performance of a building or building unit, unless there is no reasonable potential for such improvements considering the energy performance requirements in force. The recommendations included in EPC shall cover:
 - the measures carried out in connection with a major renovation of the building envelope or technical building system(s); and
 - the measures for individual building elements not dependent on a major renovation of the building envelope or technical building system(s).

- Article 17 (1): Member States shall ensure that EPCs are carried out in an independent manner by qualified and/or accredited experts.
- Article 18 (1): Member States shall ensure that independent control inspections for EPCs are established according to Annex II of the EPBD.

Buildings with EPCs required

According to the results of the EPBD compliance study (ICF 2015), the compliance level of EPCs applied to newly constructed and sold building is generally higher than for buildings that are being rented out.

Figure 1: EPC compliance rates reported by Member States - production of EPCs (2014)

Country	New buildings	Sold buildings	Rented buildings	Public buildings
Austria				
Cyprus				
Czech Republic				
Estonia				
Spain				
Finland				
Hungary				
Italy				
Lithuania				
Malta				
Sweden				
Slovenia				
Slovakia				
EU28				
Denmark				
France				
Greece				
Netherlands				

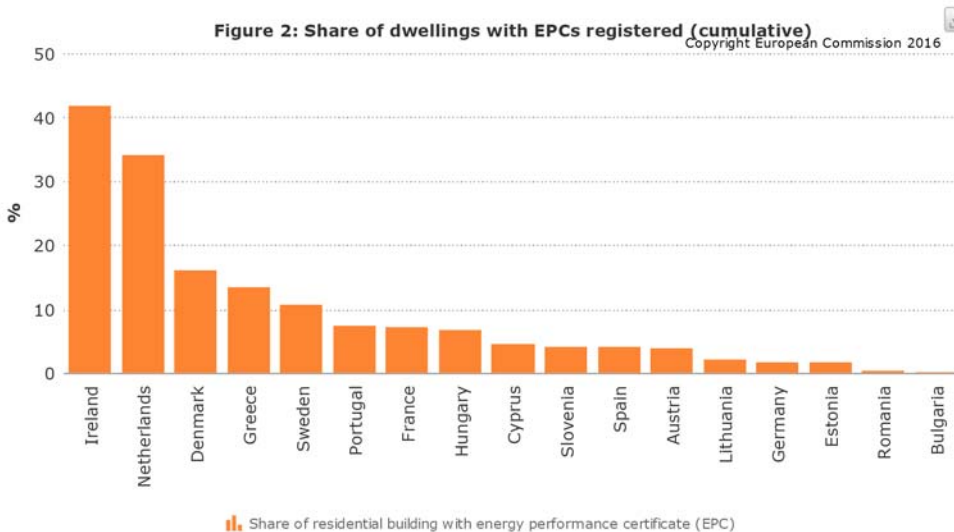
Sources: ICF [Notes](#)

Buildings with EPCs registered

While it is not compulsory under the EPBD to set up a central/regional EPC register, almost all Member States have moved further than the obligations and implemented a system to collect EPC data. In 11 out of 28 Member States, in order to issue an EPC, it must be uploaded to the central database to be officially approved (BPIE, 2014).

These EPC registers are the primary source of information regarding certified buildings. The share of buildings registers in the EPC database varies across Europe.

Denmark, the Netherlands and Ireland are the only countries where the share of the dwellings with EPCs exceeds 15%.

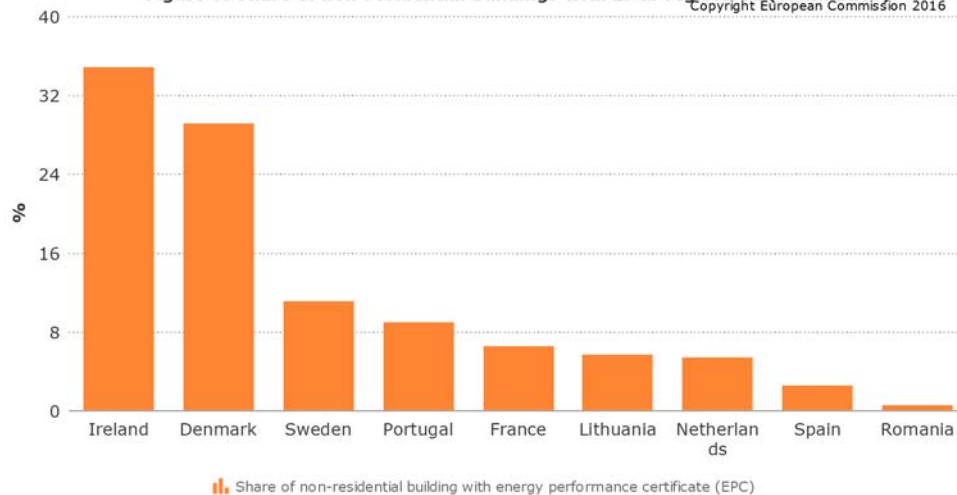


Sources: - CA-EPBD - Calculation - EPC registry - REQUEST2ACTION - ZEBRA 2020 - ZEBRA2020 [Notes](#)

Figure 3 shows that Denmark and Ireland are the only countries where the share of non-residential buildings with EPCs exceeds 15%.

Figure 3: Share of non-residential buildings with EPCs registered (cumulative)

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Sources: Calculation - SEAI - ZEBRA 2020 - ZEBRA2020

[Notes](#)

Figure 4: Public EPC registers

	Type of register	Public EPC register	Limited access	No access
Austria	Regional		x	
Belgium	Regional		x	
Bulgaria	Central			x
Cyprus	Central			x
Czech Republic	Central			x
Germany	Central			x
Denmark	Central	x		
Estonia	Central	x		
Spain	Regional	depend on region		
France	Central		x	
Finland	Central			x
Greece	Central			x
Croatia	Central			x
Hungary	Central		x	
Ireland	Central	x		
Italy	Regional	depend on region		
Latvia	Central			
Lithuania	Central	x		
Malta	Central			
The Netherlands	Central	x		
Poland	Central			x
Portugal	Central	x		
Romania	Central			x
Slovakia	Central	x		
Slovenia	Central		x	
Sweden	Central	x		
United Kingdom	Central	x		

Source: National sources

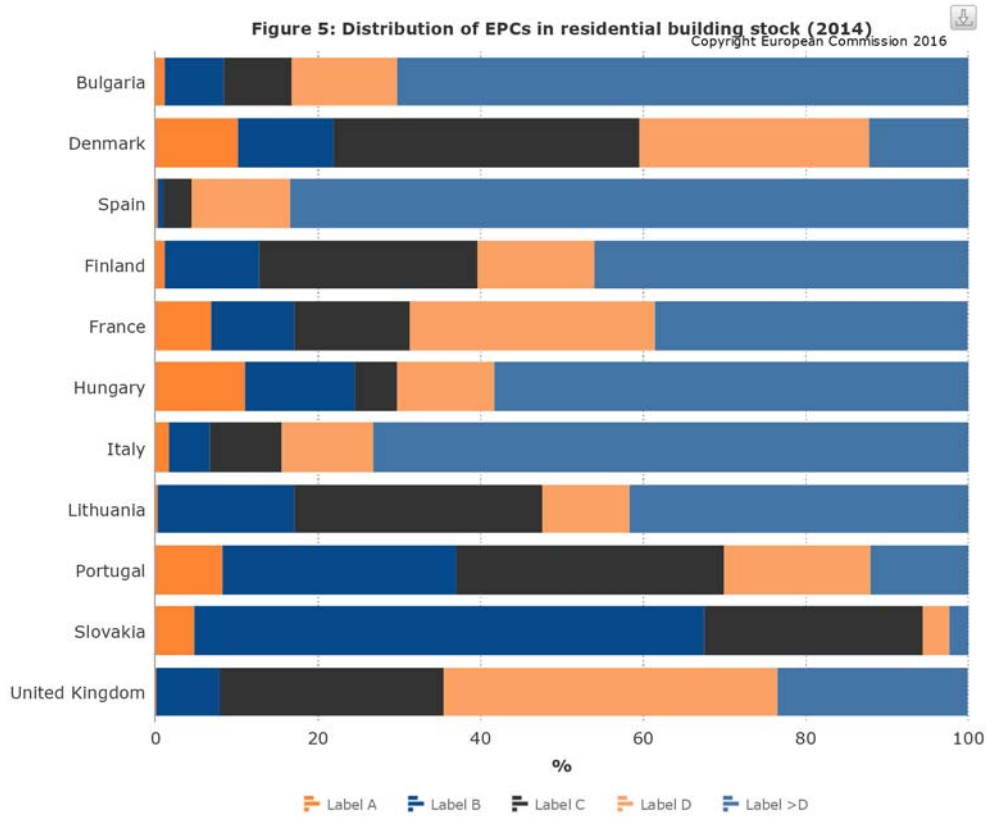
EPC scope

According to the EPBD, an EPC shall include information on the energy performance of a building and the reference values. It shall also include recommendations on the cost-optimal, or cost-effective, improvements of the energy performance of a building or dwelling. It is up to the Member States to decide on the performance rating of the representation (i.e. energy level vs. continuous scale) as well as the type of recommendations (i.e. standardised vs. tailor-made). The majority of countries applied the energy label scale, typically from A to D-G. Some Member States also decided to introduce additional parameters in the scope of the EPC, such as the percentage of energy from renewable sources, heat losses, solar gains, comfort and air quality issues.

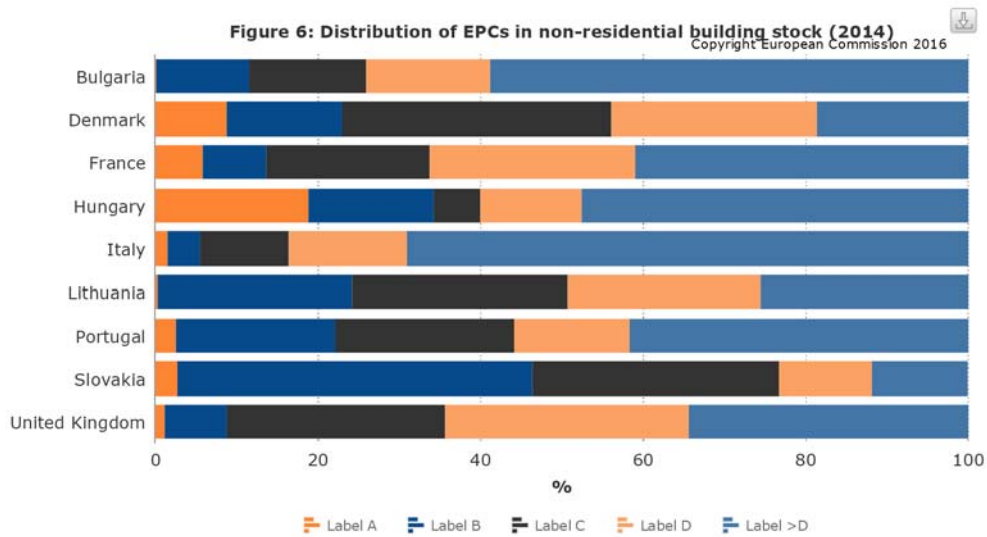
EPC distribution per energy label

The figures below show information on the EPC distribution per energy label (based on the analysis of the national registers). Please note that the information may not be representative for the entire building stock.

All buildings registered in EPC databases (cumulative)



Sources: ADEME - CTI - EPC registry - IDAE - ZEBRA2020 [Notes](#)

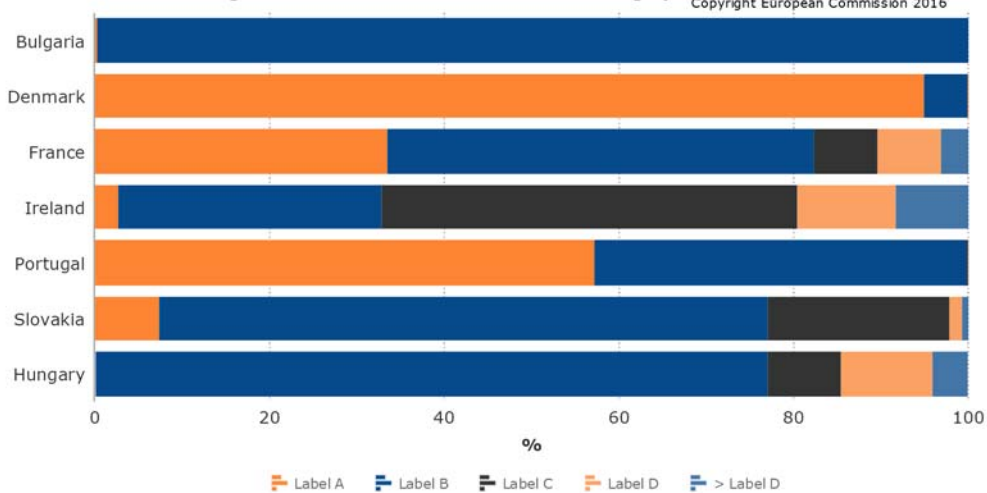


Sources: ADEME - CTI - EPC registry - ZEBRA2020 [Notes](#)

New buildings registered in EPC databases (2014)

Figure 7: Distribution of EPCs in new buildings (residential) (2014)

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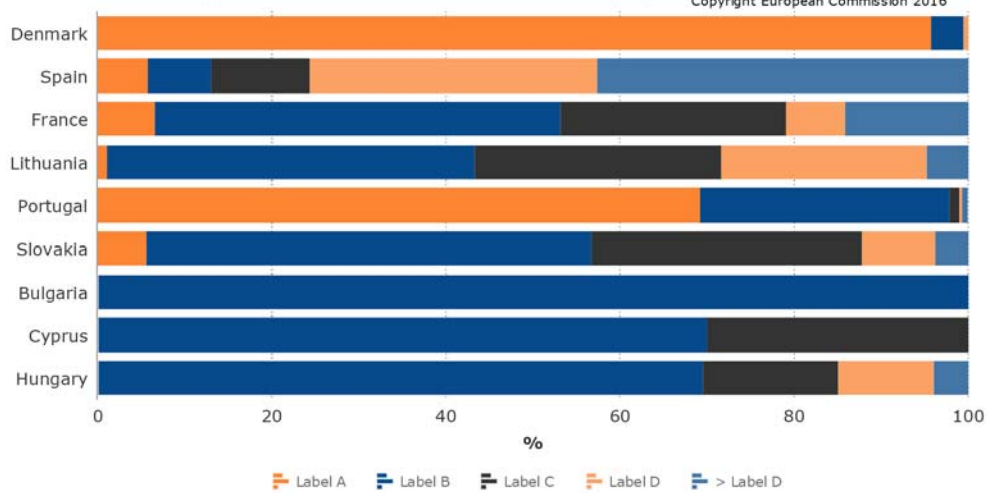


Sources: EPC registry - ZEBRA2020

Notes

Figure 8: Distribution of EPCs in new buildings (non-residential) (2014)

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Sources: Cystat - EPC registry - ZEBRA2020

Notes

EPC monitoring

The EPBD requires Member States to establish an independent control system and verify a random selection of at least a statistically significant percentage of all the energy performance certificates issued annually.

Figure 9: Size of EPC sample for which quality was controlled last year (%) (2013)

Country	Size of the sample for EPC verification	Option A	Option B	Option C	Other checks
Austria					
Bulgaria					
Cyprus					
Czech Republic					
Denmark					
Estonia					
Greece					
France					
Hungary					
Ireland					
Italy					
Lithuania					
Luxembourg					
Slovakia					

Sources: European Commission

Notes