

Appliances and lighting

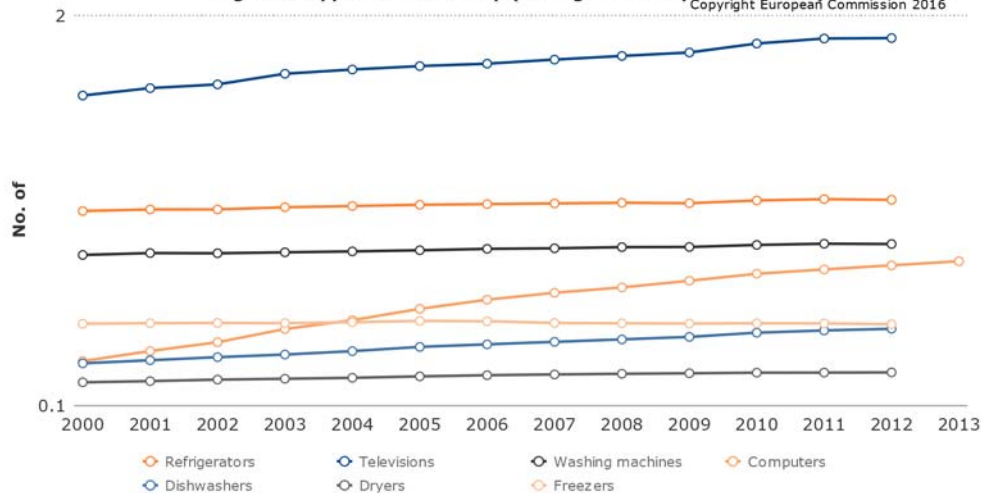
Disclaimer: The graphs below show data available in the EU Building Stock Observatory: a country not represented only means data was not available for this specific country.

Introduction

Building-related energy consumption accounts for the large share of the total energy consumption and, in most countries, this energy consumption is steadily growing, as shown by the increasing share of electrical appliances (including cooking and lighting as well) in the total residential consumption in Figure 1. This is due to a growing number of appliances in households. The introduction of Ecodesign standards has compensated for this growth by making appliances more efficient. Because of these standards, the energy consumption of individual large appliances like refrigerators, freezers, washing machines etc. has decreased significantly. The types of appliances addressed by norms are increasing. Because of this reason, the stand-by use of smaller appliances, such as light bulbs and others is becoming more efficient.

The average number of appliances in EU homes is steadily rising

Figure 1: Appliance ownership (average number per household)



Sources: JRC-IDEES - Odyssee [Notes](#)

Figure 1 shows the average number of different types of appliances in EU dwellings. Televisions are the most popular. The average household has almost 2 sets of televisions per home. Refrigerators and washing machines are part of the typical equipment of a European home. Dryers and dishwashers are still luxury goods and are thus not available in all homes. In recent years, computers have almost become as common as refrigerators. In 2004, only half of the household had one. Nowadays, around 80% have a computer. Computers' penetration is faster than for the other appliances, even if for other appliances the trend is still going upwards. Though, there are signs that television sets are being replaced by computers and tablets, so it could be that their penetration has peaked.

Countries differ on the ownership of items

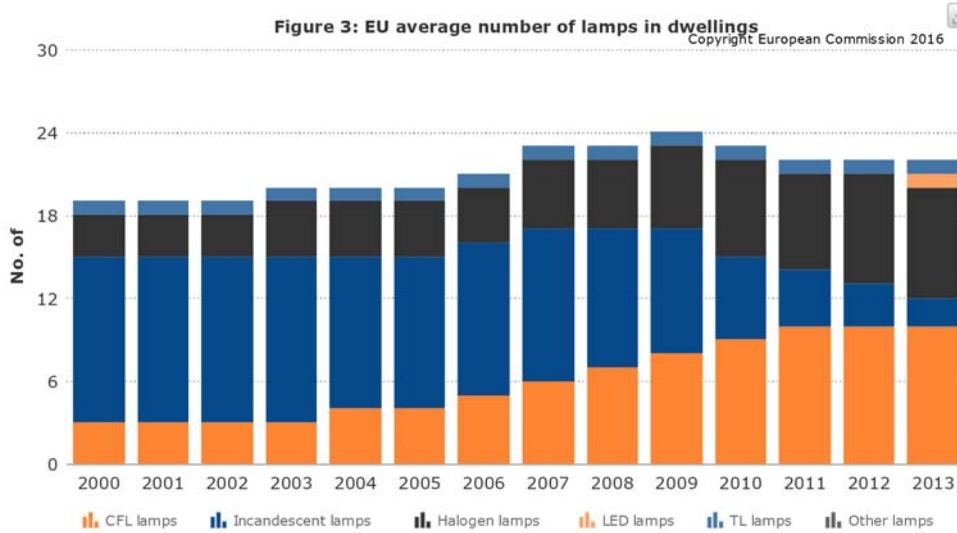
Figure 2: Average number of appliances per dwelling in different Member States (2012)

Country	Refrigerators	Televisions	Washing machines	Computers	Dishwashers	Dryers	Freezers
Austria							
Bulgaria							
Czech Republic							
Germany							
Denmark							
Estonia							
France							
Croatia							
Ireland							
Latvia							
Netherlands							
Portugal							
Sweden							
Slovenia							
Slovakia							
United Kingdom							
EU28							
Cyprus							
Finland							
Greece							
Hungary							
Italy							
Lithuania							
Luxembourg							
Malta							
Poland							
Romania							
Spain							

Sources: ECUK - Eurostat - JRC-IDEES - NSI - Odyssee - RWI - Statistics EE [Notes](#)

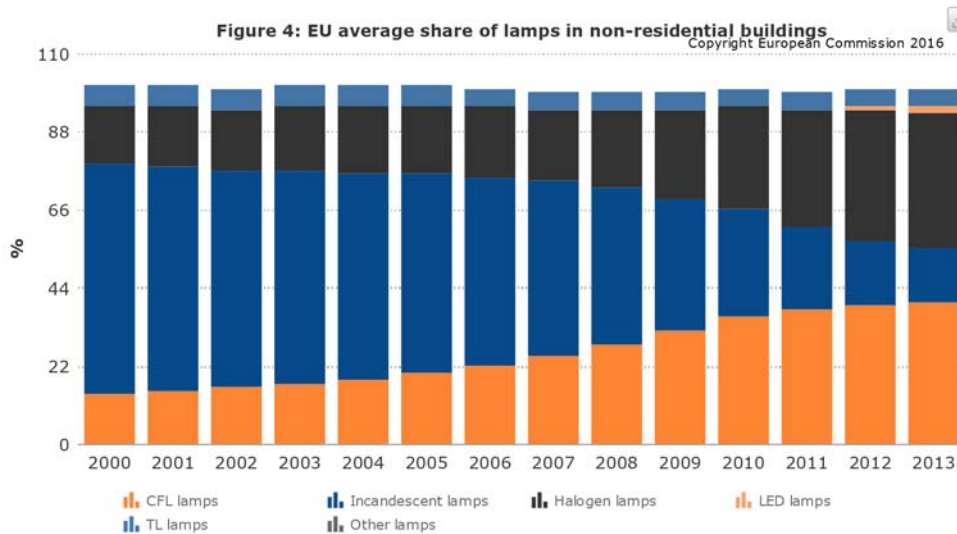
Figure 2 shows the average number of appliances per dwelling in different Member States. Refrigerators and washing machines are available in all countries. In countries with higher incomes, the number of dryers and dishwashers is much higher, compared to the less wealthy Member States. Computers are in the middle. Although, all countries show penetration rates of over 50%, in the wealthiest countries there are more computers than elsewhere.

The incandescent light bulb has almost disappeared from European homes



Sources: VHK-MELISA [Notes](#)

Figure 3 shows a dramatic change in the way European homes are lit. In the year 2000, the inefficient incandescent light dominated homes. Compact fluorescent lamps (CFLs) have taken over a leading role due to the ban on incandescent lights laid down by Ecodesign standards. LED lights have become much cheaper in recent years and their quality has improved. This is reflected in a solid increase in their market share. In the coming years, it is expected that the penetration of LED will rapidly increase.



Sources: VHK-MELISA [Notes](#)

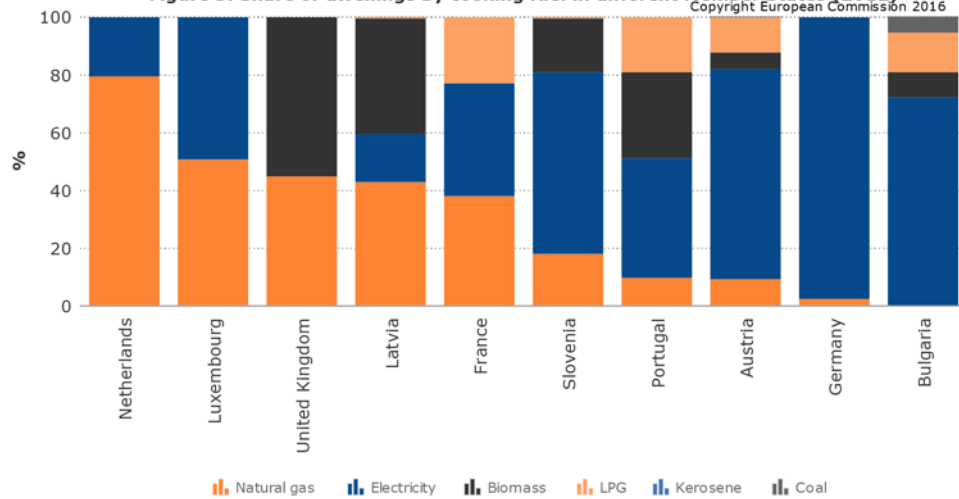
Incandescent lights have always been less used in non-residential buildings compared to dwellings. The share of incandescent lights has decreased steadily since 2000, while CFL lamps and TL lamps have increased over the same time period. LED lamps, on the other side, penetrated the market in 2012 and increased its share to two percent in 2013.

Cooking in different countries

Like the food itself, the fuel used for cooking seems to differ across Member States. Although electricity is the main energy source for cooking, some countries have chosen different fuels. In France, Luxembourg and the UK, the number of homes cooking with natural gas is significant, but not as substantial as in the Netherlands, where 80% of all cooking stoves are fired with gas. Some countries use liquefied petroleum gas (LPG) or biomass for cooking.

Figure 5: Share of dwellings by cooking fuel in different Member States (2012)

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Sources: Own calculations

[Notes](#)