

**Luxembourg's fifth annual  
monitoring report  
2017**

**under Article 24(1)**

**of**

**Directive 2012/27/EU of the European Parliament**

**and of the Council of 25 October 2012 on**

**energy efficiency, amending**

**Directives 2009/125/EC and 2010/30/EU and repealing**

**Directives 2004/8/EC and 2006/32/EC**

<b>Introduction.....</b>	<b>3</b>
<b>Indicators for 2013-2015.....</b>	<b>3</b>
<b>Analysis of energy consumption trends .....</b>	<b>5</b>
<b>Information on the major measures implemented in the previous year .....</b>	<b>5</b>
<b>Central government buildings .....</b>	<b>5</b>
<b>Energy efficiency obligation scheme.....</b>	<b>6</b>

# Introduction

Article 24(1) of Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (the Energy Efficiency Directive) requires Member States to submit annual monitoring reports providing an overview of the progress achieved towards national energy efficiency targets. This fifth monitoring report meets the reporting requirement for 2016.

## Indicators for 2013-2015

The following table summarises the statistical indicators for 2013-2015. The 2013 and 2014 indicators, which were reported in 2016, have been adjusted to the current statistics where necessary.

Table 1: Statistical indicators in accordance with Part 1 of Annex XIV to the Energy Efficiency Directive (Source: Eurostat and Stateg)

	Unit	2013	2014	2015
i) Primary energy consumption <sup>1)</sup>	GWh	50 003	48 675	48 143
ii) Total final energy consumption	GWh	47 966	46 533	46 356
iii) Final energy consumption by sector				
- Industry	GWh	7 507	7 608	7 580
- Transport	GWh	29 745	29 190	28 272
of which in transit	GWh	20 477	20 104	18 397
- Households	GWh	5 833	5 456	5 774
- Services	GWh	4 800	4 210	4 663
- Agriculture	GWh	82	69	66

iv) Gross value added by sector				
- Industry	EUR million (2010)	4 980	5 481	5 473
- Services	EUR million (2010)	32 979	34 495	36 350
v) Disposable income of households	EUR million	n/a	n/a	n/a
vi) Gross domestic product (GDP)	EUR million (2010)	42 691	45 093	46 899
vii) Electricity generation from thermal power plants <sup>2)</sup>	GWh	1 157	1 241	680
viii) Electricity generation from CHP plants <sup>2)</sup>	GWh	417	381	345
ix) Heat generation from thermal power plants	GWh	59	54	59
x) Heat generation from CHP plants, including industrial waste heat	GWh	845	647	591
xi) Fuel input for thermal power generation <sup>3)</sup>	GWh	2 324	2 471	1 451
xii) Passenger kilometres	Gpkm	8	8	9
xiii) Tonne kilometres <sup>4)</sup>	Gtkm	7	8	7
xv) Population	1 000 inhabitants	537	550	563

Comments:

- 1) excluding non-energy consumption
- 2) data correspond to gross production
- 3) data do not include fuel input for CHP plants
- 4) excluding river freight

The energy consumption data refer to the calorific value and have not been temperature-corrected.

## Analysis of energy consumption trends

Table 1 shows that, despite an increase in gross domestic product (+4 %) and population (+2.4 %), primary energy consumption decreased by 1.1 % and total final energy consumption decreased by 0.4 % in 2015 compared with 2014.

In the household sector, final energy consumption decreased by 6.5 % from 2013 to 2014, and then increased by 5.8 % from 2014 to 2015. In the services sector, the updated statistics show that final energy consumption decreased by 12.3 % from 2013 to 2014, and then increased by 10.8 % from 2014 to 2015.

In all other sectors, final energy consumption decreased compared with the previous year.

## Information on the major measures implemented in the previous year

All updated information on the major legislative and non-legislative measures implemented in 2016 which contribute towards the overall national energy efficiency targets for 2020 are described in detail in Chapters 2 and 3 of the fourth Luxembourg Energy Efficiency Action Plan (2017). To avoid unnecessary repetition, we refer to these two chapters.

## Central government buildings

The inventory currently specifies a total useful floor area of 128 870 m<sup>2</sup>, which, in accordance with Article 5 of the Energy Efficiency Directive, is to be used to set the annual target value. The total useful floor area of non-compliant buildings was reduced by approximately 13 850 m<sup>2</sup> compared with the previous year, as the energy renovation of the 'Cour des Comptes' [Court of Auditors] building (2 530 m<sup>2</sup>) and the 'Police Grand-Ducale' [Grand Ducal Police] building on Rue Marie et Pierre Curie (11 320 m<sup>2</sup>), both in Luxembourg City, were completed in 2015.

From 2014 to 2016, 13 850 m<sup>2</sup> of total useful floor area was renovated to improve energy efficiency, just exceeding the quota required for the years 2014-2017, given that the calculated requirement amounted to 12 430 m<sup>2</sup>.

In 2017, the completion of a further 16 043 m<sup>2</sup> is expected, with plans under way for another 6 544 m<sup>2</sup>, meaning that, by 2020, a total of 36 400 m<sup>2</sup> of building floor space will have been renovated to improve energy efficiency. The total area to be renovated by 2020, which amounts to approximately 25 900 m<sup>2</sup>, will therefore be exceeded by approximately 10 500 m<sup>2</sup>. We also refer to Chapter 3.3.1 of the fourth Luxembourg Energy Efficiency Action Plan.

# Energy efficiency obligation scheme

The energy efficiency obligation scheme was introduced in Luxembourg, with retroactive effect from 1 January 2015, by way of two laws of 19 June 2015 amending the laws on the organisation of the electricity and gas markets.

With an annual total savings target of 285 381 MWh for 2015, the 12 obligated electricity and gas providers claimed total energy savings of 162 398 MWh. Following an initial review, 102 420 MWh of energy savings were retained. The remaining 59 988 MWh of savings were rejected on various grounds. Furthermore, 61 610 MWh of savings could not be retained for the year 2015 as they were made in excess of an obligated party's annual target. These excess savings are not lost, however, but can be applied to subsequent years.

In 2015, mostly standard measures were implemented in the household sector. This is due to the fact that specific measures are more complex and time-consuming to implement, and in the first year of the energy saving obligation scheme, they can only be partially completed. However, it should be noted that, despite the low number of specific measures, they represent half of the total savings for 2015.

The Ministry of the Economy does not yet have all the data on the results of the energy efficiency obligation for 2016, as not all obligated parties have provided notification of their savings up to 31 March.