Annual report in accordance with Part 1 of Annex XIV to Directive 2012/27/EU

1. Data on energy consumption in 2013 in accordance with Part 1 of Annex XIV to Directive 2012/27/EU

Table 1. Data on energy consumption in 2013

Information	Unit	2013	Comments
(i) primary energy consumption	ktoe	93 679	as defined in Directive 2012/27/EU
(ii) total final energy consumption	ktoe	68 187	includes non-energy consumption
(iii) final energy consumption by sector			
- industry	ktoe	15 763	
- transport	ktoe	15 627	
- households	ktoe	20 399	
- services	ktoe	7 923	
(iv) gross value added by sector			
- industry	million PLN, 2005 prices	443 194.8	total value added of industry and construction
- services	million PLN, 2005 prices	718 418.7	total value added of sections G-T of the Polish Classification of Activities
(v) disposable income of households	million PLN, current prices	989 274	net
(vi) gross domestic product (GDP)	million PLN, 2005 prices	1 344 414.4	
(vii) electricity generation from thermal power generation	GWh	155 555.251*)	
(viii) electricity generation from combined heat and power			
(ix) heat generation from thermal power generation	TJ	191 961.402*)	
(x) heat generation from combined heat and power plants, including industrial waste heat			
(xi) fuel input for thermal power generation	ktoe	38 092	as defined in Directive 2012/27/EU
(xii) passenger kilometres (pkm), if available	Mpkm	50 088	excluding passenger cars and municipal public transport

(xiii) tonne kilometres (tkm), if available	Mtkm	347 887	includes rail, motor vehicle, pipeline, sea, inland waterway and air transport
(xiv) combined transport kilometres (pkm + tkm), in case (xii) and (xiii) are not available			
(xv) population	'000	38 496	

*) The fact that the category of thermal power plants is included separately in the list is not provided for by the Public Statistics Act of 29 June 1995 (there are only two power plants in this category). Data aggregated in the same way are sent to the IEA/Eurostat in the 'Annual Questionnaire Electricity and Heat' form.

Given that the indicators referred to in Part 1 of Annex XIV to Directive 2012/27/EU are not defined unambiguously, the above figures were determined on the basis of the experience gained under the ODYSSEE - MURE projects to monitor energy efficiency.

2. Additional information under Part 1, point (a) of Annex XIV to Directive 2012/27/EU

For the final energy consumption sectors mentioned in row (iii) of Table 1 (industry, transport, households, services) where energy consumption remains stable or is growing, Member States are to analyse the reasons and attach their appraisal to the estimates. In 2013, energy consumption grew as compared to previous years only in the industry and households sectors.

Industry

Final energy use in industry from 2003 to 2013 was marked by irregular fluctuations, caused largely by changes in economic activity. The highest consumption was in 2007. It then fell to 14 Mtoe in 2009 and grew again to more than 15 Mtoe in 2011. Energy consumption fell slightly in 2012 before rising again in 2013. In terms of energy products, a fall can be observed in the consumption of coal and liquid fuels, whereas consumption of natural gas, electricity and other energy products has risen. Heat consumption has remained stable.

For many years industry has been displaying improved energy efficiency, and energy savings have been achieved primarily in the most energy-intensive industrial activities. This tendency has been observed in the most recent period too.

Households

Energy savings in households fluctuate to an extent, largely because of the imperfect nature of the climate adjustment. Other factors such as changes in the population's behaviour (sometimes also climate-related) also play a role. The general tendency is for a decrease in unit energy consumption for residential heating, linked to the installation of more efficient equipment. Increased thermal modernisation and more restrictive building regulations in terms of thermal protection are also having a marked effect.

Electricity consumption in households showed an upward trend from 2002 to 2010 but decreased in 2011 and 2012. The electricity consumption observed is linked to the fact that homes are equipped with ever more electrical equipment and to changes in user behaviour (e.g. changes in the intensity of use of household appliances and equipment, such as washing machines, televisions and computers).

3. Additional information under Part 1, points (c) and (d) of Annex XIV to Directive 2012/27/EU

3.1. Correction to the list of buildings and potential energy savings, up-to-date as at 1 January 2014, given in the information notice of 31 December 2013 on the alternative approach to implementing Article 5(1)-(5) of Directive 2012/27/EU

Up-to-date data as at 1 January 2015 on buildings owned and occupied by central government has been gathered from such bodies, which sent information on the buildings not listed in 2013, as well as the missing information on the energy performance of certain buildings. It has thus become necessary to correct the list of buildings and potential energy savings as at 1 January 2014.

The alternative approach published in December 2013 indicated the method used to define central government, the buildings subject to the requirement to take renovation measures and the activities that could influence changes in user behaviour in order to meet the energy performance requirements.

Table 2 sets out a list of data for the buildings with a useful floor area over 500 m^2 owned and occupied by central government that, on 1 January 2014, did not meet the minimum energy performance requirements laid down in the Regulation of the Minister for Transport, Construction and the Maritime Economy of 5 July 2013 amending the Regulation on technical criteria for buildings and the siting thereof (Journal of Laws 2013, item 926), in accordance with Article 4 of Directive 2010/31/EU.

Table 2. List of data on buildings with a useful floor area over 500 m^2 owned and occupied by central government that, on 1 January 2014, did not meet the minimum energy performance requirements laid down in accordance with Article 4 of Directive 2010/31/EU (buildings which did not comply with the maximum permissible value for the heat transfer coefficient*)

Building use	**Number of buildings**	**Total useful floor area**	**Indicator of demand for non-renewable primary energy**		**Energy saving**
			average	**under the provisions*) **)**	
-	**No**	**m^2**	**kWh/(m^2·year)**	**kWh/(m^2·year)**	**MWh/year**
collective residential	6	16 080.20	431.95	220.00	3 408.23
	13	36 548.51	308.42	195.00	4 145.49
multi-family residential	4	3 271.15	155.41	115.00	132.19
	15	16 628.56	160.98	105.00	930.81
public services	90	606 255.50	279.08	190.00	54 006.48
	68	278 032.37	466.08	165.00	83 711.20
	24	46 696.91	no data	no data	no data
storage, industrial, agricultural	1	874.40	537.10	235.00	264.16
	19	72 794.50	273.28	210.00	4 606.65
	2	1 513.38	no data	no data	no data
TOTAL	**242**	**1 078 695.48**	**-**	**-**	**151 205.21**

*) The maximum value of the heat transfer coefficient and the indicator of demand for non-renewable primary energy are defined in the Regulation of the Minister for Transport, Construction and the Maritime Economy amending the Regulation on technical criteria for buildings and the siting thereof. This requirement was established in accordance with Article 4 of Directive 2010/31/EU.

**) The requirements on the maximum value of the indicator of demand for non-renewable primary energy differ according to the type of building, how long they are lit for (except for residential buildings) and whether they are cooled.

It has been estimated on the basis of the above that the annual energy savings target in 2014 should be **3% x 151 205.21 = 4 536.16 MWh**.

In each future year, the energy saving figure will change in line with the need for the calculations to take account of buildings with a floor area between 250 m^2 and 500 m^2 (these data will be sent in the annual report in 2016).

3.2. Total building floor area of the buildings with a total useful floor area over 500 m^2, and as of 9 July 2015 over 250 m^2, owned and occupied by the central government that, on 1 January 2015, did not meet the energy performance requirements referred to in Article 5(1) of Directive 2012/27/EU

Table 3 sets out a numerical list of buildings with a useful floor area over 500 m^2 owned and occupied by central government that, on 1 January 2015, did not meet the minimum energy performance requirements laid down in the Regulation of the Minister for Transport, Construction and the Maritime Economy of 5 July 2013 amending the Regulation on technical criteria for buildings and the siting thereof, in accordance with Article 4 of Directive 2010/31/EU. These buildings do not meet the requirements as regards the heat transfer coefficient U_c [$W/(m^2K)$].

Table 3. List of buildings with a useful floor area over 500 m^2 owned and occupied by central government that, on 1 January 2015, did not meet the minimum energy performance requirements laid down in accordance with Article 4 of Directive 2010/31/EU (buildings which did not comply with the maximum permissible value for the heat transfer coefficient*)

Building use	Number of buildings	Total useful floor area
-	No	m^2
collective residential	19	52 628.71
multi-family residential	19	19 899.71
public services	182	930 984.78
storage, industrial, agricultural	22	75 182.28
TOTAL	**242**	**1 078 695.48**

*) The maximum value of the heat transfer coefficient is defined in the Annex to the Regulation of the Minister for Transport, Construction and the Maritime Economy amending the Regulation on technical criteria for buildings and the siting thereof. This requirement was established in accordance with Article 4 of Directive 2010/31/EU.

Although some of the buildings underwent thermal modernisation in previous years and almost achieved the required energy saving in 2014 (as indicated below), they have not been removed from the above table. This is because the works were planned several years in advance and the building permits were obtained before the 2014 amendment of the provisions on energy saving. Thermal modernisation gave, for example, a heat transfer coefficient for windows of 1.5 $W/(m^2K)$ (current requirement: 1.3 $W/(m^2K)$) and, for flat roofs, of 0.22 $W/(m^2K)$ (current requirement: 0.20 $W/(m^2K)$).

3.3. Total building floor area of heated and/or cooled buildings owned and occupied by central government that was renovated in the previous year referred to in Article 5(1) of the Directive or the amount of energy savings in eligible buildings owned and occupied by central government as referred to in Article 5(6) of the Directive

The alternative arrangements adopted for implementing Article 5(1)-(5) of Directive 2012/27/EU were published on 31 December 2013, with an amended version in July 2014.

It was decided that energy savings would be achieved through the thermal modernisation of buildings and information activities to promote energy saving.

A list is set out below of the actions taken in 2014 in buildings with a floor area over 500 m^2 owned and occupied by central government.

Table 4. List of actions taken in 2014 in respect of buildings with a useful floor area over 500 m^2 owned and occupied by central government that, on 1 January 2014, did not meet the minimum energy performance requirements laid down in accordance with Article 4 of Directive 2010/31/EU (buildings which did not comply with the maximum permissible value for the heat transfer coefficient)

Building type:	Useful area	Activity	Energy saving
-	m^2	-	MWh/year
multi-family residential	1 156.00	In the period from August 2013 to December 2014, the entire building was comprehensively refurbished, with insulation of the walls, replacement of the window frames and replacement of the heating substation and all installations.	169.02
public services	521.60	In 2014 the window frames and doors were replaced and the walls were insulated.	no data
public services	1 077.70	In 2012-14 the water/sewerage, electrical and central heating systems were replaced.	113.38
public services	2 731.50	Training for employees on energy efficiency.	293.86
public services	1 460.20	Training for employees on energy efficiency.	132.77
storage	3 920.65	Thermal modernisation of the building was completed in 2014. The building was previously used as an unheated joinery workshop.	no data
collective residential	874.40	The heat sources were replaced in 2014: two oil-fired boilers were replaced with two gas-powered ones and nine solar panels were installed covering an area of 18.9 m^2.	27.56

public services	3 225.76	In 2013 and 2014 the ceiling under the first floor heated space and the ceiling of the semi-basement where the building entrance is located were replaced.	327.94
collective residential	2 594.86	In 2013 and 2014 the building was insulated and solar panels were installed.	151.82
public services	3 840.40	The ceiling in the building was insulated in 2014.	no data
public services	6 225.00	Thermal modernisation was carried out in the building in 2014: •the external walls were insulated (heat transfer coefficient U less than or equal to the requirement for 2014); •eight windows on the front ground floor of the building were replaced (heat transfer coefficient U equal to the requirement for 2014). Information stickers reminding people of the need to save energy were put up in the building.	42.00
public services	32 861.50	The first phase of modernisation of the central heating system was carried out in 2014.	1 055.39
public services	28 917.86	In 2014-14 *[sic]* (work ongoing): modernisation of the heating substation; purchase and installation of equipment for monitoring and managing energy at the heating substation; a system for measuring energy consumption and regulating temperatures in individual rooms, comprising sensors, adjusters and controls; replacement of cast-iron radiators with panel radiators; replacement of thermostatic valves (replacement of steel pipes with a plastic system); replacement of the internal lighting with an energy-saving system.	1 126.95
multi-family residential	1 230.42	In 2014 the flat roofs were insulated, the central heating system was partially replaced and the heating substation was upgraded.	no data
public services	5 349.19	In the period from 2013 to 2016: renovation of the facade, with insulation.	365.07
public services	15 870.00	In 2011 an environmental management system (EMS) was introduced.	225.07

		Training for employees on energy efficiency.	
public services	5 797.00	In 2011 an environmental management system (EMS) was introduced. Training for employees on energy efficiency.	88.88
public services	3 266.62	In 2013 and 2014 the air handling units were replaced with more energy-efficient ones.	240.77
public services	1 196.60	In 2014 an air-to-water heat pump was installed.	no data
public services	39 457.00	Training for employees on energy efficiency.	no data
public services	3 220.00	Training for employees on energy efficiency.	39.45
public services	4 027.34	Training for employees on energy efficiency.	71.31
public services	665.23	Training for employees on energy efficiency. In 2013 and 2014 the doors were replaced, the heating substation was upgraded and the radiators and thermostatic valves were replaced.	2.37
storage	658.41	Training for employees on energy efficiency. In 2013 and 2014 the doors were replaced, the heating substation was upgraded and the radiators and thermostatic valves were replaced.	2.93
storage	934.68	Training for employees on energy efficiency. In 2013 and 2014 the doors were replaced, the heating substation was upgraded and the radiators and thermostatic valves were replaced.	6.70
TOTAL	**171 079.92**	**-**	**4 483.23**

In some buildings thermal improvement work is ongoing, so it will be possible to indicate the exact energy saving only after the work has been completed.

4. Information, under Part 1, point (e) of Annex XIV to Directive 2012/27/EU, on energy savings achieved through the energy efficiency obligation scheme

An energy efficiency obligation scheme was introduced on the basis of the Energy Efficiency Act of 15 April 2011 (Journal of Laws 2011/94, item 551, as amended). In accordance with the Act, the scheme has been in operation since 1 January 2013. The Act imposes a requirement on energy companies selling electricity, heat or natural gas to final consumers to obtain energy efficiency certificates (white certificates) and submit them to the President of the Energy Regulatory Office (URE) for redemption, or to pay a substitution charge.

To date the President of the URE has run three tender procedures to select projects for which energy efficiency certificates can be obtained. The first and second procedures ended on 29 August 2013 and 29 October 2014 respectively, while the third one is still ongoing.

Tender procedures are run in three fields, known as 'categories of energy efficiency improvement projects':

1) increasing energy savings by final consumers;

2) increasing energy savings in companies' equipment for own use;

3) reducing losses of electricity, heat or natural gas in transmission or distribution.

Category (1) - concerns final consumers and covers all sectors of final energy consumption. Category (2) - concerns only 'equipment for own use' defined as the set of auxiliary facilities or installations within the meaning of Article 3(10) of the Energy Law Act of 10 April 1997, used in the process of generating electricity or heat. Category (3): reducing losses of electricity, heat or natural gas in transmission or distribution. - concerns modernisation of the transmission network for energy products and the relevant support facilities for such processes.

Table 5 sets out aggregated data concerning the energy efficiency certificates issued up to the end of March 2015 and the savings of final and primary energy achieved.

Table 5. Aggregated data concerning the energy efficiency certificates issued up to the end of March 2015 and the savings of final and primary energy achieved

Cumulative data at month's end	Cumulative number of energy efficiency certificates issued	Cumulative value of energy efficiency certificates issued (toe)	Total final energy savings in the energy saving period (toe)	Total primary energy savings in the energy saving period (toe)
January 2015	179	36 350	403 155.57	601 022.65
February 2015	381	70 870	711 821.98	1 114 502.87
March 2015	392	73 918	725 623.05	1 141 115.39