

Annual report drawn up in accordance with Part 1 of Annex XIV to 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

1. Data on energy consumption in 2014 in accordance with Part 1 of Annex XIV to Directive 2012/27/EU

Table 1. Data for 2014 (as required under Part 1 of Annex XIV)

tion			nts
(i) primary energy consumption		89 579	as defined in Directive 2012/27/EU
(ii) total final energy consumption		66 782	includes non-energy consumption
(iii) final energy consumption by sector			
y		15 227	
ort		16 253	
holds		18 946	
s		7 789	
(v) gross value added by sector			
- industry	PLN million, 2005 prices	441 686.6	total value added for industry and construction (sections B-F)
- services	PLN million, 2005 prices	754 264.2	total value added of sections G-T
(v) disposable income of households	PLN million, current prices	1 006 635	
(vi) gross domestic product (GDP)	PLN million, 2005 prices	1 382 826.3	
(vii) electricity generation at thermal power plants			
(viii) electricity generation at combined heat and power plants		149 267.505 ¹	
(ix) heat production at thermal power plants			
(x) heat production at combined heat and power plants, including industrial waste heat		177 921.420	
(xi) fuel input for thermal power plants		36 222	as defined in Directive 2012/27/EU; includes CHP plants
(xii) passenger kilometres (pkm), if available		51 441	excluding passenger cars and urban public transport
(xiii) tonne kilometres (tkm), if available		349 577	includes rail, road, pipeline, sea, inland waterway and air transport
(xiv) combined transport kilometres (pkm + tkm), in case (xii) and (xiii) are not available			
(xv) population	ds	38 479	

¹ The fact that this 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 on the 'Annual Questionnaire Electricity and Heat' form.

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

For the final energy consumption sectors mentioned in item (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 2014, energy consumption grew as compared with previous years only in the transport sector.

Transport

Fuel consumption in road transport grew by 53 % over the 2004-2013 period, with growth averaging 4.7 % per year, whilst energy consumption decreased substantially, by 35 % (4.2 %/year), in rail transport over the same period. Overall, the average annual rate of increase in fuel consumption for transport (excluding air transport) was 4.3 %.

Fuel consumption per car equivalent has been falling since 2011; it stood at 0.432 toe in 2013. The main factors determining the level of this indicator are the economic situation in Poland, changes in fuel prices and the increasing efficiency of new cars.

The increase in energy consumption in transport was due mainly to an increase in activity and structural changes. Road transport accounts for by far the greatest share of the increase in consumption. It should be noted, however, that the increase in road transport activity and the increase in fuel consumption in road transport (overall) recorded in 2014 were negligible. In the case of individual transport, there was an increase in the number of cars. Air transport, both domestic and international, was the second significant factor behind the increase in energy consumption; here, too, there was an increase in transport activity that was very much in line with the increase in energy consumption.

3. Information under Part 1, point (b), of Annex XIV to Directive 2012/27/EU regarding major legislative and non-legislative measures implemented in the previous year

The following legislative and non-legislative measures which contribute towards the national energy efficiency targets were adopted in 2015:

1. Act of 29 December 2015 amending the Energy Efficiency Act (Journal of Laws 2015, item 2359);
2. Act of 20 February 2015 on renewable energy sources (Journal of Laws 2015, items 478 and 2365);
3. Regulation of the Minister for Infrastructure and Development of 27 February 2015 on the methodology for calculating the energy performance of a building or part of a building and

drafting energy performance certificates (Journal of Laws 2015, item 376)

4. National Plan to increase the number of low-energy buildings, a government paper adopted by the Cabinet on 22 June 2015.

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

4.1. Correction to the list of buildings and potential energy savings indicated in the annual report submitted in 2015 relating to the alternative approach to implementing Article 5(1)-(5) of Directive 2012/27/EU

Table 2 contains a list of data for the buildings with a useful floor area over 500 m² 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 (Journal of Laws 2013, item 926), and for the buildings with a useful floor area over 250 m² owned and occupied by central government that, on 9 July 2015, did not meet the minimum energy performance requirements laid down in the aforementioned Regulation, in accordance with Article 4 of Directive 2010/31/EU.

Table 2. List of data for the buildings with a useful floor area over 500 m² 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^{*)}) and for the buildings with a useful floor area over 250 m² owned and occupied by central government that, on 9 July 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	Building with cooling system YES/NO	Total useful floor area	Indicator of demand for non-renewable primary energy		Energy saving
				Average	under the rules on new buildings ^{*)} ^{**)}	
-	pcs		m ²	kWh/(m ² -year)	kWh/(m ² -year)	MWh/year
collective residential	6	YES	16 080.20	431.95	220.00	3 408.20
	15	NO	38 494.31	304.78	195.00	4 225.91
multi-family residential	4	YES	3 271.15	155.41	115.00	132.19
	15	NO	16 628.56	160.98	105.00	930.87
	9	no data	2 577.36	no data	no data	no data
public building	98	YES	615 551.68	276.98	190.00	53 540.69
	68	NO	278 032.37	459.03	165.00	77 667.00
	38	no data	51 756.99	no data	no data	no data
warehousing, industrial, utility	2	YES	1 932.50	371.68	235.00	264.13
	21	NO	73 644.50	272.89	210.00	4 631.50
	5	no data	3 880.35	no data	no data	no data
TOTAL	281	-	1 087 964.1	-	-	144 800.49

^{*)} 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 have a cooling system.

It has been estimated on the basis of the above that the annual energy savings target in 2015 should be **3 % x 144 800.49 = 4 344.01 MWh**.

4.2. Total building floor area of the buildings with a total useful floor area over 250 m², owned and occupied by central government that, on 1 January 2016, did not meet the energy performance requirements referred to in Article 5(1) of Directive 2012/27/EU

Table 3 sets out a list of the buildings with a useful floor area over 250 m² owned and occupied by central government that, on 1 January 2016, 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 K)]. *

Table 3. List of the buildings with a useful floor area over 250 m² owned and occupied by central government that, on 1 January 2016, 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
	pcs	m²
collective residential	21	54 574.51
multi-family residential	28	22 477.07
public building	204	931 455.17
storage, industrial, agricultural	28	79 457.35
TOTAL	281	1 087 964.1

*) 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.

4.3. Total building floor area of heated and/or cooled buildings owned and occupied by central government that was renovated in the previous year as 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 in December 2013, and an amended version was published 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.

Table 4 lists the actions taken in 2014-2015 and the energy savings achieved in buildings with a floor area over 250 m² owned and occupied by central government.

Table 4. List of actions taken in 2014-2015 in respect of the buildings with a useful floor area over 500 m² owned and occupied by central government that, on 1 January 2015, did not meet minimum energy performance requirements, and actions taken in 2015 in respect of buildings with a useful floor area over 250 m² owned and occupied by central government that, on 9 July 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)

Type of building	Useful area	Activity	Energy saving
-	m ²	-	MWh/year
public building	20 777.00	Comprehensive thermal modernisation of entire building in 2014-2015, with insulation of the walls and flat roof, installation of mechanical ventilation, replacement of window frames, modernisation of installations and fitting of solar collectors.	817.72
public building	3 840.40	Flat roof insulated, mechanical ventilation installed and solar collectors installed in 2014-2015. Energy efficiency training for employees	307.53
public building	1 838.11	Systematic training for employees on energy efficiency.	153.38
public building	28 917.86	Heating substation upgraded in 2014-2015. Energy monitoring and management devices purchased and fitted in heating substation. System installed for measuring energy consumption and regulating temperatures in individual rooms, comprising sensors, adjusters and controls. Cast iron radiators replaced with flat radiators equipped with thermostatic valves. Solar collectors fitted. Internal lighting also replaced with energy-efficient lighting. Energy efficiency training for employees	796.33
public building	1 460.20	Flat roof insulated in 2015.	82.53

Type of building	Useful area	Activity	Energy saving
-	m ²	-	MWh/year
public building	3 615.71	Thermal modernisation of building completed in 2015, with insulation of the walls and flat roof, replacement of window frames and doors and replacement of the central heating system and heating substation.	341.11
public building	2 731.50	Systematic training for employees on energy efficiency.	31.69
public building	580.76	Replacement of central heating system and modernisation of boiler	53.49
public building	6 192.00	Insulation of external walls and roof. Bi-directional mechanical [ventilation] equipment installed. Replacement of central heating system	332.29
public building	1 088.40	Thermal modernisation of the building completed in 2015, with insulation of the walls and flat roof, replacement of window frames and doors and replacement of the central heating system and heating substation.	no data
Utility	762.00	Window frames and doors replaced, walls and foundations insulated, systematic training for employees on energy efficiency.	46.37
public building	4 510.00	Systematic training for employees on energy efficiency.	186.13
public building	6 072.00	Thermal modernisation of building completed. Modernisation of ventilation system, insulation of walls and flat roof, replacement of windows and external doors	no data
public building	32 861.50	Further upgrade of central heating system in 2015: radiators replaced and thermostatic valves fitted	796.91
public building	80 107.45	Systematic training for employees on energy efficiency	89.79
public building	2 832.00	Upgrade of heating substation and overhaul of central heating system	no data
public building	1 607.00	Upgrade of heating substation and overhaul of central heating system	no data
public	6 065.05	Modernisation of heating substation and overhaul of central heating	no data

building		system	
public building	559.19	Modernisation of heating substation and overhaul of central heating system	no data
public building	11 072.00	Modernisation of heating substation and overhaul of central heating system	no data
public building	4 054.00	Thermal modernisation of external walls and ceiling.	161.54
public building	1 807.00	Systematic training for employees on energy efficiency	5.17
public building	3 573.70	Window frames replaced	52.73
public building	1 196.60	Systematic training for employees on energy efficiency	12.55
public building	10 263.60	Systematic training for employees on energy efficiency	no data
public building	1 605.30	Systematic training for employees on energy efficiency	no data
public building	566.40	Systematic training for employees on energy efficiency	no data
public building	1 442.45	Systematic training for employees on energy efficiency	no data
public building	1 098.80	Systematic training for employees on energy efficiency	no data
public building	682.60	Systematic training for employees on energy efficiency	no data
public building	552.20	Systematic training for employees on energy efficiency	no data
public building	1 749.00	Systematic training for employees on energy efficiency	no data
public building	2 257.10	Systematic training for employees on energy efficiency	no data
public building	2 370.77	Systematic training for employees on energy efficiency	no data

public building	15 870.00	Systematic training for employees on energy efficiency	29.88
public building	5 378.00	Systematic training for employees on energy efficiency	17.10
collective residential	1 439.00	Systematic energy efficiency training	9.3
collective residential	1 692.00	Systematic energy efficiency training	5.8
collective residential	2 735.5	Systematic energy efficiency training	5.9
collective residential	2 131.90	Systematic energy efficiency training	4.7
utility	1 130.00	Systematic training for employees on energy efficiency	1.9
public building	670.90	Systematic training for employees on energy efficiency	1.4
public building	3 122.30	Systematic training for employees on energy efficiency	7.6
public building	1 441.80	Systematic training for employees on energy efficiency	4.2
public building	6 385.50	Systematic training for employees on energy efficiency	21.7
public building	10 863.05	Systematic training for employees on energy efficiency	39.11
public building	2 164.00	Systematic training for employees on energy efficiency	17.91
public building	39 457.00	Systematic training for employees on energy efficiency	59.36
public building	3 344.72	Window frames replaced	no data
public building	10 845.65	Internal lighting replaced with energy-efficient lighting	no data
public building	18 837.60	Systematic training for employees on energy efficiency	29.88

public building	7 242.70	Systematic training for employees on energy efficiency	11.36
public building	3 225.76	Systematic training for employees on energy efficiency	no data
public building	7 242.70	Systematic training for employees on energy efficiency	no data
public building	8 895.00	Window frames replaced	no data
TOTAL	404 824.73		4 534.6

This part of the report has been drawn up on the basis of data submitted by the central government bodies referred to in Article 5(1) of Directive 2012/27/EU.

5. 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 as required by the Energy Efficiency Act of 15 April 2011 (Journal of Laws 2015, items 2167 and 2359; 2016, item 266) has been in operation in Poland 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. An Act amending the Energy Efficiency Act, extending the period for which the rules governing the operation of the system of white certificates apply to 31 December 2016, with settlement by 31 March 2017, was adopted on 29 December 2015.

To date, the President of the URE has concluded three tender procedures to select projects for which energy efficiency certificates can be obtained: the first on 29 August 2013, the second on 29 October 2014, and the third on 21 September 2015. Under the third procedure, 502 bids were selected and energy efficiency certificates were issued for them.

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 and/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): - 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 December 2015 and the final and primary energy savings achieved.

Table 5 Aggregated data as at end December 2015 concerning energy efficiency certificates issued and final and primary energy savings achieved

Cumulative data at month's end	Cumulative number of energy efficiency certificates issued	Cumulative value of energy efficiency certificates issued (ktoe)	Total declared final energy savings in the energy saving period (ktoe)	Total declared primary energy savings in the energy saving period (ktoe)
January 2015	179	36.35	403.15	601.02
February 2015	381	70.87	711.82	1 114.50
March 2015	392	73.92	725.62	1 141.12
October 2015	496	104.45	866.97	1 818.15
November 2015	781	205.09	1 400.72	2 624.31
December 2015	895	226.73	1 600.66	2 892.79