

**Report on the progress achieved in 2014 towards implementing national energy efficiency targets for the year 2020 pursuant to Article 24(1) and Section 1 of Annex XIV to Directive 2012/27/EU**

**Indicative national energy efficiency target**

Pursuant to Article 3 of Directive 2012/27/EU, Latvia's indicative national energy efficiency target, based on primary energy savings in 2020, is 0.670 Mtoe (28 PJ), which corresponds to final energy savings of 0.457 Mtoe (19 PJ).

**Impact of the target on energy consumption in 2020**

By implementing energy efficiency measures and achieving the savings in line with the indicative national energy efficiency target, primary and final energy consumption in Latvia in 2020 will be as shown in the following table (see Table 1):

**Table 1**  
*Latvia's indicative national energy efficiency target, expressed as the absolute level of primary and final energy consumption in 2020*

	<b>2010</b>	<b>2015</b>	<b>2020</b>
Consumption of primary energy resources, PJ	200.5	223	225
Final energy consumption, PJ	178.5	185	187

**Progress towards achieving the national energy efficiency targets for 2020**

Pursuant to point (a) of Annex XIV to Directive 2012/27/EU, the indicators for the years 2013 and 2014 are set out and compared in Table 2.

**Table 2**  
*Comparative table of indicators for the years 2013 and 2014, pursuant to Annex XIV to Directive 2012/27/EU*

<b>No</b>	<b>Name of indicator</b>	<b>Indicator, 2013</b>	<b>Indicator, 2014</b>	<b>Increase/decrease in indicator</b>	<b>Unit of measurement</b>	<b>Source of data</b>
1.	Primary energy consumption	4.36	4.35	-0.01	Mtoe	Central Statistical Bureau of the Republic of Latvia (CSP)
2.	Total final energy consumption	3.86	3.88	+0.02	Mtoe	CSP
3.	Final energy consumption by sector:					
	industry	0.77	0.79	+0.02	Mtoe	CSP

	(including construction)					
	transport	1.06	1.09	+0.03	Mtoe	CSP
	households	1.27	1.24	-0.03	Mtoe	CSP
	services	0.60	0.61	+0.01	Mtoe	CSP
	agriculture and forestry	0.15	0.15	0	Mtoe	CSP
4.	Gross value added by sector					
	a) at current prices:					
	total value added	20 271.5	20 892.3	+620.8	million EUR	DG Eurostat
	industry (excluding construction)	3 482.0	3 455.1	-26.9	million EUR	DG Eurostat
	construction	1 322.9	1 425.3	+102.4	million EUR	DG Eurostat
	agriculture and forestry	689.1	682.3	-6.8	million EUR	DG Eurostat
	services	14 777.5	15 329.6	+552.1	million EUR	DG Eurostat
	b) at constant 2005 prices:					
	total value added	13 752.8	14 047.1	+294.3	million EUR	DG Eurostat
	industry (excluding construction)	1 916.5	1 895.7	-20.8	million EUR	DG Eurostat
	construction	745.2	805.4	+60.2	million EUR	DG Eurostat
	agriculture and forestry	585.9	595.5	+9.6	million EUR	DG Eurostat
	services	10 505.2	10 750.5	+245.3	million EUR	DG Eurostat
5.	Disposable income of households:					
	average per household	837.80	930.52	+92.72	EUR/month	CSP
	average per member of household	353.99	386.91	+32.92	EUR/month	CSP
	average per equivalent consumer	526.98	580.79	+53.81	EUR/month	CSP
6.	Gross domestic					

	product (GDP)					
	- at current prices	22 762.9	23 580.9	+818.0	million EUR	CSP
	- at constant 2005 prices:	14 376.80	n/a		million EUR	DG Eurostat
7.	Electricity generation from thermal power generation	-		-		
8.	Electricity generation from combined heat and power	3 170	3 004	-166	GWh	CSP
9.	Electricity generated in power plants (in the transformation sector)	7	2	-5	GWh	CSP
10.	Heat generation from boiler houses	2 251	1 962	-289	GWh	CSP
11.	Heat generation from combined heat and power plants, including waste heat	5 040	5 189	+149	GWh	CSP
12.	Fuel input for boiler houses	0.25	0.22	-0.03	Mtoe	CSP
13.	Fuel input for combined heat and power plants	0.91	0.88	-0.03	Mtoe	CSP
14.	Fuel input for power plants (in the transformation sector)	0.004	0.001	-0.003	Mtoe	CSP
15.	Passenger kilometres (pkm):					
	carriage of passengers by car	14 514	15 300	+786	Mpkm	based on assumptions relating to the calculation of transport emissions
	carriage of	2 325	2 345	+20	Mpkm	carriage

	passengers by public transport					of passengers by bus only
	carriage of passengers by rail (including tram)	729	649	-80	Mpkm	CSP
	carriage of passengers by domestic and international air transport	3 537	3 318	-219	Mpkm	CSP
14.	Tonne-kilometres (tkm):					
	road haulage	12 816	13 670	+854	Mtkm	CSP
	carriage of goods by rail	19 532	19 441	-91	Mtkm	CSP
	carriage of goods by air	11	13	+2	Mtkm	CSP
15.	Population (at the start of the year)	2 023 825	2 001 468	-22 357	number of people	CSP
16.	Population (average)	2 012 647	2 001 468	-11 179	number of people	CSP

### **Analysis of the increase in energy consumption in specific sectors**

Point (a) of Part 1 of Annex XIV to Directive 2012/27/EU provides that in sectors where energy consumption remains stable or is growing, Member States must analyse the reasons for it and attach their appraisal to the estimates. In accordance with Annex A to the reporting guidelines, changes in final energy consumption by sector have been analysed by comparing statistical data on final energy consumption in various end-use sectors for the years 2013 and 2014.

In 2014, the total final energy consumption in Latvia increased by 0.4 percentage points in comparison to 2013. While energy consumption in households decreased by 2.4 percentage points in 2014 compared with 2013, final energy consumption in the industry (including construction), services and transport sectors increased slightly: by 2.6 percentage points, 1.7 percentage points and 2.8 % percentage points respectively. The final energy consumption in the agriculture and forestry sectors has remained the same.

#### Transport

In the transport sector, consumption of energy resources (petroleum products, biofuels and electricity) grew by 0.03 Mtoe or 2.8 percentage points in 2014 compared with 2013. Road transport accounted for 82.5 % of the total energy resources consumption in 2014. Air transport accounted for 10.2 %, and rail transport for 6.8 %. The remainder was accounted for by inland waterways and pipeline transport. In comparison to 2013, in 2014, consumption of energy resources increased only in road

transport (by 2.3 percentage points), while there was a decrease in consumption in the other transport sectors: a fall of 1.5 percentage points in air transport and 0.4 percentage points in rail transport. The increase of consumption of energy resources in the road transport sector in 2014 (compared to 2013) could be explained by the fact that road haulage increased by 6.7 percentage points, carriage of passengers by 5.4 percentage points, and the number of registered vehicles - by 3.7 percentage points.

#### Manufacturing

In 2014, the consumption of energy resources in manufacturing increased by 0.02 Mtoe or 2.6 percentage points compared to 2013. There was an increase in consumption in three sectors in 2014: the consumption of energy resources increased by 5.3 percentage points in the manufacture of fabricated metal products, computer, electronic and optical products, electrical equipment and machinery and equipment n.e.c. (NACE Rev. 2, 25-28); in manufacture of non-metallic minerals (NACE Rev. 2, 23) the consumption of energy resources increased by 8.3 percentage points; while the most significant increase in consumption of energy resources (+16.8 percentage points) was accounted for by the manufacture of wood, wood and cork products, except the manufacture of furniture, articles of straw and plaiting materials (NACE Rev. 2, 16). This significant increase in fuel consumption in the manufacture of wood is related to the increase in the production of wood chips (+29.2 percentage points) compared with 2013.

#### Services sector

In the services sector in 2014, the consumption of energy resources amounted to 0.61 Mtoe, which is by 1.7 percentage points higher than in 2013. This increase could be explained by the increase of the gross value added by 552.1 million EUR (+3.7 %) in the services sector.

#### Agriculture and forestry

Final energy consumption in the agriculture and forestry sector increased slightly in 2014 in comparison with 2013 (+0.002 Mtoe). This slight increase could be explained by the increased consumption of diesel fuel in the sector and the expansion of the cultivated areas by 0.3 percentage points compared to 2013.

## Major legislative and non-legislative measures

In accordance with sub-paragraphs (b)-(d) of Annex XIV to Directive 2012/27/EU, information is provided here on major legislative and non-legislative measures implemented in the previous year (2015).

### 1. Laws and regulations promoting improved energy efficiency

- a) A **Law on energy efficiency** has been drawn up. The law aims at rational use and management of energy resources with a view to promote a sustainable development of the economy and limit climate change. This Law entered into force on 29 March 2016<sup>1</sup>.
- b) A draft **law amending the Law on the energy performance of buildings** has been drawn up. The amending law essentially seeks to ensure that central government bodies acquire and lease only highly energy-efficient buildings. The amendments entered into force on 5 April 2016<sup>2</sup>.
- c) A draft **law amending the Law on the energy** has been drawn up. The amending law aims to ensure that several of Directive 2012/27/EU's requirements relating to effective heating systems and co-generation are transposed by providing for the delegation of authority for implementing the Cabinet Regulation on the methodology for calculating the primary energy saving of co-generation, and by defining district heating, local heating and individual heating. The amendments entered into force on 29 March 2016<sup>3</sup>.
- d) A draft **law amending the Law on public procurement** has been drawn up with a view to transposing the requirements of Article 6 of Directive 2012/27/EU and ensuring that the State procures energy efficient products and services. The amendments entered into force on 29 March 2016<sup>4</sup>.
- e) A draft **Law amending the Law on electricity market** has been drawn up to ensure that the definition of the term 'aggregator' provided in Directive 2012/27/EU is transposed and to provide a legal framework for demand response and aggregator operations in the energy market. The draft law lays down that the transmission system operator responsible for managing energy flows must take into account the load procured when using the demand response service, which it procures as an ancillary service from various sources, including aggregators. At the time of the submission of this report, the draft law is undergoing the third reading in the Saeima<sup>5</sup>.
- f) **Cabinet Regulation No 524 of 15 September 2015 on the procedure for determining, calculating and recording the share payable by each owner of a residential building for essential maintenance services.** This regulation provides that owners of residential buildings must read the meters installed every month and do so within the deadline specified and in accordance with the procedure set out in the agreement on the provision of essential necessary maintenance services.

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<sup>1</sup> <http://likumi.lv/doc.php?id=280932>

<sup>2</sup> <http://likumi.lv/ta/id/281087-grozijumi-eku-energoefektivitates-likuma>

<sup>3</sup> <http://likumi.lv/ta/id/280931-grozijumi-energetikas-likuma>

<sup>4</sup> <http://likumi.lv/ta/id/280938-grozijumi-publisko-iepirkumu-likuma>

<sup>5</sup> <http://titania.saeima.lv/LIVS12/saeimalivs12.nsf/webAll?SearchView&Query={Title}=>

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- g) **Cabinet Regulation No 628 of 3 November 2015 amending Cabinet Regulation No 876 of 21 October 2008 laying down rules for the supply and use of thermal energy.** These amendments provide for the installation of meters or heat cost allocators in multi-apartment and non-residential buildings where there are, with the exception of groups of common areas, several other groups of spaces (i.e. multi-purpose buildings) that share the bill for the thermal energy consumed, with a view to recording the amounts of thermal energy consumed for heating purposes in each apartment or set of premises that is invoiced separately for the thermal energy consumed. This requirement applies to new buildings, buildings to be converted or renovated (if funded by EU funds, State or municipal budgets), for which a building permit has been issued after 1 January 2016 and to which heating is supplied from a common heat source or a district heating system.
- h) **Cabinet Regulation No 643 of 10 November 2015 amending Cabinet Regulation No 383 of 9 July 2013 on the energy certification of buildings.** These amendments serve to describe the energy efficiency classes of buildings in greater detail and set out the requirements with regard to the energy efficiency indicator for heating in new buildings, buildings to be renovated or converted and non-residential buildings. In addition, requirements for residential buildings have been drawn up with separate sets of requirements applicable to single or twin apartment buildings and to multi-apartment buildings.
- i) Draft **Cabinet regulation on the methodology for calculating the primary energy saving of co-generation plants** has been drawn up and submitted to the Cabinet. The regulation aims to define a methodology for calculating the primary energy saving of co-generation plants.
- j) Draft **Cabinet regulation on energy efficiency requirements for district heating systems in the possession of a licensed or registered energy supply trader and procedures for checking the conformity thereof** has been drawn up and submitted to the Cabinet. The draft regulation sets out the energy efficiency requirements for district heating systems in the possession of a licensed or registered energy supply trader and procedures for checking the conformity thereof. The draft regulation applies to licensed or registered energy supply traders. The draft Cabinet regulation was adopted on 19 April 2016 (Minutes of Cabinet Meeting No 19, 6 §<sup>6</sup>).

## **2. Implementation of energy efficiency measures**

Public funding for projects aimed at improving energy efficiency comes from the European Union Structural Funds (ERDF) and Cohesion Fund (CF), the State budget programme 'Climate change financial instrument' (KPFI), and from other financial instruments.

Funding to improve the heat insulation of multi-apartment residential buildings and social housing comes from the European Union Structural Funds (ERDF), managed by the Ministry of the Economy, while measures to increase the efficiency of district

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<sup>6</sup> <http://likumi.lv/ta/id/281742-ministru-kabineta-sedes-protokols>

heating supply systems were financed from the Cohesion Fund (CF). Funding for improving the energy efficiency of buildings owned by the State and local authorities, registered traders and private individuals and for improving the energy efficiency of technological equipment for manufacturing came from the 'Climate change financial instrument' (KPMI), a State budget programme managed by the Ministry of Environmental Protection and Regional Development (VARAM). At the time of drafting this report, no information has been collected on projects implemented under other financial instruments in 2014 and 2015. The relevant information will be included in the report for 2017.

**a) Implementation of ERDF and CF projects**

Implementation of **ERDF and CF projects managed by the Ministry of the Economy** continued in 2014 under the following 'Infrastructure and services' activities of the European Structural Fund Operational Programme:

- activity 3.4.4.1 of the Programme Complement, 'Measures to improve the heat insulation of multi-apartment residential buildings' (hereinafter 'Activity 3.4.4.1'). These projects involve construction work in the areas of multi-apartment residential buildings jointly owned by the owners of the apartments in the building: this is done to ensure restoration of the structural components of the building, as provided for in the technical design or simplified renovation documentation, and to carry out works under the energy efficiency improvement measures referred to in the building's energy audit report;
- activity 3.4.4.2 of the Programme Complement, 'Measures to improve the heat insulation of social housing' (hereinafter 'Activity 3.4.4.2'). The programme aims to increase the energy efficiency of social housing owned by local authorities, improve the quality and sustainability of social housing and ensure that the sections of society at risk of social exclusion are provided with suitable housing.
- Sub-activity 3.5.2.1.1 'Measures to increase the efficiency of district heating supply systems'. The aim of the programme is to make the production of heat energy more efficient, reduce heat energy losses in transmission and distribution systems and facilitate the replacement of fossil fuels with renewable fuels.

**Table 3**

***Overview of the implementation of ERDF and CF projects (as at 22 April 2016)***

	Completed projects	Amount (as indicated in the financing plan) of SF aid to completed projects, in EUR
<i>Activity 3.4.4.1</i>	740	63 161 256.88
<i>Activity 3.4.4.2</i>	55	5 164 740.45
<i>Activity 3.5.2.1.1</i>	131	71 768 500.59

Detailed information on the implementation of the ERDF and CF projects is available at <http://em.gov.lv/em/2nd/?cat=30252>

**b) Implementation of the KPMI State budget programme**

KPMI aims to help prevent global climate change and help adapt to its effects, achieve a reduction in greenhouse gas emissions (for instance, by implementing measures in both the public and the private sectors aimed at improving the energy efficiency of buildings, developing and introducing technologies that make use of renewable

energy sources, and implementing integrated solutions to reduce greenhouse gas emissions).

Projects **subject to tender under the KPFI State budget programme** managed by VARAM continued to be **implemented** in 2014:

- The call for tenders ‘Complex solutions for the reduction of greenhouse gas emissions’ supports investment projects aimed at improving the energy efficiency of buildings owned by the State and local authorities, registered traders and private individuals and investment in technological equipment for manufacturing and for utilising renewable sources of energy. For the purposes of this report the projects are grouped as follows: Increasing energy efficiency in vocational school buildings; Increasing energy efficiency in tertiary education institution buildings; Increasing energy efficiency in production buildings and facilities; Increasing energy efficiency in municipal and education institution buildings; Installing smart electrical energy meters.
- The call for tenders ‘Buildings with low energy consumption’ supports the construction of buildings with low energy consumption and the reconstruction or simplified renovation of existing buildings. This enables energy consumption in those buildings to be reduced.
- The call for tenders ‘Reduction of carbon dioxide emissions from lighting infrastructure in local authority public spaces’ supports the reduction of greenhouse gas emissions from lighting infrastructure in local authority public spaces through the application of technology and environmentally friendly techniques that enable a reduction in electricity consumption.

More detailed information on calls for tenders under the KPFI is available at [www.varam.gov.lv](http://www.varam.gov.lv) and [www.lvif.gov.lv](http://www.lvif.gov.lv).

### **c) Information campaign ‘Warmer living’**

At the initiative of the Ministry of the Economy, on 25 February 2010, 18 public entities, non-government organisations and banks signed a memorandum of cooperation on establishing effective and open cooperation when providing information about housing renovations. As of 31 December 2015 the memorandum had been signed by 31 organisation. The memorandum’s main purpose is to ensure that information on housing renovations is generally available. This involves:

- fostering cooperation / mutual learning among sectoral associations to ensure the dissemination of the latest sector-relevant information;
- ensuring the availability of information on issues relating to the management and operation of multi-apartment residential buildings;
- ensuring that apartment owners have access to information on sources of funding for housing renovations;
- providing information on the benefits of housing renovation;
- educating people about the conditions that need to be fulfilled to ensure that renovations are carried out to a high standard;
- informing people of quality standards for building materials and of the technology for applying those materials;
- facilitating access to high-quality services by providing the public with the latest sector-relevant information.

As part of the ‘Warmer living’ campaign, 9 rounds of workshops were held from 2010 to 2015 in regions across Latvia. These involved various public discussions, workshops, conferences and exhibitions (more than 200 events altogether).

#### **d) Competition to determine the most energy-efficient building in Latvia in 2014**

The competition 'Latvia's most energy-efficient building' is held by the Ministry of the Economy in cooperation with VARAM and 'Būvinženieris' magazine as part of the 'Warmer living' information campaign. The aim of the competition is to foster good energy efficiency practices through the construction of energy-efficient buildings or the renovation and reconstruction of buildings to make them energy efficient and, in so doing, reduce the amount of carbon dioxide in the atmosphere, raise public awareness of building heat insulation and the importance of and opportunities for reducing greenhouse gas emissions to create a high-quality and architecturally expressive living environment.

Leading non-government organisations in the building sector (the Latvian Union of Construction Engineers, Latvian Association of Consulting Engineers, Latvian Association of Builders, Latvian Association of Building Material Traders, Latvian Association of Building Managers and Operators, Association of Technical Experts, Latvian Union of Thermal, Gas and Water Engineers, Latvian Association of Door and Window Manufacturers, Kurzeme Regional Energy and Development Agency, Riga Technical University, Association of Building Material Producers, and a number of individual firms) were involved in establishing the rules of the competition and evaluating submissions.

42 projects in four categories (multi-apartment building, new building, industrial building, single-family house) were submitted for the competition 'Latvia's most energy-efficient building 2014', and five projects were selected as winners.

The results of the competition can be found at [www.energoefektivakaeka.lv](http://www.energoefektivakaeka.lv).

#### **List of buildings owned, managed or used by the State**

In accordance with Article 5(5) of Directive 2012/27/EU, every year the Ministry of the Economy draws up a list of buildings owned, managed or used by the State and publishes it on its website<sup>7</sup>.

According to the list of buildings as on 1 January 2014, the 3 % renovation target for 2014 corresponded to an area covering 77 679 m<sup>2</sup>. As on 1 January 2015, 53 buildings owned, managed or used by the State, with a total floor area of 232 635 m<sup>2</sup>, have been renovated under the KPFI budget programme. According to the list of buildings as on 1 January 2015, the 3 % renovation target for 2015 corresponded to an area covering 74 908 m<sup>2</sup>. The floor area renovated in 2014 was greater than the 3 % renovation target calculated for 2014:

$$232\,635\text{ m}^2 - 77\,679\text{ m}^2\text{ (2014 target)} = 154\,956\text{ m}^2$$

Pursuant to Article 5(3) of Directive 2012/27/EU, this excess renovated area has been counted towards the renovation targets for 2015 and 2016. Thus, 74 908 m<sup>2</sup> have been calculated towards the target for 2015, and 80 048 m<sup>2</sup> - towards the target for 2016:

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<sup>7</sup>[https://em.gov.lv/lv/nozares\\_politika/majokli/eku\\_energoefektivitate/no\\_direktivas\\_2012\\_27\\_es\\_par\\_energoefektivitati\\_izrietosas\\_prasibas/](https://em.gov.lv/lv/nozares_politika/majokli/eku_energoefektivitate/no_direktivas_2012_27_es_par_energoefektivitati_izrietosas_prasibas/)

$$154\,956\text{ m}^2 - 74\,908\text{ m}^2\text{ (2015 target)} = 80\,048\text{ m}^2$$

**Energy savings achieved through the application of the national energy efficiency obligation scheme or alternative measures**

In accordance with Article 7 of Directive 2012/27/EU, the cumulative energy savings target set for Latvia for the period up to 2020 is 9 896 GWh.

No energy efficiency obligation scheme or scheme component had been introduced in Latvia in 2015, so it is not possible to show any energy savings achieved under an energy efficiency obligation scheme in this report.

According to the Report on compliance with Article 7 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 following alternative measures are planned:

**Table 4**  
*Planned energy savings from alternative measures and funding scheduled under support programmes*

No	Name of alternative measure	Implementation period	Planned funding (million LVL)	Cumulative energy savings (GWh)
1.	Programmes, financed from the EU funds and scheduled for 2014-2020 planning period, for the purpose of improving the energy efficiency of multi-apartment residential buildings, central and local government buildings and small- and medium-sized enterprises	2014-2020	227.0 (EUR 323 million)	1 690
2.	Activity 3.4.4.1 'Measures to improve the heat insulation of multi-apartment residential	2014-2015	0.418 (EUR 0.595 million) (funding requested for projects currently being evaluated)	1 050

	buildings', implemented under Measure 3.4.4. 'Energy efficiency of housing' of the Complement to the EU Structural Funds Operational Programme 'Infrastructure and services' for 2007-2013			
3.	Agreement between the local authority and registered traders on improving energy efficiency in accordance with Cabinet Regulation No 555 of 12 July 2011 on procedures for concluding and monitoring agreements on improving energy efficiency	2014-2020	In accordance with local authority development plans	150
4.	Modernisation of AS Pasažieru vilciens rolling stock	2014-2020	108.0 (EUR 153.67 million) (indicative amount)	31
5.	KPFI instrument 'Complex solutions for the reduction of greenhouse gas emissions', round 3	2014-2015	13. 607 (EUR 19 361 million)	386
6.	KPFI instrument 'Reduction of greenhouse gas emissions from lighting infrastructure in local authority	2014	0.729 (EUR 19 361 million)	130

	public spaces', round 3			
	<b>TOTAL:</b>		349 755 (EUR 497 657 million)	<b>3 437</b>

**In 2014, energy savings were recorded and calculated for individual projects implemented under the alternative measures.**

The energy savings were calculated using an ex-post method and are based on recording the object's energy consumption before and after the implementation of the measure. The authorities responsible for the implementation of the projects have set up a system for recording and monitoring the projects, which also can provide a control procedure for energy savings of a project, if so needed.

Only the projects with the first recorded energy savings in 2014 are taken into account for calculation of the energy savings. The energy savings for individual activities are calculated based on reports submitted by the relevant authorities on projects implemented and results achieved. Complete information on the projects completed under European Union Structural Funds, managed by the Ministry of Economy, and their energy savings achieved in 2014, was not available at the time of drafting this report. Therefore, a more detailed calculation of those energy savings will be provided in the report for 2017.

**Table 5**  
*The calculated energy savings attained in 2014 as a result of implementing alternative measures for improving energy efficiency, and the cumulative saving for 2020*

Measure	Energy savings 2014, GWh	Cumulative savings by 2020, GWh	Remarks
Increasing energy efficiency in residential buildings and social housing (Activity 3.4.4.1.0 and Activity 3.4.4.2.0)	15.51	434.0	157 projects in residential buildings with savings of 14.65 GWh, and 15 projects in social housing with savings of 0.87 GWh. Duration of the measure: at least seven years.
KPFI instrument 'Increasing energy efficiency of lighting in public spaces' (KPFI - 13)	4.14	115.9	

KPFI instrument 'Increasing energy efficiency in municipal and education institution buildings' (KPFI - 7)	9.63	269.6	In 2014, savings were calculated for 16 projects. Duration of the measure: at least seven years.
KPFI instrument 'Increasing energy efficiency in vocational school buildings' (KPFI - 5)	8.45	236.6	In 2014, savings were calculated for 14 projects. Duration of the measure: at least seven years.
KPFI instrument 'Increasing energy efficiency in tertiary education institution buildings' (KPFI - 3)	5.94	166.3	In 2014, savings were calculated for six projects. Duration of the measure: at least seven years.
KPFI instrument 'Construction of new buildings with low energy consumption' (KPFI - 10)	0.71	19.8	In 2014, savings were calculated for ten projects. Duration of the measure: at least seven years. The energy savings have been calculated by referencing the actual consumption to building regulations in force.
KPFI instrument 'Installing smart electrical energy meters'	0.34	9.5	Meters have been installed in 500 households. The project report states savings of 20 %, but based on international literature, savings of 5 % have been accepted. A duration of seven years has been accepted for this measure.

KPFI instrument 'Increasing energy efficiency in production buildings and facilities' (KPFI - 15)	9.1	254.8	In 2014, savings were calculated for ten projects. Duration of the measure: at least seven years.
KPFI instrument 'Increasing energy efficiency in municipal and education institution buildings' (KPFI - 1)	2.1	58.8	In 2014, savings were calculated for one project. Duration of the measure: at least seven years.
Renovation of State owned buildings under State aid programmes	2.7	75.6	In 2014, savings were calculated for ten projects. Duration of the measure: at least seven years.
<b>Total</b>	<b>58.62</b>	<b>1 640.9</b>	

The cumulative energy savings attained in 2014 as a result of implementing alternative measures for improving energy efficiency until 2020 are 1 640.9 GWh, or 16.58 % of the mandatory cumulative target (9 896 GWh). The projected cumulative energy savings from the energy efficiency measures implemented in 2014 were 2 471 GWh by 2020, so the savings achieved were not as high as those projected.

#### **Energy savings in order to achieve the 9% indicative savings target<sup>8</sup> for 2016**

An indicative 9 % final energy consumption savings of 3 483 GWh was calculated and set in Latvia's First Energy Efficiency Action Plan for 2008-2010.

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<sup>8</sup> The indicative target has been set in accordance with requirements of Directive 2006/32/EC, and it is binding until 2016.

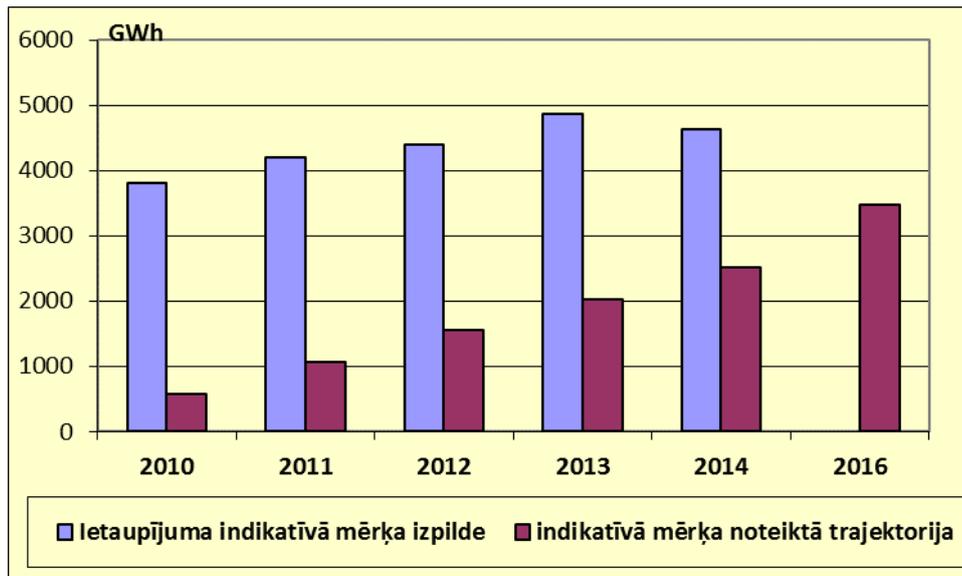


Figure 1 Total energy savings in 2014

As shown in Figure 1, the annual savings for 2014 (4 375.8 GWh) exceed the indicative trajectory value for achieving the total energy savings of 9 % in 2016 as set out in Latvia's First Energy Efficiency Action Plan for 2010-2016. These savings do not take account of the negative savings recorded in some branches of the manufacturing sector. About 6 % of the total energy savings in 2014 were assessed using a bottom-up calculation method.