

**Report on the progress achieved in 2016 towards  
national energy efficiency targets for the year 2020  
in accordance with Article 24(1) and Part 1 of Annex XIV to Directive  
2012/27/EU**

**I. INDICATIVE NATIONAL ENERGY EFFICIENCY TARGET  
PURSUANT TO ARTICLE 3 OF DIRECTIVE 2012/27/EU**

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 Table 1.

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

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Forecast primary energy consumption (PJ)	194	198	201	205	207	212	216	220	225
Actual primary energy consumption (PJ)	187	183	182	179	181	188			
Forecast final energy consumption (PJ)	162	165	167	171	172	176	179	183	187
Actual final energy consumption (PJ)	169	162	163	159	160	168			

**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 2016 and 2017 are set out and compared in Table 2.

**Table 2**  
*Comparative table of indicators for the years 2015 and 2016, pursuant to Annex XIV to Directive 2012/27/EU*

No	Name of indicator	Indicator, 2016	Indicator Year 2017	Increase/decrease in indicator	Unit of measurement	Source of data
1.	Primary energy consumption	4.42	4.56	+0.03	Mtoe	Central Statistical Bureau of the Republic of Latvia (CSP)

2.	Total final energy consumption	3.92	4.09	+0.04	Mtoe	CSP
3	Final energy consumption by sector:					
	industry (including construction)	0.812	0.852	+0.05	Mtoe	CSP
	transport	1.19	1.24	+0.04	Mtoe	CSP
	households	1.145	1.199	+0.05	Mtoe	CSP
	services	0.60	0.608	+0.02	Mtoe	CSP
	agriculture, forestry, fishery	0.18	0.20	+0.10	Mtoe	CSP
4	Gross value added by sector:					
	a) at current prices:					
	total value added	21 685.2			EUR mio	Eurostat
	industry (excluding construction)	3 477.5			EUR mio	Eurostat
	construction	1 149.0			EUR mio	Eurostat
	agriculture and forestry	853.7			EUR mio	Eurostat
	services	16 205.0			EUR mio	Eurostat
	b) at constant 2005 prices:					
	total value added	14 389.8			EUR mio	Eurostat
	industry (excluding construction)	1980.4			EUR mio	Eurostat
	construction	632.9			EUR mio	Eurostat
	agriculture and forestry	678.0			EUR mio	Eurostat
	services	10 946.1			EUR mio	Eurostat
5	Disposable income of households:					
	average per household	1 017.60	111 817	+9.9 %	EUR/month	CSP
	average per member of household	437.11	488.84	+11	EUR/month	CSP
	average per equivalent consumer	652.59	72 820	+ 11.6 %	EUR/month	CSP
6	Gross domestic product (GDP)					
	- at current prices	25 037.69	27 033.06		EUR mio	CSP
	- at constant 2005 prices:	n/a			EUR mio	Eurostat

7	Electricity generation from thermal power generation					
8	Electricity generation from combined heat and power	3 767.4	3 000.1		GWh	CSP
9	Electricity generated in power plants (in the transformation sector)	0	0		GWh	CSP
10	Heat generation from boiler houses	2 023.4	2 028.5		GWh	CSP
11	Heat generation from combined heat and power plants, including waste heat	6 023.1	6 301.7		GWh	CSP
12	Fuel input for boiler houses	0.230	0.227		Mtoe	CSP
13	Fuel input for combined heat and power plants	1.050	0.973		Mtoe	CSP
14	Fuel input for power plants (in the transformation sector)	0	0		Mtoe	CSP
15	Passenger kilometres (pkm):					
	carriage of passengers by car	17 134	14 979		Mpkm	based on assumptions relating to the calculation of transport emissions
	carriage of passengers by public transport	2 187	2 146		Mpkm	carriage of passengers by bus only
	carriage of passengers by rail (including tram)	584	596		Mpkm	CSP
	domestic and international air transport of passengers	4 622	5 265		Mpkm	CSP
14	Tonne-kilometres					

	(tkm):					
	road haulage	14 227	14 972		Mtkm	CSP
	carriage of goods by rail	15 873	15 014		Mtkm	CSP
	freight transport by air	11	13		Mtkm	CSP
15	Population (at start of year)	1 968 957	1 934 379	-0.81 %	inhabitants	CSP
16	Population (average)	1 959 537	1 942 248	-0.88 %	person	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 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 2016 and 2017.

In 2017, total final energy consumption in Latvia increased by 4.4 % compared with 2016. 2017 saw an increase in all consumption sectors compared with 2016: Energy consumption in industry and construction increased by 4.9 % between 2016 and 2017, in households by 4.7 % in services (commercial and social) by 1.7 % and in transport by 4.1 %.

#### Transport

Fuel consumption in the transport sector (including international air transport) grew by 4.1 % in 2017 compared with 2016. Whilst fuel consumption in the rail sector decreased, in the international aviation and road transport sectors it increased. The main reason for the increase in fuel consumption in road transport was the increase in the number of passenger vehicles on the road in 2017 and the increase in the number of passenger kilometres. The number of passenger vehicles grew by 4 % in 2017 compared with the previous year, and the number of passenger kilometres by 6 %. At the same time, the number of freight vehicles grew by 3 %, and the volume of freight carried (kilometre tonnes) by 6 %.

#### Industry and construction

Final energy consumption in industry and construction grew by 4.9 % in 2017 compared with the previous year. Around 17.7 % of total energy consumption in the sector comes from electrical energy, consumption of which grew by 6.3 %. The main reason for this is increased production. In 2017, value added produced in the sector grew by around 11 %. This indicates that energy growth in the sector was lower than production volumes, expressed as value added. Energy intensity in the sector (energy/value added) in 2017 compared with 2016 thus fell by 5.4 %.

#### Households

Final energy consumption in households grew by 4.7 % in 2017 compared with the previous year. Since the majority of fuel in households is used for heating, consumption depends on the number of heating degree days. Fuel wood accounts for around 37.3 % of total household energy consumption and in 2017, when calculating

the energy balance, the Central Statistical Bureau used a conversion coefficient that was 14.9 % higher in order to convert from natural units (solid m<sup>3</sup>) to energy units (TJ). This increased energy expenditure for consumption of the same type of fuel wood expressed in natural units, hampering multi-annual comparisons of energy consumption. Use of the new conversion coefficient has also had an impact on the calculated energy consumption in the services sector.

Re-converting household energy in 2017 using the previous fuel wood conversion coefficient shows the actual energy consumption of households to be around 0.3 % lower than in 2016. Likewise, factoring in climate correction, which takes account of the impact of heating degree days on the consumption of energy for heating, shows energy consumption to have been on a downward trend over the past six years, which is the result of energy efficiency measures being implemented in the renovation of buildings. Even though the number of heating degree days in 2017 was lower than the long-term average, energy consumption calculated using climate correction shows an increase. This is partly the result of people spending more of their disposable income on more comfortable lifestyles and partly the result of growth of energy consumption in households (the so-called rebound effect).

#### Services sector

In the services sector overall final energy consumption increased by 1.7 % between 2016 and 2017. The main reason for the growth in energy consumption was the growth of some 4.3 % in added value produced Electricity consumption accounts for approximately 39.1 % of energy consumption in the sector and grew by 1.3 %.

## **II. MAJOR LEGISLATIVE AND NON-LEGISLATIVE MEASURES**

In accordance with points (b)-(d) of Annex XIV to Directive 2012/27/EU, information is provided here on major legislative and non-legislative measures implemented in 2018.

### **Laws and regulations promoting improved energy efficiency**

- a) Adoption of amendments to the **Law on the energy efficiency of buildings**<sup>1</sup> stating that where a public building has undergone energy performance certification but the building's energy certificate or temporary energy certificate is not posted in the building where visitors can see it, a decision in respect of a private person and a derived public person shall be taken in accordance with the procedure set out in the Law on administrative proceedings.
- b) Adoption of Cabinet Regulation No 76 of 19 February 2019 amending Cabinet Regulation No 162 of 17 February 2009 **on the first selection stage for project applications under sub-activity 3.5.2.1.1. "Measures to increase the efficiency of district heating systems" of the supplement to the "Entrepreneurship and Innovations" Operational Programme**<sup>2</sup> laying down the method to be applied in project applications for calculating the return-on-equity indicator;
- c) Adoption of Cabinet Regulation No 75 of 19 February 2019 amending Cabinet Regulation No 165 of 17 February 2009 on activity 3.5.2.2 "Development of cogeneration power plants using renewable energy sources" of the supplement to

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<sup>1</sup> <https://likumi.lv/ta/id/302993>

<sup>2</sup> <https://likumi.lv/ta/id/305031>

- the “Entrepreneurship and Innovations” Operational Programme<sup>3</sup> laying down the method for calculating the applicable return-on-equity indicator;
- d) Adoption of Cabinet Regulation No 74 of 19 February 2019 amending Cabinet Regulation No 824 of 17 February 2009 **on round two and subsequent rounds of the selection of project applications under sub-activity 3.5.2.1.1. “Measures to increase the efficiency of district heating systems” of the supplement to the “Infrastructure and services” Operational Programme**<sup>4</sup>, the object of which is to provide district heating companies with more support for enhancing the efficiency of district heating systems;
- e) Adoption of Cabinet Regulation No 60 of 5 February 2019 **amending Cabinet Regulation No 160 of 15 March 2016 on implementing operational programme “Growth and employment”, specific aid objective 4.2.1 “Promoting the enhancement of energy efficiency in State-owned and residential dwellings”, specific aid objective measure 4.2.1.1. “promoting the enhancement of energy efficiency in residential buildings”**<sup>5</sup>, which stipulates that;
- aid under measure 4.2.1.1. may henceforth be granted for apartment blocks in which there are at least three groups of living spaces;
  - final beneficiaries (apartment owners) or their authorised representatives who are not subject to the law on public procurement shall not be subject to regulatory requirements relating to projects financed by a contracting authority during the selection of service providers;
  - the loan from Altum, the Development Finance Institution, shall be combined with a 50 % grant.
  - non-application of exemption from ownership restrictions and of State aid rules for companies and foundations set up pursuant to the Law on social apartments and social residential buildings;
- f) Adoption of Cabinet Regulation No 26 of 15 January 2019 **on the price schedule for services relating to independent expert competence assessment in the field of energy efficiency of buildings and the monitoring of professional activity**<sup>6</sup>, which sets out the fees that an independent expert in building energy efficiency can charge for services provided by a body responsible for competence assessment - competence checks and the supervision of professional activity. This Regulation will help safeguard the quality of checks on the competence of energy efficiency experts and professional activities.
- g) Adoption of Cabinet Regulation No 664 of 30 October 2018 **amending Cabinet Regulation No 534 of 9 August 2016 on implementing round one of the selection of project applications under the “Growth and employment” Operational Programme, specific aid objective No 4.2.1 “Promoting the enhancement of energy efficiency in State-owned and residential buildings, measure 4.2.1.2 “Promoting the enhancement of energy efficiency of State-owned buildings”**<sup>7</sup>, which expands the circle of buildings or common areas of a building for which a project application may be submitted and stipulates that a

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<sup>3</sup> <https://likumi.lv/ta/id/305027>

<sup>4</sup> <https://likumi.lv/ta/id/305012>

<sup>5</sup> <https://likumi.lv/ta/id/304707>

<sup>6</sup> <https://likumi.lv/ta/id/304295>

<sup>7</sup> <https://likumi.lv/ta/id/302694>

project application may also be submitted for a building or common area of a building in which the State limited liability company mentioned in Article 6(2) of the Law on railways carries out State public-use public railway infrastructure management;

- h) Adoption of Cabinet Regulation No 552 of 28 August 2018 **amending Cabinet Regulation No 13 of 4 January 2018 on implementing round two of the selection of project applications under the “Growth and employment” Operational Programme, specific aid objective No 4.2.1 “Promoting the enhancement of energy efficiency in State-owned and residential buildings, measure 4.2.1.2 “Promoting the enhancement of energy efficient in State-owned buildings”<sup>8</sup>, which sets out:**
- the volume of funding available for the implementation of expanded projects;
  - the list of buildings that can be renovated during the second-round project application selection procedure;
  - the reduced administrative burden for the parties involved in implementing measure 4.2.1.2.;
- i) Adoption of Cabinet Regulation No 531 of 21 August 2018 on the assessment of the competence of independent experts and the monitoring of professional activity in the building energy performance field, which set out the skills required of an independent expert and the attestation procedure, the procedure for registering and monitoring independent experts and the contents of the data held in the register of independent experts and the procedure for using them;
- j) Adoption of Cabinet Regulation No 449 of 24 July 2018 amending **Cabinet Regulation No 135 of 7 March 2017 on implementing round one of the selection of project applications under specific objective 4.3.1 “Promoting energy efficiency and the use of Local Renewable Energy resources in district heating of the “Growth and employment” operational programme<sup>9</sup>**, which lays down additional conditions for the granting of State aid, stipulating that under round one of the project application selection (4.3.1) State aid may also be granted as State aid in connection with compensation for social services to operators entrusted to provide services of general economic interest in accordance with Commission Decision No 2012/21/EU;
- k) Adoption of Cabinet Regulation No 418 of 17 July 2018 **on the Statute for reduction of greenhouse gas emissions by developing energy self-sufficient housing under the open competition for projects under the emission allowances auction instrument<sup>10</sup>**. An open competition was organised to support projects that limit potential greenhouse gas emissions by supporting the construction of new and sustainable low-energy self-sufficient buildings and by demonstrating and promoting the technologies needed for low-carbon technologies in Latvia.
- l) Adoption of Cabinet Regulation No 414 of 10 July 2018 **amending Cabinet Regulation No 534 of 9 August 2016 on implementing round 1 of the selection of project applications under specific objective 4.2.1. “Promoting the enhancement of energy efficiency in State-owned and residential buildings”, measure 4.2.1.2 “Promoting the enhancement of energy efficiency**

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<sup>8</sup> <https://likumi.lv/ta/id/301311>

<sup>9</sup> <https://likumi.lv/ta/id/300630>

<sup>10</sup> <https://likumi.lv/ta/id/300500>

**in State-owned buildings” under the “Growth and employment” Operational Programme<sup>11</sup>**, which will ensure the faster implementation of round one project applications under measure 4.2.1.2 and have a positive impact on project applicants, as:

- the range of housing eligible for support under measure 4.2.1.2 is expanded (buildings with higher construction costs per square metre of total floor area, buildings with higher design costs, and buildings where part of the area is used for commercial purposes);
  - the conditions for implementing measure 4.2.1.2 are clarified, which will speed up the preparation and evaluation of projects;
- m) Cabinet Regulation No 333 of 12 June 2018 **“Statute for reduction of greenhouse gas emissions by developing energy self-sufficient housing under the open competition for projects under the emission allowances auction instrument”<sup>12</sup>**. The aim of the competition is to reduce GHG emissions directly and indirectly by deploying and demonstrating smart urban technologies which utilise renewable energy resources or which contribute to increased energy efficiency by using innovative or proven approaches. Further, the long-term benefits of the projects are expected to include the systematic tackling of climate change by making society more aware of it and by encouraging project applicants to include in their planning documents climate change objectives and measures and the deployment of energy management systems;
- n) Adoption of Cabinet Regulation No 323 of 12 June 2018 **amending Cabinet Regulation No 487 of 26 July 2016 on the energy auditing of companies<sup>13</sup>**, which prevents conflicts between legal norms of equal legal force and improves the regulatory framework in relation to energy efficiency in buildings in which the a company carries out its operations and which are not related to the securing of production, and in relation to the inspection of heating and air conditioning systems in buildings;
- o) Adoption of Cabinet Regulation No 161 of 13 March 2018 amending Cabinet Regulation No 160 of 15 March 2016 **on implementing provisions under specific objective 4.2.1.1. “Promoting energy efficiency in residential buildings” forming part of specific objective 4.2.1. “Promoting energy efficiency in State-owned and residential buildings” of the “Growth and employment” Operational Programme**, which stipulates:
- that bundled funding from owners of apartments in apartment buildings may be used to cover the cost of energy efficiency enhancement measures;
  - that the deployment of energy efficiency enhancement measures is economically justified if the internal rate of return for energy enhancement measures over a 30-year period is greater than 0 and this calculation does not take into account payments that basically do not affect repayment (commission payments);
  - the precise attribution conditions for running energy efficiency enhancement measures;
- p) Adoption of Cabinet Regulation No 83 of 13 February 2018 **amending Cabinet Regulation No 590 of 6 September 2016 on implementing specific aid**

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<sup>11</sup> <https://likumi.lv/ta/id/291955>

<sup>12</sup> <https://likumi.lv/ta/id/299903>

<sup>13</sup> <https://m.likumi.lv/doc.php?id=299642>



**objective 4.1.1. “Promoting the efficient use of energy resources, reduction of energy consumption and transition to Renewable Energy Resources in industrial production” forming part of the “Growth and employment” Operational Programme<sup>14</sup>**, which sets out:

- specific aid objective (hereinafter “SAD”) 4.1.1 - definition of the CF funding available for first-round project application selection in accordance with the volume of CF requested under the project application selection procedure;
  - definition of SAD 4.1.1 output indicators to be submitted as part of the first-round SAD 4.1.1 project application selection in proportion to the volume of Cohesion Fund financing requested under the project application selection procedure;
  - dispensing with the condition that one project applicant may only submit one project application for the entire SAD 4.1.1.;
  - dispensing with the condition that a single financial beneficiary and persons related to that beneficiary may have a maximum of EUR 1 million of CF financing available for the whole of the SAD 4.1.1;
- q) Adoption of Cabinet Regulation No 78 of 6 February 2018 **on requirements regarding electric vehicle charging, natural gas refuelling, hydrogen refuelling and shore-side equipment<sup>15</sup>**, which sets uniform requirements for electric vehicle charging, natural gas refuelling, hydrogen refuelling and short-side refuelling equipment. Aid for the development of electric vehicles is one of the measures to improve energy efficiency in the transport sector;
- r) Adoption of Cabinet Regulation No 38 of 16 January 2018 on implementing round two of the selection of project applications under specific objective 4.1.1. “Promoting the efficient use of energy resources, reduction of energy consumption and transition to Renewable Energy Resources in industrial production” forming part of the ‘Growth and employment’ Operational Programme<sup>16</sup>, which lays down:
- the increased amount of Cohesion Fund co-financing available for each project applicant and parties related to that applicant. This was EUR 600 000 for round one of project applications and EUR 1 000 000 for round two;
  - industrial production (NACE Rev.2. Section C ) as one of the project applicant’s areas of activity rather than the main area of activity, thus not excluding as aid beneficiaries enterprises in which industrial production accounts for less than 50 % of their activity;
  - a broader range of eligible activities, provision also being made for aid for activities such as the purchase and installation of cold energy sources for own consumption, the refurbishment of internal and external heating and cooling networks, the purchase of new technical equipment for energy-efficient production;
- s) Adoption of Cabinet Regulation No 13 of 4 January 2018 implementing round two of the selection of project applications under measure 4.2.1.2 “Promoting energy efficiency in State-owned buildings”, forming part of specific objective 4.2.1 “Promoting the energy efficiency of State-owned and

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<sup>14</sup> <https://likumi.lv/ta/id/297094>

<sup>15</sup> <https://likumi.lv/ta/id/297090>

<sup>16</sup> <https://likumi.lv/ta/id/297094>

residential buildings” of the “Growth and employment” Operational Programme<sup>17</sup>, stipulating that projects must comply with the following energy efficiency requirements:

- the total amount of planned heat and electricity savings after implementation of the project is at least 30 % per annum of the building or part thereof for which individual energy accounting is provided or the calculated energy consumption of the engineering structure prior to implementation of the project;
- the planned heat consumption for heating after implementation the project based on the calculations made and the construction works provided for in the technical documentation of the project does not exceed 110 kWh/m<sup>2</sup> per year. This condition does not apply to civil engineering works.

### **Implementation of energy efficiency measures**

Public funding to implement projects to improve energy efficiency came from financial resources made available by the European Union Structural Funds (the EU’s Regional Development Fund [ERDF] and the Cohesion Fund [CF]), and from the State budget programme “Climate change financial instrument” (CCFI).

Funding to improve the heat insulation of residential apartment blocks 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 heating supply systems were financed from the Cohesion Fund (CF). Funding for improving the energy efficiency of buildings owned by the State and municipalities, registered traders and private individuals and for improving the energy efficiency of technological equipment for manufacturing comes from the ‘Climate change financial instrument’ (CCFI), a Government budget programme run by the Ministry of Environmental Protection and Regional Development (VARAM). The financial development agency Altum issues green bond loans to enhance the energy efficiency of businesses.

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

In 2016/17, the submission and implementation of ERDF and CF projects under the aegis of the Ministry of the Economy began under the following measures forming part of the 2014-2010 “Growth and employment” Operational Programme, and this is continuing in 2018:

- 4.1.1. Specific aid objective “Promoting the efficient use of energy resources, the reduction of energy consumption and transition to RERs in industrial production” (hereinafter “measure 4.1.1”).

4.1.1. The aim of this measure is to promote the efficient use of energy resources, the reduction of energy consumption and the changeover to renewable energy resources in industrial production. Aid is granted to enhance energy efficiency in industrial buildings by refurbishing the structural parts of buildings and their technical systems and ensuring the implementation of measures to improve energy

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<sup>17</sup> <https://likumi.lv/ta/id/296336>

efficiency mentioned in the energy audit report, aid also being granted to replace existing production facilities with more energy-efficient ones.

In all, 78 project applications had been submitted by 13 June 2018, 40 of which have been approved, with nine projects currently being evaluated. The projects will be implemented by 31 December 2020 for a total amount of EURE 13.7 in CF co-funding, as per the request.

- 4.2.1. Specific aid objective “Promoting energy efficiency in State-owned and residential buildings”, specific aid objective 4.2.1.1 “Promoting energy efficiency in residential buildings” (hereinafter “measure 4.2.1.1”).

4.2.1.1. The aim of this measure is to enhance energy efficiency and the use of smart energy management systems and renewable energy resources in residential apartment buildings. Aid is granted to carry out building work in those parts of residential apartment blocks jointly owned by the block’s apartment owners in a bid to safeguard refurbishment of the structural components of the building, as provided for in the technical design or simplified renovation documentation, and the execution of works under the energy efficiency improvement measures referred to in the building’s energy audit report.

In all, 497 projects were submitted from 2016 to 1 April 2019 for overall requested funding of EUR 84.5 million, in respect of which 176 positive grant decisions were taken, with 88 buildings being in the process of construction and 56 apartment blocks being refurbished.

- 4.2.1. Specific aid objective “Promoting the enhancement of energy efficiency in State-owned and residential buildings”, measure 4.2.1.2 “Promoting the enhancement of energy efficiency in State-owned buildings” (hereinafter “measure 4.2.1.2”).

4.2.1.2. The aim of the measure is to promote the enhancement of energy efficiency, smart energy management and the use of renewable energy resources in buildings owned directly by the State or run by it and in buildings owned, managed or used by a derived public entity tasked with managing such buildings.

By 1 April 2019, 117 project applications had been submitted for total public funding of EUR 89.29 million, which has been used to renovate eight buildings and carry out energy efficiency enhancement measures in 69 others..

- 4.3.1. Specific aid objective “Promoting energy efficiency and the use of local renewable energy resources in district heating” (hereinafter “measure 4.3.1”).

4.3.1. The aim of the measure is to promote energy efficiency and the use of local renewable energy resources in district heating. Projects involve improving the efficiency of district heating systems, replacing inefficient sources of heating with new ones, changing from fossil fuels to renewables, reconstructing and optimising existing heat management and distribution networks, and installing heat accumulators.

By 1 February 2018, 125 project applications had been submitted, of which 104 have been approved and are being implemented, for a total CF co-funding of EUR 52.99 million, as per the request.

Information on the indicators achieved under measures 4.1.1, 4.2.1.1, 4.2.1.2 and 4.3.1 will be available at the end of 2019, once the year following project completion

has ended and financial beneficiaries have submitted project reports to the Central Finance and Contracting Agency.

Detailed information on energy efficiency support programmes financed under the ERDF and CF can be found on the Ministry of the Economy's website at:

[https://www.em.gov.lv/lv/es\\_fondi/atbalsta\\_pasakumi\\_2014\\_2020/energetika\\_un\\_energoefektivitate/](https://www.em.gov.lv/lv/es_fondi/atbalsta_pasakumi_2014_2020/energetika_un_energoefektivitate/)

### **b) State tax policy guidelines 2018-2021**

Excise duty is a specific consumer tax applied to certain groups of consumer goods. Its aim is to restrict the consumption of goods which are harmful to the environment and human health, and generate revenue for the State.

Between 2014 and 2018 excise duty on basic fuel types increased twice, once in 2016 and once in 2018. Cabinet Order No 245 of 24 May on the State's tax policy guidelines 2018-2021<sup>18</sup> forms the basis for changes to excise tax as from 1 January 2018.

Excise duties in Latvia and the minimum excise duties set by the European Commission are available on the Eurostat website at<sup>19</sup>.

### **C) "Warmer living" information campaign<sup>20</sup>**

At the initiative of the Ministry of the Economy, 18 public entities, non-government organisations and banks signed a memorandum of understanding on 25 February 2010 on establishing effective and open cooperation when providing information about housing renovations. By 31 December 2016, the memorandum had been signed by 39 organisations (eight organisations signed up in the course of the year). The memorandum's main purpose is to ensure that information on housing renovations is generally available. This involves:

- fostering mutual cooperation between and awareness within sectoral associations to ensure the dissemination of the latest information of relevance to the sector;
- ensuring that information is available on issues relating to the management and running of residential apartment buildings;
- ensuring that apartment owners have access to information on sources of funding for household renovation;
- providing information on the benefits of housing renovation;
- raising awareness about the conditions that need to be fulfilled to ensure renovations are carried out to a high standard;
- informing people about quality standards for building materials and how they should be used;
- making access easier to high-quality services by providing people with the latest information relevant to the sector.

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<sup>18</sup> <https://likumi.lv/ta/id/291013-par-valsts-nodoklu-politikas-pamatnostadnem-2018-2021-gadam>

<sup>19</sup> [https://ec.europa.eu/taxation\\_customs/sites/taxation/files/resources/documents/taxation/excise\\_duties/energy\\_products/rates/excise\\_duties-part\\_ii\\_energy\\_products\\_en.pdf](https://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/excise_duties/energy_products/rates/excise_duties-part_ii_energy_products_en.pdf)

<sup>20</sup> [https://www.em.gov.lv/lv/es\\_fondi/dzivo\\_siltak/](https://www.em.gov.lv/lv/es_fondi/dzivo_siltak/)

The 2018 “Warmer living” campaign. The following measures were taken under the above campaign:

- in cooperation with the Development Finance Institution Altum, a series of regional seminars was organised on bringing in EU funding to help with improving the energy efficiency of apartment blocks and the benefits of building renovation. A total of 21 seminars were organised, and they were attended by over 1 550 participants;
- in cooperation with Altum, four regional seminars were held in Latvia entitled “Energy-efficient businesses: requirements and funding”. These were attended by more than 100 participants.
- in conjunction with manufacturers of building materials and equipment, seven practical and theme-based seminars were organised on construction quality (ventilated façades, ventilation, heating supply and other topics). These were attended by more than 350 people in total.

During the “Warmer living” information campaign, almost 4 000 people visited the “House 1” and “House versus apartment” exhibition stands.

- the Ministry of Environmental Protection joined forces with the trade journal “Būvinženieris” [The civil engineer] to organise the competition “Latvia’s most energy efficient building 2018”. For the 2018 competition, 14 houses were short listed in categories. The competition features information material such as the fold-out guide entitled “All you need to know about energy efficiency” to help promote energy efficiency in everyday life,

and a photo competition entitled “Energy efficiency around us”<sup>21</sup>.

- Active work on social media (facebook.com/dzivosiltak, twitter.com/siltinam, draugiem.lv, youtube.com/siltinam, slideshare.net/siltinam).

#### **d) “Latvia’s most energy-efficient building 2017” competition<sup>22</sup>**

“Latvia’s most energy-efficient building” is organised by the Ministry of the Economy in conjunction with the VARAM and the trade journal “Būvinženieris” as part of the “Warmer living” campaign. The competition aims to foster good practices in the field of building energy efficiency through the construction of energy-efficient buildings or the renovation and reconstruction of buildings to make them energy efficient, thereby reducing 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 NGOs in the construction sector have been involved in drawing up the competition terms and conditions and the screening of applicants - the Latvian Association of Civil Engineers, the Latvian Association of Engineering Consultants, the Latvian Association of Builders, the Latvian Association of Building Managers and Operators, the Association of Technical Experts, the Latvian Union of Heating, Gas and Water Engineers, the Latvian Sustainable Building Council, the Latvian Association of Door and Window Manufacturers, Riga Technical University, the Association of Building Material Producers and a number of individual companies.

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<sup>21</sup> <https://em.gov.lv/lv/jaunumi/21242-nosledzies-fotokonkurss-energoefektivitate-mums-apkart>

<sup>22</sup> <http://www.energoefektivakaeka.lv/>

For the 2018 competition, 14 projects have been short listed in four categories (Renovated apartment building, apartment building, new construction and public building and most energy-efficient single-family house). The competition is a celebration not only for the competition winners, but also for the organisers, the jury and all fans of energy efficiency.

Information on the competition results and other useful information can be found on the website of the Ministry of the Economy<sup>23</sup>.

#### **e) Implementation of the CCFI State budget programme**

The CCFI aims to help prevent global climate change and help adapt to its effects, bring about 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).

In 2016, implementation of the competition projects forming part of the CCFI Government budget programme under the auspices of VARAM was completed. In 2016 and 2017 post-evaluation checks were carried out on projects in accordance with the annual schedule of checks for projects financed under the CCFI. Energy savings achieved under completed CCFI projects are computed in accordance with Cabinet Regulation No 668 of 11 October 2011 on the monitoring of energy efficiency and applicable energy standards.

Detailed information on CCFI project competitions can be found on the websites of VARAM<sup>24</sup> and the Latvian Environmental Investments Fund<sup>25</sup>.

#### **f) Implementation of the State budget programme under the Emissions Allowance Auctions Instrument**

The aim of the EAAI is to reduce climate change and allow people to adapt to it. EAAI finances measures aimed at:

- increasing the energy efficiency of buildings, technical equipment and vehicles;
- expanding the use of renewable energy resources;
- developing environmental technology that ensures increased energy efficiency, the use of renewable energy resources, reducing greenhouse gas emissions from technological processes or adapting to climate change;
- implementing awareness-raising measures which result in increased public awareness and knowledge of climate change and the measures needed to mitigate and ensure adaptation to climate change, facilitate a change in consumer behaviour and promote the development of a low-carbon economy in Latvia;

3 August 2018 saw the launch of the project competition “Reducing greenhouse gas emissions by promoting the construction of energy self-sufficient buildings”. Under the competition, funding was allocated to the construction of two public buildings.

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<sup>23</sup> <http://www.energoefektivakaeka.lv/>

<sup>24</sup> [www.varam.gov.lv](http://www.varam.gov.lv)

<sup>25</sup> [www.lvif.gov.lv](http://www.lvif.gov.lv)

6 July 2018 saw the launch of the project competition “Reducing greenhouse gas emissions by means of smart urban technology”. Under this competition, funding was allocated to 18 different projects.

16 March 2016 saw the launch of the project competition “Reducing greenhouse gas emissions - low-energy housing”. Under this competition, funding was allocated to the construction of low-energy houses in seven municipalities.

2 March 2016 saw the launch of the project competition “Reducing greenhouse gas emissions in listed State architectural monuments”. Under this competition, funding was allocated to nine listed State architectural monuments in five municipalities.

Detailed information on EAAI project competitions is available on the VARAM website<sup>26</sup>.

#### **g) Signing of voluntary agreements on improving energy efficiency.**

Pursuant to paragraph 6 of Cabinet Regulation No 669 of 11 October 2016 establishing a procedure for the signing and supervision of voluntary agreements on improving energy efficiency, the Ministry of the Economy published on its website in 2018 an invitation to traders, their representative organisations and municipalities to conclude voluntary agreements to improve energy efficiency. Even though a number of organisations and municipalities expressed an interest in an agreement, in 2018 no new agreements were signed. One of the barriers is the fact that although Article 8(2) of the Law on energy efficiency says that the competent ministry may grant aid for energy audits and various types of energy efficiency improvement measures made under the agreement, no aid from the State budget or the State energy efficiency fund has been made available.

At the end of 2017, operational implementation of the voluntary agreement with SIA “Salaspils Siltums” and SIA “Jūrmalas siltums” began in accordance with the energy efficiency plans submitted pursuant to the terms of the agreement. Information on the voluntary agreement is available on the Ministry of the Economy’s website<sup>27</sup>.

#### **h) Compulsory deployment of a certified energy management system or the performance of an energy audit of major electricity consumers.**

Major electricity consumers, i.e. consumers with an annual electricity consumption of over 500 MWh, must, as of 2016 and until 1 April 2018, show that they have introduced a certified energy management system or performed an energy audit.

According to the information collected by the Ministry of the Economy’s energy performance monitoring system, in 2016 there were 1 010 traders who qualified as major electricity consumers, 891 of whom were obliged to deploy a certified energy management system or carry out a regular energy audit. By April 2022 these operators must implement the three energy performance improvement measures mentioned in the energy audit report with the greatest estimated energy saving or economic return. Under the energy efficiency monitoring system, major electrical energy consumers have already started reporting on the energy savings achieved as a result of introducing the energy efficiency improvement measures. Information on

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<sup>26</sup> <http://www.varam.gov.lv/lat/fondi/ekii/merki/>

<sup>27</sup> [https://www.em.gov.lv/lv/nozares\\_politika/energoefektivitate\\_un\\_siltumapgade/energoefektivitate/brivpratiga\\_vienosanas/](https://www.em.gov.lv/lv/nozares_politika/energoefektivitate_un_siltumapgade/energoefektivitate/brivpratiga_vienosanas/)



major electrical energy consumers is available on the website of the Ministry of the Economy<sup>28</sup>.

**i) Compulsory deployment of a certified energy management system in major urban centres.**

A certified energy management system has been deployed by local authorities in eight urban centres and in eight municipal authorities (either by complying with compulsory requirements or voluntarily). Information on the local authorities which have complied with the requirements set out in the Law on energy efficiency can be found on the website of the Ministry of the Economy<sup>29</sup>.

**j) The plan of alternative energy efficiency measures to achieve the final energy consumption savings targets in 2014-2020 was approved on 24 May 2017<sup>30</sup>.**

**k) In 2017 the Development Finance Institution Altum began to issue green bond loans to energy-efficient companies** in accordance with Cabinet Regulation No 1065 on loans to promote the development of small (micro), medium and large economic operators and agricultural and forestry cooperative service companies<sup>31</sup>.

**List of buildings owned, managed or used by the Government institutions**

In accordance with Article 5(5) of Directive 2012/27/EU, each year the Ministry of the Economy draws up an inventory of buildings owned, managed or used by the State and publishes it on its website<sup>32</sup>.

Since 1 January 2014 the following 3 % renovation targets have been calculated:

- 1) according to the list of buildings as of 1 January 2014 the calculated 3 % floor area renovation target for 2014 was 77 679.66 m<sup>2</sup>;
- 2) according to the list of buildings as of 1 January 2016 the calculated floor area for 2015 was 74 908.67 m<sup>2</sup>;5
- 3) according to the list of buildings as of 1 January 2016 the calculated 3 % floor area for 2016 was 66 175.41 m<sup>2</sup>;
- 4) according to the list of buildings as of 1 January 2017 the calculated 3 % floor area for 2017 was 59 980.10 m<sup>2</sup>;
- 5) according to the list of buildings as of 1 January 2018, the calculated 3 % floor area for 2018 was 57 313.24 m<sup>2</sup>;
- 6) according to the list of buildings as of 1 January 2019, the calculated 3 % floor area for 2019 was 55 952.69 m<sup>2</sup>.

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<sup>28</sup> [https://www.em.gov.lv/lv/nozares\\_politika/energoefektivitate\\_un\\_siltumapgade/energoefektivitate/lielie\\_uznemumi\\_un\\_lielie\\_elektroenerijas\\_pateretaji/](https://www.em.gov.lv/lv/nozares_politika/energoefektivitate_un_siltumapgade/energoefektivitate/lielie_uznemumi_un_lielie_elektroenerijas_pateretaji/)

<sup>29</sup> [https://www.em.gov.lv/lv/nozares\\_politika/energoefektivitate\\_un\\_siltumapgade/energoefektivitate/pasvaldibas\\_un\\_valsts\\_iestades/](https://www.em.gov.lv/lv/nozares_politika/energoefektivitate_un_siltumapgade/energoefektivitate/pasvaldibas_un_valsts_iestades/)

<sup>30</sup> <https://likumi.lv/ta/id/291026-par-energoefektivitates-politikas-alternativo-pasakumu-planu-energijas-galapaterina-ietaupijuma-merka-2014-2020-gadam>

<sup>31</sup> <https://www.altum.lv/lv/pakalpojumi/uznemumiem/aizdevumi-uznemumu-energoefektivitatei/aizdevumi-uznemumu-energoefektivitate/>

<sup>32</sup> [https://www.em.gov.lv/lv/nozares\\_politika/majokli/eku\\_energoefektivitate/no\\_direktivas\\_2012\\_27\\_es\\_par\\_energoefektivitati\\_i\\_zrietasas\\_prasibas/](https://www.em.gov.lv/lv/nozares_politika/majokli/eku_energoefektivitate/no_direktivas_2012_27_es_par_energoefektivitati_i_zrietasas_prasibas/)



Since the deadline referred to in Article 5(1) of Directive 2012/27/EU, the following floor areas have been identified as renovated areas:

1) as of 1 January 2015 the identified renovated area was 232 635.36 m<sup>2</sup> (projects carried out between 2011 and 2014);

2) as of 9 July 2016 the identified renovated area was 136 155.30 m<sup>2</sup> (projects carried out in 2014 and 2015);

3) as of 9 July 2018 the identified renovated area was 29 916.50 m<sup>2</sup> (projects carried out in 2015 and 2016).

To date, Latvia has included buildings in the renovation target based on the renovated area established at the time of data collection rather than the actual time of acceptance of buildings. In order to ensure that the floor area included in balances is not carried over for more than three years from the date of actual acceptance of the building, in 2019 Latvia will not include in the renovation rate the previous year's renovation rate balance of 32 733.58 m<sup>2</sup> and, starting with this report, will only include in the renovation target rate renovated buildings that will be renovated and accepted within three years of the relevant year of renovation.

Renovated areas under the corresponding annual target are divided up according to the following calculations:

1) the renovated floor area of buildings established on 1 January 2015 was larger than the 3 % renovation target calculated for 2014. In accordance with the requirements of Article 5(3) of Directive 2012/27/EU, Latvia availed itself of the option of counting the excess towards the annual renovation rate of subsequent years, i.e. fully towards the 2015 and 2016 target and partially towards the 2017 target:

232 635.36 m<sup>2</sup> (renovated floor area identified on 1 January 2015) – 77 679.66 m<sup>2</sup> (2014 target) – 74 908.67 m<sup>2</sup> (2015 target) – 66 175.41 m<sup>2</sup> (2016 target) = 13 871.62 m<sup>2</sup> (balance of renovated floor area identified on 1 January 2015, counted towards realisation of the 2017 target);

2) renovated floor area identified on 9 July 2016 accounted for a total area of 136 155.30 m<sup>2</sup>. The indicated floor space was counted towards the remaining target for 2017 and towards meeting the 2018 target:

136 155.30 m<sup>2</sup> (renovated floor area identified on 9 July 2016) – 13 871.62 m<sup>2</sup> (balance of renovated area identified on 1 January 2015) – 59 980.10 m<sup>2</sup> (2017 target) – 57 313.24 m<sup>2</sup> (2018 target) = 32 733.58 m<sup>2</sup> (balance of renovated floor area identified on 9 July 2016 that will not count towards meeting the 2019 target).

3) renovated floor area identified on 9 July 2018 accounts for a total area of 29 916.50 m<sup>2</sup>. This area comprises 10 032.90 m<sup>2</sup> which was renovated and brought into service in 2015 (will not be counted towards meeting the 2019 target) and 19 883.60 m<sup>2</sup> which was renovated and brought into service in 2016. The floor area of 19 883.60 m<sup>2</sup> that was renovated and brought into operation in 2016 is counted towards the renovation target area for 2019.

Further, in order to ensure full compliance with the renovation rate for 2019, a report will be drawn up of renovation projects brought into operation in 2017 and 2018, and buildings renovated in 2019 will be counted towards renovation targets by 2022 at the latest.

To dispel any doubts about the full implementation of Article 5(1) of Directive 2012/27/EU, we would point out that over the six-year period 2011 to 2016 Latvia

renovated 398 707.16 m<sup>2</sup> of central government buildings, which exceeds the total sum of the 3 % renovation rate of 392 009.77 m<sup>2</sup> (3 % renovation rates from 2014 to 2019, six-year period), and between 2015 and 2017 Latvia brought into operation 23 new central government buildings, with a total floor space of 50 199.90 m<sup>2</sup>, part of this area could, if necessary, be counted towards the 3 % renovation rate should be need arise in future. To date, Latvia has not availed itself of the option provided for in Article 5(4) of Directive 2012/27/EU of counting new buildings towards meeting the renovation target. To correctly count these towards the meeting of the 3 % renovation target, the precise area of the replacement buildings would have to be calculated (if the floor space needed to be increased in order to allow the institutions to function properly).

Table 3 shows how the targets set out in Article 5(1) of Directive 2012/27/EU have been met since the relevant requirements entered into force.

Table 3

## Implementation of the requirements of Article 5(1) of Directive 2012/27/EU

Target period (set on the 1 January of the year in question)	List publication date	Data used as basis	Total floor area according the annual inventory of buildings owned by the State	Renovation target, total area, m <sup>2</sup>	Renovated floor area, m <sup>2</sup>	Balance counted towards targets of any of the three previous or following years, m <sup>2</sup>	Implementation of targets for relevant year assured, requisite volume whose implementation will be notified in the next report to the European Commission
2014	1.1.2014.	Data for 2008-2012 (buildings over 500 m <sup>2</sup> )	2 589 322.00	77 679.66			x
2015	1.1.2015.	Data for 2009-2013 (buildings over 500 m <sup>2</sup> )	2 496 955.81	74 908.67	232 635.36	80 047.03	x
2016	9.7.2015.	Data for 2010-2014 (buildings over 250 m <sup>2</sup> )	2 205 846.99	66 175.41		13 871.62	x
2017	9.7.2016.	Data for 2011-2015 (buildings over 250 m <sup>2</sup> )	1 999 336.83	59 980.10	136 155.30	90 046.82	x
2018	9.7.2017.	Data for 2012-2016 (buildings over 250 m <sup>2</sup> )	1 910 441.34	57 313.24	29 916.50 (10 032.0 m <sup>2</sup> – 2015 <sup>33</sup> ) (19 883.0 m <sup>2</sup> – 2016)	32 733.8 <sup>34</sup>	x
2019	9.7.2018.	Data for 2013-2017 (buildings over 250 m <sup>2</sup> )	1 865 089.69	55 952.69	Not given <sup>35</sup> .	19 883.60	-36 069.09
TOTAL				392 009.77	398 707.16	-	

<sup>33</sup> In order to ensure that the floor space included in the balances is not carried over for more than three years after a building was effectively brought into operation, Latvia will not include in the 2019 renovation rate the identified renovated floor space of 10 032.90 m<sup>2</sup> that was finished and brought into operation in 2015.

<sup>34</sup> In order to ensure that the floor spaced included in the balances is not carried over for more than three years after a building was effectively brought into operation, Latvia will not include in the 2019 renovation rate the remaining 32 733.58 m<sup>2</sup> from previous years.

<sup>35</sup> Latvia will report to the European Commission on the full implementation of the remaining 2019 renovation rate in a forthcoming report. The rate will include renovation projects that were brought into operation in 2017 and 2018 for which full information was not available at the time of writing of this report.

### III. ENERGY SAVINGS ACHIEVED BY MEANS OF THE STATE ENERGY EFFICIENCY OBLIGATION SCHEME OR ALTERNATIVE MEASURES UNDER ARTICLE 7 OF DIRECTIVE 2012/27/EU

According to the terms of Article 7 of Directive 2012/27/EU, the cumulative energy saving for Latvia for the period until 2020 is 9 876 GWh.

#### Energy efficiency obligation scheme

2013 saw the adoption in Latvia of a concept for and government Ordinance on the energy efficiency obligation scheme, and 2017 saw the adoption of the Energy efficiency obligation scheme (EEOS) Regulation, which provides for a base period from 2018 and a starting period prior to 2018 (2014-2017) during which the obligated parties can report on plan measures for end consumers. The energy saving guaranteed by obligated parties during the start period are shown in Table 4.

**Table 4**  
*Energy savings achieved by obligated parties under the energy efficiency obligation scheme*

Measure	New savings, 2014, GWh	New savings, 2015, GWh	New savings, 2016, GWh	New savings, 2017, GWh	Cumulative savings for 2020, GWh
Information measures on energy efficiency	3.4	23.5	21.8	106	154.7
Installation of smart meters	5	5.5	13.7	10	68.4
Other measures	0.003	0	0.04	26.7	106.1
<b>Total</b>	<b>8.4</b>	<b>29</b>	<b>35.5</b>	<b>142.7</b>	<b>329.2</b>

#### Alternative measures

Alternative measures are included in the Plan of alternative energy efficiency policy measures to achieve the final energy consumption savings targets in 2014-2020 approved on 24 May 2017.

In 2017, energy savings were recorded and calculated for individual projects implemented under alternative measures, and as a result of policies to promote energy efficiency being implemented.

In some projects the reported energy savings are calculated using an ex-post method, which involves quantifying energy consumption for a building before and after implementation of a measure. Savings under the green bonds loan scheme are assessed using an ex ante method based on an appraisal of companies done during an energy audit. The system set up by the competent authorities used to record and monitor projects and their implementation also safeguards a procedure for checking energy savings under a project where necessary. Energy savings for individual activities are calculated based on the reports submitted by competent authorities on projects implemented and results achieved.

Tax savings are calculated using data on actual energy consumption, price elasticity and the correlation between the energy tax rates set by Latvia and the minimum tax rates set by the EU.

For transparency's sake, information on measures under which new projects will not be implemented in 2017 (Table 5) will be shown separately from measures under which projects will continued to be implemented in 2017 (Table 6).

**Table 5**  
*Calculated energy saving from completed State aid programmes  
for 2014-2016 and cumulatively for 2020*

Measure	New savings for 2014, in GWh	New savings for 2015, in GWh	New savings for 2016, in GWh	Cumulative savings for 2020, in GWh
Climate change financial instrument project competitions	60.1	69.6	103.2	1354.7
Renovation of government-owned buildings under State aid programmes	2.7			19
Measures to improve the energy efficiency of apartment blocks and residential social housing under the "Infrastructure and services" Operational Programme	25.7	22.4	22.6	427
Energy efficiency projects under the EEA Programme "National Climate Policy"			1.1	5.5
<b>Total</b>	<b>89</b>	<b>92</b>	<b>128</b>	<b>1806</b>

**Table 6**  
*Calculated energy savings from measures under which projects will continue to be implemented in 2017  
2014-2017 and 2020 cumulative*

Measure	New savings for 2014, in GWh	New savings for 2015, in GWh	New savings for 2016, in GWh	New savings for 2017, in GWh	Cumulative savings for 2020, in GWh
European Agricultural Fund for Rural Development (EAFRD) measure "Investments in material assets"			1.1	3.15	18.1
Implementation of measures identified as a result of energy audits of large companies and major electricity consumers		8.03	46.2	97	668.1
Measures implemented by municipalities and			0.3	0.44	3.28

reports on savings submitted					
Issue of green bonds to improve the energy efficiency of businesses				9.2	36.9
Regular public information education measures run by public bodies <sup>36</sup>	37.4	53.3	78.7	115.1	284.5
Measurement of exhaust fumes as part of the State technical vehicle inspections	9.7	10.1	10.3	10.8	40.9
Tightening up of building regulations and building energy efficiency regulations <sup>37</sup>			23.1	36.2	260.0
Energy taxes <sup>38</sup>					
diesel	150.5	163.5	208.1	218.8	740.9
petroleum	91.9	101.3	127.5	115.9	436.6
natural gas	32.5	30.8	33.5	37.8	134.6
wood fuel	87.7	71.0	69.7	69.3	297.7
electrical energy	42.2	34.3	29.0	64.7	170.2
<b>Total</b>	<b>451.92</b>	<b>472.29</b>	<b>627.45</b>	<b>778.42</b>	<b>3091.78</b>

The cumulative energy savings resulting from alternative energy improvement measures between 2014 and 2017 up until 2020 is **329.2+1 806+3 091.8=5227 GWh, or 53 % of the obligatory cumulative target (9 896 GWh).**

<sup>36</sup> Regular measures run by the government: Annual “Warmer living” campaign”, compulsory and voluntary instruction in efficient driving for car drivers, annual sustainable mobility campaign.

<sup>37</sup> LBN 002-01 “Calorimetry of building envelopes” (2003 version) - in force up to end 2015; LBN 002-15 “Calorimetry of building envelopes” (2015 version) - in force from 2016; CR No 383 on the energy certification of buildings - for new constructions, in force as from 2017

<sup>38</sup> Energy taxes (exceeding the EU minimum rates) which will lead to a direct reduction in energy consumption (excise tax, VAT, tax on electrical energy).