

Republic of Latvia
Ministry of Economic Affairs

**The Fourth Regular Report by the Republic of Latvia pursuant to
Article 22 of Directive 2009/28/EC of the European Parliament and
of the Council of 23 April 2009 on the promotion of the use of energy
from renewable sources and amending and subsequently repealing
Directives 2001/77/EC and 2003/30/EC**

Summary

The share of renewable energy (hereinafter - RE) in total final energy consumption in 2015 and 2016 fell from 38.65 % in 2014 to 37.56 % in 2015 and to 37.16 % in 2016. However, due to the decline in total final energy consumption, the proportion of RE remained above the indicative trajectory of the 2020 target. The decline in the share of RE was mainly influenced by the following factors: (1) flaws in laws and regulations, as a result of which the market share of fuel with biofuel decreased, (2) warm climate conditions, especially in 2015, which reduced both total energy consumption in the heating sector and RE consumption, (3) reconstruction of hydroelectric power plants in 2016 as a result of which the available hydroelectric power decreased, affecting the normalised data relating to electricity produced by hydroelectric power plants.

1. 1. Sectoral and overall shares and actual consumption of energy from renewable sources in the preceding 2 years (n-1; n-2 e.g. 2010 and 2009) (Article 22 (1) a of Directive 2009/28/EC).

Table 1
Proportion of energy generated from renewable sources within sectors (electricity, heating and cooling, transport) and in total¹

	2015	2016
RES-H&C ² (%)	51.78	51.85
RES-E ³ (%)	52.24	51.26
RES-T ⁴ (%)	3.92	2.76
The total proportion of RE ⁵ (%)	37.56	37.16
Of which from cooperation mechanism ⁶ (%)	0	0
Surplus for cooperation mechanism ⁷ (%)	0	0

Table 1.a
Calculation table for the contribution of each sector's renewable energy in overall energy consumption (thousand tonnes of oil equivalent).⁸

	2015	2016
(A) Gross final consumption of RE used for heating and cooling	325.9	324.1
(B) Gross final consumption of electricity generated from RE	1 138.3	1 153.5
(C) Gross final consumption of energy generated from RE in transport	27.2	14.9
(D) Gross total RE consumption ⁹	1 491.4	1 492.5
(E) RE transfer to other Member States	0	0
(F) RE transfers from other Member States and third countries	0	0
(G) RE consumption against the target (D)-(E)+(F)	1 491.4	1 492.5

¹ For a simpler comparison with Table 3 and Table 4.a of NREAP (*National Renewable Energy Action Plan*).

² Proportion of renewable energy in heating and cooling: gross final consumption of energy from renewable energy sources used for heating and cooling (as defined in Article 5(1)(b) and 5(4) of Directive 2009/28/EC) divided by gross final consumption of energy used for heating and cooling. Uses the same methodology as in Table 3 of NREAP.

³ Share of renewable energy in electricity: gross final consumption of electricity generated from renewable energy sources (as defined in Article 5(1)(a) and 5(3) of Directive 2009/28/EC) divided by the gross final consumption of electricity. Uses the same methodology as in Table 3 of NREAP.

⁴ Proportion of renewable energy in transport: final consumption of energy generated from renewable sources in the transport sector (see Article 5(1)(c) and 5(5) of Directive 2009/28/EC), which is divided by the consumption of the following fuels in transport: 1) gasoline) diesel fuel, 3) biofuels in road transport and railway transport, and 4) electricity in land transport (as shown in row 3 of Table 1). Uses the same methodology as in Table 3 of NREAP.

⁵ Proportion of renewable energy in gross final energy consumption. Uses the same methodology as in Table 3 of NREAP.

⁶ Percentage points of the total share of renewable energy.

⁷ Percentage points of the total share of renewable energy.

⁸ For a simpler comparison with Table 4.a of NREAP.

⁹ Article 5(1) of Directive 2009/28/EC provides that the gas, electricity and hydrogen generated from renewable energy sources be considered just once. Double accounting is not allowed.

Table 1.b
Total actual contribution (installed capacity, gross electricity production) from each renewable energy technology in Latvia for achieving the targets set for the year 2020 and indicative interim curve indicators for the share of energy from renewable sources in electricity.¹⁰

	2015		2016	
	MW	GWh	MW	GWh
Hydro ¹¹ :	1589	2926.0.	1565	2856.4.
non pumped	1589	1860.4	1565	2529.5
<1 MW	28	70.5	28	56.8
1 MW-10 MW	1	3.7	1	5.6.
>10 MW	1560	1786.1.	1536	2467.2
pumped	0	0	0	0
mixed ¹²	0	0	0	0
Geothermal	0	0	0	0
Solar:	0	0.2	1	0.4
photovoltaic	0	0.2	1	0.4
concentrated solar power	0	0	0	0
Tide, wave, ocean	0	0	0	0
Wind:	69	147	70	128
onshore	69	147	70	128
offshore	0	0	0	0
Biomass ¹³ :	126	769.5	143	823.8.
solid biomass	66	377.8	81	426.9
biogas	60	391.7	62	396.9
bioliquids	0	0	0	0
TOTAL	1784	3842.7	1779	3808.6
of which in CHP		769.50		823.79

Table 1.c.
Total actual contribution (final energy consumption¹⁴) from each renewable energy technology in Latvia to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in heating and cooling (ktoe)¹⁵

	2015	2016
Geothermal energy (excluding low temperature geothermal heat pumps)	0	0
Solar energy	0	0
Biomass ¹⁶ :	1 138.3	1 153.5
solid biomass	1 108.3	1 122.7
biogas	30.0	30.8
biological liquid fuels	0	0
Renewable energy from heat pumps:		
- of which aerothermal	0	0
- of which geothermal	0	0
- of which hydrothermal	0	0
TOTAL	1 138.3	1 153.5
Of which DH ¹⁷	222.0	274.1
Of which biomass in households ¹⁸	458.3	450.4

¹⁰ For a simpler comparison with Table 10.a of NREAP.

¹¹ Normalised in accordance with Directive 2009/28/EC and Eurostat methodology.

¹² According to the new Eurostat methodology.

¹³ Taking into account only those that comply with the sustainability criteria, cf. last subparagraph of Article 5(1) Directive 2009/28/EC.

¹⁴ Direct use and district heat as defined in Article 5.4 of Directive 2009/28/EC.

¹⁵ Facilitates comparison with Table 11 of the NREAPs.

¹⁶ Taking into account only those that comply with the sustainability criteria, cf. last subparagraph of Article 5(1) Directive 2009/28/EC.

¹⁷ District heating and / or cooling from total renewable heating and cooling consumption (RES- DH).

¹⁸ From the total renewable heating and cooling consumption.

Table 1.d

Total factual contribution (installed capacity, gross electricity production) from each renewable energy technology in Latvia for achieving the targets set for the year 2020 and indicative interim curve indicators for the share of energy from renewable sources in the transport sector (thous. tonnes of oil eq.)^{19, 20}

	2015	2016
- Bioethanol	7.7	8.2
- Biofuel (<i>FAME</i>)	15.1	2.1
- Hydrogenated vegetable oil (<i>HVO</i>)	n/a	n/a
- Biomethane	n/a	n/a
- <i>Fischer-Tropsch</i> synthesis diesel fuel	n/a	n/a
- Bio-ETBE	n/a	n/a
- Bio MTBE	n/a	n/a
- Bio-DME	n/a	n/a
- Bio-TAEE	n/a	n/a
Biobutanol	n/a	n/a
- Biomethanol	n/a	n/a
- Pure vegetable oil	n/a	n/a
Sustainable biofuels in total	22.8	10.3
Of which:		
sustainable biofuels produced from the raw materials listed in Part A of Annex IX	n/a	n/a
other sustainable biofuels which belong to the target mentioned in Article 3(4)(e)	n/a	n/a
sustainable biofuels produced from the raw materials listed in Part B of Annex IX	n/a	n/a
sustainable biofuels subject to the restriction relating to reaching the target of renewable energy referred to in Article 3(4)(d)	n/a	n/a
Imports from third countries	n/a	n/a
Hydrogen from renewable energy sources	n/a	n/a
Renewable electricity	4.44	4.61
Of which:		
consumption in road transport	2.18	2.37
consumption in rail transport	1.68	1.71
consumption in other transport sectors	0.59	0.53
other (please specify)	n/a	n/a
other (please specify)	n/a	n/a

¹⁹ Only takes into account biofuels that meet sustainability criteria, cf.. Article 5(1), last subparagraph.

²⁰ For a simpler comparison with Table 12 of NREAP.

2. Measures taken in the preceding 2 years and/or planned at national level to promote the growth of energy from renewable sources taking into account the indicative trajectory for achieving the national RES targets as outlined in your National Renewable Energy Action Plan. (Article 22(1)a) of Directive 2009/28/EC)

Table 2: Overview of all policies and measures

Name and reference of the measure	Type of measure*	Expected results**	Target group and / or scope***	Existing or planned*	The start and end date of the measure
1. The right to sell the produced electricity as the mandatory amount of electricity to be procured (the Cabinet of Ministers (hereinafter - CM) regulation No. 262 of 16 March 2010. "Regulation regarding the production of electricity using renewable energy sources and the procedures for the determination of the price")	Financial / regulatory	Facilitating the use of RE and energy produced from RES and its competitiveness	Businesses that produce electricity or plan to produce electricity from renewable energy sources (hereinafter - RES) in a power plant in the territory of Latvia by using: hydroelectric power, biogas, any type of solid or liquid biomass, wind energy, solar energy.	Existing ²¹	Starting from 22 August 2007. The predicted termination date of support allocated within the mandatory procurement rights is the year 2037.
2. The mandatory procurement of electricity produced in a cogeneration power plant (CM Regulation No. 221 of 10 March 2009. "Regulation regarding electricity production and price determination upon the production of electricity in cogeneration")	Financial / regulatory	Promotion of electricity production within cogeneration, by using RES	Electricity producer that produces electricity in high-efficiency cogeneration power plants.	Existing ²²	Starting from 11 November 2006. The predicted duration of support allocated within the mandatory procurement rights is the year 2032.
3. The right to receive a guaranteed payment for the electric capacity installed in the cogeneration station (CM Regulation No. 221 of 10 March 2009. "Regulation regarding electricity production and price determination upon production of electricity in cogeneration").	Financial / regulatory	Promotion of electricity production within cogeneration, by using RES	Electricity producer that produces electricity in high-efficiency cogeneration power plants.	Existing ²³	Starting from 18 March 2009. The support period for the currently granted rights to receive a guaranteed fee for the installed electric capacity ends in the year 2028.
4. The reduced rate of excise duty (Law "On Excise Duty")	Financial	Promoting the use of biofuel	Reduced rates of excise duty are applied to the following fuels: - unleaded petrol and a mix of ethyl alcohol which contains 70 to 85 per cent of ethyl alcohol by volume (including) (E85), - rapeseed oil, sold or used as a fuel or fuel and biodiesel fuel wholly obtained from rapeseed oil (B100).	Existing	Starting from 1 May 2004

²¹ The award of new rights in accordance with regulation No. 262 of 16 March 2010 "Regulation regarding the production of electricity using renewable energy sources and the procedures for the determination of the price" has been suspended from 26 May 2011.

²² The award of new rights in accordance with Regulation No. 221 of 28 August 2012 "Regulation regarding electricity production and price determination upon production of electricity in cogeneration" has been suspended from 10 September 2012.

²³ The award of new rights in accordance with Regulation No. 221 of 28 August 2012 "Regulation regarding electricity production and price determination upon production of electricity in cogeneration" has been suspended from 10 September 2012.

5. Compulsory admixture of biofuel to the fossil fuel (CM Regulation No. 332 of 26 September 2000. "Regulation for conformity assessment of petrol and diesel fuel")	Regulative	Promoting the use of biofuel	Mandatory biofuel admixture refers to the use of A, B, C, D, E, and F categories of diesel and 95-gasoline usable in a temperate climate.	Existing	Starting from 1 October 2009
6. Tax relief. (Law "Electricity Tax Law")	Financial		Article 6(1) of Electricity Tax Law provides that electricity obtained from the following resources shall be exempt from tax: 1) from RES; 2) HPP (hydro power plant); 3) cogeneration power plants that comply with the efficiency criteria set forth in laws and regulations that regulate the production of electricity by the process of cogeneration.	Existing	From 1 January 2007 until the end of 2016.
7. Net electricity billing system ²⁴	Regulative	The use of RE for self-consumption in households	The end users of electricity.	Existing, complements the action plan	Starting from 1 January 2014.
8. The call for proposals for climate change financial instruments "Complex solutions to reduce greenhouse gas emissions", round IV (Cabinet Regulation No. 559 of 14 August 2012)	Financial	Growth in the use of RES technology; reduction in GHG (greenhouse gas) emissions	Energy end-users: enterprises, medical institutions, educational and cultural institutions.	Existing, complements the action plan	Implementation of projects has ended in 2015.
9. The call for proposals for climate change financial instruments "Complex solutions to reduce greenhouse gas emissions", round V (Cabinet Regulation No. 559 of 14 August 2012)	Financial	A growth in the use of RES technology; Reduction of GHG emissions	Energy end-users: enterprises, medical institutions, educational and cultural institutions.	Existing, complements the action plan	Implementation of projects has ended in 2015.
10. The call for proposals for the auction of emission allowances "Reduction of greenhouse gas emissions in protected architectural monuments of national significance" Cabinet Regulation No. 35 of 12 January 2016)	Financial	Reducing GHG by rebuilding, renovation or simplified facade restoration of protected architectural monuments of national significance	Energy end-users: derived public persons, public institutions of direct administration involved in the management of state-owned real estate, state-owned companies involved in the management of state-owned real estate, religious organisations, state-funded education institutions or cultural institutions founded by the state or local government in accordance with the Law on cultural institutions.	Existing, complements the action plan	12.1.2016-23.8.2020 (four years starting from the day when the project agreement entered into force)
11. The call for proposals for the auction of emission allowances "Reduction of greenhouse gas emissions - in the buildings of low energy consumption (Cabinet Regulation No. 69 of 26 January 2016)	Financial	Reduction of GHG emissions by construction of new low energy consumption buildings, renovation or restoration of existing buildings turning them into low energy consumption buildings.	Energy end-users: local governments or institutions thereof, or public institutions of direct administration.	Existing, complements the action plan	26.1.2016-4.10.2019 (three years starting from the day when the project agreement entered into force)

²⁴ Electricity Market Law Article 30.¹

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12. The open call for proposals for EEA financial instrument "Development of sustainable buildings, renewable energy technology and innovative emission-reducing technology" (Cabinet Regulation No. 149 of 18 March 2014)	Financial	Reduction of CO ₂ emissions by energy-efficient technologies and solutions for sustainable buildings, the use of renewable energy technologies for power generation and other new (innovative) technologies (including technological processes) or products (including goods and services)	Energy end-users: institutions of direct or indirect administration, associations or foundations, as well as enterprises.	Existing, complements the action plan	18.3.2014-30.4.2017
13. The open call for proposals for the EEA financial instrument "Building the capacity of research and activities to improve public knowledge about climate change and its consequences" (CM Regulation No. 257 of 20 May 2014)	Financial	Improving the knowledge and capacity of public administration institutions, local authorities, scientific and educational institutions, businesses, associations and foundations to promote public involvement in tackling climate change and in implementing policy measures related to adaptation to climate change	Energy end-users: institutions of direct or indirect administration, derived public persons, associations or foundations, as well as enterprises.	Existing, complements the action plan	The project implementation ended in 2016.
14. Measures of specific support target 4.2.2. "To promote energy efficiency and use of RES in municipal buildings according to the municipal integrated development programmes" of the operational programme "Growth and Jobs" (Cabinet Regulation No. 152 of 8 March 2016)	Financial	A growth in the use of RES technology; Reducing GHG emissions	Energy end-users: local governments.	Existing, complements the action plan	8.3.2016-2nd half of 2023
15. Exhibition "Environment and Energy 2015"	Non-regulatory	Increasing public awareness about RES technologies and reduction of GHG emissions	Energy producers and end-users.	Existing, complements the action plan	15.-18.10.2015
16. Exhibition "Environment and Energy 2016"	Non-regulatory	Increasing public awareness about RES technologies and reduction of GHG emissions	Energy producers and end-users.	Existing, complements the action plan	13.-16.10.2016
Electromobility development plan ("Electromobility development plan for 2014-2016" confirmed by Cabinet order No. 129 of 26 March 2014)	Regulative	To ensure wider use of electric vehicles	Vehicle drivers.	Existing	2014-2016
Alternative fuel development plan ("Alternative fuel development plan" confirmed by Cabinet order No. 202 of 25 April 2017)	Regulative	Developing the infrastructure for alternative fuels, thus promoting the use and distribution of alternative fuel vehicles	Vehicle drivers.	Existing	2017-2020
Conceptual report "On the use of renewable energy in the transport sector" (Approved by Cabinet order No. 379 of 21 July 2017)	Regulative	Determining the solutions for reaching the RES transportation target	Vehicle drivers, fuel dealers.	Existing	From 2017

To develop a charging infrastructure for electric vehicles in Latvia (CM Regulation No. 637 of 3 November 2015 "Regulation for implementing specific objective No. 4.4.1 "Developing the ETV charging infrastructure in Latvia" of the operational programme "Growth and Jobs"")	Financial (ERDF)	To promote the use of electric vehicles in the transport sector, thereby increasing the use of renewable energy in transport and reducing pollution, as well as the amount of fossil fuel imports	Users of electric vehicles.	Existing	2015-2023
To develop environmentally friendly public transport infrastructure (rail transport) (CM Regulation No. 281 of 4 May 2016 "Regulation for implementing specific measure No. 4.5.1.1 "Developing environmentally friendly public transport infrastructure (rail transport)" of specific objective No. 4.5.1. "Developing an environmentally friendly public transport infrastructure" of the operational programme "Growth and Jobs"").	Financial (Cohesion fund)	Use of environmentally friendly public transport	Public vehicle users, residents of cities with a tram line infrastructure.	Existing	2016-2023
To develop an environmentally friendly public transport infrastructure (buses) (CM Regulation No. 848 of 20 December 2016 "Regulation for implementing specific measure No. 4.5.1.2 "Developing environmentally friendly public transport infrastructure (buses)" of specific objective No. 4.5.1. "Developing an environmentally friendly public transport infrastructure" of the operational programme "Growth and Jobs"")	Financial (Cohesion fund)	Use of environmentally friendly public transport	Public transport users.	Existing	2016-2023
Electrification of the Latvian Railway Network (CM Regulation No. 69 of 31 January 2017 "Regulation for implementing specific measure No. 6.2.1.1. "Electrification of the Latvian railway network" of specific objective No. 6.2.1. "To ensure a competitive and environmentally friendly TEN-T railway network, promoting its safety, quality and capacity" of the priority direction "Sustainable transport system" of the operational programme "Growth and Jobs""))	Financial (Cohesion fund)	Facilitating the electrification of the Latvian railway network	Railway infrastructure users and related users of other modes of transport.	Existing	2017-2023

Development of cogeneration power plants utilising RES (CM Regulation No. 165 of 17 February 2009 "Regulation on measure 3.5.2.2 "Utilising renewable energy in the development of cogeneration power plants" of the addition to the operational programme "Infrastructure and Services")	Financial (Cohesion fund)	A significant increase in electricity and heat production from RES, thus reducing Latvian dependence on the imports of primary energy sources. Within the framework of the activity, 10 projects have been supported, which include the construction of new cogeneration plants, replacing existing stations using fossil fuels and the reconstruction of existing ones to facilitate the use of chipping or biomass	Heat and electricity users, local governments and businesses.	Existing	Project implementation completed in 2015.
Measures to increase the efficiency of district heating systems (CM Regulation No. 824 of 31 August 2010 "Regulation on the project application for the second and subsequent rounds of sub-activity 3.5.2.1.1 "Measures for increasing the efficiency of district heating systems" of the addition to the operational programme "Infrastructure and Services")	Financial (Cohesion fund)	Significantly increased thermal energy efficiency, reduced heat energy losses in transmission and distribution systems, and fossil fuel replacement with renewable fuels	Heat users, local governments and businesses.	Existing	Project implementation completed in 2016.
Measures to increase energy efficiency in residential buildings (CM Regulation No. 284 of 28 May 2013 "Regulation on the eleventh and subsequent stages of the selection of project applications" measure in appendix 3.4.4.1 of the Operational Programme "Improvement of the Thermal Insulation of Apartment Houses" of the Operational Programme "Infrastructure and Services")	Financial (ERDF fund)	Increased energy efficiency of buildings and reduced heat energy consumption of the building, thereby reducing GHG emissions	Owners of apartments in residential houses.	Existing	Project implementation completed in 2016
Measures to increase energy efficiency in social residential buildings (CM Regulation No. 1332 of 17 November 2009 "Regulation on the second and subsequent rounds of selection of project applications for the activities of activity 3.4.4.2 "Improvement of the Thermal Sustainability of Social Residential Houses" of the addition to the operational programme "Infrastructure and Services")	Financial (ERDF fund)	Increased energy efficiency of buildings and reduced heat energy consumption of the building, thereby reducing GHG emissions	Social housing owners and residents.	Existing	Project implementation completed in 2015.

Measures to increase the energy efficiency of industrial facilities and buildings (CM Regulation No. 590 of 6 September 2016 "Regulation for implementing specific support objective 4.1.1 "Promoting the efficient use of energy resources, reducing energy consumption and switching to RES in the manufacturing industry" of the operational programme "Growth and Jobs")	Financial (Cohesion fund)	Increased energy efficiency of industrial buildings and equipment supporting the insulation of buildings, switching the utilities and heating systems to the use of RE for heat generation and switching the production facilities, thereby reducing the consumption of heat energy from industrial buildings and the amount of GHG emissions generated, as well as the energy consumption of production processes	Small, medium and large manufacturing enterprises registered in the Republic of Latvia.	Existing	13.12.2016 – 1st half of 2020
Measures to increase the energy efficiency of industrial facilities and buildings (CM Regulation No. 38 of 16 January 2018 "Implementing rules for the second round of project application selection for specific aid objective No. 4.1.1 "To promote efficient use of energy resources, reduction of energy consumption and transition to RES in the processing industry sector" of the operational programme "Growth and Jobs")	Financial (Cohesion fund)	Increased energy efficiency of industrial buildings and equipment supporting the insulation of buildings, switching the utilities and heating systems to the use of RE for heat generation and switching the production facilities, thereby reducing the consumption of heat energy from industrial buildings and the amount of GHG emissions generated, as well as the energy consumption of production processes	Small, medium and large manufacturing enterprises registered in the Republic of Latvia.	Planned	February 2018 - half of 2021
Measures to increase energy efficiency and promotion of RES technologies in residential buildings (CM Regulation No. 160 of 15 March 2016 "Regulation for implementing the measure No. 4.2.1.1 "To promote energy efficiency improvement in residential buildings" of specific aid objective No. 4.2.1 "To promote energy efficiency in public and residential buildings" of the operational programme "Growth and Jobs")	Financial (ERDF fund)	The development of RES technologies has been enhanced, the energy efficiency of the building has been increased, and the thermal energy consumption of the building has been reduced, thereby reducing GHG emissions	Owners of apartments in residential houses.	Existing	1.7.2016-31.12.2023
Measures for increasing energy efficiency and promotion of RES technologies in public buildings (CM Regulation No. 534 of 9 August 2016 "Implementing rules for the first round of project application selection" for specific aid objective 4.2.1 "Promoting energy efficiency in residential and public housing" of the operational programme "Growth and Jobs" activity 4.2.1.2 "Promoting energy efficiency in residential and public housing".	Financial (ERDF aid, state aid)	Promoted the growth of RES technologies, increased energy efficiency of the building and reduced thermal energy consumption of the building, thus reducing the amount of GHG emissions	Owners and users of public buildings.	Existing	19.6.2016-31.12.2019

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Measures to increase energy efficiency and promote the use of RES technologies in public buildings (CM Regulation No. 13 of 4 January 2018, "Implementing rules for the second round of project application selection" for specific aid objective 4.2.1 "Promoting energy efficiency in residential and public housing" of the operational programme "Growth and Jobs" activity 4.2.1.2 "Promoting energy efficiency in residential and public housing".	Financial (ERDF aid, state aid)	Promoted the growth of RES technologies, increased energy efficiency of the building and reduced thermal energy consumption of the building, thus reducing the amount of GHG emissions	Owners and users of public buildings and engineering structures.	Planned	March 2018-31.10.2022
Measures to increase the efficiency of district heating systems (CM Regulation No. 135 of 7 March 2017 "Implementing rules for the first round of project application selection" for specific aid object 4.3.1 "To promote energy efficiency and use of RES in district heating" of the operational programme "Growth and Jobs")	Financial (Cohesion fund)	Significantly increased thermal energy efficiency, reduced heat energy losses in transmission and distribution systems, and fossil fuel replacement with renewable fuels	Energy supply companies engaged in providing district heating services, heat energy consumers.	Existing	4.18.2017-1st half of 2020
Measures to increase the efficiency of district heating systems (CM Regulation No. 495 of 22 August 2017 "Implementing rules for the second round of project application selection" for specific aid object 4.3.1 "To promote energy efficiency and use of RES in district heating" of the operational programme "Growth and Jobs")	Financial (Cohesion fund)	Significantly increased thermal energy efficiency, reduced heat energy losses in transmission and distribution systems, and fossil fuel replacement with renewable fuels	Energy supply companies engaged in providing district heating services, heat energy consumers.	Existing	1.11.2017-2nd half of 2020
Informative campaign "Live Warmer"	Non-regulatory (informative campaign)	Inhabitants of apartment buildings, keepers, builders, designers and other interested parties have been informed in the "House and Apartment" seminars and exhibitions about the topical issues and solutions for increasing energy efficiency of buildings, improvement of building utilities, use of renewable energy technologies for self-consumption energy, current legislative changes related to construction and management of buildings, as well as possibilities to attract European Union co-financing to increase energy efficiency of buildings	Owners, managers, designers and builders of apartments in residential houses, and other interested parties.	Existing	2010-2018

* Indicate if the measure is (predominantly) regulatory, financial or soft (i.e. information campaign).

**Is the expected result behavioural change, installed capacity (MW; t/year), energy generated (ktoe)?

***Who are the targeted persons: investors, end users, public administration, planners, architects, installers, etc? or what is the targeted activity / sector: biofuel production, energetic use of animal manure, etc)?
**** Does this measure replace or complement measures contained in Table 5 of the NREAP?

2.a Please describe the progress made in evaluating and improving administrative procedures to remove regulatory and non-regulatory barriers to the development of renewable energy. (Article 22(1)e) of Directive 2009/28/EC).

The net electricity billing system is the procedure for payments for electricity consumed and how the distribution system operator manages the offset of the electricity consumed by the household user and the electricity generated from the distribution network operator's network. If, in accordance with the calculation of the amount of electricity consumed and produced, the household user has transferred more electricity than consumed in the operator's distribution network, the corresponding amount of electricity shall be charged to the subsequent electricity billing period within the year starting on 1 April and ending on 31 March. Such an annual framework was established by amendments in the Electricity Market Law, which came into force on 22 May 2016. The previous rule provided that the accrual was made within the calendar year. The purpose of the amendment was to adjust the period of electricity accrual in the net framework in such a way that, in accordance with the climatic conditions, the larger amount of electricity produced during the summer period could be used over the long term in annual terms.

By the decision of the Regulatory Council No. 1/7 dated 27 March 2018, a new version of the "System connection rules for the members of the electricity system", was approved, which provides simpler requirements for the connection of micro-generators. The draft regulation sets out simplified procedures for connecting micro-generators to the system for the production of electricity for the user's own needs (self-consumption).

2.b Please describe the measures in ensuring the transmission and distribution of electricity produced from renewable energy sources and in improving the framework or rules for bearing and sharing of costs related to grid connections and grid reinforcements. (Article 22(1)f) of Directive 2009/28/EC).

Connection of electricity producers to the network is regulated by the Electricity Market Law. Article 8 of the Electricity Market Law determines the operation of the system operator, regulates the supervision of the operations by the electricity system owner. In accordance with the second part of Article 8 of the Electricity Market Law, the Public Utilities Commission (hereinafter - the Regulator) shall establish uniform system connection rules for producers and users as well as connection fee methodology.

Article 9(2)²⁵ of the Electricity Market Law stipulates that the system operator has a permanent obligation in the area of operation and within the time-limit of the licence to provide system participants with the necessary connections to the relevant system in accordance with the unified system connection rules established by the Regulator. The provisions of the "System Connection Requirements for Electricity Producers" approved by Decree of the Regulator No. 1/6 of 22 February 2012 provide for uniform system connection rules and the methodology for setting connection fees to electricity producers. Subparagraph 2.3²⁶, clauses 7²⁷ and 10²⁸ of the Regulation of the Regulator stipulate that production

²⁵ Article 9(2) of the Electricity Market Law:

"(2) A system operator shall have permanent obligations within the area and the term of the licence activity thereof to ensure system participants with the required connection to the relevant system in accordance with the uniform regulations for a system connection specified by the Regulator, if the system participant fulfils the technical requirements for the installation of a connection determined by the system operator. The connection fee shall comply with the justified costs of the installation of the relevant system connection. The division of costs between a system participant and system operator shall be determined by the Regulator in cases specified in Paragraph 2.¹ of this Article. The connection fee of a new system participant shall not include the system development expenses."

²⁶ Subparagraph 2.3 of decision by the Public Utilities Commission of 22 February 2012 No. 1/6 "System Connection Requirements for Electricity Producers":

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facilities must be connected in accordance with reasonable technical requirements and economically justified costs. Consequently, the influence of manufacturers is assessed by issuing technical regulations, which, inter alia, also reflects the costs of connection construction. System operator in Latvia, JSC "Sadales tīkls", which provides distribution system operator services for 99 % of the territory of the country, applies the regulation for connection and load changes for micro-generator connections, which allows relatively simple introduction of production equipment that uses renewable energy such as solar panels and small wind power generators in households. Article 30.1 of the Electricity Market Law has introduced the Electric Net Settlement System for all households producing electricity from renewable energy sources for their own needs starting on 1 January 2014, envisaging the possibility of transferring electricity production to the grid and re-utilising it per necessity. In the month when the household has transferred more electricity in the grid than it has consumed, the corresponding amount of electricity is included in the subsequent electricity billing period.

Decision No. 1/6 of the Council of the Public Utilities Commission of 17 March 2016 "System Connection Requirements for Electricity System Participants" provides unified rules for installation of a new electricity connection or a change of the authorised load of an existing connection and the methodology for connection fee calculation for transmission and distribution system operators and end users. The rules stipulate that the reduction of the authorised load connection is a free service, but the system user must pay for the increase of the authorised connection load. In this case, the connection fee is calculated as a new connection, only applying the eligible costs for the additionally demanded load.

Regarding the termination and renewal of electricity supply, the Regulation stipulates that if less than 6 months have elapsed from the end of the power supply, the system user shall only cover the actual costs of the renewal of the connection for restoration of the power supply, while if the power supply has stopped at the object for more than 6 months, the system operator shall evaluate the electricity connection restoration options and the system user will have to cover the actual and eligible costs associated with the installation of the connection.

On 1 January 2015, the electricity market was fully opened in Latvia, and households joined the legal entities that had been able to choose electricity traders since 2007. Market conditions created the opportunity for competing traders to sell electricity, in turn citizens were able to choose electricity tariff plans or product packages offered by merchants and traders. An important prerequisite for the entry of new RE manufacturers is the development of national energy infrastructure. There are no significant changes in the electricity distribution networks during the reporting period. Simultaneously, in 2016, 1649 km of power lines were renewed (in 2015: 1927 km), including 768 km of medium voltage power lines (in 2015: 745 km), 673 km of low voltage power lines (in 2015: 972 km), cable solutions 208 km (in 2015: 210 km), 773 transformer points were reconstructed and built (in 2015: 877 transformer points). The total number of installed connections in 2016 was 9353 (7588 in 2015).

The transmission system continued the implementation of the project for strengthening the transmission network of western Latvia (Kurzemes loks), launched in 2010. Project "Kurzemes loks" consists of 3 stages:

"2.3. Connection point - a connection point in the electricity transmission or distribution system, to which the manufacturer's power plant can be connected in accordance with reasonably justified technical requirements and economically justified costs."

²⁷ Paragraph 7 of decision by the Public Utilities Commission of 22 February 2012 No. 1/6 "System Connection Requirements for Electricity Producers":

"7. The location and conditions of the connection shall be determined by the system operator within sixty days of receiving the application by issuing to the manufacturer clear and technically sound technical regulations with an expiration date in two years."

²⁸ Subparagraph 10 of decision by the Public Utilities Commission of 22 February 2012 No. 1/6 "System Connection Requirements for Electricity Producers":

"10. The connection fee is determined on the basis of the economically justified costs of installing the connection." Republic of Latvia Fourth Regular Report pursuant to Article 22 of Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

- Construction of a 330 kV cable in Riga between Imanta and TEC1, increasing the reliability of Riga's energy supply and providing the necessary infrastructure for connection of 330 kV lines of the Kurzemes Loks to the Imanta substation,
- Construction of a 330 kV line Grobina (Liepaja) – Ventspils,
- Construction of a 330 kV line Ventspils - Imanta (Riga).

Stage one: Construction of 330 kV cable between substation "Riga TEC-1" and substation "Imanta", was completed on 25 September 2013. This enhanced the reliability and stability of Riga's electricity supply, as well as provided a more stable connection of the central part of Latvia to the Kurzemes loks. With the implementation of this stage and after the construction of the Kurzemes loks, the "narrow space" of electrical connections between the centre of Latvia and the western part will be removed, which in some cases, due to insufficient capacity, limits the flow of electricity in transit.

Stage two: 330 kV high-voltage power line Grobina-Ventspils - is switched on under voltage on 1 July 2014. The project was launched in 2010 and all works were completed in June 2014. The total cost of the second phase is EUR 63.8 million. The Grobina - Ventspils new 330 kV transmission line of the Kurzemes loks significantly increases energy reliability in Latvia and Kurzeme.

Stage three: is to close the Kurzemes loks with the construction of Ventspils-Tume-Imanta section. Consequently, a basis for a stable and reliable supply of electricity will be created. In 2014, the EIA and route research activities were completed and in November 2014, 45 % co-financing was allocated from Connecting Europe Facility funds for the construction of the Kurzemes loks stage Ventspils-Tume-Imanta. The implementation of the "Ventspils-Tume-Imanta" phase was started in December 2014. In 2015, the status of the object of national interest was assigned to the 3rd stage of the Kurzemes loks. The Ventspils-Tume-Imanta section and hence the total Kurzemes loks project is planned to be completed in 2019.

As a result of the implementation of the Energy Infrastructure project "Kurzemes loks", the reliability of electricity supply in the cities of the Kurzeme region and Kurzeme district will increase, infrastructure will be provided for increasing electricity load in the Kurzeme region, as well as the connection potential of new electric power users will be ensured, which will allow the adding of new wind power station capacities on land and sea, which are planned in the Kurzeme region. The implementation of this project will provide the basis for the development of wind farms on the Kurzeme coast.

In addition, the enhancing of the third interconnection in the internal network of Estonia-Latvia in the territory of Latvia with the transmission line of Riga TEC-2 - Riga HES on a regional level will play an important role in increasing the capacity of the Baltics in the North-South direction. The project is included in the national transmission system development plan for 2015 and 2016. The network reinforcement must be put into operation by 2020, when the third Estonian-Latvian interconnection will be introduced into service.

3. Please describe the support schemes and other measures currently in place that are applied to promote energy from renewable sources and report on any developments in the measures used with respect to those set out in your National Renewable Energy Action Plan. (Article 22(1)b) of Directive 2009/28/EC).

Excise duty relief on biofuels

As of 2006 - for biofuel and biofuel blended with fossil fuel (B100, E85) in accordance with the Excise Duty Law. Excise duty exemptions are applied equally to both biofuel and biofuel blended with fossil fuel produced domestically and imported from other EU Member States.

Table 3.a

Excise duty rates for fuels in Latvia, EUR/1000 litres

Fuel type:	2015	2016
Unleaded petrol	411.21	436
Unleaded petrol with added 4.5-5 % bioethanol	411.21	436
Unleaded petrol with 70-85 % ethyl alcohol (E85)	123.36	131
Diesel fuel	332.95	341
Diesel with 4.5-5 % biodiesel	332.95	341
Biodiesel (B100)	0	0

Source: Excise Duty Law

Mandatory admixture of biofuels

According to Cabinet Regulation No. 332²⁹ 95 octane petrol may only be marketed in Latvia if the added bioethanol content is 4.5-5 % by volume of the total petrol, and diesel fuel with a biofuel content of at least 4.5 % by volume of the total amount of the finished product. These provisions do not apply to:

- 98 octane petrol,
- petrol used in internal combustion engines of racing sports cars with spark ignition, if the racing sports car is duly registered in the Road Traffic Safety Directorate and the vehicle registration certificate has a "sport" indication,
- gasoline used in aviation engines,
- diesel used in maritime transport engines,
- diesel used in aviation engines,
- diesel fuel for use in arctic and severe winter conditions, marketed between 1 November and 15 April.

Electricity tax exemption for electricity produced from RES

23 November 2016 amendments to the Electricity Tax Law abolished the tax exemption for electricity produced from RES. The reason for the abolition of the tax exemption is that when Latvia started operating in the *NordPool Spot* power exchange, entrepreneurs gained the opportunity to circumvent and optimise the tax system, which could result in tax relief being granted to electricity that was not produced from RES.

Mandatory procurement of electricity produced from RES

In Latvia support for the production of electricity from RES, implemented in Latvia as mandatory procurement, has been provided since 2007. Producers that produce electricity from RES had the opportunity to qualify for the right to sell electricity within the framework of mandatory procurement for a guaranteed mandatory procurement price (*feed-in tariff*). These tariffs are dependent on the type of energy source used, installed capacity, hours of operation of the respective unit, and natural gas trading prices (until 30 April 2017). In view of the fact that electricity has a certain market value in the production phase, the difference between the mandatory procurement price and the market price of electricity is compensated

²⁹ The 26 September 2000 Cabinet Regulation No. 332 "Requirements for Conformity Assessment of Petrol and Diesel Fuel."

for or subsidised. This guarantees a specific purchase price for producers of electricity regardless of the market price.

All costs associated with the mandatory procurement of electricity are covered by end-users, and these costs are collected from end-users customers by capital companies operating on the Latvian electricity market.

Mandatory procurement rights to new producers under the existing support scheme has been suspended and there are no plans to resume it.

Table 3.b

Average per unit price (EUR/MWh) or electricity from RES in the mandatory procurement (before payment of subsidised electricity tax)

Types of power plants	Year 2015	Year 2016
<i>Hydro-electric power plants</i>	180.27	179.41
<i>Wind power stations</i>	109.13	106.56
<i>Biomass power plants</i>	147.93	116.95
<i>Biogas plants</i>	176.35	162.68
<i>Average:</i>	159.46	140.94

Source: Ministry of Economics (hereinafter - MoE)

Guaranteed payment for electric capacity installed in a cogeneration unit using RES

Cabinet Regulation No. 221³⁰ also determines how operators can qualify to obtain the right to receive the guaranteed payment for the electric capacity installed a cogeneration unit, including those using RES, as well as how the payment for the electric capacity installed in a cogeneration unit is determined based on the production technology, fuel used and electric capacity installed in the cogeneration unit, as well as how the payment is made.

The right to receive the guaranteed payment for the electric capacity installed in a cogeneration unit using RES is only available to one merchant - SIA "Fortum Jelgava", whose biomass cogeneration unit with installed electric capacity of 23 MW was put into service on 24 September 2013. Both in 2015 and 2016 the power plant received EUR 5 162 556.96 (before the payment of subsidised electricity tax) as the guaranteed payment for electric capacity installed in a cogeneration unit.

The right to receive guaranteed payment for the electric capacity installed in a cogeneration unit in the existing support scheme framework has been suspended and there are no plans to resume it.

Electricity tax relief for electricity produced from RES

On 6 November 2013, the Saeima adopted the Law on Subsidised Electricity Tax (hereinafter referred to as the "SET Law"), which entered into force on 1 January 2014, in order to limit the rapid increase in the cost of RES and cogeneration support schemes which should be compensated by electricity users. The aforementioned law was introduced as one of a package of measures to prevent further increases in electricity prices³¹. The SET Law establishes the object of subsidised electricity tax (hereinafter - SET), taxpayers, the tax rate, the procedure for the establishment and maintenance of a register of subsidised electricity producers, the procedure for calculating, paying and administering the tax, as well as liability for violations of the SET Law.

SET is applied to the revenue from the sale of electricity in the framework of mandatory procurement, as well as the revenue from the guaranteed payment for the installed

³⁰ Cabinet Regulation No. 604 of 28 August 2012 amending Cabinet Regulation No. 221 of 10 March 2009 "Regulation on the Production of Electricity from Cogeneration and the Related Pricing Procedure."

³¹ Information report "Comprehensive solution to the problem of the electricity market" was considered in the Cabinet of Ministers.

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electrical capacity at the station.

There are three different rates for SET:

- ✓ 15 % for cogeneration plants using fossil energy sources,
- ✓ 10 % for plants using RES,
- ✓ 5 % for plants that meet the following conditions:

(1) high-efficiency natural gas cogeneration plants with installed electric capacity of up to 4 MW, or plants that use RES without capacity limitations, and provide thermal energy to district heating systems;

(2) high-efficiency cogeneration plants with an electric capacity of up to 4 MW, which produce at least 30 % of the electricity using animal by-products or their derivative, and, procure at least 70 % of raw materials themselves or buys them from a producer, owns more than 50 % of the nominal capital, and the electricity produced is used in own production;

(3) high-efficiency woody biomass cogeneration plants with an electric capacity of up to 4 MW and at least 70 % of the thermal energy generated in the cogeneration process is used in own production;

(4) high-efficiency natural gas cogeneration plants with an electric capacity of up to 4 MW or without a fixed electric capacity in the AER cogeneration plants, which use at least 70 % of the produced thermal energy to provide for ensuring the plant vegetation process in covered areas with a total area of not less than 5000 m².

SET rate relief for power plants using RES facilitates a competitive production of electricity from RES.

SET is applied between 1 January 2014 and 31 December 2017.

State support scheme notification

The support schemes introduced in Latvia are evaluated in the context of state aid. It was concluded that aid to electricity generators implemented in the form of mandatory electricity procurement or guaranteed payments for installed capacity fulfils state aid criteria within the framework of European Union legislation on State aid, and therefore must be coordinated with the European Commission according to the provisions of the Treaty on the Functioning of the European Union Articles 107 and 108 and the European Community Guidelines on State aid for environmental protection (2008/C 82/01), which were applicable until 31 December 2014.

On 17 December 2013 the pre-notification process with the European Commission was launched in the context of state aid case SA.37970 (2013/PN) - *Aid to electricity producers*. On 22 September 2015 the notification process in the context of state aid case SA.43140 (2015/NN) - *Aid to electricity producers* - was launched. SET application mechanism is described within the framework of the state aid case.

On 24 April 2017 the European Commission adopted a decision on the State aid case "Support for electricity producers", concluding that the existing support scheme in Latvia in the form of mandatory electricity procurement and guaranteed payments for installed capacity complies with the requirements of the European Union internal market.

3.1. Please provide the information on how supported electricity is allocated to final customers for purposes of Article 3 (6) of Directive 2003/54/EC. (Article 22(1)b) of Directive 2009/28/EC).

Article 9(2)³² of the Electricity Market Law stipulates that the system operator in the

³² Electricity Market Law Article 9(2):

"(2) A system operator shall have permanent obligations within the area and the term of the licence activity thereof to ensure system participants with the required connection to the relevant system in accordance with the uniform regulations for a system connection specified by the Regulator, if the system participant fulfils the technical Republic of Latvia Fourth Regular Report pursuant to Article 22 of Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC

area of operation and within the time limit of its licence is responsible for the system's ability to provide electricity transportation in accordance with the forecasted demand, as well as standing commitment to provide the system participants with the necessary connections to the relevant system.

Latvia's electricity system does not face grid overloads, which would prevent free access to the electricity system and, therefore, any electricity producer having entered into an electricity sale agreement is guaranteed free access to the system. It should also be taken into account that in Latvia all electricity producers using renewable energy sources are connected to the distribution system and have small installed capacity, which is mainly below 1 MW. Almost all of these producers have agreements signed with the public trader (AS "Energijas publiskais tirgotājs") on the purchase of electricity under the mandatory procurement procedure, while some producers have bilateral electricity purchase agreements.

Pursuant to Article 3(9) of Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, Member States shall ensure that electricity suppliers specify in or with the bills and in promotional materials made available to final customers:

- (a) the contribution of each energy source to the overall fuel mix of the supplier over the preceding year in a comprehensible and, at a national level, clearly comparable manner;
- (b) at least the reference to existing reference sources, such as web pages, where information on the environmental impact, in terms of at least CO₂ emissions and the radioactive waste resulting from the electricity produced by the overall fuel mix of the supplier over the preceding year is publicly available;
- (c) information concerning their rights as regards the means of dispute settlement available to them in the event of a dispute.

As regards points (a) and (b) of the first subparagraph with respect to electricity obtained via an electricity exchange or imported from an undertaking situated outside the Community, aggregate figures provided by the exchange or the undertaking in question over the preceding year may be used.

The regulatory authority or another competent national authority shall take the necessary steps to ensure that the information provided by suppliers to their customers pursuant to this Article is reliable and is provided, at a national level, in a clearly comparable manner.

The Council of the Regulator approved "Regulations on information for end users of electricity and natural gas" by 4 December 2014 decision No. 1/17. The regulations have been passed in accordance with Article 32(4) and Article 42(5) of the Electricity Market Law. These regulations determine the information and its amount which the system operator provides to the end-user in bills and informational materials.

"Provisions on information for end users of electricity and natural gas" state that electricity traders at least once a year, no later than by 1 April, provide an opportunity to get acquainted with information containing information on the origin of the supplied electricity during the previous calendar year, indicating:

- the percentage of the total amount of electricity supplied to end users is purchased from electricity producers in Latvia,
- the percentage of the total amount of electricity supplied to end users is purchased from other traders in Latvia,
- the percentage of the total amount of electricity supplied to end users is purchased from the power exchange,
- the percentage of the total amount of electricity supplied to end-users that has been produced for each type of renewable energy (hydropower, biogas, biomass, wind power,

requirements for the installation of a connection determined by the system operator. The connection fee shall comply with the justified costs of the installation of the relevant system connection. The division of costs between a system participant and system operator shall be determined by the Regulator in cases specified in Paragraph 2.¹ of this Article. The connection fee of a new system participant shall not include the system development expenses."

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solar power or other renewable energy source), where such information is obtainable by the electricity trader,

- the percentage of the total amount of electricity supplied to end-users that has been produced for each fossil fuel (natural gas, coal, shale or other fossil fuel) when such information is obtainable by the electricity trader.

At least once a year, no later than by 1 April, the electricity trader provides an opportunity to get acquainted with the informative material indicating where the information on the environmental impact of the production of electricity delivered to end users in the previous calendar year is available publicly, at least regarding carbon dioxide emissions and radioactive waste, if such information is available to the electricity trader.

The trader ensures that the aforementioned information is placed in the website of the trader and their printed copies are freely available in the client service centre. If a user service centre has not been established, the trader will provide access to the informational materials at the merchant's legal address, actual address and branch office.

On 3 April 2017 the 4 December 2014 decision of the Council of the Regulator Council No. 1/17 was replaced by the 9 March 2017 decision of the Council of the Regulator No. 1/6, approving the "Regulations on information for end users of electricity and natural gas", which determine what information and to what extent the electricity trader shall include in the bills and informative materials issued to the end users of electricity. The rules also determine how often and how the electricity trade must provide the end user with access to the information materials, including information on actual energy consumption, end-user rights regarding dispute resolution, and the origin of the supplied electricity.

4. Please provide information on how, where applicable, the support schemes have been structured to take into account RES applications that give additional benefits, but may also have higher costs, including biofuels made from wastes, residues, non-food cellulosic material, and ligno-cellulosic material?) (Article 22 (1)c of Directive 2009/28/EC).

So far the Latvian authorities are not aware of the use of such RES in Latvia, which provide additional benefits, but which may also have higher costs, including biofuels produced from waste, residues, non-food cellulose raw materials and ligno-cellulosic raw materials. Such biofuels are not produced in Latvia.

5. Please provide information on the functioning of the system of guarantees of origin for electricity and heating and cooling from RES, and the measures taken to ensure reliability and protection against fraud of the system. (Article 22(1)d of Directive 2009/28/EC).

Pursuant to Article 29.² of the Electricity Market Law, any producer of electricity from RES may receive a guarantee of origin for the quantity of electricity produced, as expressed in megawatt hours (MWh), in accordance with the procedure prescribed by the Cabinet.

According to Paragraph 2 of Cabinet Regulation No. 900 of 22 November 2011 "Regulations Regarding the Receipt of a Guarantee of Origin for Electricity, Which Has Been Produced, Using Renewable Energy Sources" (hereinafter – Cabinet Regulation No. 900), the guarantee of origin for electricity may be received by a producer, which owns or uses a power plant producing electricity from RES.

Paragraph 1 of Cabinet Regulation No. 900 provides for the following:

(1) the procedure, by which an electricity producer, which uses renewable energy sources for producing electricity, may receive a guarantee of origin, for the volume of electricity produced, expressed as megawatt hours (MWh);

(2) the procedure, by which a producer, which uses renewable energy sources

for producing electricity, may receive a guarantee of origin for the electricity produced;

(3) the information to be included in the guarantee of origin as well as the authorised institution to issue guarantees of origin. In accordance with Paragraph 2 of Cabinet Regulation No. 900, the guarantee of origin for electricity produced referred to in Sub-paragraphs 1.1, 1.2 and 1.3³³ may be received by a producer, which owns or uses a power plant producing electricity from RES. A producer may receive one or more guarantees of origin. Meanwhile, pursuant to Paragraph 3³⁴ of Cabinet Regulation No. 900, the MoE issues guarantees of origin as referred to in Paragraph 2 of this Regulation and maintains related records electronically. As it is laid down in Paragraph 4³⁵ of Cabinet Regulation No. 900, in order to receive a guarantee of origin, a producer must file an application to the MoE for a guarantee of origin (the Annex to Cabinet Regulation No. 900), either hard copy or electronically, and these data must be certified by the system operator to whose grids the power plant is connected.

According to Paragraph 7³⁶ of Cabinet Regulation No. 900 and the Annex thereto, the MoE, having analysed the information submitted by the producer, including the quantity of electricity sold to the participants of the electricity market, makes a decision on the issuance of the guarantee of origin to the producer so that the latter might transfer the required number of guarantees of origin to electricity traders in response to their requests.

For the year 2015 the MoE has, responding to relevant requests of economic operators, issued 4 guarantees of origin (for the total amount of 1916.159 GWh) for electricity from RES. For the year 2016 the MoE has, responding to relevant requests of economic operators, issued 22 guarantees of origin (for the total amount of 1819.870 GWh) for electricity from RES.

Although Directive 2009/28/EC leaves determining of how to use guarantees of origin, pursuant to the consumer information obligations to the discretion of Member States, we draw attention to the fact that guarantees of origin in Latvia are for the sole objective of Directive 2009/28/EC - to prove to electricity users that a certain proportion of their consumed electricity amount is generated from RES. According to Recital 52 and Article 15 of Directive 2009/28/EC, the sole purpose of a guarantee of origin issues in accordance with Directive 2009/28/EC is proving to final customers that a share or quantity of electricity is from RES. In Latvia, the minimum requirements of Article 15 of Directive 2009/28/EC have been transposed by Cabinet of Ministers Regulation No. 900 and do not specify additional criteria for the application of guarantees of origin, also not regulating trade in guarantees of origin.

³³ Sub-paragraphs 1.1, 1.2 and 1.3 of Cabinet Regulation No. 900:

“1. This Regulation prescribes:

1.1. the procedure, according to which an electricity producer (hereinafter – the producer), which uses renewable energy sources for producing electricity, may receive a guarantee of origin for the quantity of electricity produced, as expressed as megawatt hours (MWh);

1.2. the procedure, according to which a producer, which uses renewable energy sources for producing electricity, may receive a guarantee of origin for the electricity produced;

1.3. the procedure, by which a producer, which uses biomass or biogas for producing electricity, may receive a guarantee of origin for the electricity produced;”

³⁴ Paragraph 3 of Cabinet Regulation No. 900:

“3. The Ministry of the Economy shall issue guarantees of origin as referred to in Paragraph two of this Regulation and maintain related records electronically.”

³⁵ Paragraph 4 of Cabinet Regulation No. 900:

“4. In order to receive a guarantee of origin, a producer shall file an application to the Ministry for a guarantee of origin (the Annex), either in hard copy or electronically (hereinafter – the application). The data referred to in Clause 7 of the application shall be certified by the system operator to whose grids the power plant is connected.”

³⁶ Paragraph 7 of Cabinet Regulation No. 900: “7. If the application contains all of the necessary information and the producer complies with the requirements of this Regulation, the Ministry shall take a decision to issue the producer with a guarantee of origin, shall inform the producer about the relevant decision and issue them a guarantee of origin. All the information referred to in the Section “Information Regarding the Power Plant, in Which Renewable Energy Sources Are Used for the Production of Electricity” of the Annex to this Regulation shall be indicated in the guarantee of origin.”

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On 21 February 2017 Cabinet of Ministers Regulation No. 68 "Procedure for receiving guarantee of origin of electricity" came into force, which includes the provisions of Cabinet Regulation No. 900 on issuing guarantees of origin for electricity produced from RES, as well as the provisions of Cabinet Regulation No. 221 on the issuing of guarantees of origin for electricity produced from high-efficiency cogeneration.

In 2016 work was started to ensure that the issue of guarantees of origin was handed over to the transmission system operator and Latvia could join the European System for Certification of Energy.

6. Please describe the developments in the preceding 2 years in the availability and use of biomass resources for energy purposes. (Article 22(1)g) of Directive 2009/28/EC).

Table 4: Biomass supply for energy use

	Amount of domestic raw material (*)		Primary energy in domestic raw material (ktoe)		Amount of imported raw material (*)		Primary energy in amount of imported raw material (ktoe)		Amount of exported raw material (*)		Primary energy in amount of exported raw material (ktoe)	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Biomass supply for heating and electricity:												
1. Firewood, thsd. solid m3	3434	3324	549	529	6	6	1	1	157	157	25	25
2 Wood briquettes, thsd. t	51	45	21	18	2	7	1	3	23	20	10	8
3 Wood pellets, thsd. t	1 577	1517	678	651	127	171	55	74	1 553	1627	668	699
4 Wood waste, thsd. loose m3	3 872	4138	247	265	15	114	1	7	345	453	22	29
5. Wood chips, thsd. loose m3	6 282	7459	510	607	498	507	41	41	992	1779	81	145
6. Straw, other biomass thsd. t	9	10	3	3	-	-	-	-	-	-	-	-
7. Landfill gas, mln. m3	18	17	8	8	-	-	-	-	-	-	-	-
8. Sewage sludge gas, mln. m3	4	5	2	3	-	-	-	-	-	-	-	-
9. Other biogas, mln. m3	170	174	77	80	-	-	-	-	-	-	-	-
Biomass supply for transport:												
6. Bioethanol, thsd. t	3	5	2	3	11	11	7	7	2	3	1	2
7. Biodiesel, thsd. t	66	45	60	40	17	6	15	5	60	47	54	42

* Units in accordance with the type of biomass

In 2015 and 2016 cereals, rape and rape seed oil was used to produce biofuel.

Table 4a. Current domestic agricultural land use for production of crops dedicated to energy production (ha)

Land use	Surface (ha)	
	Year n-1	Year n-2
1. Land used for common arable crops (wheat, sugar beet etc.) and oilseeds (rapeseed, sunflower etc.) (Please specify main types)	574600*	620300*
2. Land used for short rotation trees (willows, poplars). (Please specify main types)	n/a	n/a
3. Land used for other energy crops such as grasses (reed canary grass, switch grass, Miscanthus), sorghum. (Please specify main types)	n/a	n/a

* wheat, rapeseed and rye

Source: CSB

7. Please provide information on any changes in commodity prices and land use within your Member State in the preceding 2 years associated with increased use of biomass and other forms of energy from renewable sources? Please provide where available references to relevant documentation on these impacts in your country. (Article 22(1) h of Directive 2009/28/EC).

During recent years, Latvia has been a net exporter of cereals and energy crops, and its level of self-sufficiency is high. However, an increase in the production of energy crops may lead to a corresponding decrease in the production of other cereals. Price changes of raw materials for 2015 and 2016 are shown in *Table 4b*.

Table 4b

Agricultural output indices (at reference prices)

	2015	2016
	% vs prior year	% vs prior year
Grain	97.44	91.67

Source: CSB

Comparing 2015 with 2014 and 2016 with 2015, grain prices have decreased. It can therefore be concluded that the wider use of biomass and other types of RES has not had a significant impact on agricultural production prices.

At present, it is not expected that biofuel production will compete with the production of agricultural products, but in the long run it could be a stimulant for the development of more intensive agriculture in Latvia with higher added value.

In Latvia, woodland (not counting swamps, glades, flooding plains and under infrastructure) covers 3261 thsd. ha, which has increased by 0.5 % from 2009. The area of forest stands on agricultural lands has also increased from 144 thsd. ha up to 152 thsd. ha.

8. Please describe the development and share of biofuels made from wastes, residues, non-food cellulosic material, and lingo cellulosic material. (Article 22(1) i of Directive 2009/28/EC).

Table 5**In the biofuel development phase**

Provide information on the total amount of biofuel produced from raw materials listed in Annex IX to the Directive 2009/28/EC (thsd. t oil equivalent)

Raw materials listed in Part A of the Annex IX to Directive 2009/28/EC	2015	2016
(a) algae, if grown on ponds or Photobioreactors	n/a	n/a
(b) fraction of mixed municipal waste biomass, but excluding split household waste for which the recycling targets set out in Article 11(2)(a) of Directive 2008/98/EC must be respected	n/a	n/a
(c) biological waste as defined in Article 3(4) of Directive 2008/98/EC originating from private households subject to a separate collection as defined in Article 3(11) of the Directive	n/a	n/a
(d) fraction of industrial biomass which cannot be used in the food or feed chain, including materials from retail and wholesale and agricultural food production, fisheries and aquaculture sector, with the exception of the raw materials listed in Part B of this Annex	n/a	n/a
(e) straw	n/a	n/a
(f) manure and sewage sludge	n/a	n/a
(g) liquid residues of palm oil production and empty palm fruit bunches	n/a	n/a
(h) tall oil pitch	n/a	n/a
(i) crude glycerol	n/a	n/a
(j) bagasse	n/a	n/a
(k) grape marc and wine lees	n/a	n/a
(l) nut shells	n/a	n/a
(m) husks	n/a	n/a
(n) cobs cleaned of kernels of corn	n/a	n/a
(o) fraction of forestry and forestry-based industrial waste and residue biomass, i.e., peels, branches, pre-commercial thinning, leaves, needles, tree tips, sawdust, shavings, black liquor, brown liquor, fibre sludge, lignin and tall oil	n/a	n/a
(p) other non-food cellulosic material, as defined in Article 2(2)(s)	n/a	n/a
(q) other lignocellulosic material as defined in Article 2(2)(r), with the exception of sawlogs and veneer logs	n/a	n/a
Raw materials listed in Part B of the Annex IX to Directive 2009/28/EC	2015	2016
(a) used cooking oil	n/a	n/a
(b) 1st and 2nd category animal fat in accordance with Regulation of the European Parliament and of the Council (EC) No. 1069/2009	n/a	n/a

Evaluation of resources

Provide a resource assessment of the raw materials listed in Annex IX to Directive 2009/28/EC, focusing on sustainability aspects relating to the effect of the replacement of food and feed products for biofuel production, taking due account of the principles of the waste hierarchy established in Directive 2008/98/EC and the biomass cascade principle, taking into consideration the regional and local economic and technological circumstances, the maintenance of the necessary carbon stock in the soil and the quality of soil and ecosystems.

Currently, second-generation biofuels from waste, residues, non-food cellulosic material and lingo-cellulosic material are not being produced and used in Latvia.

During the reporting period no studies have been carried out in Latvia to carry out an assessment of the raw materials listed in Annex IX to Directive 2009/28/EC.

9. Please provide information on the estimated impacts of the production of biofuels and bioliquids on biodiversity, water resources, water quality and soil quality within your country in the preceding 2 years. Please provide information on how these impacts were assessed, with references to relevant documentation on these impacts within your country. (*Article 22 (1) j) of Directive 2009/28/EC*).

In Latvia during the reporting period no studies were conducted to assess the impact of biofuel and bioliquid production on biodiversity, water resources, water quality and soil quality.

Cereals and oilseed rape are predominantly used for biofuel production in Latvia. Bioethanol is traditionally produced from wheat, rye and triticale, but biodiesel from rapeseed and rapeseed oil.

According to the information provided by the Latvian Biofuels and Bioenergy Association (LBBA) (see Table 5a), the amount of rape seed bought for the production of biodiesel in 2016 has increased by 8.1 % compared to 2015, but during this period the purchased amount of rapeseed oil has decreased significantly, explained by the fact that biodiesel producers have increased the amount of rape seed processing. In 2016, 82 % of rape seed for biodiesel production was purchased in Latvia, which is about 25 % of the total rape harvest in Latvia. Rapeseed oil was mainly purchased from outside the EU.

Table 5a

Quantities of raw materials purchased by Latvian biodiesel producers for biodiesel production, thsd. t

Year	Rapeseed				Rapeseed oil			
	Latvia	EU	Outside the EU	Total	Latvia	EU	Outside the EU	Total
2015	60.32	10.67	8.42	79.41	-	3.87	41.50	45.36
2016	70.79	7.03	8.05	85.87	0.11	-	14.13	14.24

Source: LBBA

According to the CSB data on the production of biofuels (see table 5b), it can be concluded that biofuel production in the review reporting period has decreased. In 2015, bioethanol production was resumed and an increase in bioethanol production has been observed in 2016, while biodiesel production in 2016 has decreased compared to previous years.

5a Table

Biodiesel and bioethanol production in Latvia, thsd. t

Biofuel	2015	2016
Bioethanol	3	5
Biodiesel	66	45

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Source: CSB

Based on the CSB data on sown areas under agricultural crops (see table 5c), the total sowing area in 2016 was 1233.9 thousand ha, which is 5.6 % higher than in 2015. In 2016 rape accounted for 101.1 thousand ha, which is 28.1 thousand ha (or 13.5 %) more than in 2015. In 2016 cereal crop were 672.4 thsd. ha, which is 6.6 % more than in the previous year.

Table 5c

Sown areas under agricultural crops, thousand ha		
	2015	2016
Total sown area, including	1168.8	1233.9
Cereals, including	672.4	716
Winter cereals, including	338.9	377.5
wheat	290.9	329.9
rye	37.4	36.3
Summer cereal, including	333.5	338.5
wheat	157.6	153
Rape	89	101.1

Source: CSB

10. Please estimate the net greenhouse gas emission savings due to the use of energy from renewable sources (Article 22 (1) k) of Directive 2009/28/EC).

Table 6: Estimated GHG emission savings from the use of renewable energy (t CO₂eq)

Environmental aspects	2015	2016
Total estimated net GHG emission saving from using renewable energy³⁷	5 081 598	5112 518
- Estimated net GHG saving from the use of renewable electricity	890 635	885 812
- Estimated net GHG saving from the use of renewable energy in heating and cooling	4 146 333	4 201 578
- Estimated net GHG saving from the use of renewable energy in transport	44 629	25 127

Directive 2009/28/EC does not provide for any methodology for calculating GHG emission savings for other types of renewable energy sources. The form of the Member States' progress reports, in accordance with Directive 2009/28/EC, states that the calculation of GHG net emission savings from the use of energy from RES, electricity and heating is recommended to use the EU wide fossil fuel comparators, which are defined in the EC report to the European Council and the European Parliament on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling, if no newer estimates are available. The Latvian authorities do not possess information on the characteristics of the technologies needed to calculate GHG emission savings for heat, cooling and electricity production from solid and gaseous biomass in accordance with the methodology for calculating GHG emissions proposed in this report.

Using an approach that is used in the emissions trading system, the solid and gaseous biomass energy GHG emission factors (both electricity and heat) production are taken as "0".

Latvian authorities consider that the GHG emission factor for energy from solar

³⁷ The contribution of gas, electricity and hydrogen from renewable energy sources should be reported depending on the final use (electricity, heating and cooling or transport) and only be counted once towards the total estimated net GHG savings.

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collectors, solar power plants and hydroelectric power plants should be taken as "0" because the functioning of the aforementioned equipment would not require energy production, processing and transportation. Regarding GHG emission savings for energy from heat pumps, the amount of electricity used to ensure the operation of heat pumps, which has not been individually listed, has to be taken into account.

In Latvia in 2010 the CO₂ emission factor for gross electricity consumption from fossil fuels with cogeneration correction was 0.235 t CO₂/MWh. It is used to calculate GHG emission savings from renewable energy use.

To calculate GHG emission savings from renewable energy sources for heating and cooling, a fossil fuel comparator - 87 g CO₂ / MJ - is used, as set out in the EC report to the European Council and the European Parliament on sustainability requirements for the use of solid and gaseous biomass for the production of electricity, heat and cooling energy.

11. Please report on (for the preceding 2 years) and estimate (for the following years up to 2020) the excess/deficit production of energy from renewable sources compared to the indicative trajectory which could be transferred to/imported from other Member States and/or third countries, as well as estimated potential for joint projects until 2020. (Article 22 (1) l, m) of Directive 2009/28/EC).

Table 7: Actual and estimated excess and/or deficit (-) production of renewable energy compared to the indicative trajectory which could be transferred to/from other Member States and/or third countries in Latvia (ktoe)^{38, 39}

		2015	2016
Actual/estimated excess or deficit production (please distinguish per type of renewable energy and per origin/destination of import/export)	Gross final consumption of RES for heating and	-40.7	-60.5
	Gross final consumption of electricity from RES	-6.1	-21.9
	Gross final consumption of energy from RES in	-25.8	-49.1
	Gross total RES consumption	-68.6	-126.5

Gross total RES consumption and RES consumption in the subsectors does not reach the level envisaged in the action plan, but the total energy consumption in 2015 is 412.2 thsd. tonnes of oil equivalent and in 2016-445.1 thsd. tonnes of oil equivalent lower than the forecast in the Action Plan, which exceeds the difference between the planned and achieved gross total RES consumption by a factor of several times.

Latvia has not assessed the surplus/shortage of energy produced from RES until 2020 (compared to the indicative curve) and the potential for joint projects implementation during this period has not been estimated.

11.1. Please provide details of statistical transfers, joint projects and joint support scheme decision rules.

Latvia has not taken decisions on the merging or partial coordination of state aid mechanisms during this period, and, while respecting the recent case law of the European Court of Justice, consolidation or partial coordination of support mechanisms is not planned. Latvia has not used the opportunity to agree with other EU Member States on the statistical transfer or receipt of a certain amount of energy produced from RES.

³⁸ Please use actual figures to report on the excess production in the two years preceding submission of the report, and estimates for the following years up to 2020. In each report Member State may correct the data of the previous reports.

³⁹ When filling in the table, for deficit production please mark the shortage of production using negative numbers (e.g. -x ktoe).

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12. Please provide information on how the share for biodegradable waste in waste used for producing energy has been estimated, and what steps have been taken to improve and verify such estimates. (Article 22 (1) n of Directive 2009/28/EC).

Biodegradable waste and residues (materials) in Latvia are used as a raw material for biogas production in landfills. Their decomposition produces biogas, which is used as fuel for energy production.

Biodegradable waste and residues used for the production of biogas are not listed in the Energy Statistics.

In the reporting period no steps have been taken to improve or verify the estimates of the share of biodegradable waste in waste used for producing energy.

13. Provide information on the amount of energy from biofuels and bioliquids in units (thsd. tonnes of oil equivalent) corresponding to each of the items category groups of raw materials listed in Part A of Annex VIII which have been taken into account by the concerned Member State in order to comply with the targets referred to in Article 3(1), (2) and Paragraph 1 of Article 3(4).

Raw material group	Year n-2	Year n-1
Cereals and other starch containing	3	5
Sugars	n/a	n/a
Oilseeds	66	45