

Republic of Latvia
Ministry of the Economy

Information Report
Republic of Latvia Second 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

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Abbreviations used

RE	renewable energy
RES	renewable energy sources
CSB	Central Statistical Bureau
EC	European Commission
MoE	Ministry of the Economy
EU	European Union
HPP	hydropower plant
LVL	Latvian lat
Cabinet	Cabinet of Ministers
GHG	greenhouse gas
VAS	state-owned public limited liability company
WPP	wind power plant

Introduction

According to Article 22(1) 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 (hereinafter — Directive 2009/28/EC), each Member State is required to submit a report to the EC on progress in the promotion and use of energy from RES once every two years. Latvia must submit six regular reports by 31 December 2021.

To foster the fulfilment of the common objective pursuant to Directive 2009/28/EC, Latvia has formulated an Action Plan named “Republic of Latvia National Renewable Energy Action Plan for implementing 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 by 2020”¹ (hereinafter – the Action Plan), which specifies indicative targets for the share of RE in each type of final energy consumption (energy consumption in heating and cooling, electricity and transport), taking into account the potential RES available and usable in Latvia.

This report has been drawn on the basis of the guidance template prepared by the EC² in order to fulfil the obligation referred to in Article 22(1) of Directive 2009/28/EC and to ensure that Latvia’s second regular report on progress in the promotion and use of energy from RES in 2011 and 2012 is submitted to the EC by the due date.

¹ Information Report: Republic of Latvia National Renewable Energy Action Plan for implementing 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 by 2020, <http://www.likumi.lv/doc.php?id=219547>

² Guidance template for the Member States’ progress reports in accordance with Directive 2009/28/EC, http://ec.europa.eu/energy/renewables/reports/2011_en.htm

1. Sectoral and overall shares and actual consumption of energy from renewable sources

Pursuant to part A of Annex I of Directive 2009/28/EC, Latvia's overall target is to increase the share of energy from RES in gross final consumption of energy to 40 % in 2020. This report presents the current situation and progress achieved in the use of renewable energy in 2011 and 2012, considering that, according to the indicative trajectory set out in part B of Annex I of Directive 2009/28/EC, the RE target set for Latvia is 34.1 % as an average for the two-year period 2011 to 2012. The average RE share attained in the years 2011 to 2012 is 34.7 %, i.e. 33.55 % in 2011 and 35.78 % in 2012.

Moreover, each Member State must ensure that the share of RES in all forms of transport in 2020 is at least 10 % of the final consumption of energy in transport (3.24 % achieved in 2011 and 3.10 % achieved in 2012).

Table 1

The sectoral (electricity, heating and cooling, and transport) and overall shares of energy from renewable sources

	2011	2012
RES-H&C ³ (%)	44.83 %	47.39 %
RES-E ⁴ (%)	44.70 %	44.88 %
RES-T ⁵ (%)	3.24 %	3.10 %
Overall RES share ⁶ (%)	33.55 %	35.78 %
<i>Of which from cooperation mechanism (%)</i>	-	-
<i>Surplus for cooperation mechanism (%)</i>	-	-

Source: CSB

Certain progress in respect of the target share of RE under part A of Annex I of Directive 2009/28/EC was observed in 2011 when the total share of RE was up by 1 percentage point from the previous year. Meanwhile, in 2012 the share of RE had a more rapid growth year-on-year, which was by 2.2 percentage points. The RE share achieved in the years 2011 to 2012 exceeds the indicative target fixed in part B of Annex I of Directive 2009/28/EC by 0.6 percentage points, which means that Latvia demonstrated progress in the promotion of RE in the period 2011 to 2012.

The growth of the RE share in electricity has been facilitated by the mandatory procurement arrangement (the feed-in tariff system). The total quantity of electricity under the rights to sell electricity according to the mandatory procurement procedure granted to economic operators producing

³ Share of renewable energy in heating and cooling: gross final consumption of energy from renewable sources for heating and cooling divided by gross final consumption of energy for heating and cooling.

⁴ Share of renewable energy in electricity: gross final consumption of electricity from renewable sources divided by total gross final consumption of electricity.

⁵ Share of renewable energy in transport: final energy from renewable sources consumed in transport divided by the consumption in transport of 1) petrol; 2) diesel; 3) biofuels used in road and rail transport and 4) electricity in land transport.

⁶ Share of renewable energy in gross final energy consumption.

electricity from RES is 5 645 GWh per year, which forms 65 % of the national overall target of gross final consumption of electricity set for 2020 in the Action Plan. However, rather a small amount of the mandatory procurement rights granted to economic operators has been implemented so far: only 450.9 GWh of electricity (i.e. 6 % of the national gross consumption of electricity for 2012) were purchased from economic operators producing electricity from RES in 2012 under the mandatory procurement procedure.

At present, the rights granted under the mandatory procurement arrangement are being implemented gradually. Table 1b demonstrates a noteworthy increase in the installed electrical capacity of power generation plants using RES in the years 2011 to 2012. The implementation of the mandatory procurement rights has been continued in 2013 too. After new power generation plants have been launched in the first half of 2013, the total electrical capacity installed in biogas units grew from 43 MW to 49 MW (i.e. by 14 %) and in biomass units — from 23 MW to 32 MW (i.e. by 37 %) from the year 2012, with the use of RE in the electricity sector displaying a strong upward tendency.

Given a large pool of economic operators which have not still implemented their mandatory procurement rights and the amount of electricity produced by the Daugava hydropower plants cascade (39 % of the national gross consumption of electricity for 2012), it is expected that even if a minor portion of the outstanding mandatory procurement rights were exercised, the share of RE in electricity would attain the target set in the Action Plan (59.8 %).

In heating, the capacity installed in CHP plants and boiler houses using RES is on the upward path. In 2010, these facilities had a total installed heating capacity of 815.2 MW, thereby accounting for 13.2 % of the aggregate capacity of all boiler houses and CHP plants. Meanwhile, in 2012 the total installed heating capacity rose up to 1 171.4 MW to ultimately form 19 % of the total heating capacity. It is expected that the heating sector will further stick to the upward path.

The growth of the capacity of boiler houses using RES is being promoted by earmarking EU funds to co-finance the relevant projects. Support of the EU structural funds will be allocated to the conversion of heating sources from fossil fuel to RES in the next planning period too.

Considering that the major portion of heat in the energy supply of buildings is ensured by district heating systems using fossil fuels, a decrease in heat energy consumption by buildings will lead to a reduced use of fossil energy, thereby contributing to a growth of the share of energy from renewable sources in gross final consumption of energy and a decrease in total GHG emissions in the country.

Based on the comparison of the actual RE contribution of each sector to final energy consumption in 2012 (Table 1a below) with that specified in Table 4a of the Action Plan, gross final consumption of heat from RES in

heating and cooling exceeds the target (1 104 ktoe) by 84 ktoe. Gross final consumption of electricity from RES for 2012 surpasses the forecasted figure (286 ktoe) by 13 ktoe, while in transport final consumption of energy from RES is below the target (46 ktoe) by 22 ktoe. Total gross final consumption of RE in 2012 exceeds the target (1 432 ktoe) by 78 ktoe.

Table 1a

Calculation table for the renewable energy contribution of each sector to final energy consumption (ktoe)

	2011	2012
(A) Gross final consumption of RES for heating and cooling	1 059	1 188
(B) Gross final consumption of electricity from RES	278	299
(C) Gross final consumption of energy from RES in transport	27	24
(D) Gross total RES consumption	1 364	1 510
(E) Transfer of RES to other Member States	-	-
(F) Transfer of RES from other Member States and 3 rd countries	-	-
(G) RES consumption adjusted for target (D)-(E)+(F)	1 364	1 510

Source: CSB

In Latvia, the actual gross final consumption of energy (4 220 ktoe) for 2012 exceeds the figure set in the Action Plan (4 170 ktoe) by 50 ktoe. The actual gross final consumption of energy in transport (886 ktoe) is less than the target forecasted in the Action Plan (1 136 ktoe) by 250 ktoe, while gross final consumption of electricity for the year 2012 (676 ktoe) surpasses the target specified in the Action Plan (608 ktoe) by 68 ktoe, and gross final consumption of energy in heating and cooling (2 506 ktoe) is above the target (2 319 ktoe) by 187 ktoe. Hence the growth of gross final consumption of RE has outstripped the rise of the national overall gross final consumption of energy.

Table 1b

Total actual contribution (installed capacity, gross electricity generation) from each renewable energy technology to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in electricity

	2011		2012	
	MW	GWh	MW	GWh
Hydro ⁷ :	1 576	3 097.2	1 576	3 140.2
<i>non-pumped</i>	1 576	3 100.8	1 576	3 144.1
<i><1MW</i>	25	62.6	25	64.5
<i>1MW-10 MW</i>	1	3.2	1	3.6
<i>>10MW</i>	1 550	3 035.0	1 550	3 076.0
<i>pumped</i>	0	0	0	0
<i>mixed</i>	0	0	0	0
Geothermal	0	0	0	0
Solar:	0	0	0	0
<i>photovoltaic</i>	0	0	0	0
<i>concentrated solar power</i>	0	0	0	0
Tidal, wave, ocean	0	0	0	0
Wind ⁸ :	36	64.6	59	98.4
<i>onshore</i>	36	64.6	59	98.4
<i>offshore</i>	0	0	0	0
Biomass ⁹ :	30	119.4	66	288.6
<i>solid biomass</i>	5	12.8	23	64.4

⁷ Normalised according to Directive 2009/28/EC and Eurostat methodology.

⁸ Normalised according to Directive 2009/28/EC and Eurostat methodology.

⁹ Take into account only those complying with applicable sustainability criteria according to Article 5(1) of Directive 2009/28/EC last subparagraph.

<i>biogas</i>	25	105.4	43	223.4
<i>bioliquids</i>	0	1.2	0	0.8
TOTAL	1 642	3 281.2	1 701	3 527.3
<i>of which in CHP</i>		116.3		282.9

Source: CSB

In Table 1b above hydropower and wind power have been normalised in accordance with Directive 2009/28/EC and Eurostat methodology. The actual amount of hydropower generated in 2012 was 3 707 GWh (2 887 GWh in 2011), while the amount of wind power was 114 GWh (2011: 71 GWh).

A comparison of the data presented in Table 1a indicates that in 2012 the quantity of electricity from RES rose over the previous year; the normalised electricity generated from wind power grew from 64.6 GWh to 98.4 GWh, representing an increase of nearly 52 %, while the actual amount generated grew by almost 61 %. This growth was mainly attributable to favourable weather conditions and also to an increase in the capacity of wind power plants of up to 59 MW, i.e. nearly 63 % against the year 2011. Meanwhile, the quantity of electricity generated from biomass (including biogas) rose from 119.4 GWh in 2011 to 288.6 GWh in 2012 – an increase of almost 141 % – the main reason being the considerable growth (i.e. by 36 MW, representing a 120 % increase) of the installed electrical capacity of biomass (and biogas) units.

When compared with the installed electrical capacity forecast in the Action Plan for 2012, the actual installed electrical capacity of several RE technological installations exceeded targets:

- hydropower (Action Plan: 1 536 MW, actual installed electrical capacity for 2012: 1 576 MW);
- wind power (Action Plan: 49 MW, actual installed electrical capacity for 2012: 59 MW);
- biomass (including biogas) (Action Plan: 39 MW, actual installed electrical capacity for 2012: 66 MW).

Solar photovoltaic power is the only RE technology which lagged behind the forecast for 2012 (1 MW according to the Action Plan). In 2009 the Ministry of the Economy granted rights to sell electricity under the mandatory procurement procedure to two economic operators having an aggregate installed capacity of 0.91 MW. However, the rights granted were not exercised by the due date and the decisions were therefore annulled.

In Latvia, solar energy is predominantly used in the household sector. Data on the energy produced by households are derived by the CSB from the household survey which is conducted once every five years. The next survey is scheduled for 2016 (to cover the year 2015). According to Solar Energy Association data the current solar energy capacity installed in Latvia is as follows: solar power plants connected to the grid – approximately 668 kW_p; autonomous solar power plants – approximately 37 kW_p; solar thermal power plants (collectors) – more than 800 kW_{th}. Given that the Solar Energy

Association does not include all companies and experts operating in this area, the total capacity of solar energy for electricity and heating could be higher.

Heat pumps are also utilised in Latvia for heating purposes; however, no accurate statistical data on the related total installed capacity and energy generation are available.

Table 1c

Total actual contribution (final energy consumption¹⁰) from each renewable energy technology to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in heating and cooling (ktoe)

	2011	2012
Geothermal (excluding low temperature geothermal heat in heat pump applications)	0	0
Solar	... ¹¹	... ¹¹
Biomass ¹² :	1 059.2	1 187.5
<i>solid biomass</i>	1 048.7	1 167.4
<i>biogas</i>	7.7	17.8
<i>bioliquids</i>	2.8	2.3
Renewable energy from heat pumps:	... ¹¹	... ¹¹
- of which aerothermal		
- of which geothermal		
- of which hydrothermal		
TOTAL	1 059.2	1 187.5
<i>Of which DH¹³</i>	94.8	120.5
<i>Of which biomass in households¹⁴</i>	624.4	664.6

Source: CSB

Table 1d

Total actual contribution from each renewable energy technology to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in the transport sector (ktoe)¹⁵

	2011	2012
Bioethanol/ bio-ETBE	7.7	6.4
<i>Of which Biofuels¹⁶ Article 21.2</i>	0	0
<i>Imported bioethanol/ bio-ETBE</i>	11.3	10.7
<i>Exported bioethanol/ bio-ETBE</i>	5.4	5.1
Biodiesel	16.9	15.1
<i>Of which Biofuels¹⁷ Article 21.2</i>	0	0
<i>Imported biodiesel</i>	8.9	5.1
<i>Exported biodiesel</i>	42.0	69.1
Hydrogen from renewables	0	0
Renewable electricity ¹⁸	4.5	4.7
<i>Of which road transport</i>	2.3	2.4
<i>Of which non-road transport</i>	2.1	2.3
Others (as biogas, vegetable oils, etc.) – please specify	0	0
<i>Of which biofuels¹⁹ Article 21(2)</i>	0	0
TOTAL²⁰	26,8	23.9
TOTAL²¹	30.3	27.4

¹⁰ Direct use and district heat as defined in Article 5.4 of Directive 2009/28/EC.

¹¹ Data not available.

¹² Take into account only those complying with applicable sustainability criteria according to Article 5(1) of Directive 2009/28/EC last subparagraph.

¹³ District heating and/ or cooling from total renewable heating and cooling consumption.

¹⁴ From the total renewable heating and cooling consumption.

¹⁵ For biofuels take into account only those compliant with the sustainability criteria, cf. Article 5(1) last subparagraph.

¹⁶ Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

¹⁷ Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

¹⁸ Actual value.

¹⁹ Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

²⁰ Pursuant to Article 3(4)(c) of Directive 2009/28/EC.

Source: CSB

2. Measures to promote the growth of energy from renewable sources taking into account the indicative trajectory for achieving the national RES targets

Table 2

Overview of all policies and measures

Name and reference of the measure	Type of measure*	Expected result**	Targeted group and/ or activity***	Existing and planned****	Start and end dates of the measure
1. The right to sell generated electricity as the quantity of electricity to be mandatorily purchased (Cabinet Regulation No 262 of 16 March 2010 "Regulation on the Production of Electricity from Renewable Energy Sources and the Pricing Procedure")	The public trader is obliged to purchase electricity generated from RES from those electricity producers which have received the right to sell electricity under the mandatory procurement procedure.	Promotion of the use of RE and competitiveness of energy from RES	Economic operators that produce or intend to produce electricity from RES at power plants in Latvia by utilising: hydropower, biogas, any type of solid or liquid biomass, wind power and solar energy	Existing ²²	As from 22 August 2007 According to the preliminary plans, the support for the existing rights granted under the mandatory procurement procedure is to be provided until 2036.
2. Mandatory procurement of electricity generated by CHP plants (Cabinet Regulation No 221 of 10 March 2009 "Regulation on the Production of Electricity from Cogeneration and the Related Pricing Procedure")	The public trader is obliged to purchase electricity generated in efficient cogeneration processes.	Promotion of electricity from cogeneration utilising RES	Electricity producers which generate electricity from high-efficiency cogeneration	Existing ²³	As from 11 November 2006. According to the preliminary plans, the support for the existing rights granted under the mandatory procurement procedure is to be provided until 2027.
3. The right to receive the guaranteed payment for the electrical capacity installed in a CHP plant (Cabinet Regulation No 221 of 10 March 2009 "Regulation on the Production of Electricity from Cogeneration and the Related Pricing Procedure")	The system operator is obliged to pay for the electrical capacity installed in a power generation plant to economic operators which produce electricity from biomass or	Promotion of electricity from cogeneration utilising RES	Electricity producers which generate electricity from high-efficiency cogeneration	Existing ²⁴	As from 18 August 2009 The support for the existing rights to receive the guaranteed payment for the installed electrical capacity is to be

²¹ Actual value.

²² No new rights will be granted during the period from 26 May 2011 to 1 January 2016 (according to Cabinet Regulation No 365 of 17 May 2011 amending Cabinet Regulation No 262 of 16 March 2010 "Regulation on the Production of Electricity from Renewable Energy Sources and the Pricing Procedure" (hereinafter the "amendments to Cabinet Regulation No 262"))).

²³ No new rights will be granted during the period from 10 September 2012 to 1 January 2016 (according to 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" (hereinafter the "amendments to Cabinet Regulation No 221"))).

²⁴ No new rights will be granted during the period from 10 September 2012 to 1 January 2016 (the amendments to Cabinet Regulation No 221).

	biogas and qualify for this right.				provided until 2028.
4. Reduced rate of excise duty (the Excise Duty Law)	Indirect aid by means of reducing the rate of excise duty	Promotion of the use of biofuels	The reduced rate of excise duty is applicable to the following fuels: <ul style="list-style-type: none"> – blend of unleaded petrol and ethanol with an ethanol content of 70 to 85 per cent by volume (inclusive) (E85); – blend of diesel fuels and biodiesel from rapeseed oil with biodiesel content of at least 30 per cent by volume (B30); – rapeseed oil that is sold or used as heating fuel or transport fuel and pure biodiesel from rapeseed oil (B100). 	Existing	31 December 2013
5. Mandatory blending of biofuels in fossil fuels at 4.5 – 5 per cent by volume of the total amount of the end-product (Cabinet Regulation No 332 of 26 September 2000 “Regulation on the Conformity Assessment of Petrol and Diesel”)	Regulatory	Promotion of the production and consumption of biofuels in order to attain the target of 5.75 % of the total amount of transport fuels in the economy by 31 December 2010 according to the Biofuel Law	In Latvia, only diesel with 4.5–5 volume per cent biodiesel content of the total amount of the end-product and petrol with 4.5–5 volume per cent bioethanol content of the total amount of petrol may be sold. The requirement as to the mandatory 5 % biofuel blending does not apply to Class 0, 1, 2, 3 and 4 diesel for use in arctic or severe winter conditions. The blending requirement applies to Category A, B, C, D, E and F diesel and petrol with octane number 95 for use in temperate climatic conditions.	Existing	As from 1 October 2009
6. Tax relief (the Electricity Tax Law)	Indirect aid by means of tax exemptions and relief		According to Section 6, Paragraph one of the Electricity Tax Law, tax exemptions are applied to electricity originating from the following sources: <ol style="list-style-type: none"> 1) RES; 2) HPP; 3) CHP plants conforming with the efficiency criteria laid down in the laws and regulations on the production of electricity from cogeneration. 	Existing	As of 1 January 2007
7. Increase in the energy performance of municipal buildings (Phase I). (Cabinet Regulation No 645 of 25 June 2009 “ Regulation of the Open Tender “Increase in the Energy Performance of Municipal Buildings” for the Projects Financed by the Climate Change Financial Instrument ” as amended until 25 September 2012)	Financial (Climate Change Financial Instrument)	Reduction of CO ₂ emissions by minimising heat consumption by public buildings of Latvian municipalities and buildings necessary for ensuring autonomous functions of municipalities	City or regional municipalities	Existing	Project implementation by 1 December 2011

8. Development of technologies for reducing GHG emissions (Cabinet Regulation No 1492 of 22 December 2009 “Regulation of the Open Tender “Development of Technologies for Reducing Greenhouse Gas Emissions” for the Projects Financed by the Climate Change Financial Instrument” as amended until 25 September 2012)	Financial (Climate Change Financial Instrument)	Promotion of the availability of products and technologies reducing GHG emissions in Latvia, thereby ensuring the reduction in GHG emissions	Project applicants may be institutions of direct or indirect administration of the Republic of Latvia, derived public persons, or economic operators registered in the Republic of Latvia.	Existing	Project implementation by 1 December 2012
9. Increase in the energy performance of buildings of tertiary education institutions (Cabinet Regulation No 1 of 5 January 2010 “Regulation of the Open Tender “Increase in the Energy Performance of Buildings of Tertiary Education Institutions” for the Projects Financed by the Climate Change Financial Instrument” as amended until 25 September 2012)	Financial (Climate Change Financial Instrument)	Reduction of CO ₂ emissions by minimising heat and electricity consumption	Tertiary education institutions accredited in the Republic of Latvia	Existing	Project implementation by 1 December 2012
10. Complex solutions for the reduction of GHG emissions in buildings of state and municipal vocational education institutions (Cabinet Regulation No 417 of 5 May 2010 “Regulation of the Open Tender “Complex Solutions for the Reduction of Greenhouse Gas Emissions in Buildings of State and Municipal Vocational Education Institutions” for the Projects Financed by the Climate Change Financial Instrument” as amended until 14 August 2012)	Financial (Climate Change Financial Instrument)	Reduction of CO ₂ emissions by minimising electricity consumption for heating and lighting in buildings of state and municipal vocational education institutions in the Republic of Latvia	Project applicants may be state or municipal vocational education institutions.	Existing	Project implementation by 1 December 2012
11. Technology conversion from fossil to energy from renewable sources (Cabinet Regulation No 441 of 12 May 2010 “Regulation of the Open Tender “Technology Conversion from Fossil to Energy from Renewable Sources” for the Projects Financed by the Climate Change Financial Instrument” as amended until 25 September 2012)	Financial (Climate Change Financial Instrument)	Reduction of CO ₂ emissions by ensuring the conversion from fossil energy technologies to renewable energy technologies	Latvian city or regional municipalities and educational institutions, micro, small and medium-sized economic operators registered in the Republic of Latvia as well as scientific institutions registered in the register of scientific institutions	Existing	Project implementation by 1 December 2012
12. Complex solutions for the reduction of GHG emissions in industrial buildings (Cabinet Regulation No 521 of 8 June 2010 “Regulation of the Open Tender “Complex Solutions for	Financial (Climate Change Financial Instrument)	Reduction of CO ₂ emissions by introducing RES technologies and energy-efficiency measures for industrial buildings	Economic operators	Existing	Project implementation by 1 December 2012

<p>the Reduction of Greenhouse Gas Emissions in Industrial Buildings” for the Projects Financed by the Climate Change Financial Instrument” as amended until 14 August 2012)</p>					
<p>13. Complex solutions for the reduction of GHG emissions in municipal buildings (<i>Phase II</i>) (Cabinet Regulation No 542 of 21 June 2010 “Regulation of the Open Tender “Complex Solutions for the Reduction of Greenhouse Gas Emissions in Municipal Buildings” for the Projects Financed by the Climate Change Financial Instrument” as amended until 25 September 2012)</p>	<p>Financial (Climate Change Financial Instrument)</p>	<p>Reduction of CO₂ emissions by introducing RES technologies and energy-efficiency measures</p>	<p>City and regional municipalities</p>	<p>Existing</p>	<p>Project implementation by 1 December 2012</p>
<p>14. Raising public awareness of the importance and possibilities of reducing GHG emissions (Phases I and II) (Cabinet Regulation No 789 of 17 August 2010 “Regulation of the Open Tender “Raising Public Awareness of the Importance and Possibilities of Reducing GHG Emissions” for the Projects Financed by the Climate Change Financial Instrument” as amended until 25 September 2011)</p>	<p>Financial (Climate Change Financial Instrument)</p>	<p>Raising public awareness of the importance and possibilities of reducing GHG emissions, thereby fostering informed decision-making and environmentally sound action</p>	<p>Project applicants may be: 1. an association or a foundation registered in the Republic of Latvia or an economic operator registered in the Republic of Latvia, whose publication is registered in the Mass Media Register of the Enterprise Register of the Republic of Latvia, if the target audience of the publication or the website is in line with the objectives of the financial instrument; 2. an association or a foundation registered in the Republic of Latvia with one or more project cooperation partners operating in the field of environmental education or popularising of energy saving measures; 3. an association registered in the Republic of Latvia, representing experts in the construction and architecture, energy, construction engineering and environmental area, energy auditors, or an association that is a member of the Association of European Chambers of Commerce with one or more project cooperation partners.</p>	<p>Existing</p>	<p>Project implementation by 31 March 2012</p>
<p>15. Low-energy buildings (Cabinet Regulation No 1185 of 28 December 2010 “Regulation of the Open Tender “Low-energy</p>	<p>Financial (Climate Change Financial Instrument)</p>	<p>Reduction of CO₂ emissions by enhancing the energy performance of buildings and utilising RES technologies</p>	<p>Project applicants may be institutions of direct or indirect administration, councils of city or regional municipalities of the</p>	<p>Existing</p>	<p>Project implementation by 1 November 2013</p>

Buildings” for the Projects Financed by the Climate Change Financial Instrument” as amended until 13 January 2011)			Republic of Latvia, micro, small and medium-sized economic operators registered in the Republic of Latvia, or natural persons.		
16. Use of RES to reduce greenhouse gas emissions (Cabinet Regulation No 12 of 4 January 2011 “Regulation of the Open Tender “Use of Renewable Energy Sources to Reduce Greenhouse Gas Emissions” for the Projects Financed by the Climate Change Financial Instrument” as amended until 25 September 2012)	Financial (Climate Change Financial Instrument)	Reduction of CO ₂ emissions by promoting the use of RES in heat and electricity production	Councils of city or regional municipalities of the Republic of Latvia, institutions of direct or indirect administration and economic operators registered in the Republic of Latvia	Existing	Project implementation by 1 November 2012
17. Use of RES in households (Phases I and II) (Cabinet Regulation No 11 of 4 January 2011 “Regulation of the Open Tender “Use of Renewable Energy Sources in Households” for the Projects Financed by the Climate Change Financial Instrument” as amended until 30 October 2012)	Financial (Climate Change Financial Instrument)	Reduction of CO ₂ emissions by promoting the use of RES in heat and electricity production in households for their own needs	Project applicants may be: 1. an owner of a residential building — a natural person; 2. an association of apartment owners of an apartment house, which is not engaged in any economic activities and acts on behalf of the owners (natural persons) of apartments situated in the respective apartment house.	Existing	Project implementation: Phase I – by 1 July 2012; Phase II – by 1 November 2012
18. Reduction of GHG emissions in the lighting infrastructure of public municipal areas (Phases I, II and III) (Cabinet Regulation No 408 of 24 May 2011 “Regulation of the Open Tender “Reduction of Greenhouse Gas Emissions in the Lighting Infrastructure of Public Municipal Areas” for the Projects Financed by the Climate Change Financial Instrument” as amended until 30 October 2012)	Financial (Climate Change Financial Instrument)	Reduction of CO ₂ emissions in the lighting infrastructure of public municipal areas by utilising technologies and environmentally friendly techniques that allow for a reduction of energy consumption	Municipalities of the Republic of Latvia, their institutions or agencies, or economic operators	Existing	Project implementation: Phase I – by 1 July 2012; Phase II – by 30 August 2013; Phase III – by 31 March 2014
19. Development of technologies for reducing GHG emissions and implementation of pilot projects (Cabinet Regulation No 608 of 2 August 2011 “Regulation of the Open Tender “Development of Technologies for Reducing Greenhouse Gas Emissions and Implementation of Pilot Projects” for the Projects Financed by the Climate Change Financial Instrument” as amended until 25 September 2012)	Financial (Climate Change Financial Instrument)	Development of products and technologies for reducing GHG emissions and transfer of knowledge and technologies to support the implementation of pilot projects in Latvia	Institutions of direct or indirect administration of the Republic of Latvia, derived public persons, or economic operators registered in the Republic of Latvia	Existing, complements the Action Plan	Project implementation by 1 April 2013
20. Complex solutions for the reduction of GHG	Financial (Climate Change	Reduction of GHG emissions by ensuring	Economic operators registered in the	Existing, complements	Project implementation:

emissions (Phases I, II and III) (Cabinet Regulation No 559 of 14 August 2012 “Regulation of the Open Tender “Complex Solutions for the Reduction of Greenhouse Gas Emissions” for the Projects Financed by the Climate Change Financial Instrument” as amended until 25 September 2012)	Financial Instrument)	the conversion from fossil energy technologies to RES technologies, improving the existing production equipment used by economic operators or replacing such equipment with new installations as well as boosting the energy performance of buildings of educational institutions and industrial, wholesale and retail buildings	Republic of Latvia. Project applicants under Phase II of the tender may be economic operators or state or municipal institutions or institutions established by legal or natural persons in the Republic of Latvia to implement educational programmes, or companies engaged in the implementation of educational programmes	the Action Plan	Phase I – by 30 April 2013; Phase II – by 31 October 2013; Phase III – by 30 June 2014.
21. European Economic Area (EEA) Financial Mechanism 2009 - 2014 Programme "National Climate Policy"	Financial (European Economic Area)	The objective of the Programme "National Climate Policy" co-financed by the European Economic Area Financial Mechanism is to support Latvia in developing a comprehensive national climate policy covering the non-ETS sector as regards emissions, and all sectors as regards adaptation.	The total available funding is the equivalent of EUR 11 205 406 in the lati, including the co-financing amounting to the lati equivalent of EUR 10 365 000 and EUR 840 406 granted by the European Economic Area Financial Mechanism and the Latvian State respectively.	Existing, complements the Action Plan	Projects to be implemented by the end of 2016
22. Norwegian Financial Mechanism 2009 – 2014 Programme “Green Industry Innovation”	Financial (under the Norwegian Financial Mechanism 2009 –2014 Programme for Latvia)	Intended to promote RE production, the production of green and energy efficient goods and materials, the use of clean energy in transport, water supply, waste management, ecodesign or other improvements of products, technologies or processes in other areas, thereby contributing to energy efficiency, reduction of emissions or consumption of resources	The total funding of the Programme is EUR 12 586 667, of which the co-financing granted by the Norwegian Financial Mechanism amounts to EUR 11 328 000, while the share of the Latvian State is EUR 1 258 667.	Existing, complements the Action Plan	2009 - 2014
23. Development of CHP plants using RES (Cabinet Regulation No 165 of 17 February 2009 “Regulation on Activity 3.5.2.2 “Development of CHP Plants Utilising Renewable Energy Sources” of the Supplement to the Operational Programme “Infrastructure and Services”)	Cohesion Fund	The objective of the Activity is to boost the quantities of electricity and heat produced from RES, thus reducing Latvia’s dependence on the importation of primary energy sources. Under the Activity, aid has been granted for 10 projects providing for the construction of new CHP plants to replace the existing units using fossil fuels and the reconstruction of the existing plants to be fuelled by chips or biomass.	Heat and electricity customers, municipalities and economic operators	Existing	As from 12 March 2009
24. Measures to increase the efficiency of district heating systems	Cohesion Fund	The objective of the Activity is to boost the efficiency of heat	Heat customers, municipalities and	Existing	Project implementation by 1 June 2015

(Cabinet Regulation No 824 of 31 August 2010 “Regulation on Phase Two and Subsequent Phases 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 Operational Programme “Infrastructure and Services”)		production, to reduce heat losses in transmission and distribution systems and to foster the replacement of fossil fuels with renewable or other types of fuel.	economic operators		
25. Measures to increase the efficiency of heat supply systems for entrepreneurs (Cabinet Regulation No 796 of 11 October 2011 “Regulation on Sub-activity 3.5.2.1.2 “Measures to Increase the Efficiency of Heat Supply Systems for Entrepreneurs” of the Supplement to the Operational Programme “Infrastructure and Services”)	Cohesion Fund	The objective is to boost the efficiency of heat production by promoting the use of heat from renewable energy sources in manufacturing.	Economic operators	Terminated	The selection of project applications was performed from 1 December 2011 to 1 February 2012.

* 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?

The measures implemented to promote the growth of energy from renewable sources and meet the 2020 target set in Directive 2009/28/EC are sufficient. Moreover, during the EU funds’ programming period 2007–2013 local support to promote the use of renewable energy was twofold: investment and operating.

2a. Summary of progress in administrative procedures

The MoE has conducted an analysis of the impact and consequences produced by the historical policy on the national economic competitiveness and solvency of people, and this analysis has revealed the necessity to improve administrative procedures for enhancing the legislative framework provided by Cabinet Regulation No 221²⁵ and Cabinet Regulation No 262²⁶. As a result, a range of measures has been carried out to bring the legislative framework into line in 2012. At the same time, an analysis of administrative procedures in

²⁵ 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”

²⁶ Cabinet Regulation No 606 of 28 August 2012 amending Cabinet Regulation No 262 of 16 March 2010 “Regulation on the Production of Electricity from Renewable Energy Sources and the Pricing Procedure”

respect of other effective RES laws and regulations revealed that no legislative amendments are necessary in this respect.

Amendments have been made to legislation (Cabinet Regulation No 221 and Cabinet Regulation No 262) as follows:

1) to gain assurance that funds granted to electricity producers under the mandatory procurement arrangement are utilised in an efficient and appropriate manner, a requirement has been introduced in Regulation No 221 and Regulation No 262 (effective as of 8 September 2012) that a duly accredited auditor must approve the data on the sale of useful heat (i.e. heat used efficiently) presented in mandatory annual reports on the operation of a given power generation plant (to be submitted by 1 March of the year in question). Both Cabinet Regulations also now stipulate that an auditor is a legal entity accredited by the Latvian National Accreditation Bureau and meeting the accreditation requirements based on Standard LVS EN ISO/IEC 17020:2012 “Conformity assessment. Requirements for the operation of various types of bodies performing inspection”. The adoption of this requirement will ensure the independence and objectivity of audits;

2) specific provisions have been introduced to provide that economic operators must settle their tax liabilities towards the government and employees and also ensure the compliance of power generation plants with applicable construction laws and regulations;

3) the duration of support provided to economic operators producing electricity from high-efficiency cogeneration has been limited. While previously support had been perpetual, the amendments have introduced a 10-year limit for CHP plants with an installed electrical capacity below 4 MW and a 15-year limit for CHP plants with an installed electrical capacity above 4 MW. A transition period until 1 July 2017 has been fixed for units commissioned more than 10 years ago;

4) the amendments made to Cabinet Regulation No 221 also provide for a certain time period during which the production of electricity from high-efficiency cogeneration must be commenced depending on the capacity to be installed;

5) it is laid down that new producers cannot apply for support (i.e. rights to sell electricity under the mandatory procurement procedure and receive a guaranteed payment for the electrical capacity installed in CHP plants) until 1 January 2016. Therefore no new tenders are being announced to grant rights to sell electricity from biomass, biogas, solar or wind power plants under the mandatory procurement arrangement.

In view of the fact that one of the objectives of the energy policy is the development of renewable distributed energy generation, in 2012 Latvia started the introduction of the net settlement system which is part of the energy reform. To this end, the Electricity Market Law has been revised to further provide that the net settlement system has to be introduced in Latvia as of 1 January 2014. In

addition, it is set forth how a certain quantity of electricity produced from RES by households mainly for own consumption could be transferred to the grid and, if necessary, fully returned.

The MoE has also formulated a long-term vision of Latvia's energy policy, which is the Energy Long-term Strategy 2030 – Competitive Energy for Society²⁷ according to which the key goal is the promotion of national competitiveness, meanwhile facilitating measures to develop the energy policy that would foster the gradual growth in the use of cost-efficient and environmentally friendly local energy and the achievement of climate objectives.

2b. 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

Connection of electricity producers to the grid is regulated by the Electricity Market Law. Section 8 of this Law concerns the operations of system operators and the supervision of electricity system owners. Pursuant to Section 8, Paragraph two of the Electricity Market Law, the Public Utilities Commission (hereinafter – the Regulator) determines uniform connection regulations for producers and customers as well as the methodology for the determination of a connection fee.

As it is laid down in Section 9, Paragraph two of the Electricity Market Law²⁸, a system operator has permanent obligations, within the scope and term of its licence, to ensure system participants with the required connection to the relevant system in accordance with the uniform connection regulations adopted by the Regulator. The Regulation “System Connection Regulation for Electricity Producers” approved by Regulator's Council Resolution No 1/6 of 22 February 2012 provides for the uniform procedure for system connections as well as the methodology for the determination of a connection fee applicable to

²⁷ Information report “The Energy Long-term Strategy 2030 – Competitive Energy for Society” was considered at the Cabinet meeting on 28 May 2013 (Minutes No 32, paragraph 59).

²⁸ Section 9, Paragraph two of the Electricity Market Law:

“(2) A system operator shall have permanent obligations, within the scope and term of its licence, to ensure system participants with the required connection to the relevant system in accordance with the uniform connection regulations adopted 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 be based on reasonable costs of the installation of the relevant system connection. The division of costs between the system participant and the system operator in the cases referred to in Paragraph 2¹ of this Section shall be determined by the Regulator. The connection fee for a new system participant shall not include system development expense.”

electricity producers. According to Subparagraph 2.3²⁹, Paragraph 7³⁰ and Paragraph 10³¹ of the Regulator's Regulation, production installations must be connected subject to reasonable technical requirements and economically justifiable costs. Hence the impact of producers is evaluated by issuing technical regulations which, inter alia, present the costs of constructing the connection. In addition, Latvia's leading distribution system operator AS Sadales tīkls, which covers 99 % of the territory of the country, is applying new regulation on connection and load changes for micro-generator connections, simplifying the installation of units using renewable energy sources, such as solar panels and small-capacity wind power plants, by households.

An important pre-requisite for new RE producers to emerge on the market is the development of the national energy infrastructure. No significant changes in electricity distribution grids were observed during the reporting period. As regards the transmission system, the implementation of the project for strengthening the transmission grid in the western region of Latvia (Kurzeme Ring), which was launched in 2010, was continued.

The Kurzeme Ring project is divided into three stages:

- the construction of the 330 kV cable in Riga between Imanta and TEC1, thereby enhancing the security of energy supply and providing the infrastructure that is necessary to connect the Kurzeme Ring 330 kV transmission lines to the Imanta substation;
- the construction of the 330 kV transmission line Grobiņa (Liepāja) - Ventspils;
- the construction of the 330 kV transmission line Ventspils – Imanta (Riga).

The 330 kV Kurzeme Ring project is co-financed by the EU (50 %) and AS Latvenergo (50 %), and the implementation of this project began in 2010. The first stage is to be completed in 2013. For the purposes of the second stage of the project, an environmental impact assessment (EIA) was performed in 2011, and related designing and construction were commenced in 2012 to be

²⁹ Subparagraph 2.3 of Public Utilities Commission's Council Resolution No 1/6 of 22 February 2012 "System Connection Regulation for Electricity Producers":

"2.3. "Connection location" means a connection point in the transmission or distribution system to which a producer's power generation plant can be connected subject to reasonable technical requirements and economically justifiable costs."

³⁰ Paragraph 7 of Regulator's Council Resolution No 1/6 of 22 February 2012 "System Connection Regulation for Electricity Producers":

"7. The connection location and conditions shall be determined by the system operator within sixty days as of the date of the relevant application by issuing the producer with clear and reasonable technical conditions having a validity term of two years."

³¹ Subparagraph 10 of Regulator's Council Resolution No 1/6 of 22 February 2012 "System Connection Regulation for Electricity Producers":

"10. The connection fee shall be determined on the basis of economically justifiable costs of constructing the connection."

completed in 2014. The third stage of the 330 kV Kurzeme Ring project is being implemented at present, and it is the key stage because the overall objective of the project can only be achieved if this stage is completed successfully. In 2012, the EIA and track survey were commenced to be finished by the end of 2013. These activities are co-financed by the EU.

As a result of implementing the Kurzeme Ring infrastructure project, the security of energy supply for customers in Kurzeme region and towns will be enhanced, adequate infrastructure will be provided to embrace the growing electrical load in Kurzeme region, and a potential for connecting electrical installations of new electricity customers will be ensured, so that they can connect new on-shore or off-shore wind power plant capacities, as planned for Kurzeme region. This project will provide a strong foundation for the development of wind farms on the Kurzeme coast.

3. Support schemes and their changes to promote the use of renewable energy

Excise duty relief on biofuels

Considering that biofuel production costs and, accordingly, retail prices have exceeded those of fossil fuels so far, reduced rates of excise duty have been introduced for biofuels and biofuels blended with fossil fuels depending on biofuel content according to the Excise Duty Law. Such reduced rates are applied to biofuels and biofuel blends, both produced in Latvia and imported from other Member States.

By 1 January 2011, low concentration biofuel blends (5 %) (E5 and B5) had been also subject to reduced rates of excise duty. Given that the mandatory blending of biofuels in fossil fuels was introduced on 1 October 2009, the reduced taxation of low blends (5 %) became unreasonable, ceasing to be an effective stimulus to biofuel production and consumption.

Based on the EC decision adopted on 18 June 2012 in State Aid Case SA.33517 (2011/N) “Amendment and prolongation of the excise duty reduction for biofuels (N 540/2005 as amended by N 254/2007)”, Latvia has been allowed to apply differentiated tax to biofuels and high concentration biofuel blends (B100, E85, B30) by 31 December 2013. The rates of excise duty and their changes are presented in Table 3a below.

As it is set forth in Section 14, Paragraph two of the Excise Duty Law, if petrol, diesel, gas-oil, their substitute products and components are labelled (marked) and used as heating fuel for the production of heat for heating, combustion installations or for the production of heat in technological production (processing) processes, these products (per 1 000 litres) are subject to the following rates of excise duty:

- LVL 40;

- LVL 15 if rapeseed oil or biodiesel from rapeseed oil forms at least 5 % of the total amount of the aforementioned oil products.

Table 3a

Rates of excise duty and their changes in respect of oil products in Latvia, LVL/1 000 litres			
Type of oil product	1 January 2011	1 June 2011	1 January 2012
Unleaded petrol	269	289	289
Unleaded petrol with bioethanol (bio 5%) (E5)	269	289	289
Unleaded petrol with bioethanol (bio 85%) (E85)	80.7	86.7	86.7
Leaded petrol	300	320	320
Diesel	234	234	234
Diesel (bio 5-30%) (B5)	234	234	234
Diesel (bio at least 30%) (B30)	164	164	164
Biodiesel (B100)	0	0	0
Marked fuel	40	40	40
Marked fuel (bio 5%)	15	15	15

Source: SRS

Meanwhile, according to Section 14, Paragraph three of the Excise Duty Law, if unleaded petrol, its substitute products and components are blended with ethanol which has been derived from agricultural commodities and dehydrated (with alcohol content of at least 99.5 per cent by volume), the following rates of excise duty are applied to these products (per 1 000 litres):

- LVL 86.7 if the content of absolute alcohol is from 70 to 85 per cent by volume (inclusive) of the total quantity of products.

Pursuant to Section 14, Paragraph four of the Excise Duty Law, if diesel (gas-oil), its substitute products and components are blended with biodiesel from rapeseed oil, excise duty for these oil products is calculated as follows:

- LVL 164 per 1 000 litres if biodiesel content is at least 30 per cent by volume of the total quantity of oil products.

As it is laid down in Section 14, Paragraph five of the Excise Duty Law, rapeseed oil sold or used as heating fuel or fuel and pure biodiesel from rapeseed oil are subject to taxation at the rate of LVL 0 per 1 000 litres.

Electricity tax exemption for electricity produced from RES

According to Section 5 of the Electricity Tax Law, electricity tax to be applied to electricity supplied to final customers is calculated at the rate of LVL 0.71 per megawatt hour.

Section 6, Paragraph one of the Electricity Tax Law provides for tax exemptions for electricity produced from the following:

- renewable energy sources (solar, wind, biomass);
- HPP;
- CHP.

Meanwhile, it is envisaged in Section 6, Paragraph two of the Electricity Tax Law that tax exemptions are applied to electricity used for the following purposes:

- electricity production;
- the production of heat and electricity from cogeneration;
- the carriage of goods and public carriage of passengers, including rail transport and public carriage of passengers in towns;
- households.

Mandatory procurement of electricity

In Latvia support for the production of electricity from RES has been provided for over 10 years. Producers that generate electricity from RES have been granted rights to sell electricity under the mandatory procurement procedure applying the 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. In view of the fact that electricity has a certain market value in the production phase, customers compensate for the difference between the feed-in tariff and the market price of electricity. Meanwhile, a certain tariff which is not dependent on the market price is guaranteed for electricity producers.

All costs associated with the mandatory procurement of electricity are covered by final customers in proportion to the electricity consumed, and these costs are collected from final customers by capital companies operating on the Latvian electricity market, without involving any state resources.

Given that the quantity of electricity to be purchased under the mandatory procurement rights granted to electricity producers using RES exceeds the extra RE amount to be achieved in the electricity sector by 2020 according to the Action Plan, no mandatory procurement rights will be granted to new producers until 1 January 2016.

Table 3

Support schemes for renewable energy

RES support schemes		Per unit support	2011 (MLVL)*	2012 (MLVL)*	Total for 2011 and 2012 (M€)*
Tax relief/ exemptions					
Instrument	Excise duty relief				
	<i>Marked fuel (bio 5 %)</i>				
		-	5.838	7.981	19.662
	<i>Unleaded petrol with bioethanol (bio 85 %) (E85)</i>				
		-	0.030	0.028	0.082
	<i>Diesel (bio at least 30 %) (B30)</i>				
		-	0.0	0.0	0.0
	<i>Biodiesel (100 %)</i>				
		-	0.294	0.203	0.707
		TOTAL:		6.161	8.212
Electricity tax exemption					
<i>Electricity exempted from tax under Section 6, Paragraph one of the Electricity Tax Law</i>					
	-	4.131	4.728	12.605	
<i>Quantity of electricity exempted from tax under Section 6, Paragraph two of the Electricity Tax Law</i>					
	-	1.383	1.885	4.651	
<i>Quantity of electricity exempted from tax under Section 6, Paragraph three of the Electricity Tax Law</i>					
	-	0.010	0.015	0.036	

	<i>TOTAL:</i>		5.525	6.628	17.293
	Mandatory procurement of electricity from RES				
	<i>Support above the market price to HPP</i>		5.873	7.325	13.198
	<i>Support above the market price to WPP</i>		2.590	4.263	6.853
	<i>Support above the market price to biomass</i>		0.784	5.618	6.402
	<i>Support above the market price to biogas</i>		9.578	22.298	31.876
	<i>TOTAL:</i>		18.826	39.504	58.330
	Total annual estimated support in the electricity sector				
	Total annual estimated support in the heating sector				
	Total annual estimated support in the transport sector				

Source: Ministry of Finance, Ministry of the Economy

* The quantity of energy supported by the per unit support gives an indication of the effectiveness of the support for each type of technology.

Table 3b

Average per unit support (LVL/MWh) above the market price under the mandatory procurement of electricity from RES

Type of power plant	2011	2012
<i>HPP</i>	9.34	9.43
<i>WPP</i>	3.71	4.21
<i>Biomass</i>	8.29	9.76
<i>Biogas</i>	9.49	10.40
<i>Average:</i>	7.75	8.76

Source: Ministry of the Economy

3.1. Information on the allocation of supported electricity to final customers

According to Section 9, Paragraph two of the Electricity Market Law³², a system operator has to provide, within the scope and term of its licence, that electricity is transmitted through the system to the extent meeting the forecasted demand, and it has permanent obligations to ensure system participants with the required connection 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 be also 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 Latvenergo) on the purchase of electricity under the mandatory procurement procedure, while some producers have bilateral electricity purchase agreements.

³² Section 9, Paragraph two of the Electricity Market Law:

“(2) A system operator shall have permanent obligations, within the scope and term of its licence, to ensure system participants with the required connection to the relevant system in accordance with the uniform connection regulations adopted 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 be based on reasonable costs of the installation of the relevant system connection. The division of costs between the system participant and the system operator in the cases referred to in Paragraph 2¹ of this Section shall be determined by the Regulator. The connection fee for a new system participant shall not include system development expense.”

Pursuant to Article 3(6) of Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC (hereinafter — Directive 2003/54/EC), Member States must 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;
- b) at least the reference to existing reference sources, such as web-pages, where information on the environmental impact, in terms of at least emissions of CO₂ and the radioactive waste resulting from the electricity produced by the overall fuel mix of the supplier over the preceding year is publicly available.

“Regulation on the Information to Final Customers of Electricity” issued pursuant to Section 32, Paragraph four of the Electricity Market Law was adopted by the Regulator’s Council on 8 February 2012 according to Resolution No 1/2. This Regulation states the type and scope of information the system operator must specify in bills and information materials made available to final customers.

According to “Regulation on the Information to Final Customers of Electricity”, bills to be issued by the public trader to related customers must contain information about each item of the total charge based on the differentiated tariff for related customers, as selected by the respective final customer.

The trader must, at least annually, make available to final customers information materials showing the origin of the electricity supplied to final customers in the previous calendar year, stating the quantity in the overall supplier’s energy mix for the following (in percentage terms):

- electricity produced in Latvia and imported electricity;
- electricity produced from each type of RES (hydropower, biogas, biomass, wind, solar, etc.);
- electricity produced from each type of fossil fuel (natural gas, coal, oil shale, etc.);
- electricity obtained via an electricity exchange and electricity imported from non-EU if the information about its origin is unavailable.

Once a year, the electricity supplier must provide final customers with information materials listing reference sources where information on the environmental impact is publicly available, in terms of at least carbon dioxide emissions and the radioactive waste resulting from the production of supplied electricity from primary energy sources during the previous year. If such

information on electricity obtained via an electricity exchange and electricity imported from non-EU is unavailable, it may be omitted.

The trader must ensure that hard copies of the above-mentioned public information are available to final customers at its customer service centre. If no such customer service centre is established, the electricity supplier must provide access to this information at its registered seat, operational headquarters, or a subsidiary's office. The electricity supplier must publish this information on its website in the internet (if any).

4. Support schemes for renewable energy sources that give additional benefits

For the time being, Latvian institutions do not have any information on the use of such RES that give additional benefits, but may also have higher costs, including biofuels made from wastes, residues, non-food cellulosic material and ligno-cellulosic material. Such biofuels are not produced in Latvia.

5. System of guarantees of origin

Pursuant to Section 29² 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.

As it is laid down in Paragraph 2 of Cabinet Regulation No 900 of 22 November 2011 "Regulation on the Receipt of a Guarantee of Origin for Electricity Produced from 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, according to which a producer of electricity from renewable energy sources may receive a guarantee of origin for the quantity of electricity produced, as expressed as megawatt hours (MWh);

(2) the procedure, according to which a producer of electricity from RES 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

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

"1. This Regulation prescribes the following:

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 to the MoE an application 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.

Pursuant to Cabinet Regulation No 900, for the year 2011 the MoE has, responding to relevant requests of economic operators, issued 3 guarantees of origin (for the total amount of 4.042 GWh) for electricity from RES, including 1 guarantee of origin (for 0.045 GWh) for electricity generated by HPP and 2 guarantees of origin (for 3.997 GWh) for electricity generated by WPP. For the year 2012, the MoE has issued 8 guarantees of origin (for the total amount of 3 606.462 GWh), including 5 guarantees of origin (for 3 597.027 GWh) for electricity generated by HPP and 3 guarantees of origin (for 9.436 GWh) for electricity generated by WPP.

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, according to 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 (hereinafter – the Ministry) shall issue guarantees of origin as referred to in Paragraph 2 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 to the Ministry an application for a guarantee of origin (the Annex), either 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 the necessary information and the producer meets the requirements of this Regulation, the Ministry shall take a decision to issue the producer with a guarantee of origin, communicate the relevant decision to the producer and issue a guarantee of origin. The guarantee of origin shall contain all the information referred to in the section “Information about the Power Plant, which Produces Electricity from Renewable Energy Sources” of the Annex to this Regulation.”

6. Developments in the availability and use of biomass resources for energy purposes

Table 4

Biomass supply for energy use

	Amount of domestic raw material		Primary energy in domestic raw material (ktoe)		Amount of imported raw material from EU		Primary energy in amount of imported raw material from EU (ktoe)		Amount of imported raw material from non-EU		Primary energy in amount of imported raw material from non-EU (ktoe)	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Biomass supply for heating and electricity:												
Direct supply of wood biomass from forests and other wooded land for energy generation (fellings, etc.)*, '000 solid m3	5 399	5 222	864	836	3	4	0	1	0	0	0	0
Indirect supply of wood biomass (residues and co-products from wood industry, etc.)*, '000 solid m3	4 038	4 607	875	1 032	7	22	2	6	6	54	2	14
Energy crops (grasses, etc.) and short rotation trees (please specify)												
Agricultural by-products / processed residues and fishery by-products*												
Biomass from waste (municipal, industrial, etc.)*												
Others (please specify)												
Biomass supply for transport:												
Common arable crops for biofuels (please specify main types)												
Energy crops (grasses, etc.) and short rotation trees for biofuels (please specify main types)												
Others (please specify)												

Source: CSB

* The definition of this biomass category should be understood in line with table 7 of part 4.6.1 of Commission Decision C (2009) 5174 final establishing a template for National Renewable Energy Action Plans under Directive 2009/28/EC.

Table 4a

Current domestic agricultural land use for production of crops dedicated to energy production (ha)

Land use	Surface (ha)	
	2011	2012
1. Land used for common arable crops (wheat, sugar beet, etc.) and oil seeds (rapeseed, sunflower, etc.) (please specify main types)	650 874.06*	693 424.25*
2. Land used for short rotation trees (willows, poplars) (please specify main types)	209.38	321.37
Aspen	31.82	30.48
Willow	160.04	288.04
Grey alder	17.52	2.85
3. Land used for other energy crops such as grasses (reed canary grass, switch grass, Miscanthus), sorghum (please specify main types)	884.94	1 155.17
Reed canary grass	826.08	1 123.18
Switch grass	58.86	31.99

Notes:

* Only total area under the following arable crops: summer wheat, winter wheat, rye, summer barley, winter barley, oats, triticale, buckwheat, hemp, summer rape, winter rape, fibre flax, oil flax, field beans, peas, sweet lupins, mixes of the aforementioned arable crops.

Source: Ministry of Agriculture

7. Changes in commodity prices and land use associated with increased use of biomass and other forms of energy from renewable sources

During the 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.

In 2012, grain prices have risen rapidly by a total of 37 % from the year 2010. Feed grains demonstrated a sharper price growth (+47 %) than food grains (+45 %).

Changes in commodity prices in the years 2011 and 2012 are presented in Table 4b below.

Table 4b

Agricultural output indices (at constant prices)		
	2011	2012
	% vs prior year	% vs prior year
Agricultural output	102.3	117.4
Crop production	103.2	128.5
Livestock production	99.7	104.4

Source: CSB

As regards production resources, the most rapid growth of the price from 2010 to 2012 has been recorded for seeds (+46 %), diesel (+26 %), feed and mineral fertilisers (+23 %), and electricity (+15 %), while the price of plant protection products declined by 15 %.

It is not expected that the production of biofuel will compete with agricultural production at an early stage, whereas in the long term it might provide an incentive for more intensive agriculture development with higher added value in Latvia.

In Latvia, woodland covers 3 354 thousand ha, which forms 52 % of the territory of the country (based on the results of the first cycle of forest monitoring). According to the data of the National Inventory Report of Latvia for 1990-2011 published in 2013, in 2011 woodland has decreased by 1.1 thousand ha year-on-year, including 0.1 thousand ha of arable land and 1 thousand ha of building land.

8. Development and share of second-generation biofuels

Currently, second-generation biofuels from wastes, residues, non-food cellulosic material and lingo-cellulosic material are not being produced and used in Latvia. In 2011 and 2012, cereals, rape and rapeseed oil were used for the production of biofuels.

Table 5

Article 21(2) biofuels ³⁷	2011	2012
Production – Fuel type X (Please specify)	0	0
Consumption – Fuel type X (Please specify)	0	0
Total production Art. 21.2 biofuels	0	0
Total consumption Art. 21.2 biofuels	0	0
% share of 21.2 fuels from total RES-T	0	0

9. Impacts of the production of biofuels and bioliquids on biodiversity, water resources, water quality and soil quality

In Latvia, energy crops are grown for the production of biofuels: bioethanol, pure vegetable oil and biodiesel. Bioethanol is produced from wheat, rye and triticale, whereas pure vegetable oil and biodiesel are mainly made from rape. Biomass of maize silage is used as a substrate for biogas production³⁸.

Table 5a

Biofuel	2011	2012
Bioethanol	1.959	1.603
Biodiesel	59.829	90.452

Source: CSB

According to the CSB data on biofuels for 2011, bioethanol production decreased by 12.9 thousand t (or 86.8 %) from the year 2010. In 2012, a further year-on-year decline in bioethanol production by 356 t (or 18.17 %) was recorded. Meanwhile, in 2012 biodiesel production grew by 30.623 thousand t, which is nearly by 51.18 % against the previous year. In the reporting period, the aggregate production of biofuels has dropped, thereby leading to a decrease in CO₂ emissions from production.

Based on the CSB data on sown areas under agricultural crops, in 2011 rape accounted for 121.3 thousand ha, which is by 10.7 thousand ha (or 9.7 %) more than in 2010. Meanwhile, in 2012 rape covered an area of 117.5 thousand ha, which is down by 3.1 % from 2011. Sown areas under agricultural crops are presented in Table 5b below.

Table 5b

	2011	2012	2012, % vs 2011
Total sown area, including	647.9	692.1	106.8

³⁷ Biofuels made from wastes, residues, non-food cellulosic material, and lingo-cellulosic material.

³⁸ Study “Application of Sustainability Criteria for the Use of Biomass and Development of Related Measures” (2009) — available on the website of the Latvian Environmental Protection Fund Administration: http://lvafa.gov.lv/faili/petijumi/Biomasas_izmantosana.pdf

Cereals, including	526.6	574.6	109.1
Winter cereals, including	243.2	311.0	127.9
wheat	200.9	258.0	128.4
rye	28.4	37.0	130.7
triticale	9.9	13.3	133.7
Summer cereals, including	283.4	263.6	93.0
wheat	110.4	96.7	87.6
barley	94.7	85.2	90.0
oats	59.3	62.0	104.6
buckwheat	9.5	11.7	122.3
Rape	121.3	117.5	96.9

Source: CSB

The above CSB data on sown areas under agricultural crops demonstrate that in 2012 cereals accounted for 692.1 thousand ha, thereby exceeding the 2011 figure by 44.2 thousand ha (or 6.8 %).

To define GHG emissions from the production of agricultural commodities, in 2011 the MoE conducted a research of GHG emissions from the cultivation of raw materials for biofuels (rape and wheat) in Latvia. The research has shown that GHG emissions from the cultivation of rape in Latvia amount to 21.8 gCO_{2eq}/MJ, which is by approximately 25 % less than the figure referred to in part D of Annex V to Directive 2009/28/EC, while GHG emissions resulting from the cultivation of wheat in Latvia are estimated at 23.5 gCO_{2eq}/MJ, thereby exceeding those under part D of Annex V to Directive 2009/28/EC by nearly 2.2 %. Consequently, the research has revealed that agricultural commodities (rape and wheat) grown in Latvia and used for the purposes of biofuel production meet the target GHG emissions from the cultivation of agricultural commodities fixed in part D of Annex V to Directive 2009/28/EC. The method employed during the research (IPCC Tier 1) has a large uncertainty range; however, more accurate methods to calculate N₂O emissions from land (IPCC Tier 2 and Tier 3) are not utilised in Latvia for the purposes of greenhouse gas inventories.

In Latvia, no research has been conducted during the reporting period to assess the impacts of the production of biofuels and bioliquids on biodiversity, water resources, water quality and soil quality.

10. Net GHG emission savings due to the use of renewable energy

Table 6

Estimated GHG emission savings from the use of renewable energy (t CO_{2eq})

Environmental aspects	Year n-2	Year n-1
Total estimated net GHG emission saving from using renewable energy ³⁹	4 661 013	4 569 785
- Estimated net GHG saving from the use of renewable electricity	758 866	816 158
- Estimated net GHG saving from the use of renewable energy in heating and cooling	3 858 153	3 713 545
- Estimated net GHG saving from the use of renewable energy in transport	43 993	40 082

³⁹ 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.

According to Article 22(1) k) of Directive 2009/28/EC, the report on progress in the promotion and use of energy from renewable sources to be submitted to the EC must detail the estimated net greenhouse gas (hereinafter — GHG) emission saving due to the use of energy from renewable sources.

The rules for calculating the GHG impact of biofuels, bioliquids and their fossil fuel comparators are specified in Article 22(2) of Directive 2009/28/EC. Wheat ethanol and rape seed biodiesel are used as biofuels in Latvia. In 2011, bioethanol and biodiesel accounted for 318 TJ and 616 TJ of the final consumption of energy in transport respectively. In 2012, the amount of bioethanol was 279 TJ, whereas that of biodiesel was 527 TJ. In 2011, GHG emission savings due to the use of biofuels in transport were 31 771.53 tCO₂ eq., whereas in 2012 the amount of savings was 27 333.66 tCO₂ eq.

Directive 2009/28/EC does not provide for any methodology for calculating GHG emission savings for other types of renewable energy sources. As it is envisaged in the guidance template for Member States' progress reports pursuant to Directive 2009/28/EC, for the calculation of net GHG emission savings from the use of renewable energy, it is suggested to use EU wide fossil fuel comparators for electricity and heat as set out in the EC report to the Council and the European Parliament on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling, if no later estimates are available. Latvian institutions do not have any information available on technological characteristics necessary for calculating GHG emission savings in heating, cooling and electricity from solid and gaseous biomass sources in accordance with the methodology for calculating GHG emissions as presented in this report.

Applying the same approach as in the emissions trading system, it is assumed that the GHG emission factor for energy (both electricity and heat) from solid and gaseous biomass sources is "0".

Latvian institutions assume that the GHG emission factor for energy from solar collectors, solar power plants and hydropower plants is "0" because the operation of these units does not require the production, processing and transport of energy. With regard to GHG emission savings for energy from heat pumps, the quantity of electricity (not recorded separately) used to ensure the functioning of heat pumps must be taken into account.

In Latvia, the CO₂ emission factor for gross consumption of electricity from fossil fuels considering the cogeneration correction was 0.235 tCO₂/ MWh in 2010. This factor is applied to calculate GHG emission savings from the use of renewable energy.

In calculating GHG emission savings from the use of renewable energy in heating and cooling, a fossil fuel comparator of 87 gCO₂/ MJ is used, as stated in the EC report to the Council and to the European Parliament on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling.

11. Report on and estimate of the excess/deficit production of energy from renewable sources compared to the indicative trajectory

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 [Member State] (ktoe)^{40, 41}

		2011	2012
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 cooling	-9	+84
	Gross final consumption of electricity from RES	+2	+13
	Gross final consumption of energy from RES in transport	-17	-22
	Gross total RES consumption	-20	+78

Total final consumption of RES exceeds the target fixed in the Action Plan, while the share of RES in the transport sector is below the forecasted figure. To keep to the target quantity of energy from RES referred to in the Action Plan, special attention needs to be given to the promotion of the use of renewable energy in heating and cooling where the use of such energy is more economically efficient. Moreover, energy efficiency measures should be facilitated to prevent any decrease in the share of RES in total gross final consumption of energy.

It is expected that in the future the use of RES will approximate to the targets set out in the Action Plan.

11.1. Statistical transfers, joint projects and joint support scheme decision rules

In 2011 and 2012, Latvia did not cooperate with Member States and third countries in joint projects related to the production of energy from renewable sources for electricity, heating and cooling, and no such cooperation is planned for the future. During this period, Latvia did not make any decisions on the consolidation or partial coordination of state support schemes. Latvia has not agreed with other Member States on statistical transfers of a particular quantity of energy from RES.

12. Information on how the share for biodegradable waste in waste used for producing energy has been estimated

⁴⁰ 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 the Member State may correct the data of the previous reports.

⁴¹ When filling in the table, for deficit production please mark the shortage of production using negative numbers (e.g. -x ktoe).

The Project for the Biogas Production and Use Development Programme 2007–2011 was approved according to Cabinet Order No 371 of 14 June 2007. As part of the Project, the Latvian Environment, Geology and Meteorology Centre prepares annual reports on degradable waste and materials. The last published report refers to the year 2012.

In order to provide a complete compilation of the necessary data, several sources of reference must be used:

1. Latvian Environment, Geology and Meteorology Centre, Database No 3 — Waste where the data from the state statistical report “No 3 — Waste Report” have been compiled;
2. Latvian Environment, Geology and Meteorology Centre, Database No 2 — Water, containing the data on sludge released as a result of sewage treatment;
3. Data compiled by the Latvian CSB on the survey on the waste produced by the agricultural sector “1 — Waste (Agriculture)”; the survey is conducted once every two years, with the last one referring to the year 2012.

In the reporting period, Latvia has not taken any steps to improve or verify the estimates of the share of biodegradable waste in waste used for producing energy.

Measurement units

J – joule
 W – watt
 kWh – kilowatt-hour
 toe – tonne of oil equivalent
 V – volt
 m³ – cubic metre
 l – litre
 kg – kilogram (10³ grams)
 t – tonne
 ha – hectare

Decimal prefixes

k – kilo (10³)
 M – mega (10⁶)
 G – giga (10⁹)
 T – tera (10¹²)
 P – peta (10¹⁵)

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