Republic of Latvia
Ministry of Economic Affairs

The regular report of the Republic of Latvia on progress towards meeting the national indicative targets pursuant to Article 3(3) of Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market

Riga, 2010

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Introduction

In accordance with the Republic of Latvia's medium-term energy policy planning documents (the Energy Development Guidelines 2007-2016, Latvia's Guidelines for the Utilisation of Renewable Energy Sources 2006-2013, the Biogas Production and Utilisation Development Programme 2007-2011), increasing the proportion of renewable energy sources (hereinafter – RES) in total energy consumption is linked to the following main objectives:

1. Increasing the proportion of RES in Latvia's total energy consumption;
2. Promoting the security of Latvia's energy supply;
3. In the long term, securing the contribution of RES towards reducing greenhouse gas (hereinafter GHG) emissions.

1. Legislation

In Latvia, the following are deemed to be specific legislation governing the utilisation of RES in electricity production: the Energy Law of 3 December 1998[1], the Energy Market Law of 5 May 2005[2] and the regulations issued thereunder, namely Cabinet Regulation No 262 of 16 March 2010 on the production of electricity from renewable energy sources and the price setting procedure, and Cabinet Regulation No 221 of 10 March 2009 on the production of electricity and price setting for the production of electricity from cogeneration, and the Law on Regulators of Public Services of 19 October 2000[3] and the Cabinet Regulations issued thereunder.

General legislation governing commercial activities and transactions, for example the Commercial Law[4], the Civil Law[5], the Employment Law[6] and legislation governing environmental protection and the building industry also apply to the production of electricity from RES.

1.1. The Electricity Market Law

The Electricity Market Law includes legal provisions arising from the following EU directives:

1) Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market (hereinafter Directive 2001/77/EC);
2) 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;
3) Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat

[1] Ener••tikas likums
[2] Elektroener•ijas tirgus likums
[3] Likums "Par sabiedrisko pakalpojumu regulatoriem"
[4] Komerclikums
[5] Civillikums
[6] Darba likums

demand in the internal energy market and amending Directive 92/42/EEC (hereinafter Directive 2004/8/EC).

The Electricity Market Law was adopted on 5 May 2005. Under Article 29(2) of the Electricity Market Law, it is mandatory for a fixed part of total end-user electricity consumption in Latvia to be met by electricity generated from RES. Under Directive 2001/77/EC, in 2010 the proportion of electricity generated from RES must reach 49.3% of total electricity consumption in Latvia. Latvia's indicative targets, which must be achieved by 31 December 2010, are defined in the Energy Development Guidelines 2007-2016 and the Electricity Market Law.

Under Articles 29(2), (4) and (5) and 29^1(2) and (5) of the Electricity Market Law, in relation to the generation of electricity from RES, the Cabinet of Ministers (hereinafter – the Cabinet) defines the qualification criteria for obtaining the right to sell generated electricity by means of mandatory procurement and the criteria under which a producer generating electricity in power stations with installed electric capacity above 1 MW from biomass or biogas may obtain the right to receive guaranteed payments for the electric capacity installed at the power station.

Under Articles 28 (2) and (7) and 28^1(2) and (5) of the Electricity Market Law, in relation to the production of electricity by cogeneration, the Cabinet defines the criteria according to which qualifying cogeneration power stations obtain the right to sell generated electricity by means of mandatory production or to receive guaranteed payments for the electric capacity installed at the cogeneration station.

1.1.1 Cabinet Regulation No 262

Cabinet of Ministers Regulation No 262 of 16 March 2010 on the generation of electricity from renewable energy sources and the price-setting procedure– (hereinafter Cabinet Regulation No 262), issued pursuant to Articles 29(2), (4) and (5) and 29^1(2) and (5) of the Electricity Market Law, contains rules concerning the acquisition of the right to sell electricity generated from RES by means of mandatory procurement.[7]

Cabinet Regulation No 262 includes provisions arising from Directive 2001/77/EC.

Cabinet Regulation No 262 provide for:

- the conditions for generating electricity from RES;
- criteria according to which a producer generating electricity at a power station with installed electric capacity above 1 MW from biomass or biogas may obtain the right to receive guaranteed payments for the electric capacity installed at the power station;
- procedures for determining, implementing and monitoring the volume of mandatorily procured electricity generated from RES;
- the proportion of total end-user electricity consumption in Latvia that must be supplied by electricity generated from RES, for each RES type;
- procedures for setting prices for electricity produced from RES, according to the RES type;

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[7] Cabinet Regulation No 262 supersede Cabinet Regulation No 198 of 24 February 2009 – Regulations on electricity generation from renewable resources and price-setting procedures

- procedures for waiving the right to sell generated electricity by means of mandatory procurement;

- procedures for obtaining certificates of origin for electricity generated from RES;
- measures to promote generation of electricity from biomass;
- institutions authorised to issue certificates of origin for electricity generated from RES;
- procedures for determining guaranteed payments for installed electric capacity at a power station, as well as procedures and amounts for monitoring and payment;
- procedures whereby an economic operator may waive the right to receive guaranteed payments for installed electric capacity at a power station.

1.1.2. Cabinet Regulation No 221

Cabinet of Ministers Regulation No 221 of 10 March 2009 on the generation of electricity and price setting for the generation of electricity from cogeneration (hereinafter Cabinet Regulation No 221), issued pursuant to Articles 28(2) and (7) and 28^1(2) and (5) of the Electricity Market Law, regulates mandatory procurement for a fixed price of electricity generated in the cogeneration process and the right to receive guaranteed payments for installed electric capacity at cogeneration power stations.[7]

Cabinet Regulation No 221 includes provisions arising from Directive 2004/8/EC.

1.2 The Regulators of Public Services Law

The Regulators of Public Services Law classifies energy as a sector subject to State regulation.

In accordance with the Regulators of Public Services Law, the Cabinet of Ministers has issued Regulation No 1227 of 27 October 2009 on public services subject to regulation, which provides that in relation to electricity supply, electricity generation must be regulated in power stations with an installed electric capacity of greater than one megawatt.

2. Policy results, operational results and indicators of their achievement

Currently RES occupy a significant place in Latvia's primary energy resource consumption. The main widely-utilised RES are wood and hydro resources, and to a smaller extent, wind energy, straw, biogas and solar energy.

2.1. Self-sufficiency

One of the general indicators stipulated for the sector is self-sufficiency in primary resources. The Energy Development Guidelines 2007-2016 stipulate that this must be at least 36%-37%. The breakdown of resource flows for 2008 (see figure 1) shows Latvia's relatively high dependency on imports, with just 29.6% of total consumption covered by local resources. The low level of self-sufficiency compared with the planned level is connected with changes in the calculation methodology for the following coefficients used to calculate wood fuel in terajoules:

- firewood (1,000 m^3) – 6.7;

[7] Cabinet Regulation No 221 supersede Cabinet Regulation No 921 of 6 November 2006 "Regulations on the generation of electricity from cogeneration".

- wood tailings (1,000 m³) – 2.68;
- woodchips (1,000 m³) – 3.4;

These coefficients were used to recalculate wood fuel time series. As a result of the recalculations, the level of self-sufficiency in the primary energy resource structure must be set at **32.7%-33.6%** of Latvia's primary energy resource consumption rather than at 36%-37%.

In 2008, Latvia's total primary energy resource consumption was 196.5 PJ, which was 19.9% higher than in 2000 and 17.1% higher than in 2005.

/Figure 1 –a/

<table>
<tr><td>Petroleum products
Imports from rest of world
20.1%</td><td rowspan="4">Local energy resources in primary energy consumption
29.6%</td><td>Electricity
Imports from Russia
3.1%</td></tr>
<tr><td>Coal
Imports from rest of world
0.1%</td><td>Natural gas
Imports from Russia
28.5%</td></tr>
<tr><td rowspan="2">Electricity
Imports from Estonia and Lithuania
1.5%</td><td>Petroleum products
Imports from CIS
15.0%</td></tr>
<tr><td>Coal
Imports from CIS
2.1%</td></tr>
</table>

Figure 1. Breakdown of primary energy resource flow in 2008[8].

The proportion of RES in Latvia's energy supply has traditionally been significant. In 2007 it comprised 29.7% and in 2008 29.9% of total energy end-consumption according to the methodology set out in 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).[9]

The rapid growth in energy end-consumption and the slow development of new RES projects has reduced the share of RES in total energy end-consumption by 2.6% compared with 2005, also affecting the share of electricity produced from RES in gross national electricity consumption. The economic crisis has also affected the economy as a whole, including the energy sector. This has significantly changed the forecasts of energy consumption that will have to be taken into account when assessing and clarifying various policy planning documents in accordance with the latest economic development forecasts.

Taking the economic crisis into account, the Republic of Latvia's transmission system operator *AS Augstsprieguma t•kls* (hereinafter the TSO) has made significant adjustments to electricity consumption and load forecasts for 2009 compared with the previous year's report (see figures 2 and 3). The previous forecasts of electricity

[8] The breakdown of primary energy resource flows between regions is calculated based on the EUROSTAT (External trade) database.

[9] Latvian energy in figures, Ministry of Economic Affairs of the Republic of Latvia , Riga, 2009, /LINK/

consumption were based on the assumption that gross domestic product (hereinafter GDP) growth would be around 8% in the medium term (2010) and 5% in the long-term[10]. Currently GDP has fallen sharply and rapid growth is not expected in the near future. Of course, Latvian industry is not currently characterised by high energy intensity, so the launch of a relatively large and energy intensive enterprise could significantly affect demand.

/Figure – graph/

/*Vertical column at left*/: Gross electricity consumption, GWh
/*Bottom horizontal* /: Transmission system operator's annual assessment report for 2008
Transmission system operator's annual assessment report for 2009

Figure 2. Electricity consumption forecast, GWh

/Figure – graph/

/*Vertical column at left*/: Maximum load, MW
/*Bottom horizontal* /: Transmission system operator's annual assessment report for 2008
Transmission system operator's annual assessment report for 2009

Figure 3. Maximum capacity forecast, MW[11]

2.2. Energy and environmental quality

Opportunities for national economic development and competitiveness are also determined by the condition of the energy supply system, its operational efficiency and supply security. Economic, energy and environmental quality are closely interrelated, as shown by Latvia's development trends over the last 19 years (see fig. 4). The annual changes in GDP, primary resource consumption, electricity consumption and GHG emissions clearly demonstrate the close links between three vital dimensions – economics, energy and environment.

/Figure – graph/

GHG emissions	Total primary energy resource supply
Gross national electricity consumption	GDP

Figure 4. Interaction between energy, economic and environmental quality indicators in Latvia[12]

[10] Annual assessment report for 2008 from the transmission system operator *AS Augstsprieguma t•kls*, /LINK/
[11] Annual assessment report for 2008 from the transmission system operator *AS Augstsprieguma t•kls*, /LINK/
[12] The base year in the graph is 2000, where the relative value of all indicators is 1.

Measures in the energy sector to reduce climate change are already being included in energy sector policy planning documents and legislation. The Republic of Latvia is fulfilling its emission reduction obligations despite limited financial resources, and the implementation of new measures is not necessary.

2.3. Electricity produced from renewable energy sources

As in previous years, in 2008 the RES segment of the electricity consumption structure comprises small hydroelectric electricity-generating stations, wind power electricity-generating stations, biogas electricity-generating power stations and biomass electricity-generating stations, as well as cogeneration stations using RES. In 2008, large hydroelectric stations supplied 39.0% of electricity consumed in Latvia's electricity supply structure, while the figure for small hydroelectric stations was 0.9% in both 2007 and 2008. The figures for cogeneration stations using RES and wind power stations were 0.5% and 0.8% respectively (see table 1).

	2005	2006	2007	2008
Proportion of electricity produced from RES (target for 2010 – 49.3%)	48.4	37.7	36.4	41.2
Large hydroelectric stations	46.3	35.9	34.3	39.0
Cogeneration stations using RES	0.6	0.6	0.5	0.5
Small hydroelectric stations	0.9	0.5	0.9	0.9
Wind power stations	0.7	0.6	0.7	0.8

Table 1. Proportion of electricity consumption in Latvia produced from RES (%)[13]

Figure 5 shows the volume of electricity purchased in 2008 by means of mandatory purchase by *AS Latvenergo*, a public utility of the Republic of Latvia.

/Figure – graph/

/*Vertical at right*/: Number of stations
/Vertical at left/: MWh

Hydroelectric stations up to	Wind power stations	Biogas power stations	Biomass power stations (3 096 491,

[13] Latvian energy in figures, Ministry of Economic Affairs of the Republic of Latvia , Riga, 2009, /LINK/

5 MW (64 485 602, 143)	(55 752 074, 14)	(29 046 364, 4)	3)
Purchased volume, MWh		Number of power stations	

Figure 5. Volume of electricity produced from RES sold to the public utility in 2008, MWh[14]

Based on an analysis of RES varieties by their potential and possible future contribution, the development priorities for reaching the targets for 2010 set in the Energy Market Law are support for the efficient use of solid biomass (primarily wood) and biogas not only for heat energy but also for generating electricity, use of wind energy with installed capacity up to 135 MW and sensible exploitation of the potential of small HES.

The bulk of hydro energy resources are used in the large *AS Latvenergo* hydroelectric stations. Most of the energy produced by *AS Latvenergo* is generated at the country's three biggest hydroelectric stations (HES). They produce 70% of total generated electricity on average. The total capacities are 264.1 MW for the • egums HES, 868.5 MW for the P•avi• as HES and 402 MW for the Riga HES. In addition to the three largest hydroelectric stations electricity is also generated at HES with smaller installed capacities.

Taking into account that the volume of generated electricity depends to a large extent on the flow of water through the river Daugava, the proportion of RES in electricity production can fluctuate from year to year. Based on analyses of statistics and existing environmental protection restrictions, it can be concluded that Latvia will be unable to increase the total proportion of RES through the use of hydro energy (see figure 6). As a consequence, an anticipated support framework for developing power stations using RES is essential.

/Figure – graph/

- number - installed capacity (MW)

Figure 6. Number of smaller hydroelectric stations and installed capacity in 2009[15]

According to the Energy Development Guidelines 2007-2016, Latvia has high biogas potential (see figure 7).

/Figure – pie chart/

- Manure
- Biologically degradable household waste
- Effluent purification sludge
- By-products of animal origin
- Food processing waste

[14] Total end-user electricity consumption in Latvia to be supplied by electricity generated from RES, published in *Latvijas V•stnesis* /government gazette/, 19 February 2010 /LINK/

[15] Information report "On the achievements of the targets set out in the for Energy Development Guidelines 2007-2016", acknowledged as received at the Cabinet meeting of 2 February 2010, /LINK/

- Green fodder

Figure 7. Annual biogas potential in Latvia by types of recyclable materials, billion m³

As reported in the Energy Development Guidelines 2007-2016, wind energy resources are most available in western Latvia. There is also increasing interest from investors in this type of renewable energy. Latvia's TSO has received a large number of applications to connect wind power stations to the electricity transmission grid in Kurzeme on the shores of the Baltic Sea on both dry land and at sea (up to 2 000 MW). According to the TSO's annual report for 2008, power stations with total capacity of up to 220 MW can be connected to the existing 110 kV electricity transmission grid on the Kurzeme coast.

In July 2009, *AS Latvenerg*o submitted project applications to receive European Regional Development Fund funding to develop the Baltic-Swedish inter-connector (NordBalt) and western Latvia transmission grid reinforcement (Kurzeme Bow) projects. Phase two includes plans to build a Grobi•a-Ventspils-Dundaga 330 kV high voltage transmission line.

The total installed capacity for wind stations with capacity greater than 0.25 MW is 27.65 MW, and in 2008 the total volume of electricity sold to the public utility and generated from wind power stations with installed capacity above 0.25 MW was 58 055 816 KWh (see Annex).

From 2004 to 2006, the average volume of electricity generated by wind power stations with installed capacity above 0.25 MW and sold to the public utility *AS Latvenergo* was 47 GWh per year. Since 2007 there has been an increase in the volume of wind power produced by wind power stations and sold to the public utility, which purchased 53 GWh of electricity in 2007 and 58 GWh in 2008 (see figure 8).

/Figure – graph/

Figure 8. Annual supply of electricity produced by wind power stations, GWh[16]

3. Support scheme for electricity generation using renewable energy resources

Pursuant to the Electricity Market Law and Cabinet Regulations Nos 262 and 221, support measures for economic operators producing electricity from RES are implemented by means of mandatory procurement.

Comparing Cabinet Regulations No 262 and 221, it should be noted that the most significant difference with respect to electricity generated from RES and subject to mandatory procurement is in the rules governing the volume of electricity to be mandatorily procured.

Cabinet Regulation No 262 stipulates annual mandatory procurement support volumes for various RES types for 2010 and the following ten years, expressing this volume as a percentage of total electricity end-consumption in Latvia.

[16] Informative report "On the fulfilment of the targets set out in the Framework for Energy Development for 2007-2016" acknowledged as received at the Cabinet meeting of 2 February 2010, /LINK/

On the other hand, Cabinet Regulation No 221 do not stipulate any quantitative restrictions on the purchase of electricity generated from RES in the cogeneration process by means of mandatory procurement.

A significant difference compared with the procedure in force up to now, which was based on the Cabinet Regulations issued pursuant to section 29(2), (4) and (5) of the Electricity Market Act, is that henceforth, pursuant to Cabinet Regulation No 262, mandatory procurement rights will be granted to biomass, biogas, solar and wind power stations on the basis of tenders, evaluating the compliance of the submitted applications with administrative and qualitative assessment criteria. This application assessment procedure allows for the qualitative evaluation of applications taking account of the electricity generation capacity to be installed, the possibility of utilising the heat energy produced by the power station as well as the raw materials used to obtain energy resources. Cabinet Regulation No 262 make administrative procedures more transparent and set out a predictable decision making procedure for economic operators.

The object of the tender is the volume of electricity for the right to the sale of which by means of mandatory procurement the tender is being held. Cabinet Regulation No 262 stipulate that the tendering process is to be held every year from 1 to 31 October. For their part, economic operators generating or planning to generate electricity at hydroelectric stations may obtain mandatory procurement rights by submitting an application and documents complying with Cabinet Regulation No 262 to the Ministry from 1 April of the respective year.

Pursuant to Cabinet Regulation No 262, the mandatory procurement price is calculated using the price formulae for electricity generated from biomass, biogas, solar or wind power stations and hydroelectric stations with installed electric capacity of less than 5 MW (see table 2).

Power station type	**Installed electric capacity**	**Tariff**
Wind power stations	≤ 0.25 MW	First 10 years from start of operations $C = 147 \times e \times k$
		Next 10 years from start of operations $C = 147 \times e \times k \times 0.6$;
	> 0.25	First 10 years from start of operations $C = 120 \times e \times k$
		Next 10 years from start of operations $C = 120 \times e \times k \times 0.6$;
Biomass power stations	≤ 4 MW	First ten years from start of operations $C = \frac{T_q \times k \times 4.5}{9.3}$;
		Next 10 years from start of operations $C = \frac{T_q \times k \times 3.4}{9.3}$;
	> 4 MW	First 10 years from start of

		operations $C = \frac{T_g \times k \times 3.6}{9.3}$;
		Next 10 years from start of operations $C = \frac{T_g \times k \times 3}{9.3}$;
Biogas power stations	≥ 2 MW	First 10 years from start of operations $C = \frac{T_g \times k \times 4.5}{9.3}$
		Next 10 years from start of operations $C = \frac{T_g \times k \times 3.4}{9.3}$
	< 2 MW	First 10 years from start of operations $C = 188 \times e \times k$;
		Next 10 years from start of operations $C = 188 \times e \times k \times 0.8$
Hydroelectric stations	≤ 5 MW	First 10 years from start of operations $C = 188 \times e \times k \times 0.8$
		Next 10 years from start of operations $C = 159 \times e \times k$
Solar power stations	unrestricted	20 years from start of power station operations $C = 427 \times e$

Table 2. Price calculation formulae stipulated in Cabinet Regulation No 262

Pursuant to Cabinet Regulation No 221, the price formulae for electricity generated in cogeneration stations using RES are used for determining mandatory procurement prices:

1) the mandatory procurement price formula for cogeneration stations using RES in which installed electric capacity does not exceed 4 MW:

$$C = \frac{T_g \times k \times 4.5}{9.3}$$

2) the mandatory procurement price formula for cogeneration stations using RES in which installed electric capacity exceeds 4 MW includes cogeneration electricity purchase prices: the energy component paid by the utility for the

cogeneration electricity volume fixed in Paragraph 29 of Cabinet Regulation No 221, and the capacity component paid by the utility for the electrical capacity installed at the cogeneration station (LVL/MW per year). The utility pays the capacity component for the electric capacity installed at the station once per month, dividing the annual payments into 12 parts.

Designations used in the formulas:

C = the price exclusive of VAT at which the public utility buys electricity generated from RES from a power station (LVL/MWh);

e – the exchange rate set by the Bank of Latvia for the *lats* against the European Union common currency on the date the invoice for electricity is issued;

k – the price differential coefficient stipulated in Annex 9 to Cabinet Regulation No 262;

T_g – the regulator-approved natural gas trading end-tariff exclusive of VAT set for natural gas consumption from 126 000 m³ to 1 260 000 m³ (LVL/1 000 m³) per year with actual thermal capacity.

3.1. Structure for meeting the national indicative targets

The proportion of Latvia's end-consumption of electricity that must be met by electricity generated from RES for the period to 31 December 2010 and subsequent years broken down by years and RES types is prescribed in Annex 1 to Cabinet Regulation No 262 (see table 3).

No	RES and power station type	2010 and next 10 years
1.	Hydroelectric stations with capacity greater than 5 MW	34.31%
2.	Hydroelectric stations with capacity of 5 MW or less	1.98%
3.	Wind power stations with capacity of 0.25 MW or less	0.27%
4.	Wind power stations with capacity greater than 0.25 MW	5.10%
5.	Biogas power stations	7.93%
6.	Biomass power stations and power stations using biomass together with fossil fuels	4.97%
7.	Solar power stations	0.01%
Total		54.57%

Table 3. Table in Annex 1 to Cabinet Regulation No 262[17]

Taking into account the level of activity shown by economic operators in submitting applications to obtain the right to sell electricity by means of mandatory procurement, in the next few years support mechanisms for producing electricity from RES must be developed. The support schemes currently in force are sufficient to

[17] Cabinet Regulation No 262 of 16 March 2010 "Regulations on the production of electricity from renewable energy sources and the price setting procedure", published in *Latvijas V•stnesis* /government gazette/, 31 March 2010 /LINK/

motivate economic operators to invest in generating electricity from RES. However, due to the present economic crisis there is no assurance that all of the volume allocated to such electricity will be filled or that economic operators will begin generating electricity and selling it to *AS Latvenergo* within the prescribed period.

The public utility *AS Latvenergo* calculates and publishes a corrected volume of electricity generated from RES for each year by 1 March of the next year, taking into account the actual indicators for the previous year and adjusted forecasts of electricity end-user consumption and the volume of electricity subject to mandatory procurement for the following year.

AS Latvenergo as the public utility published the volumes of electricity generated from RES and subject to mandatory procurement in the newspaper *Latvijas V•stnesis* (Government Gazette) on 19 February 2010, setting the following volumes (MWh) for the period up to 31 December 2020. Volumes of electricity produced from RES (see table 4).[18]

[18] The proportion of Latvia's end consumption of electricity that must be covered by electricity produced from RES, published in *Latvijas V•stnesis* /government gazette/, 19 February 2010 /LINK/

Type of RES and power station	2010 and next 10 years*	Years										
		2010	**2011****	**2012****	**2013****	**2014****	**2015****	**2016****	**2017****	**2018****	**2019****	**2020****
Hydroelectric stations with capacity over 5 MW***	34.31%	2 024 676	2 024 676	2 054 863	2 116 141	2 179 258	2 244 268	2 311 228	2 380 197	2 524 405	2 524 405	2 599 770
Hydroelectric stations with capacity under 5 MW	1.98%	116 842	116 842	118 584	122 121	125 763	129 515	133 379	137 359	141 459	145 681	150 030
Wind power stations with capacity 0.25 MW and under	0.27%	15 933	15 933	16 171	16 653	17 150	17 661	18 188	18 731	19 290	19 866	20 459
Wind power stations with capacity over 0.25 MW	5.10%	300 957	300 957	305 444	314 553	323 935	333 599	343 552	353 804	364 363	375 239	386 442
Biogas power stations	7.93%	467 959	467 959	474 936	489 099	503 687	518 713	534 189	550 130	566 549	583 461	600 879
Biomass power stations and power stations using biomass together with fossil fuels	4.97%	293 286	293 286	297 659	306 535	315 678	325 095	334 795	344 795	355 076	365 675	376 592
Solar power stations	0.01%	590	590	599	617	635	654	674	694	714	736	758
Total	**54.57%**	**3 220 244**	**3 220 244**	**3 268 256**	**3 365 719**	**3 446 106**	**3 569 504**	**3 676 004**	**3 785 700**	**3 898 686**	**4 015 062**	**4 134 929**
As a percentage of Latvia's total end-use consumption		**66.01%**	**66.01%**	**65.34%**	**64.04%**	**62.77%**	**61.54%**	**60.34%**	**59.18%**	**58.05%**	**56.96%**	**55.89%**

* Pursuant to Cabinet Regulation No 262 of 16 March 2010 on the generation of electricity from renewable energy sources and the price-setting procedure
** Forecast subject to change depending on the previous year's actual indicators and forecasts of electricity end-user consumption

*** The actual production volumes at average annual inflow to the River Daugava are 2 700 000 MWh per year
**** At average annual inflow to the river Daugava

Table 4. The proportion of Latvia's end-consumption of electricity that must be met by electricity generated from RES, MWh[19]

[19] The proportion of Latvia's end consumption of electricity that must be covered by electricity produced from RES, published in *Latvijas V•stnesis* /government gazette/, 19 February 2010 /LINK/

3.2. Procedures for implementing and monitoring mandatory procurement

Pursuant to Cabinet Regulation No 262, mandatory procurements are conducted on the basis of contracts concluded between the public utility and an economic operator or its authorised representative, based on an administrative certificate issued by the Ministry of Economic Affairs granting mandatory procurement rights.

The conditions of mandatory procurement provide that a an economic operator who has obtained the right to sell electricity produced at a solar, wind or hydroelectric power station by means of mandatory procurement is obliged to commence generation of electricity and its sale to the public utility within 36 months of the day on which the Ministry of Economic Affairs issues it with an administrative certificate granting mandatory procurement rights.

In order to encourage the utilisation of the granted right to sell electricity under mandatory procurement, it is provided that the economic operator must submit a copy of the building permit to the Ministry in accordance with the procedures set out in laws and regulations within 12 months of the day on which the Ministry of Economic Affairs issues it with an administrative certificate granting mandatory procurement rights. Economic operators planning to generate electricity at biomass, biogas or solar power stations must commence construction of the power station within 12 months of the day on which the Ministry of Economic Affairs issues it with an administrative certificate granting mandatory procurement rights, whereas economic operators planning to generate electricity at wind or hydroelectric power stations must commence construction of the power station within 18 months of the day on which the Ministry of Economic Affairs issues it with an administrative certificate granting mandatory procurement rights.

In order to be able to sell electricity produced from RES by means of mandatory procurement, a power station must be equipped with measuring devices for recording generated electricity, electricity transferred to the power grid and received from the grid in accordance with the technical requirements prescribed and published by the system operator.

Economic operators are obliged to submit annual reports for power stations generating electricity from RES to the Ministry of Economic Affairs by 1 March of each year, indicating the type of energy resource used, the volume of electricity generated and the technology used in generating electricity. The report must also include data whose compliance is certified by the system operator to whose electricity grid the economic operator’s power station is connected.

3.3. Obtaining a certificate of origin

Producers generating electricity from RES may, pursuant to Cabinet Regulation No 262, receive a certificate of origin for the generated electricity, certifying that the power station under their ownership or control generated electricity from RES. A certificate of origin is issued by the Ministry of Economic Affairs at the request of the economic operator.

In order to obtain a certificate of origin, an economic operator must submit the annual report for power stations generating electricity from RES to the Ministry of Economic Affairs.

3.4. Example of the calculation of mandatory procurement prices

Figure 9 presents a comparison of the amounts of mandatory procurement support prescribed in Cabinet Regulation No 262 for all of the types of RES.

Figure – graph/

/*Vertical column at left*/: Price (LVL 0.01/kWh) exclusive of VAT
/*Bottom horizontal, left to right*/: hydroelectric stations up to 5 MW/ wind power stations/ biogas power stations/ biomass power stations/ solar power stations

Figure 9. Mandatory procurement prices in April 2010 pursuant to Cabinet Regulations Nos 262 and 221, in LVL 0.01/kWh[20]

Conclusions

While Latvia has an established legal framework prescribing the preconditions for using RES for producing both electricity and thermal energy, national renewable energy policies and the effectiveness of the connected support mechanisms must be developed and regularly evaluated.

Latvia's economic development opportunities and competitiveness are also influenced by the condition of the energy supply system, its operational efficiency and security of supply. Latvia's gross national electricity consumption has grown by 31.6% compared with 2000, and this may affect the ability to meet the targets for 2010.

In 2008, Latvia's gross national electricity consumption was 7 794 GWh. This included electricity produced from RES, for which Latvia's consumption was 3 212 GWh. In 2008, the proportion of energy produced from RES as a percentage of gross national electricity consumption was 41.2% (taking into account the decline of hydro power as a proportion of total resources), 7.2% less than in 2005. This is 8.1% less than Latvia's national indicative targets as prescribed in Directive 2001/77/EC, pursuant to which the proportion of electricity produced from RES must reach 49.3% of total electricity consumption by 2010.

The economic crisis has affected Latvia's economy as a whole, including the energy sector, and this has led to significant changes in forecasts of energy resource consumption, which will have to be taken into account in evaluating and adjusting medium-term policy planning documents in line with the latest economic development forecasts.

It can be concluded that taking economic development trends into account, the renewable energy policies set by Latvia's medium-term planning documents, legislation governing the sector and Cabinet regulations on support for the generation of electricity from RES and cogeneration are not flexible enough to achieve the targets set for 2010. Furthermore, assessing the technical and financial aspects of the implementation of the objectives set out in 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, it can be considered that the targets set for Latvia in 2020 are sufficiently ambitious.

[20] Ministry of Economic Affairs

Annex

Table 1. Volume of electricity generated by wind power stations with installed capacity above 0.25 MW and sold to the public utility in 2008[21]

No	Name of producer producing electricity using RES	Station's installed capacity MW	Volume of electricity purchased under mandatory procurement kWh	Annual limit set for mandatory procurement kWh	Volume of electricity purchased in the market kWh	Total volume of electricity purchased kWh
1	2	3	4	5	6	7
	Total	**27.650**	**55 752 074**		**2 303 742**	**58 055 816**

Table 2. Volume of electricity generated by hydroelectric stations with installed capacity up to 5 MW and sold to the public utility *AS Latvenergo* in 2008[22]

No	Name of producer producing electricity using RES	Station's installed capacity MW	Volume of electricity purchased under mandatory procurement kWh	Annual limit set for mandatory procurement kWh	Volume of electricity purchased in the market kWh	Total volume of electricity purchased kWh
1	2	3	4	5	6	7
	Total	**25.5917**	**64 485 602**	**73 109 000**	**4 254 293**	**68 739 895**

[21] Ministry of Economic Affairs
[22] Ministry of Economic Affairs

Table 3. Volume of electricity produced by biogas power stations and sold to the public utility *AS Latvenergo* in 2008[23]

No	Name of producer producing electricity using RES	Station's installed capacity MW	Volume of electricity purchased under mandatory procurement kWh	Annual limit set for mandatory procurement kWh	Volume of electricity purchased in the market kWh	Total volume of electricity purchased kWh
1	2	3	4	5	6	7
	Total	**9.096**	**29 046 364**	**35 715 000**	**530 603**	**29 576 967**

Table 4. Volume of electricity generated by biomass power stations and power stations using biomass together with fossil fuels and sold to the public utility *AS Latvenergo* in 2008[24]

No	Name of producer producing electricity using RES	Station's installed capacity MW	Volume of electricity purchased under mandatory procurement kWh	Annual limit set for mandatory procurement kWh	Volume of electricity purchased in market kWh	Total volume of electricity purchased kWh
1	2	3	4	5	6	7
	Total	**2.200**	**3 096 491**	**2 600 000**	**0**	**3 096 491**

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