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REPUBLIC OF SLOVENIA
MINISTRY OF THE ECONOMY
DIRECTORATE FOR ENERGY

Report of the Republic of Slovenia to the European Commission on the Implementation of Directive 2001/77/EC of the European Parliament and of the Council on the Promotion of Electricity Produced from Renewable Energy Sources

(pursuant to 3rd paragraph, Article 3 of Directive 2001/77/EC)

Ljubljana, November 2009

TABLE OF CONTENTS:

1 INTRODUCTION 3

2 NATIONAL INDICATIVE TARGETS FOR ELEC TRICITY PRODUCED FROM RENEWABLE SOURCES 4

3 ELECTRICITY FROM RENEWABLE ENERGY SOURCES IN 2007 AND 2008 4

3.1. SURVEY OF ELECTRICITY PRODUCED FROM RENEWABLE SOURCES…… .....…4

3.2. MEETING THE TARGETS… 12

4 OVERVIEW OF LEGAL ACTS DETERMINING MEASURES TO PROMOTE THE PRODUCTION OF ELECTRICITY FROM RENEWABLE ENERGY SOURCES..... 14

4.1. ENERGY ACT…… …….…....14

4.2. PURCHASE PRICE AND PREMIUM FOR ELECTRICITY PRODUCED FROM RES……..… 15

4.3. NETWORK…….….. 18

4.4. GUARANTEES OF ORIGIN OF ELECTRICITY ……..... 19

5 OBSTACLES..... ...21

6 CONCLUSION.....21

7 SOURCES 22

1 INTRODUCTION

Article 3 of Directive 2001/77/EC of the European Parliament and the Council on the promotion of electricity produced from renewable energy sources in the internal electricity market lays down that Member States shall publish for the first time, not later than the 27 October 2003, and thereafter every two years, a report which includes an analysis of their success in meeting the national indicative targets. Those reports should take account, in particular, of climatic factors likely to affect the achievement of those targets, and indicate to what extent the measures taken are consistent with the national climate change commitments.

Furthermore, Article 5 of the Directive goes on to state that, in this report, Member States shall outline the measures taken to ensure the reliability of the system designed to guarantee the origin of electricity.

The report shall also contain an evaluation of the existing legislative and regulatory framework with regards to authorisation procedures or other procedures laid down in Article 4 of Directive 96/92/EC and which are applicable to production plants for electricity produced from renewable sources, with a view to:

– reducing the regulatory and non-regulatory barriers with the purpose of increasing electricity production from renewable energy sources,
– streamlining and expediting procedures at the appropriate administrative level, and
– ensuring that the rules are objective, transparent and non-discriminatory, and that they take fully into account the particularities of the various renewable energy source technologies.

Furthermore, in the report referred to in Article 6(2), the Member States shall also consider the measures to be taken to facilitate access to the grid system of electricity produced from renewable energy sources.

This is the third report and contains data for 2007 and 2008.

2 NATIONAL INDICATIVE TARGETS FOR ELECTRICITY PRODUCED FROM RENEWABLE SOURCES

Energy policy targets in the Republic of Slovenia are set out in the Resolution on the National Energy Programme, or ReNEP (OGRS, 5 7/04) and aligned with Slovenia's international obligations:

• The Treaty Concerning the Accession of the Republic of Slovenia to the European Union defines the target under Directive 2001/77/EC as **increasing the share of electricity produced from renewable energy sources in terms of gross electricity consumption** to 33.6% by 2010. This target is also contained in the ReNEP.

• **The share of biofuels** in the total energy value of engine fuels: 2% by 2005 (ReNEP target) and 5% with the adoption of the Rules on the Content of Biofuels in Motor Vehicle Fuels. [1] Directive 2003/30/EC sets the minimum obligation of Member States at 5.75% by 2010 and, as an exception, allows the setting of national targets, an option which Slovenia has decided to exercise.

• An increase in the share of RES in the supply of heat from 22% in 2002 to 25% by 2010.

• All of the above targets must be achieved to **increase the share of RES in the primary balance** from 8.8% (2001) to 12% by 2010, which is the target set in the ReNEP.

Directive 2001/77/EC on the promotion of the use of electricity produced from renewable sources, as well as the two amendments and subsequent annulment of the Directives 2001/77/EC and 2003/30/EC, set forth that Slovenia shall ensure a 25% share of electricity from renewable sources in its final gross energy consumption for 2020. A renewable energy action plan will be elaborated on by June 2010, which will define how Slovenia intends to achieve the target and also the target regarding the electricity produced from renewable sources.

3 ELECTRICITY FROM RENEWABLE ENERGY SOURCES IN 2007 AND 2008

3.1. Survey of electricity produced from renewable sources

In Slovenia, the percentage of electricity produced from renewable energy sources is dropping. Despite this, renewable sources made an important contribution to the production of electricity in Slovenia in 2007 and 2008, and thus to covering the country's requirements for electricity.

[1] The Rules on the Content of Biofuels in Motor Vehicle Fuels (OGRS, 83/2005) lay down that the average annual content of biofuels in all motor vehicle fuels placed on the market in the territory of the Republic of Slovenia must be at least 5% by 2010.

Slovenia is aware of the delay in achieving the national targets and is trying , at an accelerated pace, to reduce or eliminate the gap between the rate of RES electricity in the national energy balance and the national target rate, which is 33.6% RES electricity in the energy balance of electricity consumed by the entire country.

Not achieving or, at best, coming close to the adopted national targets has most likely been the result of the following:

- strong growth in the consumption of electricity in recent years, which reduced the share of RES electricity generated in existing and newly -built power stations in the national balance,

- unfavourable hydrological conditions that resulted in the decrease of electricity generation in hydroelectric power plants, which are the main source when it comes to the generation of electricity from RES,

- regulatory uncertainties related to the Commission 's investigation C 05/07 on "the state aid scheme being implemented by Slovenia within the framework of its legislation on qualified electricity producers" due to which Slovenia was not permitted to change the regulations on state aid prior to the end of the procedure.

3.3.1 Strong growth in the consumption of electricity on a national level

Due to the economic growth that Slovenia has been experiencing, and partially due to introduction of the market, which reduced the prices of electricity on a national level after 2000, the consumption of electricity had constantly been rising until this year's economic crisis. From 2000 to 2007, gross national electricity consumption rose from 12 303 GWh to 15 272 GWh, a rise of 24.1%. From a state that was self-sufficient in the generation of electrical energy [2] Slovenia turned into an electricity-importing country which could not cover its increased electricity requirements by building its own production capacities, but instead imported electricity.

Table 1: Gross electricity consumption and the actual power of hydroelectric power plants:

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Gross consumption (GWh)	12,303	12,695	13,465	13,986	14,492	14,792	15,166	15,272	15,002
Actual power of hydroelectric power plants [MW]	860	906	949	973	974	979	1,009	1,018	1,057

Source:
2000-2007 – Statistical Office of the Republic of Slovenia

[2] From 1998 to 2003, when Slovenia had at its disposal the entire Krško nuclear power plant capacity, the country had at its disposal substantial electricity surpluses.

2008 – Ministry of the Economy, unofficial data

The above table shows that the actual power of all hydroelectric power plants, which represent the most important form of RES in Slovenia, was growing. Despite the regulatory uncertainties, other forms of RES were on the rise as well. However, since these RES were small, decentralised generation facilities, they were not sufficient for substantial improvements in the share of RES in the national energy balance.

3.3.2. Unfavourable hydrological conditions which resulted in the reduced generation of electricity at the most important Slovenian source of renewable energy – the hydroelectric power plants.

Despite the fact that the installed capacity in Slovenian hydroelectric power plants was on the increase, and the fact that from 2004 (the year of adopting the targets laid down in Directive 2001/77/EC) to 2008 it increased by 8.5 %, the electricity produced was constantly decreasing, with the exception of 2004 when the total production from RES electricity was 4 218 GWh. Thus, the difference between the targets set and the share of RES electricity achieved was increasing markedly.

Table 2: Electricity produced from renewable sources:

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Production (GWh)	3,905	3,865	3,415	3,079	4,218	3,576	3,700	3,376	4,307

Source:
2000-2007 – Statistical Office of the Republic of Slovenia
2008 – Ministry of the Economy, unofficial data

From 2000 to 2007, the generation of electricity from RES decreased by 13.5% despite the 18.4% increase in new capacities.

In presenting the current situation and comparing progress for Slovenia as a state which, in terms of its RES electricity balance, so evidently depends on meteorological/hydrological conditions, it would be more appropriate to apply the "normalised" data on electricity production, which was introduced by Directive 2009/28/EC, Annex II.

The “normalised” data shown in the table below reflects conditions in the area of RES electricity in Slovenia more adequately.

Table 3: Share of RES in national energy balance in view of “normalised” data:

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Share RES-PP*	27.5%	28.1%	28.0%	27.7%	26.8%	26.3%	26.4%	26.5%	28.3%

** normalised contribution of RES power plants*

Table 4: Index of RES electricity production in view of “normalised" data

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
Index	100%	105%	111%	114%	115%	115%	118%	119%	126%

Due to excessive growth in electricity consumption, the share of RES electricity shown in the national energy balance is still decreasing. However, the extreme-value data is less present in the “favourable” year of 2004 as well as in the “bad” years of 2003 and 2007.

3.3.3. Regulatory uncertainties related to the Commission ’s investigation C 05/07 on "the state aid scheme being implemented by Slovenia within the framework of its legislation on qualified electricity producers”

Even before adopting the first Energy Act, which liberalised the electricity market and subsequently the natural gas market, Slovenia promoted the production of electricity in small hydroelectric power plants and cogeneration plants. Thus, Slovenia was a relatively early adopter of the implementing regulations [3], which harmonised the support to RES power plants and cogeneration plants, also called “qualified power plants” (hereafter QPPs), with the principles of a liberalised electricity market. Slovenia decided on the “feed-in system”, which was implemented via the guaranteed purchase of electricity and the paying of premiums for electricity sold by QPPs independently. Considering the landmark ECJ judgement [4], Slovenia deemed that the scheme did not represent state aid. In view of market liberalisation, the number of aid beneficiaries in line with the aid scheme was quite low. The grant beneficiaries were hydroelectric power plants of up to 10 MW in power and cogeneration plants supplying remote heating of up to 10 MW rated capacity. The rated capacities for other RES hydroelectric power plants were not limited.

When the Republic of Slovenia submitted the programme of recovering stranded investments in companies producing electricity in the Republic of Slovenia, which also included the scheme of what was called "priority dispatch" [5], the Commission expressed doubts on the compatibility of certain parts of the scheme with the principles of the common market and on the 2 February 2005 commenced a formal procedure of investigation against the Republic of

[3] Decree on the Requirements to be Met for Obtaining the Status of Qualified Electricity Producer (OGRS, 29/01 and 99/01), Decree on the Rules for Determining Prices and Purchasing Electricity from Qualified Electricity Producers (OGRS, 25/02).

[4] The European Court Judgement dated 13 March 2001 (Case C-379/98).

[5] The term which introduced benefits or support for the respective hydroelectric power plants and which includes the "qualified power plants"

Slovenia pursuant to Article 88(2) of the EC Treaty. The procedure was later renamed Case C7/05.

For the Commission, the implementation of support to “qualified producers” of electricity in Slovenia is a form of state aid which, though its purpose complies with the EC Treaty, must fully comply with the Guidelines for State Aid for Environmental Protection and must be notified to the Commission before the commencement of implementation.

The Commission concluded the investigation C 05/07 by issuing the Commission Decision 2007/580/EC on "the state aid scheme being implemented by Slovenia within the framework of its legislation on qualified electricity producers” on 24th April 2007 (hereafter: Commission Decision).

Slovenia undertakes to change its method of collecting contributions for support and to move from collecting contributions in the scope of network charges for every consumed kWh , to charging contributions by grid connections which are independent of the quantity and source of the electricity consumed, and that it will fully harmonise its regulations on support for RES electricity and cogeneration plants with the applicable guidelines on state environmental protection aid.

For the entire duration of Case C7/2005, meaning from the 2nd February 2005 until the Commission issued its Decision in April 2007, Slovenia suspended any changes made to the Decree on the Requirements to be Met for Obtaining the Status of a Qualified Electricity Producer and Decree on the Rules for Determining Prices and Purchasing of Electricity from Qualified Electricity Producers.

Suspension of changes made to the purchase prices and premiums resulted in the support in Slovenia being the lowest in the EU. The influence of suspension and the extent of funds used for support is shown in the table below:

Table 5: Support financed to qualified power plants:

Total support financed to qualified power plants (€):						
Year	2004	2005	2006	2007	2008	2004 to 2008
RES + cogeneration plants	**12,439,801**	**10,909,551**	**13,870,719**	**18,114,505**	**25,185,898**	**80,520,474**

After publication of Commission Decision 270/580/EC in April 2007, the scheme was released and the support funds increased substantially. This year, the planned funds for support granted to RES power plants and cogeneration plants amounted to as much as €39.3 million.

Of course, the mere increase in funds will not suffice for the realisation of the set goals. Slovenia decided to thoroughly change its legislation on RES electricity and electricity acquired from highly efficient cogeneration plants.

3.3.4. Survey of the generation of electricity in terms of renewable source utilisation technologies

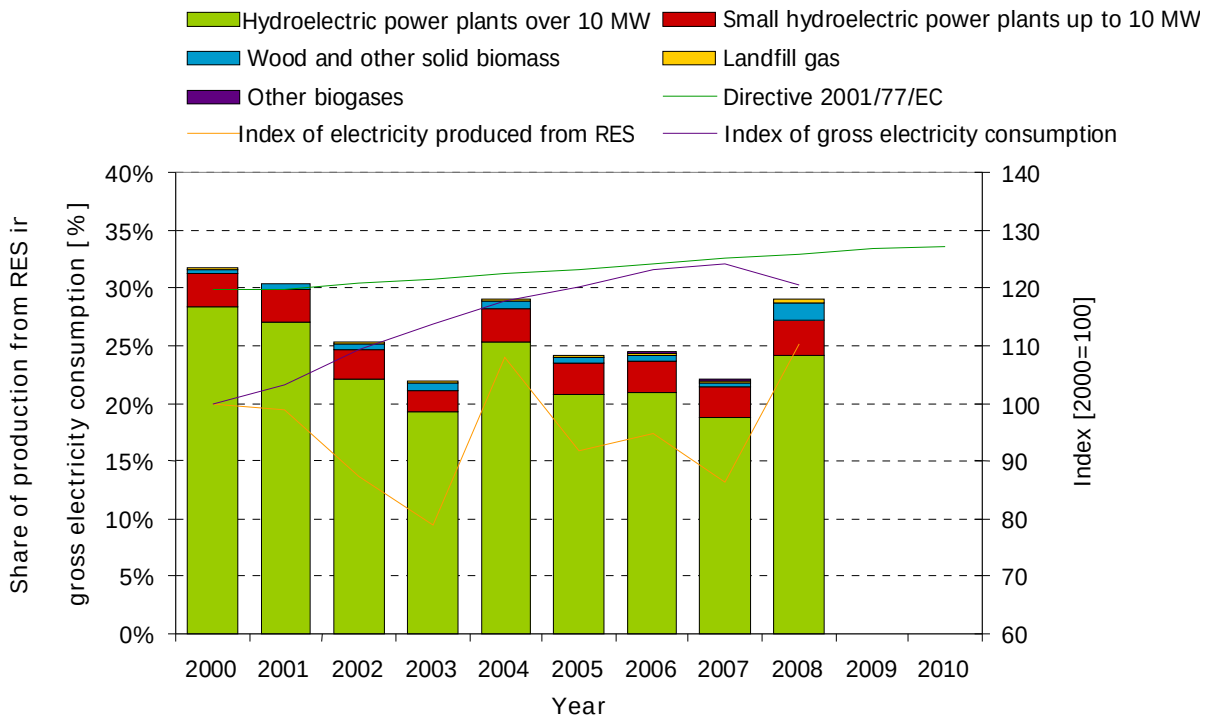
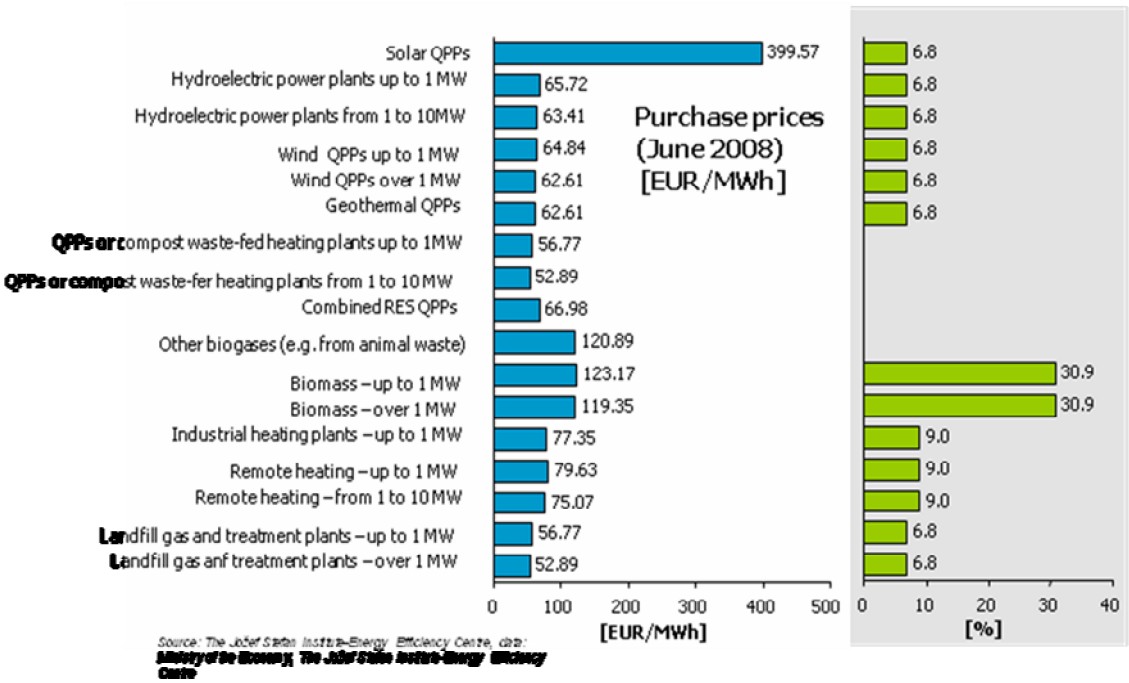


Figure 1: The share of RES electricity in gross energy consumption is divided by source types (columns) in terms of linear approach to achieving the target for 2010 (green line) (right -side axis) and the index in the generation of electricity (orange line) from RES in gross electricity consumption (violet line) (right -side axis) (source: Jožef Stefan Institute, data from Statistical Office of the Republic of Slovenia)

The most important mechanism for promoting the production of electricity from renewable energy sources is a system of guaranteed purchase prices. Since 2008, the prices have been altered (Figure 2 shows the altered purchase prices for the electricity generated from RES). A new system of guaranteed purchase prices is currently in preparation and is planned to be completed either by the end of 2008 or by early 2009. The basis for the remodelled system of purchase prices is the amended Energy Act (May 2008), which regulated the area of raising funds for promoting the production of electricity from RES and cogeneration plants in line with European Commission requirements.



Source: The Jožef Stefan Institute – Energy Efficiency Centre, data: Ministry of the Economy, The Jožef Stefan Institute – Energy Efficiency Centre

Figure 2: Purchase prices in force since June 2008 (left side) and a comparison with former purchase prices (right side)

In 2007 and 2008, the greatest improvements were made in the area of solar power plants, with installed power increasing dramatically (Fig. 3). There has also been a noticeable tendency to increase the size of these units. Owing to the rise in market prices of electricity and greater market demand, the position has also improved for other producers of electric ity from RES, where the share of independent sales on the market has increased considerably.

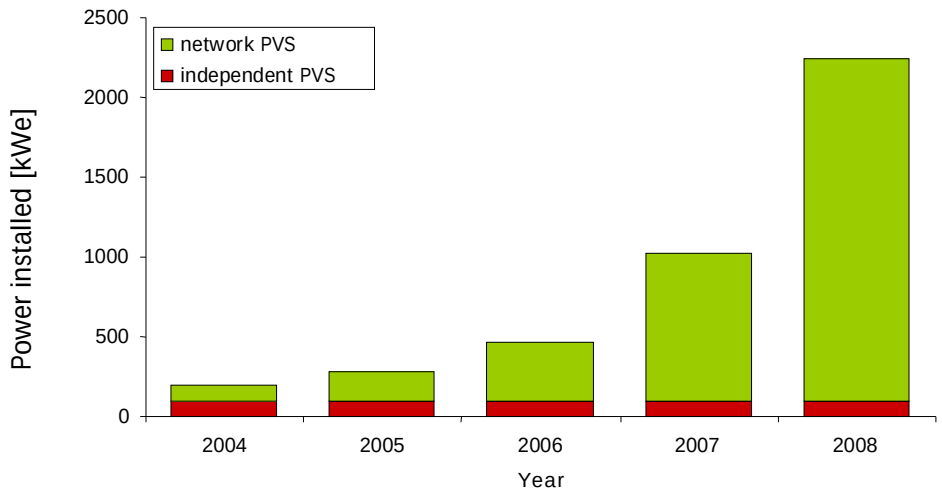


Figure 3: Development of solar power plants in Slovenia (Source: The Jožef Stefan Institute – Energy Efficiency Centre)

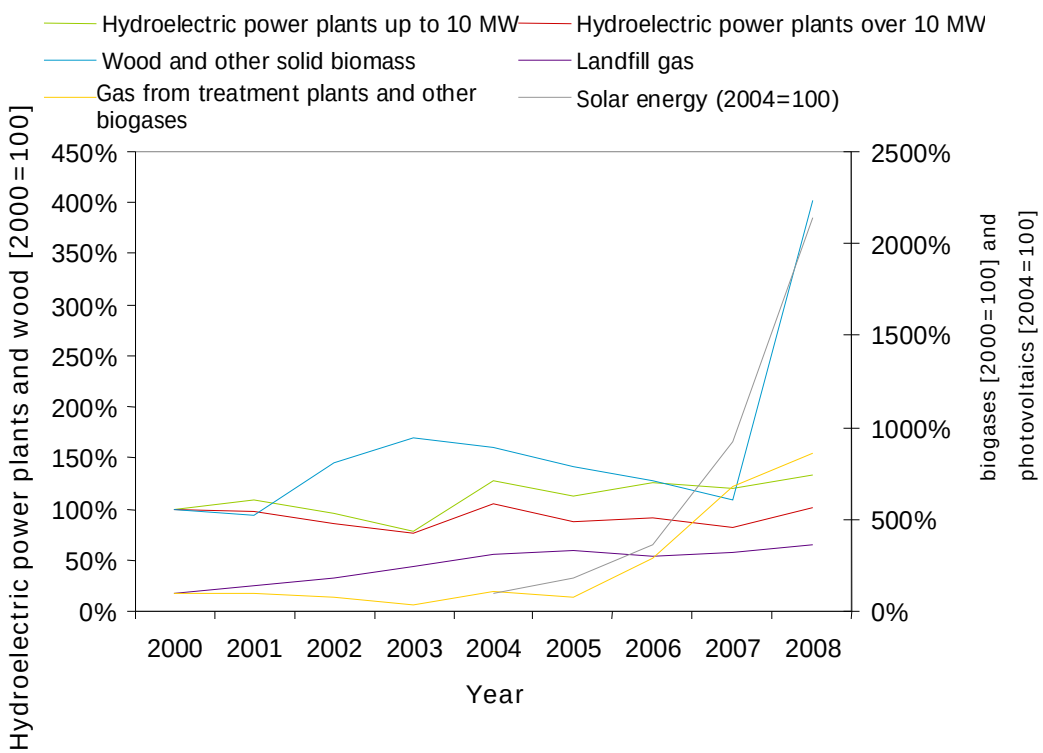


Figure 4: Index of electricity production by renewable energy sources 2000 –2006 (Source: The Jožef Stefan Institute, data: Statistical Office of the Republic of Slovenia, EurObserver)

Figure 5 shows the share of electricity produced fr om individual renewable energy sources in 2008

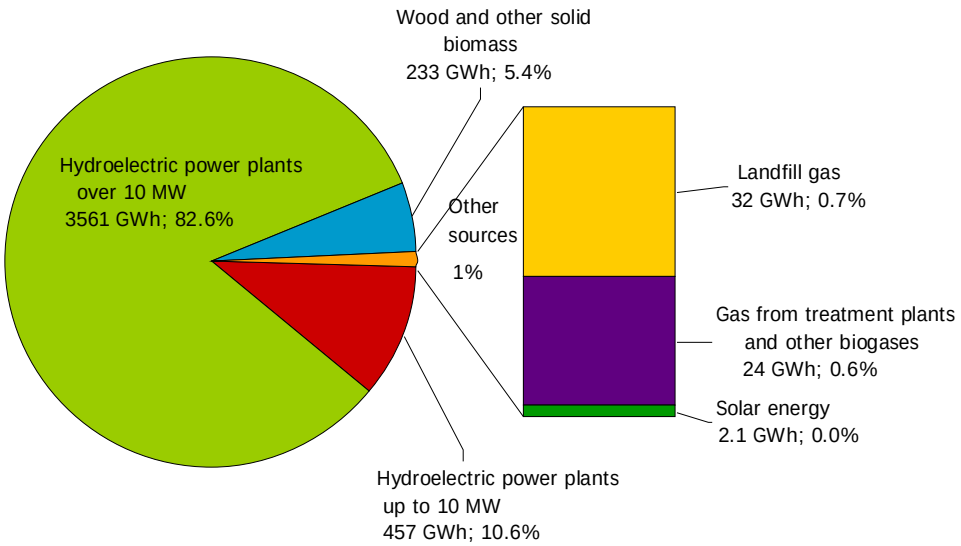


Figure 5: Share of electricity production by renewable energy sources, 2008 (Source: The Jožef Stefan Institute, data: Statistical Office of the Republic of Slovenia, EurObserver)

3.2. Meeting the targets

Slovenia is trying hard to increase the share of electricity produced from renewable energy sources. In 2008, the guaranteed purchase prices in electricity have thus been increased, and investors were also encouraged by the high er market price of electricity.

As at other times, the main problems in achieving the target of share of gross energy consumption of electricity produced from RES in 2007 and 2008 are: the big share of production from large hydroelectric power plants, wh ich fluctuates considerably from year to year, which would require the urgent introduction of a methodology for calculating production by using referenced hydrological conditions and, in particular, the extremely rapid growth in end-use of electricity.

Table 6 shows that, in 2007 and 2008, the following shares of electricity production from renewable sources in gross electricity production were recorded. It should be remembered that the 2010 target under Directive 2001/77/EC is 33.6%:

- In 2007 …….. 22.1 %;
- In 2008 …….. 29.1 %.

Table 6: Renewable energy sources for the production of electricity and as recorded in the primary energy balance

	2000	2001	2002	2003	2004	2005	2006	2007	2008	08/07	08/00	08/06
										AVERAGE ANNUAL GROWTH		
Electricity produced from RES [GWh]	3,905	3,865	3,415	3,079	4,218	3,576	3,700	3,376	4,307	27.6%	1.2%	7.9%
Hydroelectric power plants up to 10 MW	340	371	327	268	436	384	425	409	457	11.7%	3.8%	3.7%
Hydroelectric power plants over 10 MW	3,495	3,425	2,986	2,690	3,658	3,078	3,166	2,856	3,561	24.7%	0.2%	6.1%
Wood and other solid biomass	58	54	84	98	93	82	74	63	233	269.8%	19.0%	77.4%
Landfill gas	9	12	16	22	28	30	27	29	32	10.3%	17.2%	8.9%
Gases from treatment plants, and other biogases	3	3	2	1	3	2	8	19	24	26.3%	30.7%	73.2%
Solar energy					0.10	0.18	0.36	0.93	2.15	131.9%		143.2%
Actual operating power [MWe]	**875**	**924**	**967**	**990**	**991**	**997**	**1,032**	**1,035**	**1,047**	**1.2%**	**2.3%**	**0.7%**
Gross electricity consumption [GWh]	**12,303**	**12,695**	**13,465**	**13,986**	**14,492**	**14,792**	**15,166**	**15,272**	**14,796**	**-3.1%**	**2.3%**	**-1.2%**
Share of electricity produced from RES [%]	**31.7%**	**30.4%**	**25.4%**	**22.0%**	**29.1%**	**24.2%**	**24.4%**	**22.1%**	**29.1%**	**31.7%**	**-1.1%**	**9.2%**
Deviation from target	**-1.9%**	**-3.2%**	**-8.2%**	**-11.6%**	**-4.5%**	**-9.4%**	**-9.2%**	**-11.5%**	**-4.5%**			
Domestic RES production [Mtoe]	**0.760**	**0.776**	**0.716**	**0.713**	**0.822**	**0.772**	**0.767**	**0.735**	**0.849**	**15.5%**	**1.4%**	**5.2%**
Hydro and wind energy	0.330	0.326	0.285	0.254	0.352	0.298	0.309	0.281	0.345	22.8%	0.6%	5.7%
Other renewable sources	0.430	0.450	0.431	0.459	0.470	0.474	0.458	0.454	0.504	11.1%	2.0%	4.9%
Total primary energy consumption [Mtoe]	**6.360**	**6.749**	**6.820**	**6.931**	**7.129**	**7.307**	**7.318**	**7.336**	**7.749**	**5.6%**	**2.5%**	**2.9%**
Share of RES in total primary energy consumption [%]	**11.9%**	**11.5%**	**10.5%**	**10.3%**	**11.5%**	**10.6%**	**10.5%**	**10.0%**	**11.0%**	**9.4%**	**-1.1%**	**2.3%**

Source: The Jožef Stefan Institute, data: Statistical Office of the Republic of Slovenia, EurObserver (solar energy)

4 OVERVIEW OF LEGAL ACTS DETERMINING MEASURES TO PROMOTE THE PRODUCTION OF ELECTRICITY FROM RENEWABLE ENERGY SOURCES

4.1. Energy Act

The procedure for supplementing and amending the Energy Act was initiated in 2007 and completed in 2008 upon the adoption of the Act Amending the Energy Act (EZ-C) (OGRS, 70/08). The amendments introduced to the Energy Act determined the legal framework for the introduction of a new scheme of support, which provided a safe investing environment for those who invest in RES power plants and highly efficient cogeneration plants.

The Energy Act defines support as a form of state aid which is provided for the implementation of reliable and environmentally-friendly energy supply. The executive acts set forth support granted for the production of electricity from RES and electricity produced in highly efficient cogeneration plants. The criteria for the implementation of schemes are based on the Community guidelines on state aid for environmental protection (2008/C82/01). Both support schemes were submitted to the competent national line authority dealing in state aid as early as May 2009 for them to be notified to the Commission. The notification is administered by the European Commission as Case N 355/2009.

Support for promoting production of electricity from RES is implemented as:

- guaranteed purchase of electricity for power plants of less than 5 MW. Based on the guaranteed purchase and regardless of the electricity market price, the support centre established at Borzen d.o.o., which is the electricity market organiser, fully purchases the delivered net electricity for which an individual RES production facility was issued a guarantee of origin, which is carried out in line with the guaranteed prices of electricity. The guaranteed prices are based on referential costs accrued for the respective RES power plant technology and its size class.

- or alternatively as financial support for ongoing operation – operation support – which can be received by every RES power plant of up to 125 MW, irrespective of its size. This support is granted for the net produced electricity for which the power plant was issued a guarantee of origin, and which the producers of electricity from RES either sell on the market independently or consume on their own, provided that the energy generation costs are higher than the price of electricity that can be reached on the market.

In comparison with the former scheme, there is a substantial change in favour of the investors. The period of receiving support for the new power plants was extended from 10 to 15 years. Support can also be received by older power plants or renewed power plants which are lowered pro rata in terms of their share in funds invested in the renewal and costs of investments to the new power plant. The limiting criterion in receiving support for hydroelectric power plants, which was 10MW, has been abolished. For all RES power plants the maximum power limit is 125 MW. Support for power plants with greater capacity will be notified to the Commission on

an individual basis. The support scheme introduces guaranteed contractual relationships between the beneficiary and the support centre. Support can be changed only with respect to changes in the prices of input fuels (wood biomass, energy crops), market prices of electricity or when the beneficiary receives other types of state aid.

The basic criterion for receiving support is the guarantee of origin. The guarantee provides that the aid is granted exclusively to support the production of electricity which complies with the criteria laid down in Directives 2001/77/EC and 2009/28/EC.

Several implementing regulations were required for implementing the new support scheme:

- Decree on Support for Electricity Generated from Renewable Energy Sources (OGRS, 37/09);
- Decree on the Way of Defining and Accounting the Fee to Assure Support to Production of Electricity from Cogeneration with High Efficiency and from Renewable Sources (OGRS, 2/09)
- Decree on the Issuing of Declarations for the Production Units and of the Guarantees of Origin of the Electricity (OGRS, 8/09)
- Decree on the Method for the Implementation of Public Service Obligation Relating to the Organization of the Market for Electricity (OGRS, 8/09)
- Decree on Measurements to be Performed in Production Units which are Receiving Guarantees of Origin and Support for Electricity Produced (OGRS, 21/09);
- Decree on the Rules for the Preparation of Forecasts on the Situation of Production Plants Generating Electricity from Renewable Energy Sources and Cogenerations with High Efficiency (OGRS, 83/09);
- Methodology for Determining Reference Costs of Electricity Generated from Renewable Resources (published at the Ministry of the Economy, Energy Directorate website).

4.2. Purchase price and premium for electricity produced from RES

From an investor's point of view, the primary expectations with regards to the scheme designed to support the production of RES electricity are safety, predictability and an adequate return on investments in RES facilities.

The guaranteed purchase prices for RES production facilities of up to 5 MVel are shown in Table 7 in Figure 6:

Type of RES technology	Guaranteed purchase prices €/MWh$_{el}$			
	up to 50 kW	up to 1 MW	up to 10 MW	up to 125 MW
1. Hydroelectric power plants	**105.47**	**92.61**	**82.34**	**76.57**
2. Wind power plants	**95.38**	**95.38**	**95.38**	**86.74**
3.1 Solar power plants – on buildings	**415.46**	**380.02**	**315.36**	**280.71**
3.2 Solar power plants – integrated	**477.78**	**437.03**	**362.67**	**322.82**
3.3 Solar power plants – independent facilities	**390.42**	**359.71**	**289.98**	**269.22**
4. Geothermal power plants	**152.47**	**152.47**	**152.47**	
5.1 Power plants operating on wood biomass		**224.35**	**167.43**	
5.2 Co-incineration of wood biomass >5%	**102.54**	**102.54**	**102.54**	
6.1 Biogas units – biomass	**160.05**	**155.76**	**140.77**	
6.2 Biogas units – waste	**139.23**	**139.23**	**129.15**	
7. Landfill gas power plants	**99.33**	**67.47**	**61.67**	
8. Power plants operating on biogas from wastewater treatment plants	**85.84**	**74.42**	**66.09**	
9. Power plants operating on biodegradable waste		**77.44**	**74.34**	

Table 7: Prices for the guaranteed purchase of RES electricity

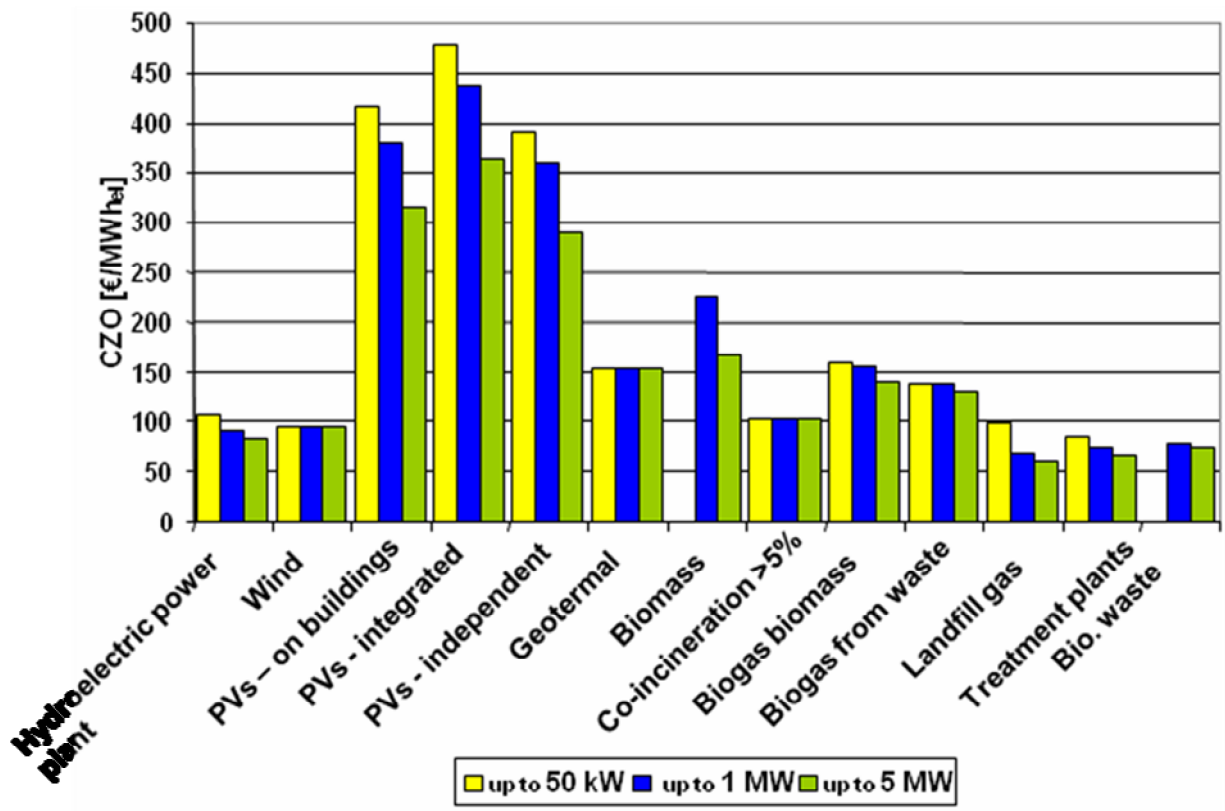


Figure 6: The guaranteed purchase prices for RES production facilities of up to 5 MVel

Operation support for RES production facilities for 2009 is shown in Table 8 and Figure 7:

Operation support for RES production facilities	€/MWh$_{el}$			
	up to 50 kW	up to 1 MW	up to 10 MW	up to 125 MW
1. Hydroelectric power plants	49.57	36.71	23.84	18.07
2. Wind power plants	43.38	43.38	43.38	30.84
3.1 Solar power plants – on buildings	358.26	322.82	256.21	215.71
3.2 Solar power plants – integrated	420.58	379.83	303.52	257.82
3.3 Solar power plants – independent facilities	333.22	302.51	230.83	204.22
4. Geothermal power plants	152.47	92.67	92.67	
5.1 Power plants operating on wood biomass		165.20	107.63	
5.2 Co-incineration of wood biomass >5%	42.74	42.74	42.74	
6.1 Biogas units – biomass	102.85	96.61	80.97	
6.2 Biogas units – waste	80.08	80.08	69.35	
7. Landfill gas power plants	39.53	7.67	2.52	
8. Power plants operating on biogas from wastewater treatment plants	26.04	14.62	6.94	
9. Power plants operating on biodegradable waste		17.64	14.54	

Table 8: Operation support for RES electricity in 2009

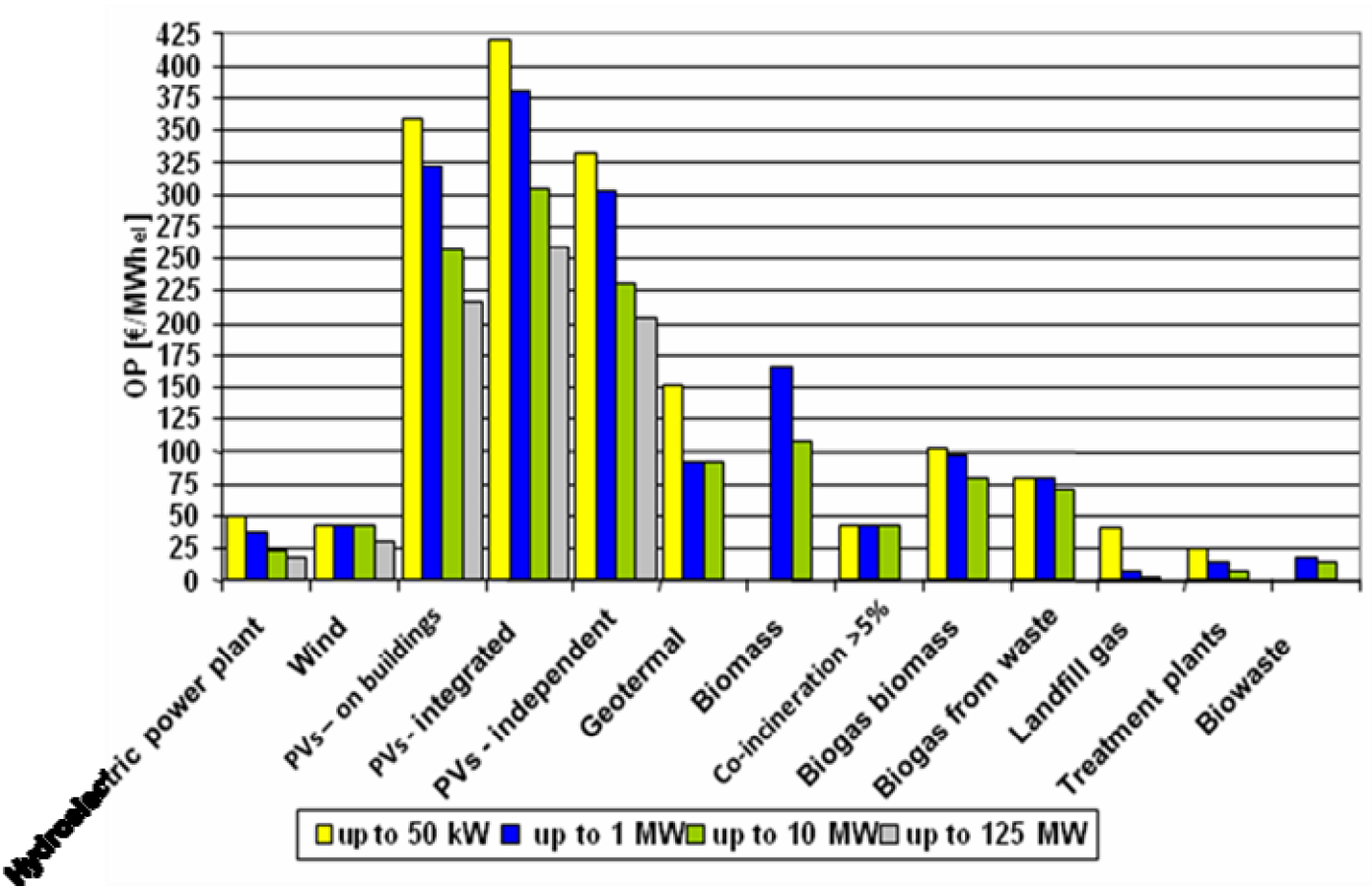


Figure 7: Operation support for RES electricity in 2009

4.3. The network

Article 64.1 of the Act amending the EZ-C Act sets forth that the transmission network system operator/the distribution network system operator shall ensure transmission/distribution of electricity produced from renewable sources.

The transmission network system operator/distribution network system operator must, in the framework of activities carried out in regulating the network operation, dispatching of units and in the framework of the system, give priority to power plants operating on renewable sources.

Article 64.m of the EZ-C Act, among other things, sets forth that the distribution network system operator shall, in the framework of system operation instructions on connecting every high efficiency electricity production facility and production facility operating on renewable sources, which have the rated capacity of up to 10 MW, prepare and publish principles in defining the connection points and, based on the operator's undertakings made in providing a reliable network operation, publish the requirements in technical equipment of the facilities based on which they will be issued a permit for connection to the network.

In the scope of system operation instructions, the distribution network system operator must define standard rules on defining costs emerging in the technical part of the connection leading from the facility which supplies electricity, produced from renewable energy sources or high-efficiency cogeneration to the network, to the network connection point. These rules must be objective, transparent and non-discriminatory and must, for the production facilities of less than 10 MW in power, be based on the same starting points as those applied when connecting the electricity consumers to the network. For the purpose of ensuring reliable network operation, the requirements in technical equipment of production facilities exceeding 10 MW of power are defined in the authorisation issued for every production facility.

Article 64.k of the EZ-C Act sets forth that the investor to the electricity production facility, operating on renewable sources, shall not bear costs of any upgrades made to the transmission/distribution network, which prove necessary in the process of connecting the facility to the network. The complete costs for analyses carried out for the purpose of issuing the consent for connection shall be covered by the network system operator.

The investor in the electricity production facility which operates on renewable sources shall bear the costs of constructing a connection line from the production facility to the system operator's network.

Article 64.m of the EZ-C Act, among other things, lays down that, upon an investor's request, the electricity production facilities that are operating on renewable sources or highly efficient cogeneration plants, the rated capacity of which exceeds 10 MW, and for which a valid authorisation was granted, the network system operator that the facility plans to be connected to , is obliged to prepare a comprehensive and detailed cost estimate and schedule for carrying out the process of connecting the facility to the network and is obliged to do so within 60 days after receiving the request.

If the investor does not accept the cost estimate and the schedule, they can prepare their own connection proposal. If the system operator does not accept the investor's proposal of

connection, the Ministry competent for the field of energy will decide on the cost estimate and schedule.

A decree to regulate the method of connecting the production facilities operating on renewable energy sources, to the network is currently in preparation pursuant to the provision contained in the last paragraph of Article 64.m, the Energy Act.

Article 17 and 18 of the Decree on the Method for the Implementation of Public Service Obligation Relating to the Electricity Distribution System Operator, and Public Service Obligation Relating to the Electricity Supply to Tariff Customers (OGRS 117/2004, 23/2007) sets forth a mechanism for sharing costs and benefits of the existing, as well as subsequently connected, network users.

Paragraph 2, Article 27 of the Energy Act lays down that prices for the use of electricity from electricity production facilities operating on renewable sources up to the 10 MW of power, which the producers independently sell to end users who are connected to the same distribution network, should not be based on items that have not been justified as minimum costs.

4.4. Guarantees of origin of electricity

The Decree on the Issuing of Declarations for the Production Units and of the Guarantees of the Origin of the Electricity (OGRS, 8/09) was adopted for the implementation of the new scheme of support to electricity produced from renewable sources. The Decree sets forth that the producer can require the guarantees of origin of electricity produced from renewable energy sources, or in highly efficient co-generation plants, to be issued. In line with provisions contained in Paragraph 7, Article 64.n of the EZ-C Act, the support for the production of electricity from renewable sources is paid exclusively for net-produced electricity, for which the producers have submitted guarantees of origin of electricity to the centre.

The system of guaranteeing the origin of electricity in line with the Directives 2001/77/EC and 2004/08/EC was introduced in Slovenia in 2005, through the Decree on the Issuing of Guarantees of the Origin of the Electricity (OGRS 121/05), which has been annulled upon the adoption of the new Decree on the Issuing of Declarations for the Production Units and of the Guarantees of the Origin of the Electricity (OGRS 8/09).

Guarantees of origin in digital form are issued by the Energy Agency. The guarantee of origin is valid five years after it has been issued. The guarantee of origin is issued as per basic unit, which is 1 kWh of electricity. The guarantee can be issued for more than one unit at the time.

The register of guarantees of origin is kept by the Energy Agency. The register of guarantees of origin kept by the Energy Agency includes the following information:

- the quantity of gross electricity produced by individual production facilities on the monthly level;
- the guarantees of origin held by a guarantee holder, including the information about the state in which the respective guarantee was issued;

- the transfer of ownership in guarantees of origin;
- the list of cashed guarantees of origin with complete information on individual guarantee and data on owner of the cashed guarantee;
- the list of guarantees of origin which were transferred abroad and guarantees of origin which were acquired from abroad and included in the register of the guarantees of origin.

Guarantees of origin enable the following transactions:

- issuance (only to the producer's account),
- other transfers to the register of the guarantees of origin,
- transfer abroad,
- cashing in,
- acquisition of guarantees of origin from abroad.

The owner of the guarantee of origin can cash in the guarantee for the purpose of proving they have either used or supplied a certain quantity of electricity produced from renewable sources or highly efficient cogeneration plants.

The agency controls transactions by means of guarantees of origin. The control comprises:

- checking the number of issued guarantees on origin with the actual quantity of electricity produced,
- checking the actual status of production facilities with the data stated in the declaration of production facility,
- other forms of control through which the agency verifies transactions by means of guarantees of origin in order to prevent multiple issuances of guarantees for the same quantities of produced electricity, or multiple cash-ins of the same guarantees of origin.

In Slovenia, the Energy Agency also issues RECS certificates, since it is also a full member of the Brussels-based Association of Issuing Bodies (AIB). The Agency also observes the standards of this body when issuing guarantees of origin.

5 OBSTACLES

To reach a higher share in electricity, Slovenia will, in the future, continue to define and remove obstacles. So far, we have analysed obstacles of a different nature: administrative obstacles, obstacles in connecting to the network, economic obstacles, technical and financial obstacles and other obstacles of a social nature.

In terms of this, we are preparing a new decree by which the RS Government will regulate in detail the obligations of system operators and relations with investors who would like to connect their renewable resources facilities to the network. The provisions of the new act on the fitting of facilities in “line objects” such as overhead power lines and gas networks will serve to simplify the construction of connections and to upgrade the network.

Furthermore, we have started to think about simplifying the procedures of acquiring and paying support for micro power plants operating on renewable sources.

However, we can influence the increasingly rigorous requirements and new limitations of the environmental legislation to a lesser extent. Moreover, there are additional requirements in ranking certain parts of the environment that are adequate for the use of renewable sources to Natura 2000. The latest proposition from the Ministry accountable for the environment and spatial planning about the new methodology of defining ecologically acceptable water body flow is, according to the expert public, a new reason for a decrease in interest shown by investing in small hydroelectric power plants. However, there is a justifiable fear present that this methodology will also result in the lower production of electricity in the existing hydroelectric power plants.

6 CONCLUSION

In Slovenia in 2008, the share of electricity produced from renewable sources accounted for 29.1% of gross electricity consumption. This means that Slovenia is 4.5% behind the target set in Directive 2001/77/EC.

In order to achieve the 33.6% target, Slovenia will need to have many investments made in new production capacities for the exploitation of renewable energy sources. The established electricity support scheme is in line with the Guidelines of State Aid for Environmental Protection and offers considerably higher supports than the old scheme, while the period of granting support is also longer, having changed from 10 to 15 years.

We expect that the investors will now be more prepared to invest in renewable energy source projects and that they will also decide on applying RES technologies other than just photovoltaic’s. Most of all, we are counting on a larger contribution of RES electricity acquired from the power of wind, the wood biomass and biogas.

7 SOURCES

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4. Decree on Support for Electricity Generated from Renewable Energy Sources (OGRS, 37/09)
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