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Report by the Slovak Republic on achievement of the indicative target

Report by the Slovak Republic pursuant to Article 3, paragraph (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.

Introduction

This report has been prepared pursuant to Article 3(3) of Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market, under which EU Member States are required to publish every two years a progress report which includes an analysis of success in meeting the national indicative targets, taking account of climatic factors likely to affect the achievement of those targets, and which indicates to what extent the measures taken are consistent with the national climate change commitment.

The use of renewable energy sources (RES) complies with the requirement of environmental acceptability and leads to a decrease in greenhouse gas emissions. A more extensive RES utilisation in heat and electricity generation is one of the priorities of the Slovak Republic, since their use reduces dependence on fossil fuel imports.

The use of domestic RES improves the security and diversification of energy supply and mitigates the impacts of unstable fossil fuel prices on the economy. RES utilisation is based on advanced, environment-friendly technologies and considerably contributes to the reduction in emissions of greenhouse gases and other pollutants. Increasing the share of renewable energy source is a prominent component in the package of measures aimed at achieving the targets of the Kyoto Protocol. Rational management of domestic renewable energy sources complies with the principles of sustainable development, which makes it one of the pillars of the healthy economic development of the whole society.

RES contribute to the strengthening and diversification of the structure of industry and agriculture. An active support policy creates room for investments ranging from the manufacture and assembly of components and whole systems to the establishment of research capacities with links to universities. RES support innovation and development in information technologies, offer new directions and are one of the pillars in building up a knowledge-based economy.

1. Measures encouraging greater use of RES for electricity production

1.1 Legislative measures

Directive 2001/77/EC was implemented by laws and regulations adopted in 2004 and 2005. Laws and regulations adopted in that period, and their amendments, still constitute the basic legal framework for increasing the generation of electricity from renewable energy sources; the support mechanism within this framework is the obligation to purchase RES-generated electricity, fixing of purchase prices of such electricity, and its preferential transmission and distribution. The following legislation governed RES promotion as at 31 October 2007:

- Act No. 656/2004 Coll. on Energy Sectors and on amendments to certain acts, as amended
- Act No. 276/2001 Coll. on Regulation in Network Industries and on amendments to certain acts, as amended
- Government Regulation No. 317/2007 Coll., laying down the electricity market rules

With effect on 1 April 2008, the Regulatory Office for Network Industries will stipulate a method for the determination of purchase prices of electricity produced from renewable energy sources for a period of not more than 12 years.

The most important provisions promoting the production of electricity from RES include, in particular, the following:

a) **unambiguous specification of renewable energy sources –** definition of electricity produced from renewable energy sources in the Energy Act in order to specify electricity promoted within the production from renewable energy sources;
b) **facilitation of access to the system -** under the Energy Act, a producer producing electricity from renewable energy sources enjoys the right of preferential electricity transmission, distribution and supply if a production facility designed for the production of electricity from renewable energy sources meets the technical and business terms and conditions;
c) **electricity distribution -** under the Energy Act, a producer producing electricity from renewable energy sources enjoys the right of preferential distribution of electricity if a production facility designed for the production of electricity from renewable energy sources meets the technical and business terms and conditions;
d) **transparent and non-discriminatory conditions for connection and access to the system –** a transmission and distribution system operator is obliged to provide connection and access to the system based on a transparent and non-discriminatory principle and provide information required for the connection and access to the system;
e) **enhancing the legislative support for renewable energy sources -** in the general economic interest approved by the government of the Slovak Republic, the Ministry of Economy of the Slovak Republic may specify an obligation of preferential access and preferential connection to the system, preferential transmission, distribution and supply of electricity produced from renewable energy sources in the delineated territory;
f) **ensuring the reliability of guarantees of origin** – a system for the issuance of confirmations on the origin of electricity produced has been established; a producer of electricity from renewable sources has the right to be granted a confirmation on the origin of the electricity produced; the confirmation includes specification of the source of the electricity produced, date and place of production and in the case of hydroelectric power plants also their capacity; the confirmation is issued by the Regulatory Office for Network Industries;
g) **preferential purchase of electricity produced from RES** – system operators must preferentially purchase electricity produced from renewable energy source in order to cover their losses;
h) **system development obligation** – under the Energy Act, system operators are obliged to ensure the operability and development of systems arising, *inter alia*, from the requirements of electricity producers producing electricity from RES in order to adapt to the further development in the production of electricity from RES whereby the costs of system development are borne by the system operator;
i) **information on the share of electricity from RES** – an electricity supplier is obliged to provide information on the share of individual types of primary energy sources on electricity production and supply;
j) **better connection conditions –** transparent rules applicable to the sharing and payment of costs for the connection to the system stipulated by a Regulatory Office for Network Industries decree;

k) **simplification of administrative procedures pertaining to operation –** a producer of electricity from renewable energy sources in a facility with a total installed capacity up to 5 MW does not need a licence to conduct business in energy sector.

1.2 Determination of purchase prices of electricity from RES

Act No. 275/2001 Coll., as amended, stipulates that the production of electricity from renewable energy sources is also subject to price regulation. Based on the above provision, the Regulatory Office for Network Industries annually issues feed-in tariffs of electricity produced from renewable energy sources.

Prices of electricity produced from renewable energy sources are set for 2008 as fixed prices with expected rate 12 years of return on the investment in the following manner:

1)	electricity produced from hydro energy in a facility with a total installed capacity up to 5 MW	
a)	put into operation before 1 January 2005	2000 SKK/MWh
b)	put into operation after 1 January 2005 with a total installed capacity up to 1 MW	2420 SKK/MWh
c)	put into operation after 1 January 2005 with a total installed capacity above 1 MW	2820 SKK/MWh
d)	for a capacity increase of a facility reconstructed after 1 January 2005	2520 SKK/MWh
2)	electricity produced from solar energy	8410 SKK/MWh
3)	electricity produced from wind energy	
a)	facilities put into operation before 1 January 2005	2630 SKK/MWh
b)	new facilities put into operation after 1 January 2005	2940 SKK/MWh
c)	facilities older then 3 years put into operation after 1 January 2005	2000 SKK/MWh
4)	electricity produced from geothermal energy	3680 SKK/MWh
5)	electricity produced from biomass combustion	
a)	purpose-grown biomass	3150 SKK/MWh
b)	waste biomass for facilities put into operation before 1 January 2005	2190 SKK/MWh
c)	waste biomass for facilities put into operation after 1 January 2005	2960 SKK/MWh
d)	waste biomass from production of bioethanol	3600 SKK/MWh
6)	co-firing of biomass or waste with fossil fuels	
a)	for facilities put into operation before 1 January 2005	2190 SKK/MWh
b)	for facilities put into operation after 1 January 2005	2650 SKK/MWh
7)	combustion of biogas produced by	
a)	sewage tank or waste dump	2630 SKK/MWh
b)	anaerobic fermentation technology up to 1 MW	4310 SKK/MWh
c)	fermentation technology above 1 MW	3900 SKK/MWh

The aforementioned fixed prices for electricity produced from renewable energy sources will be applied based on a confirmation of electricity origin. If a facility for the production of electricity from renewable energy sources was purchased/built with the support of any other form of state aid or a contribution from an EU fund, the fixed prices of electricity produced from renewable energy sources in a facility put into operation after 1 January 2005 will decrease in proportion to the amount of provided state aid or EU contribution as follows:
a) up to 30% of total acquisition costs by 4 %,
b) up to 40% of total acquisition costs by 8 %,
c) up to 50% of total acquisition costs by 12 %,
d) above 50% of total acquisition costs by 16 %,

2. Measures to ensure the reliability of guarantees of origin

Guarantees of the origin of electricity produced from renewable energy sources are issued, upon the producer's request, by an independent authority – the Regulatory Office for Network Industries. The reliability of guarantees of origin is ensured through Government Regulation No. 317/2007 Coll., laying down the electricity market rules. A guarantee of origin of electricity produced from renewable energy sources is issued upon a producer's request. In such a request, the electricity producer must specify the following:
a) the time period for which the guarantee is sought;
b) an accurate designation of the electricity production facility and of the offtake point;
c) a plan for electricity production in the respective electricity production facility during the time period for which the guarantee is sought;
d) a schedule of planned shutdowns of the electricity production facility.

A guarantee of origin of electricity produced from renewable energy sources for the preceding period is issued if:
a) an electricity producer has provided the necessary data for price regulation, for the previous calendar year and for the specified period;
b) electricity was produced in an electricity production facility which is a renewable energy source; the guarantee is issued for the actual energy supply adjusted by the volume of production from an electricity production facility in respect of which a guarantee has already been issued for the specified period;
c) an electricity producer held a contract on connection to the system and a contract on deviation settlement throughout the entire specified period.

The guarantee of origin of electricity produced from renewable energy sources for the next period is issued if:
a) an electricity producer has provided the previous calendar year data necessary for price regulation;
b) electricity will be produced in an electricity production facility which is a renewable energy sources and the production corresponds with the expected capacity of the electricity production facility specified in the application, including an adjustment in the volume of production in respect of which a guarantee was issued in the previous period but which was not met;
c) an electricity producer has a valid contract on connection to the system.

Once the aforementioned requirements have been met, a guarantee of origin of electricity produced from renewable energy sources is issued within 30 days. Records are kept of the

issued guarantees of origin of electricity produced from renewable energy sources and on the actual electricity supply from such sources. A guarantee of origin issued in another EU Member State is valid in Slovakia.

The 2003-2006 figures on electricity produced from RES, by individual types of RES, are shown in table 1.

Table 1: RES electricity generation

	2003 [GWh]	**2004 [GWh]**	**2005 [GWh]**	**2006 [GWh]**
Hydro energy	3 480	4 100	4 638	4 399
Geotermal energy	0	0	0	0
Solar energy	0	0	0	0
Wind energy	2	6	6	6
Biomass	98	18	27	368
Biogas	2	2	5	8
Total	**3 582**	**4 126**	**4 676**	**4 781**
Share in total electricity consumption	12.4 %	14.4 %	16.4 %	16.1 %

Conclusions

Since 2005, the prices of electricity produced from RES set by the Regulatory Office in Network Industries have increased annually by at least the amount of inflation, resulting in an increased interest in construction of RES facilities. During the 2004-2006 structural funds programming period a total amount of SKK 555 million (EUR 16 million) was provided under the Sectoral Operation Programme Industry and Services as a financial support to business entities. Eight biomass projects and five small hydroelectric power station projects were supported during the aforementioned period. Many investors waited to see what possibilities to draw funds would exist with respect to the new structural funds programming period, 2007-2013.

The share in total electricity consumption increased from 12.4% in 2003 to 16.1% in 2006. The higher amount of electricity produced in hydroelectric power plants was also caused by more favourable weather conditions. A considerable increase occurred in the production of electricity from biomass, due both to the installation of new facilities and increased production in the existing ones. Biomass is the renewable energy source with the greatest technical potential in Slovakia and has significantly contributed to the increase in the share of RES in final energy consumption. According to Eurostat data, the share of RES in final energy consumption increased in Slovakia from 3.7% in 2000 to 6.9% in 2005.

In April 2007, the Slovak government approved the Strategy of Higher Utilization of Renewable Energy Sources in the Slovak Republic, which contains targets for the use of renewable energy sources to be achieved in electricity and heat generation by 2010 and 2015. These targets have been set based on the potential of individual energy sources, the current situation in their utilisation and their expected use in the future. In order to achieve these targets, Slovakia will carry out financial and legislative measures as well as measures in the

field of education, science and research on renewable energy sources. An act on the promotion of renewable energy sources is under preparation and is expected to be approved in the course of 2008. This act will contribute to the stabilisation of the business environment in the area of electricity production and to the fulfilment of targets set in the Strategy of Higher Utilization of Renewable Energy Sources in the Slovak Republic.