

Ministry of the Economy of the Slovak Republic

Report on Progress in the Promotion and Use of Energy from Renewable Sources

(in accordance with Article 22 of Directive 2009/28/EC)

Slovak Republic

Bratislava, 2012

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

Please fill in the actual shares and actual consumption of renewable energy for the preceding 2 years in the suggested tables.

Table 1: The sectoral (electricity, heating and cooling, and transport) and overall shares of energy from renewable sources¹

	2009	2010
RES-H&C ² (%)	9.1	9.2
RES-E ³ (%)	18.9	18.6
RES-T ⁴ (%)	4.0	4.0
Overall RES share ⁵ (%)	10.3	10.2
Of which from cooperation mechanism ⁶ (%)	0	0
Surplus for cooperation mechanism ⁷ (%)	0	0

Table 1a: Calculation table for the renewable energy contribution of each sector to final energy consumption (ktoe)⁸

	2009	2010
(A) Gross final consumption of RES for heating and cooling	530	548
(B) Gross final consumption of electricity from RES	442	455
(C) Gross final consumption of energy from RES in transport	77	89
(D) Gross total RES consumption ⁹	1 048	1 092
(E) Transfer of RES to other Member States	0	0
(F) Transfer of RES from other Member States and 3rd countries	0	0
(G) RES consumption adjusted for target (D)-(E)+(F)	1 048	1 092

¹ Facilitates comparison with Table 3 and Table 4a of the NREAPs.

² Share of renewable energy in heating and cooling: gross final consumption of energy from renewable sources for heating and cooling (as defined in Articles 5(1)b) and 5(4) of Directive 2009/28/EC divided by gross final consumption of energy for heating and cooling. The same methodology as in Table 3 of NREAPs applies.

³ Share of renewable energy in electricity: gross final consumption of electricity from renewable sources for electricity (as defined in Articles 5(1)a) and 5(3) of Directive 2009/28/EC divided by total gross final consumption of electricity. The same methodology as in Table 3 of NREAPs applies.

⁴ Share of renewable energy in transport: final energy from renewable sources consumed in transport (cf. Article 5(1)c) and 5(5) of Directive 2009/28/EC divided by the consumption in transport of 1) petrol; 2) diesel; 3) biofuels used in road and rail transport and 4) electricity in land transport (as reflected in row 3 of Table 1). The same methodology as in Table 3 of NREAPs applies.

⁵ Share of renewable energy in gross final energy consumption. The same methodology as in Table 3 of NREAPs applies.

⁶ In percentage point of overall RES share.

⁷ In percentage point of overall RES share.

⁸ Facilitates comparison with Table 4a of the NREAPs

⁹ According to Art.5(1) of Directive 2009/28/EC gas, electricity and hydrogen from renewable energy sources shall only be considered once. No double counting is allowed.

Table 1.b: Total actual contribution (installed capacity, gross electricity generation) from each renewable energy technology in [Member State] to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in electricity¹⁰

	2009		2010	
	MW	GWh	MW	GWh
Hydro¹¹:				
<i>non pumped</i>	1 597	4 600	1 600	4 612
<1MW	26	75	26	75
1MW–10 MW	63	181	66	190
>10MW	1 508	4 344	1 508	4 347
<i>pumped</i>	916	236	916	394
<i>mixed¹²</i>				
<i>Geothermal</i>	0	0	0	0
<i>Solar:</i>	0	0		
<i>photovoltaic</i>	0	0	186	11
<i>concentrated solar power</i>	0		0	
<i>Tide, wave, ocean</i>	0		0	
<i>Wind:</i>				
<i>onshore</i>	3	6	3	6
<i>offshore</i>	0		0	
Biomass¹³:				
<i>solid biomass</i>	160	515	169	636
<i>biogas</i>	4	22	9	32
<i>bioliquids</i>	0	0	0	0
TOTAL	2 680	5 143	2 883	5 297
<i>of which in CHP</i>	164	537	178	668

Table 1c: Total actual contribution (final energy consumption¹⁴) from each renewable energy technology in [Member State] to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in heating and cooling¹⁵

	2009	2010
<i>Geothermal (excluding low temperature geothermal heat in heat pump applications)</i>	9	8
<i>Solar</i>	0	0
Biomass¹⁶:	0	0
<i>solid biomass</i>	511	533
<i>biogas</i>	10	7
<i>bioliquids</i>	0	0
Renewable energy from heat pumps:		
- <i>of which aérothermal</i>	0	0
- <i>of which geothermal</i>	0	0
- <i>of which hydrothermal</i>	0	0

¹⁰ Facilitates comparison with Table 10a of the NREAPs.

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

¹² In accordance with new Eurostat methodology.

¹³ Take into account only those complying with applicable sustainability criteria, cf. Article 5(1) of Directive 2009/28/EC last subparagraph.

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

¹⁵ Facilitates comparison with Table 11 of the NREAPs.

¹⁶ Take into account only those complying with applicable sustainability criteria, cf. Article 5(1) last subparagraph of Directive 2009/28/EC.

<i>TOTAL</i>	530	548
<i>Of which DH¹⁷</i>	68	103
<i>Of which biomass in households¹⁸</i>	39	43

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

¹⁸ From the total renewable heating and cooling consumption.

Table 1d: Total actual contribution from each renewable energy technology in [Member State] to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in the transport sector (ktoe)^{19, 20}

	2009	2010
Bioethanol/ bio-ETBE	14.5	15.1
<i>Of which Biofuels²¹ Article 21.2</i>	0	0
<i>Of which imported²²</i>	0	0
Biodiesel	54.9	66.0
<i>Of which Biofuels²³ Article 21.2</i>	0	0
<i>Of which imported²⁴</i>	0	0
Hydrogen from renewables	0	0
Renewable electricity	7.4	7.9
<i>Of which road transport</i>	0	0
<i>Of which non-road transport</i>	7.4	7.9
Others (as biogas, vegetable oils, etc.) – please specify	0	0
<i>Of which Biofuels²⁵ Article 21.2</i>	0	0
TOTAL	76.8	89.0

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

Table 2: Overview of all policies and measures

<i>Name and reference of the measure</i>	<i>Type of measure*</i>	<i>Expected result**</i>	<i>Targeted group and or activity***</i>	<i>Existing or planned****</i>	<i>Start and end dates of the measure</i>
1. Mandatory blending of biocomponents	Regulatory	Increased use of RES in transport	Producers of motor fuels	E	Begun in 2006. Targets for 2020 established in 2011
2. Support for use of RES in households	Financial	1. installation of biomass boilers 2. Installation of solar panels	Households	E	2009 – 2015
3. Support for electricity production through purchase prices	Legislative, regulatory	Increase in production of electricity by 2.5 TWh	Investors	E	2009 →
4. Access for biomethane to the gas network	Regulatory	Production of biomethane	Use of agricultural biomass	E	2009 →
5. Introduce tender system for construction of sources with fluctuating electricity production	Legislative, regulatory	Elimination of potential threat to the security and reliability of the electricity system	Investors	P	2013 →
6. Support for cultivation of fast-growing woody plants	Legislative, regulatory	Increase in biomass availability	Agricultural undertakings	P	2012 →
7. Increase in production of woody raw material	Legislative, regulatory	Increase in biomass availability	Forestry undertakings	P	2012 →

¹⁹ For biofuels take into account only those compliant with the sustainability criteria, cf. Article 5(1) last subparagraph.

²⁰ Facilitates comparison with Table 12 of the NREAPs.

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

²² From the whole amount of bioethanol / bio-ETBE.

²³ Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

²⁴ From the whole amount of biodiesel.

²⁵ Biofuels that are included in Article 21(2) of Directive 2009/28/EC.

8. Support for RES in the construction sector	Legislative, regulatory	Production of heat	Investors	P	2012 →
9. Creation of a certification system for installers	Regulatory	Increase in quality of heat production facilities	Installers	P	2012 →
10. Mandatory use of RES in new and rebuilt buildings	Regulatory	Production of heat	Designers	P	2012 →
11. Minimum amount in new and renovated buildings	Regulatory	Production of heat and electricity	Designers	P	2013 →
Support for reconstruction of heat distribution infrastructure	Financial	Energy efficiency, promotion of central supply of heat	investors	P	2014 – 2020
Support for the use of RES in the business sector	Financial	Production of heat from RES	Investors	P	2014 – 2020
Support for the use of RES for heating and cooling in public buildings	Financial	Production of heat and cooling in public buildings	Public bodies	P	2014 – 2020

* → open-ended measure

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

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

***Who are the targeted persons: investors, end users, public administration, planners, architects, installers, etc? or what is the targeted activity / sector: biofuel production, energetic use of animal manure, etc)?

**** Does this measure replace or complement measures contained in Table 5 of the NREAP?

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

The use of energy from renewable sources is leading to decentralised production of electricity in smaller plants. For smaller plants (up to 1 MW) administrative procedures are simplified. Certificates are not required to build this kind of facility.

In recent years use of the hydropower potential of watercourses to produce electricity in small hydropower stations has levelled off. This situation has been particularly associated with problems with the siting of hydropower structures; besides the technical requirements, the consideration of environmental aspects is also involved. Strict limits put in place to protect nature and the landscape stopped the development of hydropower in Slovakia. For this reason, in March 2011 the Government approved a document entitled 'Plan for the use of the hydropower potential of watercourses in Slovakia to 2030'; this has significantly improved the situation as regards the permitting of hydropower plants.

According to the document, the use of hydropower potential to produce electricity is a long-term, overarching measure to reduce negative impacts on the environment. It presents a database of sites where there is technically usable hydropower potential. It analyses the risks and proposes measures to eliminate the risks of not meeting agreed strategic and environmental objectives, and it translates these measures into principles for preparing, implementing, assessing and granting permits for small hydropower stations and into criteria for assessing and evaluating investment plans and projects. The principles and criteria have been included in a specific guidance document for parties involved in the implementation and permitting process for the construction of hydropower plants with an output of up to 10 MW. Compliance with this guidance should ensure the outlined strategic objectives are attained without the need for legislative changes.

As regards solar energy, the conditions under which construction permit proceedings for installations on the roofs of residential premises are streamlined have been clearly defined.

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

Priority for the transmission and distribution of electricity from RES is guaranteed in legislation. Similarly, there

is a legislative guarantee for purchases of electricity from RES at a specified price for a period of 15 years from the commissioning of a plant. This guarantee applies to plants with an output of up to 125 MW (or 200 MW if certain conditions are met).

The question of developing and reinforcing the distribution network for RES is the subject of an assessment, and in particular the impact of intermittent-production RES on the electricity system is being analysed. The development of the distribution system on the basis of five-year development plans is addressing the long-term needs of its users. We can also say, as regards the connection of new sources to the distribution network, that despite the great increase in output from RES in the course of 2010 and 2011, no significant problems in connecting producers to the network as a result of insufficient transmission capacity have been observed. The target amounts of electricity production from RES planned in the National Renewable Energy Action Plan can be incorporated into the electricity system in such a way as to avoid any significant direct impact on the development of the transmission system, while also complying with safety criteria. The transmission system operator's existing powers are maintaining the operational safety of the transmission and distribution system. A proposal has been made for the transmission system operator to be given greater powers to allocate capacity for sources with fluctuating production levels.

The distribution of costs related to connecting and extending the system is laid down in legislation issued by the independent regulator (the Office for the Regulation of Network Industries). The rules are non-discriminatory and transparent, and are applied to every applicant in the same way. The rules also form part of the operating rules for the transmission system operator and distribution system operators.

It is established in law that plants belonging to a producer of electricity shall be connected to the distribution system if the distribution system is technically capable of such a connection, if it is the closest to the location where the electricity production plant is located, and if no other system offers a better technical and economic connection. A distribution system is also considered technically capable when the purchase of electricity, without prejudice to the priority arrangement, is possible by means of an economically beneficial extension of the system; in such cases the operator of the distribution system is required to extend the system at the request of the electricity producer.

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

The objective is to guarantee electricity producers the same purchase price for 15 years. No limit is set on the overall amount of electricity produced. The right to this tariff applies to facilities whose total installed capacity is lower than 125 MW; for electricity produced by high-efficiency cogeneration where renewable energy sources account for more than 20 % of the energy in the fuel, this limit is 200 MW.

Tariffs for newly-established facilities in the subsequent period are set by the independent regulatory office (the Office for the Regulation of Network Industries) on the basis of trends in technology prices. The purchase price for electricity from RES is made up of two elements. The first element is the price for losses, which reflects the market price of electricity and is defined as the arithmetic average of prices of electricity to cover the losses of all operators of regional distribution networks. The second element is an additional payment representing the difference between the electricity price and electricity price for losses, which is paid to producers of electricity from renewable energy sources or producers of electricity from high-efficiency cogeneration by the operator of the regional distribution network to which the electricity producer's plant is connected or on whose territory it is located.

Financial support: *'Competitiveness and Economic Growth' Operational Programme and 'Environment' Operational Programme*

The operational programmes under the Structural Funds are the main financial support instrument in the field of energy. In addition to support for renewable sources, they also focus on increasing energy efficiency, reducing energy costs and reducing greenhouse gas emissions along with emissions of basic pollutants from the production of heat. Support is also given to changes in the fuel structure of energy sources, in favour of the use of renewable sources.

The beneficiaries of aid are in the private sector. The assistance is provided as a non-repayable grant towards investment costs. Applications are received on the basis of calls for expressions of interest, and at the end of 2011 two calls for the State aid scheme were published under the 'Competitiveness and Economic Growth' Operational Programme for the 2007-2013 programming period.

Programme for greater use of biomass and solar energy

This programme focuses on supporting households to install biomass boilers and solar panels. In the case of

biomass boilers, facilities which are eligible for support must meet minimum efficiency requirements and environmental criteria. Solar panels must meet minimum energy-yield and production-quality criteria. The programme was launched in 2009 and is financed from the State budget.

Mandatory blending of biocomponents into transport fuels

A requirement has been established in law for producers and sellers of motor fuels to place on the market fuels with a biofuel content corresponding to a reference value calculated from the energy content of the total amount of fuels placed on the market.

There are also targets for minimum biofuel content by volume for individual types of fuel (diesel and petrol). The biofuel reference values and the minimum biofuel content by volume for 2011 to 2020 has been laid down in law.

Table 3: Support schemes for renewable energy

RES support schemes year n (e.g. 2011)		Per unit support	Total (M€)*
[(sub) category of specific technology or fuel]			
Instrument (provide data as relevant)	Obligation/quota (%)	3.8% of biofuel energy content in motor fuels	n.a
	Penalty /Buy out option/ Buy out price (€/unit)	2 eur/l	n.a.
	Average certificate price		
	Tax exemption/refund		
	Investment subsidies (capital grants or loans) (€/unit)	900 000 €/MW	€20m
	Production incentives	400 000 €/MW	€3m
	Feed-in tariff	Hydropower 61.7-109.1 €/MWh Photovoltaics 259.2-387.7 €/MWh Wind energy 79.3 €/MWh Geothermal energy 195.8 €/MWh Biomass 112.2-128.0 €/MWh Biogas 129.4-148.7 €/MWh	€192m
	Feed-in premiums		
	Tendering		
Total annual estimated support in the electricity sector		Capital grants of €2.2m per MW	€207m
Total annual estimated support in the heating sector		Capital grants of €350 000 per MW	€8m
Total annual estimated support in the transport sector		0	0

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

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

The electricity supplier is required to provide information to the electricity buyer on the shares of the different types of primary energy sources in the electricity produced and supplied in the previous year. The information must also be provided, upon request, to the relevant State authority. However, the electricity supplier is not required to demonstrate that his supply contains a specific share of electricity from renewable sources of energy.

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

The support scheme for electricity from RES was designed to ensure effective use of biomass and biogas. Electricity linked to the production of heat is supported.

In the case of biomass and bioliquids, purchase price support is given only to electricity produced through cogeneration, where biomass meets requirements and quality parameters and bioliquids meet sustainability criteria. This condition does not apply to the combustion of municipal waste with a biodegradable waste content of up to 55% inclusive.

The purchase price for electricity produced from biogas is reduced by 30% where the supply of usable heat is

less than 50% of the annual production of heat.

For the production of electricity from biomethane, the purchase price is 15% higher than the purchase price for biogas. This increase is conditional upon the electricity being produced from high-efficiency cogeneration.

No premiums have been established for biofuels made from waste, residues, non-food cellulosic material or ligno-cellulosic material.

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

Pursuant to Act No 309/2009 guarantees of origin for electricity from renewable sources are issued by an independent regulatory body (the Office for the Regulation of Network Industries) upon request by the electricity producer.

Guarantees of origin are not issued for heating and cooling.

The reliability of guarantees of origin for electricity from RES is ensured by the regulatory body, which creates an electronic database in which it registers electricity producers before issuing a guarantee of origin. When applying for a guarantee of origin, the electricity producer must provide all the information necessary to complete the electronic database; the regulatory body then verifies this information.

The regulatory body also has the following powers:

- it maintains a record of guarantees of origin for electricity from RES in the electronic database;
- it cancels guarantees of origin for electricity from RES;
- it exercises supervision over the transfer of guarantees of origin for electricity from RES.

The guarantee of origin contains all particulars set out in Directive 2009/28/EC. Guarantees of origin for electricity from RES which were issued in a different Member State under a mechanism ensuring accuracy and reliability in the issuing of guarantees of origin are recognised for the purposes of this Act. The Office may refuse to recognise guarantees of origin for electricity from RES issued in a different Member State if there are reasonable grounds to doubt their accuracy, reliability or authenticity. When this happens, the regulatory body checks the correctness of the guarantee of origin and asks the applicant to address these concerns within a certain time limit. If the concerns are not removed within the time limit, the regulatory body does not recognise the certificate of origin and prohibits its transfer.

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

Currently, around 450 000 ha of agricultural land (18.5% of agricultural land) is not being used for agricultural production. According to an inventory that has been drawn up, 275 000 ha of this land (so-called 'white areas') is under woodland plants, mainly as a result of natural succession. Stocks of woody raw material are approximately 36 500 000 m³.

300 000 ha of permanent grassland (11.3 % of agricultural land) is available for energy sector use.

In the preceding two years a financial analysis was done into the cultivation of suitable fast-growing energy crops. Amendments to legislation are being prepared in order to enable the use of different types of plot for cultivating fast-growing woody plants on agricultural land.

*It is suggested that **tables 4 and 4a** are used to provide more detailed information on the biomass supply.*

Table 4: Biomass supply for energy use

	Amount of domestic raw material (*)		Primary energy in domestic raw material (ktoe)		Amount of imported raw material from EU (*)		Primary energy in amount of imported raw material from EU (ktoe)		Amount of imported raw material from non EU(*)		Primary energy in amount of imported raw material from non EU (ktoe)	
	2009	2010	2009	2010	2009	2010	2009	2010	2009	2009	2009	2010
Biomass supply for heating and electricity:												
Direct supply of wood biomass from forests and other wooded	963 000 m ³	1 005 000 m ³	218.5	228.1	0	0	0	0	21 000 m ³	26 000 m ³	4.8	6.0

land energy generation (fellings etc.)**												
Indirect supply of wood biomass (residues and co-products from wood industry etc.)**	1 730 000 t	1 876 000 t	471.0	510.0	0	0	0	0	0	0	0	0
Energy crops (grasses, etc.) and short rotation trees (please specify)	27 000 m ³	32 000 m ³	6.1	7.2	0	0	0	0	0	0	0	0
Agricultural by-products / processed residues and fishery by-products **	0	0	0	0	0	0	0	0	0	0	0	0
Biomass from waste (municipal, industrial etc.) **	30 000 t	33 000 t	8.2	9.0	0	0	0	0	0	0	0	0
Others (please specify)												
Biomass supply for transport:												
Common arable crops for biofuels (please specify main types)	Rapeseed: 180 000t Maize 300 000 t	170 652 t 300 000 t	56 28.8	53 28.8	n. a.	n. a.	n.a.	n.a.	n. a.	n.a	n.a.	n.a
Energy crops (grasses, etc.) and short rotation trees for biofuels (please specify main types)	0	0	0	0	0	0	0	0	0	0	0	0
Others (please specify)												

* Amount of raw material if possible in **m3 for biomass from forestry** and in **tonnes for biomass from agriculture and fishery and biomass from waste**

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

Rapeseed balance sheet

Variable	Unit of measurement	Actual				Estimate	Prediction
		2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Sown area	ha	123 869	155 220	163 494	167 645	168 375 s	155 000
Harvested area	ha	122 511	153 830	162 871	166 476	163 989 s	153 919
Yield	t/ha	2.12	2.09	2.61	2.32	1.97 s	2.20
Production		259 650	321 100	424 444	386 691	322 452 s	338 622
Stocks initial		0	0	0	0	0	0
Total imports		5 712	5 842	13 832	44 804	6 580	5 580
Total supply		265 362	326 942	438 276	431 495	329 032	344 202
Domestic consumption		142 156	186 906	248 438	260 000	240 652	240 000
Of which: use for food		46 440	53 000	95 116	80 000	70 000	60 000
MERO		95 716	133 906*	153 272 *	180 000	170 652	180 000

Total exports		123 206	140 036*	189 838*	171 495*	88 380	104 202
Total use		265 362	326 942	438 276	431 495	329 032	344 202
Stocks final		0	0	0	0	0	0

Source: Slovak Statistical Office, Slovak Customs Directorate, Slovak Ministry of Agriculture and Rural Development – Foreign Trade, March 2011

* - Auditor's estimate

S - Actual

Maize balance sheet ('000 ha, t/h, '000 ha)

Variable	1. ACTUAL						Index of 2010/11 in relation to 2005/06
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
Harvested area	154	151	157	154	144	167	108.2
Yield	6.97	5.55	3.97	8.17	6.85	5.53	79.3
Production	1 074	838	624	1 261	988	921	85.8
Stocks initial	201	574	221	436	588	621	308.8
Imports	10	229	329	161	128	285	2 850.0
Other sources	155	28	162	29	21	34	21.8
Total supply	1 440	1 669	1 336	1 886	1 725	1 861	129.2
Domestic consumption	493	646	672	834	594	724	146.9
- food industry	190	207	224	227	236	322	169.5
- seed industry	21	22	22	48	48	62	296.2
- feed industry	276	289	314	446	201	227	82.1
- other	6	127	112	113	108	113	1 888.3
exports	354	788	213	452	473	560	158.2
Other expenditure	20	14	15	13	1	11	53.0
Total use	867	1 448	900	1 299	1 068	1 295	149.3
Stocks final	574	221	436	588	657	566	98.6
Self-sufficiency (%)	217.8	129.9	64.2	151.2	114.5	127.2	* -90.6

Source: Slovak Statistical Office, Slovak Customs Directorate, Slovak Ministry of Agriculture and Rural Development - foreign trade

Conversions:

1 tonne of ester = 0.812 toe; 1 tonne of bioethanol = 0.600 toe; 0.3841 tonnes of MERO is produced from 1 tonne of rapeseed; 0.41 tonnes of bioethanol is produced from 1 tonne of maize.

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

Land use	Surface (ha)		
	2010		2009
1. Land used for common arable crops (wheat, sugar beet etc.) and oilseeds (rapeseed, sunflower etc.) (Please specify main types)	Rapeseed	168 000	167 000
	of which, for energy use	87 000	78 000
	Maize	167 000	144 000
	of which, for energy use	54 000	44 000
	Wheat	379 000	342 000
	of which, for energy use	0	0
2. Land used for short rotation trees (willows, poplars). (Please specify main types)	100		120
3. Land used for other energy crops such as grasses (reed canary grass, switch grass, Miscanthus), sorghum. (Please specify main types)	Miscanthus	20	

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

When assessing commodity price impacts, it is suggested to consider at least the following commodities: common food and feed crops, energy wood, pellets.

Average purchase prices for agricultural products in €/t

Product	2008	2009	2010
Food-grade wheat	188.87	115.12	147.84
Industrial-grade wheat	140.31	93.13	126.13
Grain maize	154.95	97.7	148.86
Sunflower	280.16	200.78	346.74
Rapeseed	415.39	241.18	319.24
Source: Slovak Statistical Office			

The price of energy chips in 2010 varied between €45 and €50, an average increase of €3 compared with 2009. The price of wood fuel in 2010 varied between €34 and €38 per m³, an average increase of €4 over 2009.

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

Table 5: Production and consumption of Art.21(2) biofuels (Ktoe)

Article 21(2) biofuels ²⁶	2009	2010
Production – Fuel type X (Please specify)	0	0
Consumption – Fuel type X (Please specify)	0	0
Total production Art.21.2.biofuels	0	0
Total consumption Art.21.2. biofuels	0	0
% share of 21.2. fuels from total RES-T	0	0

²⁶ Biofuels made from wastes, residues, non-food cellulosic material, and lignocellulosic material.

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

Biofuels and bioliquids in Slovakia meeting sustainability criteria are produced from agricultural raw materials which are grown and produced in accordance with requirements and standards for good agricultural and environmental condition pursuant to Council Regulation (EC) No 73/2009. This is guaranteed by a declaration by the farmer or supplier of biomass stating that the requirement for good agricultural and environmental condition has been met.

At the moment there is no relevant data on the impacts of producing biofuels on biodiversity, water resources, water quality or soil quality. It is assumed that these impacts are negligible since the area of crops cultivated for biofuels in 2009 and 2010 did not increase significantly compared with the previous period.

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

The calculation of net greenhouse gas emissions savings due to the use of energy from renewable sources was done for electricity and heating using reference values for fossil fuels for the whole of the EU, in line with the report on sustainability criteria for the use of solid and gaseous biomass to produce electricity, heating, and cooling²⁷.

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

Environmental aspects	2009	2010
Total estimated net GHG emission saving from using renewable energy²⁸	5 715 000	5 951 000
- Estimated net GHG saving from the use of renewable electricity	3 663 000	3 772 000
- Estimated net GHG saving from the use of renewable energy in heating and cooling	1 863 000	1 927 000
- Estimated net GHG saving from the use of renewable energy in transport	189 000	252 000

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

Table 7: Actual and estimated excess and/or deficit (-) production of renewable energy compared to the indicative trajectory which could be transferred to/from other Member States and/or third countries in [Member State] (ktoe)^{29, 30}

	Year n-2	Year n-1	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
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²⁷ Report available at this address:

http://ec.europa.eu/energy/renewables/transparency_platform/doc/2010_report/com_2010_0011_3%20report.pdf

²⁸ The contribution of gas, electricity and hydrogen from renewable energy sources should be reported depending on the final use (electricity, heating and cooling or transport) and only be counted once towards the total estimated net GHG savings.

²⁹ Please use actual figures to report on the excess production in the two years preceding submission of the report, and estimates for the following years up to 2020. In each report Member State may correct the data of the previous reports.

³⁰ When filling in the table, for deficit production please mark the shortage of production using negative numbers (e.g. -x ktoe).

	(2009)	(2010)										
Actual/estimated excess or deficit production (Please distinguish per type of renewable energy and per origin/destination of import/export)	n.a.	80*	181	240	228	313	305	364	269	349	190	143

* excess compared with the figure given in the NREAP

It is expected that the excess in the 2011 to 2020 period will predominantly come from the production of heating and cooling from renewable sources of energy. The production for electricity or for transport purposes is not expected to form a significant share. Currently no countries have been earmarked for exports of excess energy from renewable energy sources.

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

The Ministry of the Economy is holding talks with other Member States on statistical transfers of energy from renewable sources. The rules, conditions and instructions relating to statistical transfers and planned participation in joint projects will be published on the Ministry's website. Slovakia is not currently anticipating any joint projects within its territory. Slovakia does not favour joint support schemes.

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

The amount of biodegradable waste in municipal waste is determined directly by companies involved in recovering energy from waste. This data is recorded and sent to the Statistical Office. As regards the incineration of municipal waste, only the biological portion of waste in municipal waste is supported, up to a maximum biodegradable waste share of 55 %. This also corresponds to analyses that have been done, in which the share of biodegradable waste has been estimated at 50%.

Replies to questions in Article 22(3)(a) to (c).

Does the Slovak Republic intend to:

a) establish a single administrative body responsible for processing authorisation, certification and licensing applications for renewable energy installations and providing assistance to applicants;

There is no plan to create an administrative body responsible for processing authorisation, certification and licensing applications for renewable energy installations and providing assistance to applicants.

b) provide for automatic approval of planning and permit applications for renewable energy installations where the authorising body has not responded within the set time limits; or

The approving body acts in accordance with time limits laid down in legislation. It permits or rejects applications within the time limits. It is not necessary to introduce this possibility for producers of energy from renewable sources.

c) indicate geographical locations suitable for exploitation of energy from renewable sources in land-use planning and for the establishment of district heating and cooling.

The development of renewable sources of energy is not defined regionally by the State. The interest of investors in using RES is based on the best use of local conditions. For this reason geographical areas are not defined. The energy policy recommends that regions (higher territorial units) support the use of RES and identify suitable areas for it to be developed.

Significant efforts are being made to preserve the system of district heating and measures will be adopted at national level to encourage the use of renewable sources of energy for district heating and cooling; at the same time the pressure to make it more efficient will be increased.