

National Action Plan of Biomass Utilization

The Slovak Government approved in 2004 **"The concept of using agricultural and forestry biomass for energy purposes"**. The Slovak Government accepted Resolution No. 1149/2004 of 1 December 2004, which imposed to monitor the impact of existing legislation to promote renewable energy sources (RES) and biomass.

On 25 April 2007 the Government approved the **"Strategy for a higher use of renewable energy sources in Slovakia"**, which imposed to the Minister of Agriculture in cooperation with the Ministry of Economy to submit the "Biomass Action Plan" by 30 September 2007. The goal of energy security strategy is to achieve a competitive energetics providing safe, reliable and efficient delivery of all forms of energy at affordable prices with a view to protecting the customer, environmental protection, sustainable development, security of supply and technical safety.

Objectives of heat and cold set in the strategy:

Based on initial analysis it was set the proposal of using of RES for heat (cold) production, which is listed in the table.

Estimated use of renewable energy for heat and cooling

Source	2010 [PJ]	2015 [PJ]	2020 [PJ]	2030* [PJ]
Biomass (including biogas)	27	41	50	80
Solar energy (including the preparation of cold)	0,2	1	8	26
Geothermal energy (including heat pumps)	0,3	1	4	14
Total RES	27,5	43	62	120

The minimum consumption of biofuels in 2010 and in 2020 based on the consumption of the year 2006

Year	2006	2010	2020
1.1.1 Target for Biofuels	2%	5,75%	10%
Required amount of biofuels (Motor fuel consumption in 2006)	38 ktoe	110 ktoe	190 ktoe

The most important renewable energy in the coming years will be biomass. Considering its technical potential we assume a significant increase in biomass utilization (particularly for heat production) from the current state of 16 PJ to 66 PJ in 2020.

Conservative approach of using of RES

	2010 [TJ]	2015 [TJ]	2020 [TJ]	2025 [TJ]	2030 [TJ]
Biomass	31 000	48 000	66 000	85 000	120 000
Solar Energy	300	1 000	6 000	14 000	20 000
Geothermal Energy	200	1 000	3 000	4 500	7 000
Hydropower	18 000	20 000	22 000	23 000	24 000
Wind Energy	300	x	x	x	x
Energy waste	200	x	x	x	x
Total	50 000	73 000	100 000	130 000	175 000
RES share [%]	6,4	9,0	12,0	16,0	21,0

Preparation of a draft of action plan for biomass resulted from the Resolution of the Slovak Republic No. 383/2007 to the Strategy of higher use of renewable sources in Slovakia and the Biomass Action Plan is also builds on the Biomass Action Plan of EU.

The Government approved the "**Biomass Action Plan for 2008 - 2013**" at the Government negotiation on 27.02.2008. Biomass Action Plan is aimed to assess the real situation in Slovakia in the field of biomass. Achieving the goals of this action plan will have a significant positive impact on the environment and contribute to improving weather conditions, reduction of greenhouse gases in the atmosphere and to diversify energy sources at increasing of energy security. The material has a positive impact on employment and business environment.

The goal of the *National Biomass Action Plan* is clearly highlight the importance of biomass availability and the real possibilities of Slovakia, the problems related to the practical use of biomass and the implementation of the commitments of Slovakia in the field of renewable energy sources. The part of the materials is also support systems that are currently used by different sectors in increasing the share of renewables in the market.

Legislation in force in Slovakia:

Code No. 476/2008 Z. z. Energy efficiency

Code No. 309/2008 Z. z. on the promotion of RES and highly efficient combined production

Code No. 656/2004 Z. z. Energy Act

Code No. 657/2004 Z. z. Thermal Energy Act

Code No. 276/2001 Z. z. on regulation in network industries
Regulation of the Government of the Slovak Republic No. 317/2007 Z. z. which establish the rules for the functioning of the electricity market

Regulation of the Slovak Republic No. 246/2006 Z. z. about the minimum amount of fuels produced from renewable sources in motor gasoline and diesel fuels marketed by the Slovak Republic

Documents in force in Slovakia:

The concept of using of renewable energy sources (2003)

The concept of using agricultural and forestry biomass for energy purposes (2004)

Cross-sectorial analysis of barriers and potential development of renewable energy sources (2003)

Report on progress in the development of renewable energy including the setting of national targets for using renewable energy sources (2004)

National program for development of biofuels (2005)

Analysis of the impact of existing legislation to promote the use of biomass for energy purposes and draft for further solution (2006)

The strategy of higher utilization of renewable energy sources in Slovakia (2007)

Energy security strategy of the SR (2008)

Action plan of biomass utilization (2008)