

The energy security of the Slovak Republic

Energy security is currently one of the most important aspects of national security for all countries. It is closely linked to every country's economy and is one of the main prerequisites for sustainable economic development. Recent disruptions to the world's energy supply, the gas crisis in Europe in 2009, the global financial and economic crisis and the accident at the nuclear power plant in Fukushima in early 2011 have again prompted discussion among governments about energy security.

Energy security can be defined as the preparedness of citizens and state bodies to deal with energy shortages resulting from the negative impact of natural, technological, power-supply, socio-economic, and internal and external political factors. Small states that prepare at a national level, but without cooperating with other countries, may find they have not done enough. The Slovak Republic is no exception to this rule. In November 2012, the Ministry of Economy adopted a document which set the Basis of the Energy Policy of the Slovak Republic and defined the objectives and priorities of the energy sector to 2030, with a further view to 2050.

The aim of this new energy policy is to ensure the sustainability of the Slovak energy sector, which is a prerequisite for the growth of the national economy. From this perspective, the priority is to ensure the reliability and stability of the energy supply, efficient use of affordable energy at optimum economic cost, and secure environmental protection.

In terms of energy security, the Slovak Republic belongs to among the more vulnerable countries. Self-sufficiency in this area is low, and the country is almost 90% dependent on imports for its overall primary energy sources, including nuclear fuel (100%),

natural gas (98%), oil (99%) and coal (68%).

The Slovak Republic has set the following priorities to achieve the objective of improving its energy security: diversification of energy sources and transport routes; improvement of the safety and reliability of nuclear power plants; an increase in the share of renewable energy sources used for heating; and support for the development of natural-gas storage capacity.

Diversification of energy sources and transport routes

One of the main problems of the Slovak Republic, but also for much of Europe, in the area of energy security is its dependency on imports of sources of energy, especially natural gas. Diversification of sources of energy and the extension of transport routes is, for Slovakia, one of the most important priorities in this area.

Regarding energy infrastructure, priorities to 2020 and beyond have been adopted at a European level. Core challenges include the Southern Gas Corridor, and north-south gas and oil connections in central and southern Europe as part of energy infrastructure development in Central Europe, in which Slovakia occupies a strong position.

These efforts could make a significant contribution to the diversifi-

cation of energy transport routes and to the overall stability of the Slovak Republic's energy supply. On the other hand, it should be remembered that this will not resolve Slovakia's dependence on fossil fuels, and the problem of energy security as a whole.

Improving nuclear safety and the reliability of nuclear power plants

Strengthening the energy security of the Slovak Republic by increasing nuclear safety seems to be the most appropriate option. Electricity production from nuclear fuel is the least dependent on delivery failures of primary fuels. Moreover, uranium supplies are available from various stable regions of the world. At the same time, the price of uranium has a limited impact on the final price of electricity.

The recently conducted stress tests of the nuclear power plants at Jaslovské Bohunice and Mochovce, carried out after the devastating impact of the recent earthquake and tsunami in Japan, serve as confirmation that the Slovak Republic is planning to continue using nuclear power in its energy mix.

Despite all the attractive aspects of this form of energy the Slovak Republic can not base its energy security policy solely on the use of nuclear energy, as its territory, as well as the entire EU, lacks

adequate supplies of uranium. This situation may change with permission for uranium mining at Jahodna in Kosice, but this, however, will have adverse effects on the environment in the region.

Increasing the share of renewable energy used for heating

Presently in Europe more and more emphasis is being placed on the use of renewable energy sources. This is the result of the Action Plan for Energy for 2007-2010 adopted by the European Council, which expresses the need for an increase in the share of renewable energy to 20% by 2020 and the achievement of a 10% share for renewable energy in transport by 2020.

The use of indigenous renewable energy sources, particularly biomass and hydropower, reduces the dependence of the Slovak Republic on imports, and simultaneously its economic dependence on the volatile prices of imported sources of energy.

New innovations that will enable us to exploit a growing range of renewable energy sources present a vision for addressing energy security issues. However, at present this area is still frequently subject to questions over supply chain reliability, financing problems, the high maintenance cost of emerging technologies.

In conclusion, it is important for energy-dependent countries like Slovakia to understand the necessity of cooperation with other countries in order to achieve ongoing energy security and decrease their vulnerability towards energy-supplying power states.



Iľja Rogač
Čarnogurský ULC