The notion of energy security in the European Union

In the case of the European Union there is a special notion of energy security, which comprises a number of elements. Energy security is frequently represented as part of energy policy, but we often deal with an overlap of the ideas of energy security and energy policy.

The starting point for understanding the notion of the energy policy of the European Union is the supply chain security (i.e. the traditional notion of energy security). First and foremost, the problem of energy supply security was associated with the possibility of satisfying the state-generated demand for energy. However, this mindset soon turned out to be too limited. Energy supply security came to be associated with the social and economic level security, which is expressed in the definition of energy supply security included in the Green Paper of 2001 entitled Towards a European Strategy for the Security of Energy Supply. It reads that energy supply security means ensuring for the well-being of its citizens and for the proper functioning of the economy, the uninterrupted physical availability of energy products on the market at an affordable price for all consumers (private and industrial ones), whilst respecting environmental concerns and looking towards sustainable development. The main elements that make up the definition are: (1) society, (2) economy, (3) uninterrupted availability of products, (4) prices affordable for consumers, (5) environment, and (6) sustainable development. In a nutshell one might say that energy supply security must allow for three contexts – (1) the social one, (2) the economic one, and (3) the environmental one. One cannot but pay attention to the significance of the economic context, expressed in the provisions for the functioning of the economy, and market availability of products at affordable prices. A crucial role is also played here by the environment and sustainable development, while it is remarkable that sustainable development is dependent upon at least three capitals (the economic, social and environmental one).
Furthermore, the notion of energy supply security was extended to include the following elements: a competitive market, new technologies and infrastructure. Without competition and technical possibilities for supplying and receiving energy, it wouldn't be possible to realize a homogeneous energy market. Striving to build a homogeneous energy market is an expression of the progressing integration of the EU member states. The strengthening of competitiveness is to be safeguarded by particular legal solutions in the functioning of energy markets – separation, the TPA principle, strengthening of the position of domestic market regulators.

The activity in the area of fuel or energy transfer and distribution, fuel storage, etc. requires technical capabilities. Hence, the discourse itself about the necessity of reducing import dependence is getting us nowhere if we do not have technical capabilities to diversify the directions and sources of energy supplies. The same problem applies to competitiveness – it is not possible to increase its level if the domestic, regional or world market does not feature a technical possibility of the operation of many energy companies. For instance, Poland is having a problem with the range of gas diversification options.

Within the framework of the European Union, the construction of a homogeneous market is faced with problems of insufficient energy infrastructure. This may be caused by many factors: (1) the existence of many various energy structures in the member states, (2) political and economic interests, (3) the position of energy companies in domestic and other markets, (5) high costs of energy infrastructure. That is why it is important to enable the construction of a homogeneous transmission grid, which would increase supply security as well as market competitiveness. This cannot be achieved without the technical possibilities of transmission, storage and processing of individual energy carriers. The EU solutions follow from technical limitations in the electric energy and gas market. These have been included in the three energy packages (inter alia, various kinds of separation and the TPA principle). These solutions are intended to prevent the monopolization of the market, which can happen in the case of a small number of energy companies.

The lack of the possibility for the EU becoming independent of the import of energy carriers has caused the energy policy to extend and include the issues concerned with the demand management. A distinction has been made between a typical satisfaction of energy needs and the demand management, which consists in, inter alia, (1) controlling the level of energy consumption, (2) limiting energy consumption, and (3) decreasing the risk of becoming dependent. The EU only emphasizes decreasing the risk of becoming dependent, since the possibilities for maximizing energy self-sufficiency are limited. This is because the index of the EU’s energy dependence is forever rising. Still, characteristic courses of action should be pointed to; these can
diminish the risk of dependence: (1) support for the development of new technologies, (2) support for renewable sources of energy, (3) diversification of energy carriers. All this is reflected in the regulations of the so-called energy and climate package, as well as Energy Roadmap 2050.

One of the three main elements of the energy and climate package is energy effectiveness. Increasing effectiveness is nothing but rationalization of energy consumption. It must be emphasized that effectiveness should not be identified with economizing, for the rationalization of energy consumption must take place at the level of energy production, improvement of the technology needed to produce energy, and the energy-using technology. The increase in energy effectiveness is to enable a change in the level of energy intensity.

The idea of sustainable development plays an important role in the EU energy policy, which can be recognized as an attempt at a complementary approach to the problem of energy supply security. The fact that the energy policy of individual member states as well as of the whole EU allows for sustainable development, is aimed at sustaining the rational process of social development. Within this context, the issue of environmental protection is of utmost importance – earlier on, it was actually the only institutional tool that enabled introducing changes in the energy sector of the EC / EU.

The notion of energy solidarity played a prominent role in the discussion about energy security in the EU as well. At first, energy solidarity was considered as an effect of the liberalization of the energy market and the necessity to develop competitiveness, and yet some member states, especially the new members (e.g. Poland), raised the issues of actual help in the event of energy supply disruption on political grounds. The discussion particularly featured the dependence of Central European countries on the resource supplies from the Russian Federation. According to some Polish politicians, the solutions in the area of energy solidarity were directed at the minimization of the capacity for effecting an energy blackmail for political reasons, which de facto aimed at extending the legal and international concept of independent equality of states. A clear divide between the old and the new EU members came up in the discussion about energy solidarity. The effect of the discussion in this scope was the provisions of the Lisbon Treaty, which introduced the broadest understanding of energy solidarity – the energy policy of the EU, implemented in a solidarity way, should target: (1) provision of energy supply security, (2) support for energy effectiveness and energy savings, (3) support for unconventional energetics, (4) support for network connections.