



# BULLETIN

No. 62 (657), 9 May 2014 © PISM

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## A Powerful Energy Mix for the European Union

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*Against the background of the crisis in Ukraine there has been a return to the discussion on the EU's energy security, and on reducing its dependence on external suppliers. This encourages new initiatives aimed at building a stronger EU energy policy. Part of the discussion should be devoted to the optimisation of the energy mix in the EU. Poland, with the energy union proposal, should call not so much for greater leeway in the use of fossil fuels, but for the establishment of a diversified and sustainable energy balance structure in the EU, a strategy which would be powerful by dint of using various energy technologies.*

**Diversity.** In 2012, crude oil and petroleum products accounted for 34% of total energy consumption in the European Union, followed by natural gas (23%), coal and other solid fuels (17%), nuclear energy (14%), renewable energy sources (11%) and waste (1%). This data, however, by no means reflects the diversity of the Member States, in terms of the structure of their energy balances, consumption, or sources of supply. In France the energy mix is dominated by oil (nearly 42%), but more than 70% of electricity is produced in nuclear power plants. In Germany, the structure of primary energy sources in 2012 was similar to the EU average, but has since been changing due to the energy transition policy and renewable energy sources, and coal replacing nuclear energy. In Poland, coal is the primary source of energy (over 50%), notably in the production of electricity (over 80%).

Germany is the largest consumer of energy in the EU (213 million tonnes of oil equivalent, representing nearly one fifth of EU consumption), while Malta is the smallest, consuming 0.45 Mtoe. Poland (64 Mtoe) ranks among the European statistics in only sixth place in terms of final energy consumption. Differentiation is also apparent from the uneven dependence on energy imports. While the EU average is 54%, Malta, Cyprus and Luxembourg have almost no domestic sources, and Italy, Portugal, Ireland are dependent on imports for more than 80%. The only net exporter is Denmark. EU statistics are inflated by the import of oil and gas, but the monopolisation of supply is the biggest for the latter. Currently, at least 10 EU countries are dependent on one single supplier (Gazprom) for more than half of their supply, and some of them, for example Finland, Estonia, and Lithuania rely completely on the company.

**Solidarity and Tolerance.** Energy policy activity has, in recent years, been fairly centralised at the EU level, favouring the realisation of joint interests. However, taking into account the diversity of the Member States, unified solutions are not optimal for deeper integration, particularly in relation to the energy mix. Implementation of the EU energy policy should therefore take this diversity into consideration in regard to Member States' own natural resources, energy mixes, and national priorities. This requires action in a spirit of solidarity and subsidiarity, in other words, cooperation and tolerance. Both of these aspects have been taken into account in the Article 194 of the Treaty on the Functioning of the European Union. On the one hand, Member States have the right to determine the conditions for exploiting their energy deposits, the choice of different energy sources, and the definition of the general structure of national energy supply. On the other hand, Article 194 requires Member States to cooperate in the spirit of solidarity in the field of energy. In 2010, Jerzy Buzek and Jacques Delors presented the project of Europeanising energy policy, embracing both aspects. Currently, the energy union concept proposed by Polish prime minister Donald Tusk, could constitute a further step towards the integration of energy policy at the EU level. One of its pillars, focus on European energy production, should lead to optimisation of the structure of energy balances, so that there is a place for coal, nuclear, and renewable sources, as well as unconventional reserves.

**The EU Balance.** Acceptance of the heterogeneity of the Member States should be linked to the implementation of common EU energy policy imperatives. Events in Ukraine and the risk of the suspension of gas supplies to the EU mean that, in the European energy debate, the focus has moved back to issues regarding security of supply (and even energy independence), after several years of discussion about climate protection and competitiveness. However, the EU's security, competitiveness and sustainability objectives will remain valid and closely interlinked, and should therefore be taken into account in energy policy.

In the context of EU climate ambitions, supported by Western European countries, the priority of sustainable development has not weakened. Therefore, reconciling energy security and climate protection remains, for some countries, the biggest challenge. In designing new solutions for the whole bloc, the EU should recognise that Western European countries have already introduced strategies aimed at solving this dilemma. Energy transformation in Germany (Energiewende), built upon increasing the share of renewable energy sources, is not only motivated by concern for the environment, but also the desire to reduce dependence on imported fossil fuels. In the UK, nuclear energy found favour as a result of an ambitious approach to the fight against climate change while striving to ensure energy supply. Therefore, from an energy security standpoint it is important for both the EU and Member States to strive for a diverse and sustainable, thus powerful, energy mix. A compromise between the respect for individual choices of the Member States, and the EU solidarity principle, should be a basic assumption of EU energy policy.

**The Polish Energy Mix.** Given the increasingly ambitious EU environmental objectives, and the need to ensure the competitiveness of the industry, the transformation of the energy sector in Poland is becoming inevitable. This means taking all potential energy sources into account, in the Polish energy mix debate. Poland, with significant coal resources, has one of the lowest energy dependence indicators compared to other EU countries (30.7% in 2012). Yet reserves are becoming more difficult (and expensive) to access, and therefore coal imports have increased (from 1.5 million tonnes in 2000 to 11 million tonnes in 2013, of which two-thirds come from Russia). Although coal is to remain an important part of the Polish energy sector, the redefinition of its place in the energy mix should be the result of open debate and compromise. In this context, the primary focus on increasing the importance of domestic energy sources (for example, shale gas) is a strategic, rather than economic dimension, aimed at minimising the country's vulnerability regarding the risks associated with the unstable political situation.

The discussion should therefore be concentrated on the use of all commercially available technologies, rather than setting particular energy sources against each other. Current activity in the area of non-conventional sources, renewable and nuclear energy should prove that the debate on the Polish energy mix can be unbiased. For example, the Polish government's adoption of the Polish Nuclear Power Programme is of strategic importance, and can help to increase Poland's the level of energy security and strengthen its international position. It also provides the opportunity to achieve several important objectives, such as minimising vulnerability to external threats coming from the outside, providing sufficient energy for the economy, and enabling sustainable development.

**Conclusion.** Significant EU dependence on energy imports translates into the lack of a guarantee of cheap and reliable fuels and energy from external suppliers. Under an increased threat to energy and ecological security, ideological debates about the proper energy mix, and setting energy sources in opposition, can have particularly negative consequences. Calls for coal to be dropped, or to move away from an ambitious climate strategy, will not have a constructive effect, leading rather to further divisions in the EU and a weakening of relations with third countries. At the EU level, Poland should argue for respect for the right to shape the national energy mix, which is also in line with EU law. Poland should call not only for available EU fossil fuels (coal and shale gas) to be used with respect for the environment but also for the establishment of a rational energy balance structure, utilising the benefits of all sources and taking into account nuclear.

Since current EU energy policy is not optimal as regards achieving its objectives, Poland should advocate the need for greater solidarity, and promote attention to common energy security, both internally and externally. The Polish proposal for an energy union might serve as a basis for, and introduction to, the debate on the new EU policy in the field of energy.