## BULLETIN

No. 38 (633), 20 March 2014 © PISM

Editors: Marcin Zaborowski (Editor-in-Chief) ● Katarzyna Staniewska (Managing Editor)
Jarosław Ćwiek-Karpowicz ● Aleksandra Gawlikowska-Fyk ● Artur Gradziuk ● Piotr Kościński
Łukasz Kulesa ● Roderick Parkes ● Patrycja Sasnal ● Marcin Terlikowski

## EU Energy Policy Post-2020: Room for Competitive Industry?

## Lidia Puka

The European Council of 21–22 March has added to the energy and climate goals for 2020–2030 a discussion on industry competitiveness. This supplements, rather than replaces, the traditional triad of market integration, security of supplies, and sustainability. This approach benefits the leading industrial Member States that are also top global innovators and EU newcomers facing robust energy-intensive investments. Poland, to boost its manufacturing, must ensure that industrial competitiveness anchors EU policy. At the same time, to transform its economy, it must increase innovation to reach a low-emission footprint.

Industrialisation as a New Element of EU Energy Policy. Energy costs and prices are the focal points of the discussion on European energy and climate policy to meet goals by 2030. Heads of state or government will jointly discuss for the first time industrial competitiveness and climate and energy issues during the European Council scheduled for 21–22 March. They will elaborate on a European Commission White Paper on climate and energy goals, as well as associated Communications on industrial development and on the prices and costs of energy. The economics of energy transformation were debated earlier this month by EU energy ministers, who confirmed the Commission's goal to transform the EU energy market in the most cost-efficient manner.

Since the beginning of the 21st century, EU energy policy has been shaped predominantly by climate and market competitiveness measures. The inclusion of industrial competitiveness is a result of changing macroeconomic conditions and more competitive pricing of commodities outside of Europe. The EU, despite GDP growth of 0.1% in 2013 and positive forecasts for 2014, is still struggling with the post-crisis economic slowdown. At the same time, cheaper electricity and gas are available globally but not for the bloc. IEA estimates that industrial electricity prices in the EU are twice as high as those in the U.S. and Russia, and natural gas is three to four times cheaper in those countries and in India. Compared to China, the EU comes in at 20% more expensive for electricity and 12% more for gas.

Still, the U.S. is breaking away from the pack due to the transformation of the gas market and robust development of domestic resources. Since 2008, prices for gas, then coal and oil have decreased. According to IEA, the lower gas and electricity prices in 2012 in the United States relative to Europe resulted in an estimated savings of close to \$130 billion for the entire U.S. manufacturing industry. This influences energy intensive industries' choice of where to operate—a fact that Europe cannot neglect. This is especially the case since the trend in the U.S. is likely to continue. Futures on gas for the next nine years at the Henry Hub exchange show the price to be around \$4–6 per million Btu and robust plans for oil extraction (from the current 7.5 million barrels per day to 9.1 mmbd in 2015) will likely keep the oil price lower. Moreover, IEA estimates the price for coal to increase at a slower pace than for oil and gas.

The Results of Current EU Energy Policy. Another reason for the EU's changing approach is internal. So far, the transition to a low-carbon economy has resulted in an increase, rather than a decrease in prices for consumers. This remains in contradiction to the logic behind the EU's climate and energy policy, in place since the beginning of the century. It assumed that the creation of single electricity and gas markets, together with the deployment of renewable energy sources, would increase competition, mirror real energy prices and result in savings on the import of commodities, thus ensuring benefits for customers, including industry, and a global competitive advantage for the EU.

However, so far, the fragmented European market has not been able to deliver the low-carbon transition benefits on a pan-European scale. In fact, Member States have been trying to keep energy and transition costs as low as possible for industry, often transferring these costs to individual payers. The European Commission is currently investigating whether Germany and the UK have not been illegally or improperly transferring aid to industry. At the same time, retail energy prices have remained high, even in countries where wholesale electricity prices have dropped due to the widespread deployment of intermittent renewable energy sources (Germany, Denmark). The European Commission blames for this state of affairs on "regulatory" elements, such as subsidies for renewables, taxes, grid costs, etc., rather than on commodity prices or an insufficient level of market integration or liberalisation. Yet, Member States are reluctant to integrate (cross-border trade rarely exceeds 10% of the states' electricity production) or liberalise: in January 2014, the EC led 12 infringement procedures against Member States for non-implementation of Third Energy Package directives and 10 procedures for non-compliance on the directive on renewable energy sources.

At the same time, actions as part of the European energy transformation have come at a cost. Differentiation in costs among Member States comes as a novel approach in the European Commission's analysis, which underlines that some of the costs will be higher for a Member States with a lower GDP. This could put these countries at a competitive disadvantage. At the same time, a thorough cost-benefit analysis for the years 2020–2030, on the basis of fair burdensharing, is challenging. The complexity is related to the interdependency of various EU policies and justifies adding energy costs and prices to the discussion on policy goals.

Most Vulnerable Sectors. Energy costs can be vital to industrial competitiveness, particularly in sectors where energy accounts for a significant share of total production costs and where the resulting goods are extensively traded. Energy-intensive sectors overall account for a third of all energy and a fifth of all of the electricity consumed in Europe but directly employ around a million people. IEA estimates that as much as 10% of Europe's energy-intensive industrial producers, including those making iron, steel, glass or chemicals, could go to competitor nations within the next decade.

There are, however, significant differences between actors within the sector in their flexibility to change the place of operation as a result of different transportation costs. The most vulnerable of these is the chemical industry (including the petrochemicals subsector), for which energy can represent around 80% of total production costs (in feedstock, as well as in fuel and power), and they are relatively easily transported. This is followed primarily by producers of aluminium (15–30%), pulp and paper (15–30%), ceramics (10–30%), iron and steel (15%), glass (15%), and refining (1%, though with 100% feedstock). Although transport comes as an additional cost, here, however, ship transport has advantage over road delivery, for example, trans-Atlantic shipping of cement is less costly than 300 km by road.

Currently, the most competitive European economies are also major manufacturers. Germany is the unquestionable leader in manufacturing, followed by France, Italy (though not one of the most competitive states), and the UK (in chemicals, glass, iron and steel). Sweden and Finland lead the paper industry, and Spain and Italy specialise in ceramic tiles. The cement industry is present in all the states, though almost 60% of the market is shared by five countries—Mexico, Germany, Switzerland, Italy, and France. The Eastern European countries have been actively developing their chemical and iron and steel sectors (mainly Slovakia). In refining, BP, ENI, ExxonMobil, Shell, and Total have half of the European market.

Conclusions and Recommendations. With a sluggish economic recovery, the EU has finally acknowledged the need to include industrial competitiveness in planning energy policy. The endurance of this approach depends on the pace of the economic rebound, as well as global pricing pressure. In the short term, the EU will not be able to compete with the U.S., Russia, or China on commodity prices. In an effort to lower prices, the EU needs to seek other solutions, such as increasing market integration, responsiveness, transparency or energy efficiency.

For the time being, the non-binding goal of having 20% of industrial production in the EU's GDP remains wishful thinking, albeit sadly as an "industrial renaissance" could benefit both Western and Eastern Europe. The biggest EU players—Germany, France, UK—are major global manufacturers. The Eastern countries, including the V4 states, could benefit from lower energy costs for their energy-intensive infrastructure and construction projects. Still, in the current stage of the energy transition, the burden needs to be shared among the Member States, and negatively affected industrial sectors need to be supported.

Poland faces the challenge of a double transition—first to a low emission, then an innovation-driven economy. The role of manufacturing in the country's GDP is at 18.5%, which is already higher than the EU average (16%), and the Polish government aims to increase that to 22% by 2019. At the same time, the Ministry of Economy underlines that the high costs of achieving an emissions reduction level above 32% by 2030 would be "disproportionate to the economy." Currently, EU financial support available under the Connecting Europe Facility and in the form of European Investment Bank loans is insufficient. At the same time, the country must strengthen its innovation profile. In energy this means long-term policy planning, speeding-up market integration and liberalisation, enhancing cooperation between academia and industry, and investing in research and the deployment of energy efficient, low carbon, and clean coal technologies.