

The Elusive Goal of Energy Security: Dynamics and Core Challenges of Polish Energy Sector

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Poland in the newly emerging international energy order

In recent years energy security has become not only a political buzzword but a fundamental concept in (re)shaping relations between governments within the framework of a newly emerging global energy order. Furthermore, factors such as the growing asymmetrical dependence of energy consuming states on producing states, the delicate question of transport (particularly the definition of future pipeline routes), changing trends of economic development, and geopolitical tensions tend to distort established negotiating positions and shift the balance of global power relations. In such a complicated context, it is easy to overlook developments in countries such as Poland which are not in the international spotlight. As Poland has shown resilience in avoiding recession and is becoming an important player in the international arena, it may be interesting to examine the actual dynamics and the core challenges of the country's energy sector.

Key trends and features of Poland's energy sector

To start with, the basic characteristics of

Poland's energy sector may be highlighted. Firstly, it must be emphasized that Poland has a peculiar structure of energy production where roughly 95 percent of power is derived from coal. This is understandable, considering that Poland possesses the largest coal reserves among all EU countries. Such a high level of dependence on coal has important environmental implications and the country, in the coming decades, may expect serious difficulties in the adjustment to the CO2 emission targets set by international regulations. However, it is worth noting that important efforts have been made to reduce the level of emissions in line with the Kyoto Protocol (reduction of 30 percent in comparison to values from 2005). At the same time, bigger problems may emerge during the adaptation to the "EU climate-energy package", mainly in the area of "auction emission trading scheme". This is because Poland is not completely satisfied either with the approved annual quotas or with the latest EU proposal raising the target of cutting greenhouse gases from 20 percent to 30 percent by 2020, in comparison to 1990 levels. Secondly, as a legacy of Soviet influence in the region and the inherited pipeline infrastructure laid in the East-West direction,

Poland is highly dependent on energy imports from Russia. Poland's oil consumption is roughly 23 million tons per annum (mta), and imports from Russia form around 96 percent of oil consumed by the country. Oil is transported to Poland from Russia through the Druzhba (ie, "friendship") pipeline, which seems to be losing importance in the Russian strategic energy calculations, causing potential additional dangers for Poland. At the operational level, it seems that difficulties in oil deliveries to the Mazeikiu refinery (Lithuania), which was acquired by the Polish PKN Orlen in late 2006, were not of a technical nature alone, but could also be attributed to an obstructive Russian attitude. After strong denials, an exasperated PKN Orlen recently hired Nomura, the investment bank, to look at possible options for selling its stake in the refinery. Probably, the likeliest buyer in the event of a sale would be one of the Russian oil majors. Analysts expect that the difficulties related to oil deliveries would be quickly resolved if that were to happen. Sensing Orlen's weakness, the Russians have been putting out signals that they are willing to pay as much as \$1.5 billion for the refinery. However, such a move would not only leave PKN Orlen facing an embarrassing loss, but would also lead to deterioration in Polish-Lithuanian bilateral relations.

As for natural gas, Poland's annual consumption amounts to 14.4 billion cubic meters (bcm) around two thirds of which is

imported from Russia. In this context, a crucial development was the recent signing of the renewed long-term intergovernmental agreement between Poland and Russia, following lengthy negotiations which included (surprisingly) active involvement of the European Commission (EC) in Brussels. According to the deal, Gazprom will supply 10,3 bcm of gas annually (up from 7,4 bcm) to PGNiG until 2022. Besides, the Polish section of the pipeline will be operated by the state-owned Gaz-System, a point which met with resistance from EC Energy Commissioner, Gunther Oettinger, who initially, in order to obtain full compliance with EU law, insisted on a non-state independent operator (other critical points were unbundling and third party access).

Although the new agreement will ensure short-term energy security for Poland, some analysts feel that it will only deepen Polish energy dependence, as around two-thirds of the gas will be imported from Russia. Against this backdrop, diversification of energy sources and development of alternative transport routes, especially on the North-South axis (which seems to be gaining relevance in EU strategic geopolitical moves), are of paramount importance for Poland to reduce the dependence on energy imports from Russia.

In the area of gas transport, projects include the Baltic pipeline (in cooperation with

Norway and Denmark) and the LNG sea terminal in Swinoujscie which, according to the Ministry of Economy's strategic document "Poland Energy Policy until 2030", will allow Poland to import 5 bcm of natural gas per year. To ensure that the project goes according to plan, a special law was adopted, effective as of June 2009, that simplified and shortened terminal construction procedures. Also in June 2009, a contract was signed with the company QatarGas for the supply of gas. The first shipment is expected to begin in 2014. Oil transport could take place through the Gdansk Naftoport terminal, while, for the moment, gas is transported exclusively through the Yamal-Europe pipeline from East. Also, alternative projects such as shale gas exploration, where around 60 licenses have been granted to relevant companies, are worth mentioning.

Thirdly, another significant and often neglected feature of the Polish energy sector is the strong state presence in ownership and, consequently, in the management structure of key companies. To mention just a few facts: the State Treasury holds a majority stake in all energy sector strategic companies; it possesses directly 85 percent and the golden share in PGNiG, the most important gas company; 10 percent and the golden share in PKN Orlen, the most important oil company; 53 percent and a golden share in Lotos Group (the second most important oil enterprise);

100 percent of the gas distributor Gaz-System and 100 percent of the oil distributor Pern "Przyjazn". On the political level, such circumstances may have a strong impact on the dynamism of necessary reforms that include unavoidable processes of privatization and continuation of market liberalization, while, on the operational level, this may reflect on efficiency and transparency of business decision making. In such a complex energy environment, both foreign and domestic, Poland will have to define clear priorities, face hard challenges, and develop and implement sound strategies.

Strategy overview: priority challenges for

Polish energy

Regarding perspectives on the development of the Polish energy sector, demand for energy will undoubtedly continue to rise. In such a situation Poland will have to cope with a number of challenges, not only of an economic nature, but some with serious foreign policy and security implications. In this respect, the "National Security Strategy of the Republic of Poland for 2007" recognizes the increasing influence of energy security on national security, stating in point 22 that: "The importance of the economic dimension of security, especially energy security, has been growing. The use of energy resources as an instrument of political pressure by some states and the growing rivalry for energy carriers contribute to greater risks in this area.

At the same time there is growing belief that the international community must act together to ensure energy security, to look for alternative sources of energy and to stop negative changes of the global climate“.

To illustrate the complexities of the challenges ahead, the Polish attitude towards the somewhat controversial Nord Stream project may be examined. From the Polish perspective, fears regarding the Nord Stream project have multi-faceted manifestations both on the foreign policy and economic levels. First, Poland is afraid of the possibility of a strong axis developing in Russian-German cooperation, which, in the long run, may weaken the Polish security situation and its international position. Also, viewed from an economic perspective, Poland is concerned by potential negative repercussions subsequent to its exclusion from the project because of the route bypassing Polish territory. As a result of this, Poland fears attenuation in its negotiation power which derives from its status as a "transit country". It is also concerned that the Russian side could unilaterally cut off energy delivery to Poland, while continuing to provide it to other European countries.

Besides the explicit risks and threats, the Polish side anticipates another hidden challenge, mostly in the financial aspect of the project. The financial architecture of the

project has to be observed through at least two temporal dimensions. In the short term, certainly, it is a very expensive project, the costs of which are continuously increasing (the pessimistic projections estimate it at around 10 billion euro). Poland has raised questions about the financial feasibility and project financing modalities of Nord Stream on numerous occasions in various international contexts. It is presumed that Nord Stream will be financed up to 30 percent by members of the Nord Stream AG Consortium and the remaining 70 percent would come from capital raised on the international financial market. However, in a bold statement, Poland's Deputy Prime Minister and Minister of Economy Waldemar Pawlak stated that, as a "project of pan-European interest", in the framework of Trans-European Energy Networks TEN-E), Nord Stream might be financed partly by an European Investment Bank (EIB) loan. The text of the Lisbon Treaty envisages a modification in the EIB Statute with regard to changed modality of deliberation in a way that, for "strategic decisions", it is not necessary anymore to have a consensus; rather a specific qualified majority formula (18 votes of Member States which control 68 percent of capital) is applied. It may be pointed out that countries which are opposed to the project control only 2,4 percent of the EIB capital.

Why is the Polish opposition so firm to the project, which Polish Foreign Minister,

Radoslaw Sikorski, infamously compared to the Ribbentrop-Molotov (Nazi-Soviet) Pact of 1939? Probably the answer lies in the fact that Poland finds itself in a difficult position because it is vulnerable to different kinds of threats which could considerably impact economic, security, environmental, foreign policy and financial aspects of its development. Moreover, several voices which suggested the evaluation of the option that Poland should join the project were promptly and vigorously rejected.

We can draw an interim conclusion that no matter how Nord Stream evolves (pipe laying for the first phase of the project began in April 2010 and the first gas deliveries are expected in late 2011), the fact remains that gas demand in Europe will continue to rise. In 2005, EU gas imports totaled 336 bcm. By 2015, demand is expected to grow to around 536 bcm on an annual basis. In the light of the changing paradigm of energy security, a much broader, multidimensional view has to be taken which includes not the energy aspect alone, but also a wider spectrum of global threats and new types of risks. It will be interesting to see how the EU and individual member states of the Union will achieve the delicate balance between satisfying their energy needs as a bloc of energy consumers on the one hand, and as individual energy consuming countries on the other. Both categories of consumers (of Russian energy)

are likely to continue pursuing an assured and stable energy supply in parallel to reducing dependence on Russian energy commodities transported by infrastructure partly owned by Russian companies, while trying to limit growing Russian economic and political power by preventing the use of energy as a political tool. However, it should likewise be recalled that the European energy trade remains a highly interdependent business, given that Russia exports roughly 80 percent of energy resources to EU countries.

Concluding message

In the process of making strategic energy decisions, Polish policy makers will thus have to strike the right balance between a number of divergent factors which will enhance the country's capacity to develop sustainable external energy policies. Such aspects of sustainability include:

- ecological sustainability: in terms of sustainability of ecology/natural environment (e.g., growing concerns about the environmental impact of energy use);
- financial sustainability: in terms of cost effectiveness (e.g., reliance on EU funding or public-privet-partnership projects instead of budgetary financing);
- political sustainability: in terms of acceptability of proposed options for

the qualified majority of stakeholders (e.g., a predictable debate on the always controversial issue of nuclear energy, bearing in mind that the Polish nuclear power program, adopted by the government in 2009, envisages two simultaneous nuclear plant projects to be developed by 2022).

In conclusion, it should be stated that the key priorities and strategies for the successful development of the Polish energy sector are, in the short term, diversification of sources and pipeline routes for supply of gas and oil, and in the long term, adoption of clean coal

technologies and, to some degree, reliance on nuclear energy and investments in renewable energy resources. In the regional context Poland needs to stay on the frontline in efforts towards integration of Central and East European (CEE) energy markets. At the broader EU level, and particularly within the framework of emerging solidarity on a European external energy policy, Warsaw's active involvement to further elaborate upon Polish-Russian energy negotiations is highly desirable. However, greater mutual understanding, political consensus, and bold decisions will be needed to achieve that.

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