

Germany's gas policy – more than just Russia

Łukasz Antas

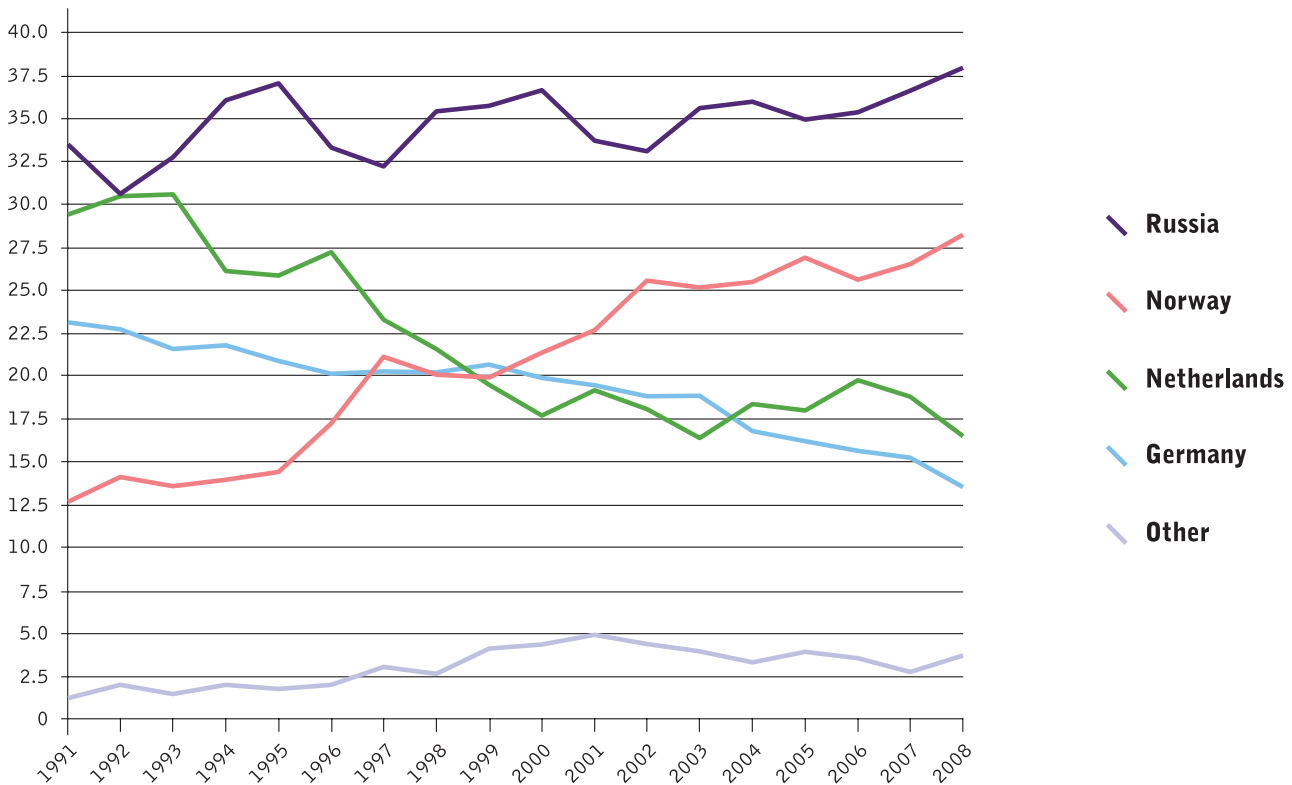
Co-operation: Agata Łoskot-Strachota

Cooperation with Russia in securing gas supplies is a priority for Germany, which is best demonstrated by the participation of German companies in the Nord Stream project. Another element of the policy of gas security, although one which has had less publicity, is the active search for sources of gas and supply routes alternative to Russian ones. Collaboration with other gas-producing countries has consistently been developed since the 1990s. After the gas conflicts among Russia, Belarus and Ukraine, German companies – with political and financial support from their government – have intensified their activities, in order to maintain a diversified structure of gas supplies. Moreover, the German government has consistently implemented a policy of encouraging the limitation of the growth rate of domestic gas consumption. It can be assumed that whereas Berlin sees its alliance with Russia as an important element of the policy of energy security, it does not want an excessive dependence on Russian gas supplies to occur. Germany has succeeded in combining its partnership with the Russian Federation (RF) with the diversification of its sources and routes of gas supplies, both through public support for closer energy cooperation with the RF and its parallel, unpublicised development of relations with other gas-producing countries.

The German gas sector – diversification, thanks to a consistent policy

The structure of gas supplies in Germany is now one of the most diversified in the European Union. This diversification has been consistently promoted since as early as the 1990s (see graph), when a considerable drop in supplies from the Netherlands and decreased domestic supplies were compensated for by the increased import from Norway. Despite the strengthening of political relations between Germany and Russia in the 1990s, this did not translate into a significant increase in dependence on Russian gas imports. In comparison with 1990, imports from Russia rose by about 16 bn m³ (+4%). Norwegian supplies were increased by 20 bn m³ in the corresponding period of time (+15%). In 1991, gas supplies from Russia covered 33.5% of gas consumption in Germany (gas supplies from Norway covered 12.7%), whereas in 2008 they covered 38% (with 28% of supplies coming from Norway; see graph).

Gas consumption in Germany in the years 1990–2008 according to the country producing gas (in %)



Source: German Federal Ministry of Economy

Together with its diversified structure of gas supplies, Germany also has the biggest gas storage facilities in the EU, with a total capacity of 20 bn m³. Germany has to take a forecast decrease in EU gas production account, including domestic gas (the fall in gas production in Germany in the period 2005-2030 is estimated at 29%). At the same time domestic gas consumption may grow, partly due to the requirements of the EU's climate policy¹. In order to prevent the weakening of its energy security and an increase in excessive dependence on one gas producer, Germany has been undertaking a series of measures in both the internal and external policy fields. This state strategy has been implemented for many years by German companies, which although they are private (E.ON/RuhrGas, RWE, EnBW) and have no state-held shares, they are obliged by German law to guarantee the security of gas supplies. Additionally, German firms have coordinated their actions with the German government through both formal (energy summits, working committees) and informal agreements.

¹ The increased gas consumption will result from the development of gas-fired power plants emitting three times less CO₂ than coal-fired power plants in the production of electricity. An additional impetus for the development of the system of energy produced from gas will be the programme of closing down German nuclear reactors by 2022.

Domestic activities – modification of gas consumption, development of biogas technology, larger warehouses

Internal activities are considered a priority, as being the most effective method of ensuring Germany's energy security. The government's activities include changes in legislation, taxes, company agreements and financial grants (motivating businesses to reduce gas consumption and develop the biogas sector).

1. Germany is seeking to maintain the low growth rate of domestic gas consumption. To this end, the CDU/CSU/SPD government decided in June 2008 to implement an ambitious programme to limit energy consumption in the German economy, by modernising public and private buildings, among other measures. Thanks to this programme, according to the forecasts of the German Ministry of Economy, the gas consumption will rise slightly by 2020 from 95 to 100 bn m³ annually, and the share of gas in the energy balance is intended to increase from the current figure of 22.7% to 26%.
2. According to forecasts, the biggest increase in gas consumption may occur in the electrical energy sector². For this reason, action to curb the growth rate of gas consumption and ensure gas supplies is planned. On the one hand, the German government is trying to maintain the high level of electricity production in coal-fired power plants by giving support to CCS [carbon capture and storage] technology. On the other hand, it is suggesting that companies construct gas-fired power plants as joint ventures with firms from gas-producing countries (such as E.ON and Gazprom's joint project in the town of Lubmin in the German state of Mecklenburg-Vorpommern).
3. The development of biogas production is also being supported. Biogas is most often used in practice in local cogeneration plants (combined heat and power). It is estimated that domestic biogas may cover 10-13% of domestic gas consumption by 2030.
4. The extension of gas storage facilities in Germany is equally planned; their capacity stands now at 20 bn m³. They cover about 22-23% of annual average domestic gas consumption. German companies are seeking to develop the storage facilities to store an additional 8 bn m³, which would allow 28% of annual German gas consumption to be covered, with growth to as much as 100 bn m³ forecast). Additionally, Gazprom wants to build another 15 bn m³ to service the Nord Stream gas pipeline. The implementation of all these projects would mean that 43% of annual average gas consumption

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in Germany would be guaranteed. In practice, the extension of the gas storage facilities would above all increase Germany's importance as the first main 'distributor' of imported gas in the EU.

² The sector's share in the electricity production is supposed to grow from the present 11.4% to 23% in 2020. Changes in the electroenergy sector will be brought about by the limitations imposed by the climate policy, i.e. the resultant switch from high-carbon fuels (coal, oil derivatives) to the low-carbon ones (gas, renewable sources of energy) and the abandonment of nuclear energy by 2022.

Activities abroad – diversifying sources and supply routes, and cooperating with gas-producing countries

The German government is seeking to support German companies politically and financially in their attempts to diversify the sources and routes of their gas supplies. The flagship project is the Nord Stream; both the governments of Gerhard Schröder and Angela Merkel were ready to ensure loan guarantees worth €900 m for its construction, and the plan has consistently received political backing in Germany. The Nord Stream project, which involves the largest German gas companies E.ON and Wintershall, would enable Germany to diversify its gas supply routes and increase their carrying capacity to transport gas from Germany's major supplier, Russia. The political elites favour the establishment of joint ventures between German and Russian firms (such as Wingas) as a way of strengthening cooperation in the energy sector. At the same time, Berlin has been less visibly supporting its domestic companies in other regions around the world. Gas cooperation with Norway, the Central Asian countries, Africa and the Middle East is particularly noteworthy. One example of German determination to deepen cooperation with the gas-producing countries is the adoption of the Strategy for Central Asia during the German presidency of the EU in 2007. This, combined

with German diplomatic efforts, helped RWE to become the first Western company to obtain a permit to explore and extract gas from the Caspian Sea's Turkmen shelf. Last year's Georgian-Russian war led to intensified negotiations with Nigeria about LNG supplies.

Moreover, Berlin is ready to spend ever more funds on securing access to gas fields. In February this year, the German Ministry of Economy announced that it is ready to spend €40 bn in the form of guarantees for German companies and banks which become involved in foreign projects ensuring the long-term oil and gas supplies to Germany. From this amount, financial resources can be allocated to the Nord Stream gas pipeline or alternative projects. Support is also ensured through diplomatic channels, such as visits paid by Germany's economics and foreign ministers to Algeria, Turkmenistan, Norway and Azerbaijan, and reciprocal visits to Berlin.

Berlin has not only endorsed collaboration with gas-producing countries, but also the construction of transportation routes. Besides clearly supporting the Nord Stream project, German diplomacy has equally backed the construction of the Nabucco pipeline and, to a lesser extent, the Tauern gas pipeline (which will enable imports from northern Africa via Italy and Austria). Supplies from other regions may have been secured thanks to the actions of German companies that have bought shares in LNG terminals (in the Netherlands, Croatia, Germany) with a total capacity of about 26 bn m³ (see Table 1). Contracts for gas supplies in the form of LNG are currently being negotiated; the potential suppliers are Qatar, Algeria and Nigeria. Moreover, German companies are trying to buy shares in gas liquefaction plants. Presently they own shares in the Snohvit gas field (RWE's plant has been operational since 2008), and two planned installations in Equatorial Guinea (E.ON). Germany is also interested in projects in Nigeria and Egypt.

Table 1. Projects for gas pipelines & terminals and shares held by German companies, and related capacities in bn m³

For gas from Russia	For alternative gas sources
Nord Stream – German companies E.ON and Wintershall now have a capacity of 22 bn m ³	Nabucco – RWE holds 17% of shares, a capacity of about 5 bn m ³
	Tauern (supplies from the LNG terminal in Croatia and Northern Africa via Austria and/or Italy – E.ON holds 45% of shares in the project, a capacity of about 4.9 bn m ³
	LNG terminals LN – total of about 26 bn m ³ Croatia: Krk – E.ON has 31.15% of shares, RWE has 16.7% of shares, a total capacity of 5 bn m ³ Netherlands: Gate Terminal – E.ON has 25% shares, a capacity of 3 bn m ³ and Liongas has 3 bn m ³ for EnBW Germany: 2 terminals planned in the longer term (E.ON 10 bn m ³ , RWE 5 bn m ³)

In recent years, extraction from gas fields abroad owned by German firms has been on the rise. In 2000 German companies extracted abroad 4 bn m³ of gas; in 2007 this was already 8 bn m³. Since 2008, extraction of the Yuzhno-Russkoye gas field has been under way (as an element of cooperation with Gazprom on the Nord Stream); about 12 bn m³ of gas in this gas field goes to German companies (Wintershall and E.ON).

Table 2. Annual gas extraction abroad by German companies

In Russia	Alternative sources
Yuzhno-Russkoye – about 12 bn m ³ of gas goes to German companies (Wintershall and E.ON)	8 bn m ³ – out of which 4 bn m ³ in South America; 2.6 bn m ³ in Scandinavia; 0.7 bn m ³ in Africa, and 0.27 bn m ³ in the Middle East
	Additionally, RWE and E.ON each are planning to increase gas extraction (outside of Germany) by about 3 bn m ³ by 2013

The gas that German companies will extract outside Germany and import via the planned pipelines (with their participation) will not only be distributed on the German market. Potentially, however, Germany will be able to maintain a diversified structure of gas routes and sources of supplies, despite the increased extraction and supplies from Russia (thanks to the Nord Stream project), if all the projects mentioned above are completed.

Conclusions

Berlin's strategy for ensuring security in the gas sector is composed of three pillars: internal activities, cooperation with Russia and parallel collaboration with other gas-producing countries. By pursuing this model of energy policy, Germany is seeking to combine objectives which could sometimes be seen as contradictory and difficult to achieve on the EU level (cooperation with both Russia and its competitors on the gas market).

In order to ensure energy security for its gas supplies, the following internal activities (stimulated by the government) are principally being implemented: the reduction of the German economy's energy consumption, the increased use of biogas, cuts in CO₂ emissions from coal-fired power plants, and the extension of gas storage facilities.

Berlin supports the strengthened cooperation between Germany and Russia in the gas sector, and is politically and financially ready to back the Nord Stream project as a way of diversifying its gas supply routes. At the same time, Berlin is seeking to limit an increase of its dependence on gas supplies from Russia and ensure a diversified structure of sources of gas supplies, although it pursues this policy with much less media attention. German companies are searching for alternative sources of gas supplies in Norway, Africa, Central Asia and the Middle East. The gas from these regions can be transported to Germany via the planned projects in which German firms are shareholders, namely the LNG terminals (Croatia, Germany, Netherlands) and gas pipelines (Nabucco and Tauern).

Besides the strengthening of Germany's energy security, the measures German companies have taken will lead to an increased role for Germany in the transit and storage of imported gas in the EU. This will result in an increased importance for German companies in securing the EU's energy security, which will in turn enhance Berlin's impact on the orientations and shape of EU energy policy.



Centre for Eastern Studies
Koszykowa 6A,
00-564 Warszawa
e-mail: info@osw.waw.pl

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Editors: Jolanta Darczewska
Katarzyna Kazimierska
Translation: Anna Kucińska
Co-operation: Jim Todd
DTP: Wojciech Mańkowski