

Nord Stream – making more European energy solidarity possible

By Reinier Zwitserloot

Wintershall is proud to participate in the Nord Stream project. Nord Stream stands out from many other pipeline projects as an European project by its very structure, being realized in partnership with Gazprom, E.ON Ruhrgas and Gasunie, all of them international energy companies with great technical expertise. With its first pipeline grid scheduled for commissioning in 2011, a transport capacity of about 27.5 billion m³/ year of natural gas will be created. With the second phase being completed in 2012, that transport capacity will be doubled. This goes along with investments of 7.4 billion €

But why does Europe need Nord Stream? Why is there no reasonable alternative guaranteeing European energy security? A focus on the global energy market gives an unequivocal answer.

As the world's second largest consumer of energy and the largest energy importer, the European Union (EU) possesses an important competitive advantage: about 80 % of the world's reserves of natural gas and crude oil are in a radius of about 4500 km of the EU. This is particularly important in view of both the rapidly rising demand for energy globally and the efforts of emerging economies like China and India to make up for their lack of raw materials by securing direct access to oil and gas reserves. One thing is for sure: Europe must be proactive. Energy security is not just going to come knocking on Europe's door.

Another fact has to be accepted: European supply cannot be guaranteed solely on the basis of renewables. According to the latest reference scenario of the International Energy Agency, the proportion of fossil energies in Europe will remain stable at about 80% until 2030. Thus fossil fuels are the backbone of European supply security for this generation and the next. Among fossil fuels, natural gas stands out because of its high energy efficiency and its relatively good environmental properties. The increased substitution of natural gas for other fossil fuels has made the biggest single contribution to reducing CO₂ emissions in Europe since 1990!

However, the contribution of natural gas to climate protection will only be brought to bear if Europe succeeds in meeting its growing need for gas imports. With EU production set to fall by 100 billion m³ by 2020 and demand forecast to grow by about 100 billion m³ at the same time, the EU faces the challenge of securing access to new natural gas reserves. An impartial view at the world map clearly indicates where additional gas can come from: Norway will on the whole merely be able to maintain its share of European gas supplies until 2020. Africa will be able to increase gas deliveries in the longer term, but it will by no means be able to fill the looming import gap. LNG will make a note-worthy contribution to the EU's gas supply, but intense competition for LNG is also expected. The Caspian Sea Region including Iran and Iraq does, indeed, have major reserves of gas, but it will not be able to make up for the import deficit. With up to 30 billion m³, at the most just 5% of the overall requirements of the EU-27 could be covered via the Nabucco project in 2020.

Hence it is clear that a really substantial increase in gas imports cannot realistically be achieved without Russia: Russia has the world's largest proven natural gas reserves and is also "within pipe-line distance" for Europe. Forecasts

predict that Russia will be able to increase its gas exports to the EU from its current level of 130 billion m³ to around 190 billion m³ by 2020, so by 50%. That increase cannot be achieved without a transportation network expansion. The Nord Stream pipeline will contribute to that expansion, creating a diversification of existing import routes from Russia to the European Union. Nord Stream certainly does not see itself as competition to other major pipelines like Nabucco and doesn't make these superfluous either. The realization of all these pipeline projects is essential for securing Europe's supply. Despite its enormous proportions, the Nord Stream pipeline would "only" be able to cover about 8% of the EU-27 gas demand in 2020. Nonetheless, the additional volume liquidity of 55 billion m³ brought into the European market will have the important effect to help buyers, even if they are not interested to buy Russian gas, to get gas from other sources at reasonable conditions.

Transporting gas over offshore pipelines is an environmentally sound and safe method of transport, as decades of experience with the complex network of underwater pipelines in the North Sea have documented. As an offshore pipeline, Nord Stream will avoid environmentally sensitive areas such as forests as well as populated areas. Compared to an overland alternative, Nord Stream not only represents the "shorter" route with lower operating costs, but also – due to the small number of compressor stations necessary – lower CO₂ emissions during operation.

Because of its overwhelming importance for supplying Europe, the Nord Stream pipeline was included in the Trans-European-Energy Network's (TEN-E) list of "priority projects of European interests" in June 2003 (reconfirmed in September 2006).

One fundamental aspect, often forgotten in the current debate, needs to be highlighted: Nord Stream offers opportunities for solidarity in energy supply throughout Europe. For Poland, e.g., the construction of the Nord Stream pipeline with its onshore links in Germany (OPAL and NEL) will provide several possibilities for connecting the Polish and the German pipeline systems. This would firmly integrate Poland into the European pipeline grid, since the German gas pipeline system today is already linked directly to the major European transit pipelines from the North Sea and is also networked with the European trading points for natural gas in Belgium, the Netherlands and the UK. Only by providing infrastructure, material chances for solidarity in energy supply throughout Europe can become reality!

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