

Information note prepared for the Members of the Danish Parliament's European Affairs committee

Topics: Nord Stream and Southern Gas Corridor (including Nabucco)

Nord Stream

Nord Stream is an offshore natural gas pipeline from Vyborg in Russia to Greifswald in Germany (map in the annexe). It is owned and operated by Nord Stream AG¹. Nord Stream crosses the Exclusive Economic Zones of Russia, Finland, Sweden, Denmark and Germany, as well as the territorial waters of Russia, Denmark, and Germany. The project includes two parallel gas pipelines each 1,224 km long². The first line of the pipeline was laid by May 2011 and was inaugurated on 8 November 2011. The second line was completed by September 2012 and began transporting gas in October 2012.

Each of the pipelines has the capacity to deliver up to 27.5 billion cubic metres (bcm) of gas a year. The twin pipelines can deliver combined total of about 55 bcm of gas a year i.e. more than 10% of the EU gas consumption. At the moment, however, Nord Stream's capacity remains underutilised. In 2013 the average use of the capacity has been ca 37% which nevertheless represents an improvement from 2012 when ca 31% of the capacity was effectively used. Nord Stream AG claims that more gas will be flown once the pipelines connecting to Nord Stream in Germany and beyond (OPAL (DE), NEL (DE) and Gazelle (CZ)) will be completed.

Nord Stream AG is said to be currently considering options for adding further transmission capacity to Nord Stream by building pipeline 3 and 4. The latter could be extended to reach the UK market. In August 2012, Nord Stream AG applied to Finnish and Estonian governments for route studies in their exclusive economic zones for the third and fourth lines

Nord Stream has been included in the list of Project of European Interest under the Trans-European Energy Network (TEN-E) regime (2006 guidelines adopted by the Council and the European Parliament). The guidelines has been recently revised and replaced by a new regulation³ - the possible construction of Nord Stream 3 and 4 has not been proposed for the status of Project of Common Interest in this process.

As regards the regulatory and legal framework for Nord Stream, the Commission has voiced concerns about the lack of a public law framework for this pipeline. This is not a standard approach for building and operating supply pipelines in the EU⁴. Such a framework, normally in a form of an intergovernmental agreement, on the one hand contributes to the stability and security of gas supply and regulates safety related aspects of pipeline operation (e.g. hydrocarbon leakage affecting the environment) and on the other hand protects and decreases the risk for the investors and financiers of the project.

Southern Gas Corridor

The Southern Gas Corridor (SGC) is a strategic initiative to connect the EU's Internal Energy Market (the world's largest integrated gas market) with the largest concentration of hydrocarbons in the world, loosely defined as the Caspian and Middle East region. The Caspian / Middle East region stretches from

¹ Nord Stream AG, based in Zug, Switzerland, is an international consortium of 5 companies: OAO Gazprom (51%), Wintershall Holding GmbH (a BASF subsidiary) (15.5%), E.ON Ruhrgas AG (15.5%), N.V. Nederlandse Gasunie (9%) and GDF SUEZ (9%). The company was established in 2005 for the planning, construction and subsequent operation of the twin pipelines through the Baltic Sea

² It is the longest sub-sea pipeline in the world, surpassing the Langed pipeline.

³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32013R0347:EN:NOT>

⁴ For instance there is such a framework in place between all EU concerned Member States and Norway

Central Asia to Eastern North Africa, and is constituted by a wide range of countries; the area is smaller than Russia, but collectively has far more hydrocarbon resources. The wide range of source countries means that political risk on the side of producers is dispersed, but the high number of countries between the EU and the source countries means that transit risk is a serious concern. Ultimately, SGC should give access to 90-100 bcm/a⁵ (billion cubic meters per annum) of gas annually and create an additional meaningful source of supply, in addition to the existing supply oligopoly i.e. gas imported mainly from Russia and Norway, some from Northern Africa and LNG.

From an EU policy perspective, SGC has been identified as one of the EU's highest energy security priorities in the Second Strategic Energy Review in 2008 and as one of the twelve priority corridors in the recent Regulation on guidelines for trans-European energy infrastructure (Regulation 347/2013).

Of the possible source countries, only one – Azerbaijan – is clearly capable of supplying gas to the EU in the short-term (before 2020). Azerbaijan is therefore judged to be the 'enabler' of the Southern Corridor. Other possible sources of gas include Iraq, Turkmenistan and, once there is suitable political circumstance, Iran. Indeed, in the right circumstances, other sources of supply could be linked in to the Southern Corridor, such as the Arabian Peninsula countries (where gas is still flared), and other Central Asian states. Supplies from the Eastern Mediterranean (e.g. Israel) could also be envisaged, but the political circumstances would have to improve considerably.

It is now expected that Azerbaijan will supply gas as of early 2019 to the EU from its Shah Deniz 2 gas field, which is majority owned by BP (UK – 25.5%) and Statoil (Norway – 25.5%), and includes Total (France – 10%), Socar (Azerbaijan – 10%), LukAgip (Russia/Italy – 10%), NICO (Iran – 10%) and TPAO (Turkey – 9%) . The current phase of the Southern Corridor work has therefore focused on securing this gas and the final investment decision for the entire project is expected in December 2013.

The key element of European Union and European Commission policy has been the effort to establish a defined, dedicated, scalable and legally protected physical pipeline connection through Turkey and the Caucasus to Azerbaijan (to minimise the transit country risk and avoid the difficulties EU had with 2006 and 2009 gas disruptions in Ukraine). This has been mutually agreed between the EU (President Barroso) and Azerbaijan (President Aliyev) in their Joint Statement issued in January 2011. The two pipeline projects that have been promoted that deliver this connection within Turkey are firstly Nabucco (Classic) and secondly the Trans-Anatolian Pipeline (TANAP – controlled by Azerbaijan).

TANAP is now the favourite for construction in 2017 but even though international legal framework has been set with the ratification of IGA between Turkey and Azerbaijan, the European Union has no final assurances that it will be physically built. The pipeline connection in the Caucasus is called the Southern Caucasus Pipeline (SCP-X) and its physical strengthening (to take more gas) and its legal regime are already assured. The European Union has to insist that the scalability criterion is designed to assure that SGC can grow as more gas becomes available from Azerbaijan and elsewhere.

The downstream pipeline connections within the EU should be considered as interconnectors within the internal energy market, and since the internal energy market is integrated, increasingly interconnected and resilient, European Commission policy has been not to discriminate between the downstream commercial options. Two options, namely Nabucco (West) [promoted by AT, HU, RO, BG and DE] and the Trans-Adriatic pipeline (TAP) [promoted by IT, GR, Albania, DE and Switzerland] were competing for Shah Deniz 2 gas in this respect. The SD2 Consortium announced on 28 June 2013 its decision in favour

⁵ Which is c.a. 15%-20% of EU's gas consumption

of TAP, thus favouring the Greek and Italian markets and signed the associated gas sales agreements in September 2013.

Following the dismissal of Nabucco-West, the Commission is now working with the Member States to accelerate the work on interconnectors towards South East Europe, so that these markets can benefit also from the opening of SGC at an early stage. This will namely be achieved through the implementation of Projects of Common Interest in the Region (as defined in Regulation 347/2013⁶).

Shah Deniz 2 will deliver 16 bcm, of which 10 bcm/a to the EU and 6 bcm to Turkey. With regard to further supply opportunities and the expansion of SGC, several options are available:

- Firstly, more gas can come from Azerbaijan, which considers that up to 50 bcm/a is ultimately possible (2020 onwards). Such levels of gas supply could underpin the building of both TAP and another dedicated pipeline reaching Central Europe.
- Secondly, the EU is in discussion with Turkmenistan for a further 30 bcm/a. On the basis of a negotiating directives received from the Council (in September 2011), the Commission is negotiating with Turkmenistan and Azerbaijan a legal framework for the construction of a Trans-Caspian pipeline. Furthermore, the Commission is currently organising commercial interest in this option through the Caspian Development Corporation (CDC). A 30 bcm/a commitment would allow the construction of another pipeline from Turkmenistan to the EU (e.g. Nabucco Classic).
- Thirdly, an accommodation within Iraq to allow gas exports will eventually come, and once that is agreed, it is felt that Iraqi gas can be profitably used in Turkey and within the EU; infrastructure choices made today must allow this hence the need for a pipeline across Turkey to allow for it.

⁶ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32013R0347:EN:NOT>

Annexe

Schematic map of Nord Stream



Source ENTOS-G

Schematic map of the options in SGC

The example of the Southern Corridor

Corridor opening options (2018 - Shah Deniz II)

- █ Nabucco-West
- █ Trans-Adriatic Pipeline
- █ Trans-Anatolian Pipeline & South-Caucasus Pipeline

Corridor enlargement

- █ Extension of transport routes & new transport routes



Source: Energy priorities for Europe, Presentation of J.M. Barroso to the European Council of 22 May 2013