

PRESS RELEASE

Nord Stream's Second Offshore Pipeline Now Complete

- **Pipeline's three sections successfully welded together underwater**
- **Pipeline to be joined to Russian and German landfalls in August**

Zug, 29 June, 2012. Nord Stream has successfully completed the second of the two underwater tie-ins of its second gas pipeline through the Baltic Sea on 28 June. The 1,224-kilometre offshore pipeline is now complete and will be de-watered and dried before being joined to the onshore landfall sections in Russia and Germany in August. This second line is on schedule to become operational as part of the twin pipeline system in the last quarter of this year.

Nord Stream's twin pipelines were constructed in three sections with reducing pipe-wall thicknesses as the design pressure of the gas drops from 220 bar to 200 and from 200 bar to 177.5, arriving at the European mainland in Germany at 100 bar.

The three sections were joined together underwater inside a hyperbaric welding habitat on the seabed at two locations, off the coast of Finland and off the Swedish island of Gotland in June.

"This complex operation was successfully completed a few days ahead of schedule thanks to the excellent international collaboration that has characterized the whole project," says Nicolas Rivet, Project Coordinator for the hyperbaric tie-in operations at Nord Stream. "As with Line 1, our diving contractor Technip completed this challenging task outstandingly well, using equipment from the Pipeline Repair System (PRS) Pool operated by Norway's oil and gas company Statoil."

The underwater welding operations were remotely controlled from the world's largest dive support vessel, the 160 metre long Skandi Arctic. Highly specialized divers oversaw the complex operations.

"New technology has made diving safe and the surveillance of the divers is automated. Divers are today used instead of ROVs (Remote Operated Vehicles) when precision is required," Jahn Erling Nakkestad, Project Manager from Technip explained. "Overseeing the hyperbaric tie-in operations requires experienced and skillful divers and our previous experience from other PRS projects on the Norwegian Continental Shelf has been crucial for the success of the project," he added.

The diameter of the Nord Stream pipelines required the PRS equipment to be specially adapted. "The overall tie-in equipment had to be upgraded:



the pipe handling frames and the welding habitat had to be enlarged, because such 48-inch diameter pipelines had not been handled before,” said Jan Olav Berge, Statoil’s Pipeline Repair Pool Manager. “The same system as used for the tie-ins will be ready to carry out any repairs to these or other large-diameter pipelines in the future if needed,” he added.

Following the underwater tie-ins, all the water will be removed from of the pipeline in July and the pipeline will then be dried. The onshore and offshore sections of the pipeline will be connected in August, and after thorough testing, this second line is expected to come on stream as part of an integrated twin pipeline system on schedule in the last quarter of 2012.

When fully operational, the pipelines will have the capacity to transport 55 billion cubic metres (bcm) of gas a year from some of the world’s largest gas reserves in Russia to the European Union.

An info visual explaining underwater tie-ins [can be downloaded from our library](#).

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Notes to editors

Nord Stream is a natural gas pipeline which links Russia and the European Union through the Baltic Sea. The European Union’s annual natural gas imports in 2009 were approximately 312 billion cubic metres (bcm) and are projected to increase to over 523 bcm by 2030. By then, the EU will need additional gas imports of 211 bcm per year (Source: IEA, 2011). Nord Stream will meet more than a quarter of this additional gas import requirement by connecting the European gas pipeline network to some of the world’s largest gas reserves. The project will make an important contribution to the long-term security of supply and is a milestone of the energy partnership between the European Union and Russia.

The first of Nord Stream’s two parallel pipelines became operational in November 2011. Each line is approximately 1,220 kilometres long, providing a transport capacity of some 27.5 bcm per year. All of Line 2 has now also already been laid. Full capacity of about 55 bcm per year will be reached when the second line goes on stream in late 2012. This is enough gas to supply more than 26 million European households.

Nord Stream AG is an international joint venture established for the planning, construction and subsequent operation of offshore gas pipelines through the Baltic Sea. Russian OAO Gazprom holds a 51 per cent stake in the joint venture. The German companies BASF SE/Wintershall Holding GmbH and E.ON Ruhrgas AG hold 15.5 per cent each, and the Dutch gas infrastructure company N.V. Nederlandse Gasunie and the French energy company GDF SUEZ S.A. each hold a 9 per cent stake.



Nord Stream

The new gas supply route for Europe

Nord Stream is included in the Trans-European Energy Network Guidelines (TEN-E) of the European Union. In 2006, the project was designated a “project of European interest” by the European Commission, the European Parliament and the Council of the European Union. Nord Stream is recognised as a key project for meeting Europe’s energy infrastructure needs.

Construction of the first Nord Stream Pipeline started in April 2010, after completion of environmental studies and planning and an Environmental Impact Assessment (EIA) along the entire pipeline route. Three pipe-laying vessels were commissioned to work on the project: Saipem’s *Castoro Sei* carried out the majority of the construction in the Baltic Sea. The *Castoro Dieci* completed its operations in German waters, where it constructed both pipelines in the German landfall section; Allseas’ *Solitaire* handled construction in the Gulf of Finland as a subcontractor of Saipem. The first pipeline became operational in November 2011; the second one is scheduled to become operational in 2012.

No intermediate compressor station: Nord Stream was able to design its offshore pipeline to operate without an intermediate compressor station, but with three different design pressures and pipe wall thicknesses as the gas pressure drops over its long journey from Russia to landfall in Germany. The connection by hyperbaric tie-in of these three pipeline sections was carried out at the two offshore locations where the design pressure changes from 220 to 200 bar and from 200 to 177.5 bar respectively. The connection of the Gulf of Finland and Central sections of the first pipeline took place off the coast of Finland at a sea depth of approximately 80 metres, and the connection of the Central and South Western sections off the Swedish island of Gotland at a depth of approximately 110 metres. The three sections of Line 2 were connected underwater at the same locations in May and June 2012.