Nord Stream
The new gas supply route for Europe

FACT SHEET

November 2013

The Project & the Environment

Significance of Natural Gas in Climate Change Prevention

- Natural gas is the most environmentally friendly fossil fuel with the lowest CO_2 emissions. Gas-fired power plants produce about 50 percent less CO_2 than coal fired power plants. In a study released in August 2010, Greenpeace argues that natural gas is the only viable bridge to an age of renewable energy.[1]
- Replacing coal with gas for the EU's electricity production would reduce CO_2 emissions by 207 million tonnes per year. This is more than currently emitted by Sweden, Finland, Denmark and the Baltic States combined.
- If the 55 bcm of gas transported by Nord Stream each year were put into electricity generation instead of coal, annual CO_2 emissions in the EU would decrease by more than 112 million tonnes.[2]

Nord Stream's Contribution to Climate and Environmental Protection

- Providing 55 bcm of natural gas per year, Nord Stream will help Europe reduce emissions and thereby meet climate protection goals pursuant to the Kyoto protocol and the EU's 20/20/20 programme.
- Nord Stream invested more than 100 million euros in detailed environmental studies and project planning to assess and subsequently minimise environmental impact.
- A pipelay vessel can lay pipeline at a rate of approximately 2.5 kilometres per day, much faster than an equivalent pipeline construction on land; due to the short duration of construction works, the environmental impact related to pipe laying is minimal.

Surveys and Environmental Impact Assessments (EIA)

- Nord Stream is subject to national legislation in each of the countries whose waters the pipeline route crosses: Russia, Finland, Sweden, Denmark and Germany. Nord Stream submitted all necessary permit applications and EIA materials according to national requirements and had obtained all permits required to construct the pipeline by January 2010.
- The purpose of an EIA is to identify, predict and evaluate ways to mitigate the impact of a proposed project on the bio-physical and social environment.
- Between 2005 and 2009 alone, more than 40,000 kilometres of geophysical surveys were carried out and more than 6,000 kilometres were subject to gradiometer survey. The results of these surveys and related research are part of the EIA materials.

[1] Greenpeace, 2010. Erdgas: Die Brücke ins regenerative Zeitalter. August 2010.
[2] All comparisons are own calculations based on data available in:
[1] Greenpeace, 2008. Energy [R]evolution, A Sustainable Global Energy Outlook. October 2008. p. 43.
[2] Vattenfall, 2007. Global Mapping of Greenhouse Gas Abatement Opportunities up to 2030. June 2007. p.73.
[3] Marheineke, Torsten, 2002. Life cycle assessment of fossil, nuclear and renewable electricity generation techniques. November 2002.

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- The scope of Nord Stream's EIA materials included e.g. bathymetry and hydrography, sediment and raw material sources, fish and fisheries, birds, marine mammals, protected areas, cultural heritage, air quality and noise.
- The expertise of reputable independent contractors contributed to a project design that keeps environmental impact to a minimum: Suppliers from Sweden, Russia, Germany, Norway, Finland and Denmark carried out seabed surveys and related research. Industry leader Saipem Energy Services (formerly Snamprogetti, Italy) delivered the detailed technical design.
- Since 1997, more than 2,500 km² of the Baltic Sea have been thoroughly surveyed. More than 150 monitoring stations were used to investigate water quality, sediment contamination, plankton composition, bird habitats and marine life.

Objectives of the Environmental and Social Monitoring Programme (ESMP)

- To verify that the pipeline is installed and operated in accordance with permit conditions.
- To verify that the pipeline construction does not cause impacts that were not anticipated or impacts that are greater than anticipated.
- To verify the findings of the national EIAs.
- To monitor the recovery of the environment after construction.
- To control and monitor that significant environmental disturbance will not be caused.
- To provide the basis for corrective action if necessary.

Five Facts about Nord Stream's ESMP

- Until 2016, a total of 40 million euros will be invested in the Environmental and Social Monitoring activities.
- More than 20 companies are contracted to conduct the surveys defined in the ESMP.
- Data are collected from approximately 1,000 survey locations along the route.
- Data covering 16 subject areas are studied in detail, for example, water flow, seabirds and noise pollution.
- The data are analysed in internationally recognised laboratories, and the results are reported to the national environmental authorities in each country.

Reporting the Results of the ESMP

- The environmental monitoring carried out to date confirms that the environmental impact of the Nord Stream Pipelines is in line with or below the values assessed in the EIAs.
- The results of the ESMP are made available on our website in different formats. The brochure "Supplying Gas to Europe while Protecting the Environment" offers comprehensive information about the scope of the monitoring programme and findings to date. The complete reports of the monitoring programme can also be found online.

More information at www.nord-stream.com

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