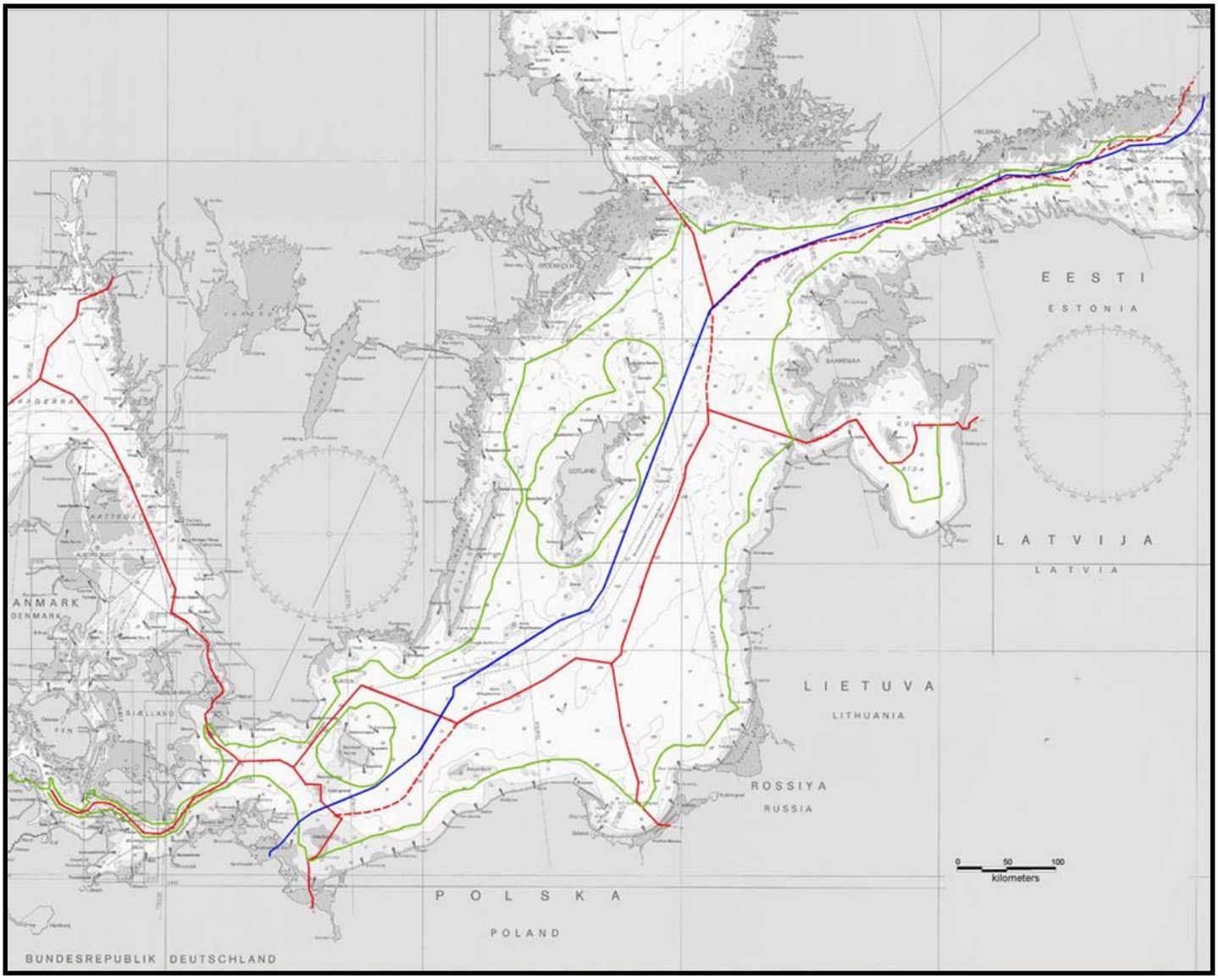
Nord Stream, Sweden and Baltic Sea Security

ROBERT L. LARSSON



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Nord Stream, Sweden and Baltic Sea Security

In June 2006, FOI published the report: *Sweden and the NEGP: a Pilot Study of the North European Gas Pipeline and Sweden's Dependence on Russian Energy*, a base data report on a topic that FOI considered to be of rising importance, namely the suggested gas pipeline from Russia to Germany via the Baltic Sea.

Much has happened since then and the NEGP has changed its name to Nord Stream and submitted an official notification on the intention of constructing the pipeline.

This report constitutes an updated version of the previous report, but most of the old report still stands valid, especially concerning the historical survey of Russia's energy policy. This new report has additional chapters and is broader in scope concerning the consequences of the project. The primary aim of the report is to discuss and analyse some of the core aspects of Nord Stream and the pipeline project with regard to the security situation of the Baltic Sea region.

One conclusion is that Nord Stream would, if it is constructed, provide Europe with yet another opportunity to diversify its import channels of gas. It is however reasonable to conclude that Nord Stream also could change the strategic pattern and be a source of friction as it may rock the regional stability and reduce the potential of the new EU members to become security providers in Europe's northern dimension. The pipeline will also give increased leverage and influence to Russia, a state that has moved in an authoritarian direction under President Putin. In addition, it divides the EU-members into two parts and makes it more difficult to form a common European energy policy.

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Nord Stream, Sweden and Baltic Sea Security

Abstract

In June 2006, FOI published the report: *Sweden and the NEGP: a Pilot Study of the North European Gas Pipeline and Sweden's Dependence on Russian Energy*, a base data report on a topic that FOI considered to be of rising importance.

Much has happened since then and the NEGP has changed its name to Nord Stream and submitted an official notification on the intention of realising the project of constructing a gas pipeline from Russia to Germany via the Baltic Sea.

The primary aim of this report is to discuss and analyse some of the core aspects of Nord Stream and the pipeline project with regard to the security situation for the Baltic Sea region.

The report constitutes an updated version of the previous report. Most of the old report still stands valid, especially concerning the historical survey of Russia's energy policy, but the new report has additional chapters and is broader in scope concerning the consequences of the project.

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Sammanfattning

I juni 2006 publicerade FOI rapporten *Sweden and the NEGP: a Pilot Study of the North European Gas Pipeline and Sweden's Dependence on Russian Energy*, en underlagsrapport i ett ämne som FOI ansåg vara av stigande betydelse.

Mycket har hänt sedan dess och NEGP har ändrat sitt namn till Nord Stream och skickat en notifiering till Sverige rörande intentionen att konstruera en gasledning under Östersjön, från Ryssland till Tyskland.

Huvudsyftet med denna rapport är därför att diskutera och analysera några kärnfrågor kring Nord Stream och gasledningen med tonvikt på den säkerhetspolitiska situationen i Östersjöregionen.

Rapporten utgör således en uppdaterad version av den förra rapporten, men flera av den föregående rapportens delar är oförändrade, t.ex. rörande tillbakablicken på Rysslands energipolitik. Dock har denna nya version ett par nya kapitel och ett bredare anslag när det gäller projektets konsekvenser.

Nyckelord

Sverige, Ryssland, Baltikum, OSS, säkerhetspolitik, energi, energisäkerhet, naturgas, olja, råvaror, rörledning, Nord Stream, Östersjön, beroende, sårbarhet

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Nord Stream, Sweden and Baltic Sea Security

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Preface

In June 2006, FOI published the report: *Sweden and the NEGP: a Pilot Study of the North European Gas Pipeline and Sweden's Dependence on Russian Energy;*[1] a base data report on a topic that FOI considered to be of rising importance.

Much has happened since then and the NEGP has changed its name to "Nord Stream" and submitted an official notification on the intention of realising the project of constructing a gas pipeline from Russia to Germany via the Baltic Sea.

This report constitutes an updated version of the previous report, but it has not been moulded into a completely new report. Instead, it takes the form of a compiled report that presents several perspectives. Even if most of the old report remains valid, especially the historical survey of Russia's energy policy, this report has additional chapters and its broader scope includes the consequences of the project.

Research has mainly been conducted within the NOSS-project (North European Stability and Security), and connects to previous work carries out within the project,[2] but it also draws on the findings of other projects.

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[1] Larsson, Robert L. (2006e), *Sweden and the NEGP: A Pilot Study of the North European Gas Pipeline and Sweden's Dependence on Russian Energy*, Stockholm: The Swedish Defence Research Agency (FOI), FOI-R-1984-SE.

[2] For example: Ljung, Bo (red.) (2005), *Nordeuropeisk säkerhet och stabilitet [North European Security and Stability]*, Stockholm: The Swedish Defence Research Agency (FOI), FOI-R--1626--SE, and Oldberg, Ingmar (2006a), *Aktuell tysk säkerhetspolitik: prioriteringar och tendenser [Current German Security Policy: Priorities and Tendencies]*, Stockholm: Totalförsvarets forskningsinstitut (FOI), June 2006, FOI-R--1976--SE.

Executive Summary and Issues of Concern

- *Overview*: Russia and Germany still have the intention of carrying out the prioritised Nord Stream project, although it is highly unlikely that it will be operational in 2010 as planned.

- The fact that it first and foremost is a political project does not mean that it is not commercially sustainable. Although the financial aspects of the project are still unsolved or shielded from insight, the project seems to have larger problems than it wants to admit. The financial burden will have to be borne by the end-consumers.

- If the pipeline is built then the Nord Stream will enhance Russia's direct leverage on Poland, Ukraine, and Belarus since it will allow Russia to re-direct gas flows without it affecting exports to other parts of Europe to the same extent as before. Russia will also increase its leverage over the states that connect to the pipeline (Germany, and possibly also Belgium, Denmark, the Netherlands and the UK). All littoral states of the Baltic Sea will be affected by the project.

- *Energy political issues*: Although it is a diversification of supply routes (but not a diversification of supplier), Nord Stream will be a diversification of gas imports for Germany and some other states. Nonetheless, it cannot be seen as a *common European project* as the project goes against the priorities of several EU members. In contrast to Nord Stream's claims, its TEN-status is neither a *carte blanche* to the project *per se*, nor vis-à-vis other suggested projects.

- Nord Stream will spearhead Russia's ambitions to enter the European energy sector and Russian energy actors, especially Nord Stream's mother company Gazprom, will be a force to reckon with on the European downstream market. Russia is, however, reluctant to open its domestic upstream energy sector to European competition. This creates imbalances and makes it more difficult for Russia and EU to find grounds for common energy partnerships.

- The Nord Stream will further jeopardize the regional stability, which in turn causes frictions and reduces the potential for the states of the

Baltic Sea Region states to act as security providers for the region. This is especially the case for the new EU members.

- The regional power balance will shift to Russia's favour and Nord Stream is evidence of the fact that bilateralism still prevails over common EU priorities. A continuation of this trend will negatively affect the common solidarity of the EU.

- European dependence on Russian energy is not problematic *per se*, but a high degree of sensitivity in combination with Russia's development away from democracy, western market practice and rule of law leads to European vulnerability. These problems are aggravated by Nord Stream, even if their core lies in Russia's internal development.

- Due to the European dependence on gas, Russia will at least to some extent be able to affect the marginal cost for gas use in Europe and thereby create less incentive for the power industry to modernise and adopt modern technology.

- Natural gas is indeed an environmentally better option than coal, but modern coal plants may be better than traditional gas power stations and renewable energy is even better for the environment. Nord Stream will sustain fossil fuel usage in Europe and there are thus environmental concerns that lie outside the legal space of an Environmental impact assessment (EIA) process.

- *Threats to supplies*: Although a full and permanent interruption of supplies aimed at western European states is highly unlikely, existing political barriers against use of the energy levers are few and weak as Russia's system of political checks and balances is poorly developed. By and large, they do not provide any real hindrance against frictions or short-duration cut-offs. This and other problems may lead to appeasement policies by importers.

- Repercussions in the wake of a bilateral or regional crisis might not necessarily be instant, but can be embodied as partial supply interruptions, contractual disagreements, technical difficulties, price increases or other frictions.

- The new EU members run the biggest risk, and if the old members fail to acknowledge it, European integration and cooperation will become more problematic and weak states may use less diplomatic efforts to put forward their concerns.

- *Military and other issues*: Nord Stream has potentially military implications since it might need military or other protection. If so, it would step up the level of military presence in the region that possibly could become a source of political friction.

- Should a riser platform be constructed and staffed by Russian citizens, Russian demands for protection against terrorists would likely follow even if the platform would fall under Swedish territorial jurisdiction. Such a development could also lead to political frictions. Bilateral cooperation in this matter would also not be free of tensions since it is unlikely that the Russian way of conducting anti-terrorist operations is in line with Swedish notion of doing so.

- Furthermore, the riser and pipeline could be used as sensor platforms an by that serve intelligence purposes and give Russia a competitive intelligence edge in the Baltic Sea area.

- *Responsibilities*: There is a risk that Nord Stream could use semi-legal subcontractors, intermediaries or subsidiaries that may be registered offshore and by that evade their responsibilities, environmental or otherwise. The fact that Nord Stream is registered in Switzerland could add to the problem of transparency, as insight into the Swiss banking sector is limited.

- *Alternative routes*: Nord Stream has deliberately avoided a route through the Baltic states' exclusive economic zones, even though this would have resulted in a shortening of the pipeline as well as a more straight stretch, which is an explicit ambition. A stretch farther eastward would alleviate some of the existing risks, for example the risk for collisions during the construction phase. The increasing oil tanker traffic in the Baltic Sea is an aggravating factor in this regard.

- Nord Stream is right insofar that it is impossible to increase capacity on the existing Yamal-pipeline to sufficient levels for meeting

demand. However, the most feasible option would be to lay additional pipelines next to the existing ones and thereby provide substantial amounts of gas to Europe. There are great benefits is such an approach as current pipeline routes are already in place, as are support and maintenance facilities. The additional environmental impact would thus be extremely small compared to laying pipes under water.

- It would probably be more problematic to find investors in a project that would rely on Belarus, compared to the Baltic Sea option. Therefore, the land-based option via Latvia and Lithuania (the Amber route) seems as the best option as it would connect Russia and EU without reliance on third parties.

- However, a land-based option would probably not be considered by Nord Stream and should another option be placed on the agenda, it would most likely be Gazprom itself that would be the key company.

- The opposition to the project by the new EU members is not only due to environmental concerns and to increased Russian leverage. Rather, Ukraine, Belarus, the Baltic countries and Poland also stand to loose transit money and counter-leverage on Russia due to the Nord Stream option. Thus, there are several intertwined interests in promoting alternatives.

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Cover: map of the Baltic Sea region
Blue line: Nord Stream's planned route
Red lines: the Exclusive Economic Zones (EEZ)
Green lines: territorial water zones.

1 Introduction

Despite some recent efforts, a real common energy strategy of the European Union is still in the making. Every single EU-member has therefore opted for bilateral policies towards energy exporters in order to tackle mounting energy demands at a time when global hydrocarbon resources are slowly but steadily being depleted.

Europe is wedged between energy producers in the North Sea, North Africa and the Middle East, but Russia has come to be one of the most interesting exporters of energy to Europe and, conversely, Europe is an important market to Russia. This situation provides fertile ground for trade and cooperation. In short, 80 per cent of Russia's oil exports and 60 per cent of its gas exports go to Europe. Russian gas made up 50 per cent of Europe's gas imports in 2005.

EU's domestic gas production is gradually falling and net imports will, according to the International Energy Agency (IEA), increase dramatically in the future.

Table 1: Gas Suppliers to the EU 2005

Country	**% of total imports**
Russia	50
Algeria	23
Norway	22
Others	5

Source: EU figures in: Energimyndigheten (2006), *Europas naturgasberoende: åtgärder för tryggad naturgasförsörjning* (Eskilstuna: Energimyndigheten), p. 21.

By 2030, the import needs will probably be five or six times higher than EU's domestic gas production. However, Russia's exports of gas to Europe will not necessarily meet this demand by itself as Russia might give priority to other markets or chose to earmark its gas for the domestic sector. Nevertheless, in the short-term perspective, Europe will remain the key market for the bulk of the Russian gas. The main reasons are geographic proximity, existing infrastructure and the mutual interests of producers and consumers.

Europe's Diversification and International Competition

Later chapters of this report demonstrate that although Russia has been a reliable supplier in terms of gas volumes, its exports to the CIS-states and Eastern Europe have been plagued by cut-offs and coercive policies that occasionally has affected even the large nations of Europe. This is one reason why the diversification issue has come back onto the political agenda in Europe.

Large-scale import diversification is a daunting task, but there are ongoing projects for bringing Caspian energy to Europe and great opportunities to give Turkey a greater role as an energy hub.

An example of such a project is the Baku-Tbilisi-Erzerum (BTE) pipeline, aimed at channelling gas from the Caspian Sea via Georgia to Turkey. Given Turkey's interest in EU membership, it is possible that Brussels would be willing to take advantage of Turkey as a transit state even if this would not be part of a formal EU plan.[3] This issue is further emphasised by the planned Nabucco pipeline over the Balkans, and in the long-term perspective, even Iranian gas could be imported to Europe via either Azerbaijan and/or Armenia via Georgia to Turkey. A primary goal in this regard is to find ways to divert Caspian resources to European markets without relying on Russian pipelines.

Figure 1: The Nabucco pipeline over the Balkans

Source: EU

Moreover, there is an increasing interest in Liquefied Natural Gas (LNG), but currently only 10 per cent of European gas transport is in the form of LNG.[4] Although LNG is strongly increasing, gas transported by pipeline is likely to keep its premier position for the near future.

[3] Lynch, Dov (2000), *Russian Peacekeeping Strategies in the CIS: the Cases of Moldova, Georgia and Tajikistan* (Basingstoke, New York, N.Y.: Macmillan in association with the Royal Institute of International Affairs Russia and Eurasia Programme: St. Martin's Press), pp. 20-22.

[4] Energimyndigheten (2006), *Europas naturgasberoende: åtgärder för tryggad naturgasförsörjning [Europe's Gas Dependence: Measures for Secure Gas Supply]* (Eskilstuna: Energimyndigheten), p. 13.

Despite these and other efforts, Europe is bound to continue its reliance on Russian oil and gas and Russia is often seen as a stable alternative to the Middle East.

In short, there are reasons to explore what the consequences of this reliance can be. There are numerous problems and Russia has so far been unwilling to ratify the Energy Charter Treaty and the Transit Protocol, which other CIS states have.[5] From a European point of view, these are key documents that Russia needs to adhere to if it wants to convince importers that it is honest in its intentions of becoming a reliable supplier for the foreseeable future.[6] Apart from what is said later on in this report, a key problem lies at the political level in European-Russian relations.[7]

A high-profile Russian-EU energy partnership was launched in 2000, but only a few issues are dealt with at the aggregated EU-Russia level. One reason is that not all European states are members of the EU, and another is that most states pursue their own agendas and thus opt for bilateral policies towards Russia. This situation is promoted by Russia, since it prefers a situation where it can deal directly with Brussels when it suits Moscow and go for bilateral approaches when Brussels is difficult to tackle or lacks the authority to be decisive. It is also an opportunity for Russia to sow dissension and to increase its leverage on smaller members of the EU. The international energy markets are harsh environments and there is little that would stop Russia from exploiting this weakness as long as the EU does not take any actions to prevent single members from entering long-term contracts that other members considers problematic.

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[5] The main reason why Russia has refused to ratify the treaty is Gazprom's wish to remain a monopoly (and Gazprom has had the ability to create opposition in the Duma, especially up until 2001). Stern, Jonathan P. (2005), *The Future of Russian Gas and Gazprom* (Oxford: The Oxford University Press/The Oxford Institute for Energy Studies), p. 137.

[6] On the relation, also see EU-kommissionen (2002), 'The EU-Russia Energy Partnership', *EU*, Last accessed: 13 november 2002, Internet: http://www.europa.eu.int/comm/energy_transport/en/lpi_en_3.html.

[7] Anderman, Karin, *et al.* (2007), *Russia-EU External Relations: Russian Policy and Perceptions*, Stockholm: Swedish Defence Research Agency (FOI), February 2007, FOI-R-2245--SE.

Another core problem in European-Russian relations is that there is no ground for common values. Evidence shows that the 'strategic partnership' that president Putin often boasts about is not respected by Russia.[8] The gas sector is an example where diverging positions are immanent and both the EU and the WTO have called for liberalisation. Putin has taken a firm stand and declared that:

> *The gas pipeline system is the creation of the Soviet Union. We intend to retain state control over the gas transportation system and over Gazprom. We will not divide Gazprom. And the European Commission should not have any illusions. In the gas sector, they will have to deal with the state.*[9]

Simultaneously, the EU and its members cannot afford to refrain from dealing with Russia, the world's foremost supplier of natural gas and second largest supplier of crude oil. Distancing itself from Russia would entail a risk of loosing ground in the global battle for energy. This would be problematic as the major consumers of oil, such as the United States, together with emerging economies like China and India, increase their energy consumption many times over.

As a consequence, Russia's role will increase in importance even further even if Europe's reliance on Middle Eastern energy is larger in terms of volumes. A new 'great game' has hence come to take place on the Eurasian landmass, where all great powers compete for access to the energy resources in Russia and the former Soviet Union.[10] Europe must master this game if it wants to become an engine of growth and prosperity. The difficult trade-offs are between security, environmental and economic concerns. A planned gas pipeline embodies these difficulties.

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[8] See, for example, Menkiszak, Marek (2006), *Russia vs. the European Union: a "Strategic Partnership" Crisis*, Warsaw: Centre for Eastern Studies (OSW), January 2006, No. 22.

[9] Putin cited in Fredholm, Michael (2005), *The Russian Energy Strategy and Energy Policy: Pipeline Diplomacy or Mutual Dependence?*, Swindon: Conflict Studies Research Center, September 2005, 05/41, p. 9.

[10] Noreng, Øystein (2000), 'Rørledningar er storpolitikk: Det nye store spillet om oljen fra Kaukasus og Sentral-Asia [Pipelines are Great Politics: The New Great Game about the Oil from the Caucasus and Central Asia]', *Internasjonal Politikk*, Vol. 58, No. 2.

Nord Stream – A Change in the Regional Strategic Pattern

Developments between 2004 and 2007 indicate that a gas pipeline trough the Baltic Sea may be realised in the coming decade. This would provide Europe with yet another opportunity to diversify its gas imports, something that is highly prioritised in official documents such as the Green Book on energy.[11] However, this diversification is somewhat artificial as it is only a diversification of supply routes, not a diversification of supplier. As will be shown below, it is also reasonable to expect that Nord Stream will affect the strategic pattern in the region and be a potential source of friction, at least between some states.

Figure 2: The Nord Stream project and other pipelines

Source: Nord Stream

For Sweden, the Middle East and Norway have been key suppliers for many years but Sweden now dramatically increases its imports of Russian oil. This is certainly no problem *per se*, but it may have

[11] EU Commission (2006), *Green Paper: A European Strategy for a Sustainable, Competitive and Secure Energy*, Brussels: The EU Commission, 8 March 2006, COM (2006)105 Final.

consequences also for the wider Baltic Sea region, which in turn might affect the international relations both in the regional and in the EU contexts, not the least since politics, economy, energy and strategy all affect and reinforce each other. As a consequence, Sweden stands at a strategic crossroads and must decide whether or not it wants to increase its use of natural gas and subsequently connect to the Nord Stream, should it be realised.

Even if Sweden is not embracing the Nord Stream project today, there might come a time when it will. For Sweden, its energy predicament is made worse by the fact that it has cornered itself by putting limitations on its use and expansion of both hydropower and nuclear power at the same time as it has set out to reduce its dependence on oil and non-renewables. Despite Sweden's reluctance to energy imports in general, it is facing a situation of increased oil imports from Russia. The issue of gas and the Nord Stream is open to the future and consequently these issues must be addressed if regional stability is to be retained.

Aim of the Study

Against this background, the primary aim of this report is to discuss and analyse some of the core aspects of Nord Stream and the pipeline project with regard to the security situation for the Baltic Sea region.

Approach of the Study

This study first and foremost approaches the Nord Stream from the perspective of security politics, which means that environmental or commercial aspects will only be marginally treated, even if issues such as oil shipments from the Russian port of Primorsk affect Sweden and the littoral states to a higher degree than Nord Stream. This is the subject of future studies.

Even if much has happened since the previous pilot study, this one is still far from exhaustive and it has not been re-moulded into a new and completely unified report. Instead, it is something of an extended anthology by a single author, presenting several separate perspectives on the issue. It does also not present a full vulnerability analysis where levers and counter-levers are scrutinised for all single actors and the theoretical discussions are kept to a minimum. What the study does, however, is to sketch and canvass the current situation and point to

issues that are, or might develop into risks, threats, problems or concerns for Sweden, the Baltic Sea region and the EU.

The pilot study had the implicit aim to analyse concerns in the light of a possible Swedish connection to the pipeline, but since such a connection is remote in time, if it ever will materialise, this aspect is less acute and is thus given less attention. A hypothetical discussion is nevertheless presented where appropriate in order to illustrate future issues of concern. The chapter on the Swedish energy situation is also left fairly untouched in order to provide a background reading for an international readership.

Naturally, this reports draws on the findings of other work by FOI in this and related issues, for example the work on Russia's development[12] and more specifically, on its energy policies and it's reliability as an energy supplier,[13] but also on other work in this matter.[14]

Some notes on definitions are in order: While 'energy safety' concerns the physical safety of supply and critical infrastructure, 'energy security' is a much wider concept. A narrow definition of energy security basically boils down to the issue of 'security of supply', e.g. whether an end-customer receives energy. However, a broader security definition, which this study uses, shows that energy security also encompasses issues that have bearing on the strategic, political, military, and economic or foreign policy related fields. It includes the aspect of security of supply but also political and security-related issues that have bearing on the energy trade. Energy security also relates to economic security, which can be defined as:

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[12] Leijonhielm, Jan*, et al.* (2005), *Rysk militär förmåga i ett tioårsperspektiv - problem och trender 2005 [Russian Military Capability in a Ten-Year Perspective - Problems and Trends 2005]*, Stockholm: Swedish Defence Research Agency (FOI), June 2005, User Report FOI-R--1662-SE.

[13] Larsson, Robert L. (2006c), *Russia's Energy Policy: Security Dimensions and Russia's Reliability as an Energy Supplier*, Stockholm: The Swedish Defence Research Agency (FOI), Scientific Report FOI-R--1934--SE.

[14] FOI (2007), *Yttrande till Försvarsdepartementet rörande Nord Stream och gasledningen genom Östersjön [Report to the Ministry of Defence Concerning Nord Stream and the Gas Pipeline through the Baltic Sea]*, Stockholm: The Swedish Defence Research Agency (FOI), 7 February 2007, 06-1964:3.

> *[…]the ability to protect or to advance [an actor's i.e. a state's] economic interest in the face of events, developments, or actions that may threaten these interest.*[15]

It is reasonable to assume that it is more difficult to protect or advance these economic interests if there is a high degree of dependence. An analysis of Nord Stream and the energy dependence on Russia must at least address a set of four topics, namely:

1) The status and perceptions of Nord Stream
2) The consequences and problems due to the Nord Stream project
3) Russia's energy policy and usage of the energy levers
4) A discussion on the safeguards and potential triggers in the context of a potential crisis

These four questions will guide the study, which has the ambition to provide some tentative answers to them.

Outline of the Study

The study consists of eight chapters and the overall structure is based on the idea of having the most relevant chapters first. After this introductory chapter, the second chapter gives an overview of the Nord Stream project in terms of time schedule, planned route and ownership.

The third chapter outlines and discusses some of the political and security consequences that the Nord Stream brings about. It also discusses the question of what the risks for Sweden, the Baltic Sea region and the EU are and could be.

The fourth chapter discusses the perceptions held by various actors concerning the pipeline while the fifth chapter goes into the possibility of alternative stretches of a pipeline.

The sixth chapter canvasses Sweden's energy situation and provides a review of Sweden's energy imports, more specifically of crude oil, natural gas and electricity. Moreover it deals with Sweden's sensitivity in

[15] Neu, C. R. and Wolf, Charles Jr. (1992), *The Economic Dimensions of National Security*, Santa Monica: RAND/National Defense Research Institute, MR-466-OSD, pp. xi-xii.

terms of energy imports from Russia and briefly raises the topic of vulnerability.

The seventh chapter follows on by looking at one aspect of vulnerability by addressing the policies of the energy supplier, namely Russia. Russia's intentions and capabilities are covered and the chapter outlines a few cases of when Russia has used its oil and gas resources as levers in its foreign relations.

In order to give some perspective on the aspect of vulnerability, the final chapter mentions one issue that could act as a catalyst for strained relations between Russia and an individual EU member. The chapter also details some of the barriers that exist against supply interruptions.

An executive summary with the most important conclusions is found at the beginning of the report. A reader who is short on time is advised to read the executive summary and chapters one to five together with the key points-sections in order to grasp the main issues.

2 Basic Data of the Nord Stream Project

The chapter gives a background and technical data on the project. However, Nord Stream has provided an extensive notification that should be consulted for the details of the project.[16] Most of the information in this chapter has been added since the pilot study was published.

Declaration of Intent
The North European Gas Pipeline, which later changed its name to Nord Stream,[17] received great attention when it was announced at a trade fair in Germany on 11 April 2005 that Russia and Germany had signed an agreement on constructing the pipeline. The aim of the project was to bring Russian gas to the European consumer markets, especially Germany.

Discussions had been going on since 1993 and the initial feasibility studies were made during 1997, but after that progress slowed down. However, In 2002 the idea was partially embraced by the EU and was even declared a priority, which boosted the project and even granted it support from the European Bank of Reconstruction and Development.[18]

Ownership, Construction and Operation
It is important to stress that Nord Stream is a company that first and foremost exists on paper. It has only about 70 personnel, mainly working at the headquarters in Swiss Zug. Nord Steam does not have any constructors, pipes or staff itself, but will rely on both international and domestic subcontractors. However, Gazprom will be *de facto* responsible

[16] Nord Stream (2006), *Nord Stream Project Information Document: Offshore Pipeline through the Baltic Sea*, 24 October 2006, but also other related Nord Stream documents, for example Nord Stream (2006b), *Säker gasförsörjning för Europa [Secure Gas Supplies for Europe]*, Nord Stream, 29-30 November 2006, and Nord Stream (2006a), *Nordeuropeiska gasledningen (NEGP) (Sjödel): Bilaga till anmälan till utsatta parter enligt artikel 3 i Esbokonventionen [The North European Gas Pipeline (NEGP) (Offshore Section): Appendix to Notification to Affected Parties According to Article 3 of the Esboconvention]*, Zug: Nord Stream, 2006, N/A.
[17] It has also been labelled the Baltic Undersea Gas Pipeline or abbreviated NEG or even NEP.
[18] Sinijärv, Riivo (2006), 'The NEGP: Estonian Perspective', in: Kazin (Ed.) *Baltic Mosaic 2006* (St Petersburg: Baltic Research Center).

for design, construction and operation but many companies will be involved.

Table 2: Members of the Shareholder's Committee

Member	**Affiliation**
Alexei Miller	Chairman of the Board of Executive Directors of OAO Gazprom
Alexander Medvedev	Deputy Chairman of the Board of Executive Directors of OAO Gazprom and Director-General of OOO Gazexport
Vlada Russakova	Member of the Board and Head of Strategic Development at OAO Gazprom
Gerhard Schröder	Head of the Shareholder's Committee and former Chancellor of the Federal Republic of Germany.
Voscherau Eggert	Deputy Chairman of the Board of Executive Directors and Director of Personnel of BASF AG
Reinier Zwitserloot	Chairman of the Management Board of Wintershall AG
Burckhard Bergmann	Member of the Management Board of E.ON AG and Chairman of the Management Board of E.ON Ruhrgas AG
Hans-Peter Floren	Chairman of E.ON Ruhrgas Transport AG & Co. KG.

Source: Author on data in: Nord Stream (2007), Shareholder's Committee, Nord Stream, Last accessed: 13 March 2007, Internet: http://www.nord-stream.com/eng/company/management/.

Gazprom owns 51 per cent of Nord Stream while German BASF/Wintershall and E.ON/Ruhrgas have 24.5 per cent each. During April 2006, Gazprom also announced that another partner would be admitted. The short-listed candidates were Gas de France, BP, Transco and Gazuni. The rationale would be that the project needs additional companies to support its ambition to promoting Nord Stream gas on the European market.[19] As there is no problem of finding customers for Russian gas, this announcement could be interpreted as a new way of building popular support for the project and as an attempt to reduce the negative perceptions of European states. It is also essential to know that Russia sees security of demand as important as Europe sees security of supplies. It is clear that even if new partners will be admitted, Gazprom will keep its 51 per cent stake.

The actual gas for the pipeline is Russian, and the plan has been to feed the pipe from the gas fields in Western Siberia (specifically, from the Yuzhno-Russkoye deposit) although it has been said that gas might later

[19] RosBusinessConsulting (2006), 'Partner Wanted for NEGP', *RosBusinessConsulting*, Last accessed: 28 April 2006, Internet: http://www.rbcnews.com/free/20060427182336.shtml.

come from the Yamal and Shtokmanskoe fields in the far north. There are however many unclear aspects of these assertions and latest data show that the Shtokman gas is not earmarked for Nord Stream.[20]

Information on the topic frequently changes. On the one hand, Gazprom has signed a deal with BASF that gives BASF a 35 per cent (minus one share) in the Yuzhno-Russkoye field. In return, Gazprom increased its ownership from 35 per cent to 50 per cent (minus one share) in German Wingas along with a stake in BASF's production subsidiary in Libya.[21] On the other hand, Russia has declared that it does not need foreign support for taking new fields into operation and when it comes to the large Shtokman field, Russia will do it alone.[22]

Planned Route

The planned route of the Nord Stream is from Russian Vyborg in the Gulf of Finland to Greifswald in Germany. For long, there was a possibility of a branch also to Kaliningrad, at least according to Alexei Miller, the CEO of Gazprom,[23] but there was also talk about whether a leg would be built to Sweden.[24] According to the official website at the time, there *would be* a spur to Sweden,[25] but Sweden has not officially approved of it and the company Peter Gaz, which is owned by Gazprom, has only raised the topic, but no formal request has been seen at the time of this report.

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[20] Hamilton, Carl B. (2007), *Naturgasledning på Östersjöns botten: Lägesrapport 23 februari 2007 [Natural Gas Pipeline on the Seabed of the Baltic Sea: Update 23 February 2007]*, Stockholm: Folkpartiet, 23 February 2007, p. 12.

[21] Belton, Catherine (2006a), 'Gazprom Swaps Shares of Gas field for BASF Assets', *Moscow Times*, Last accessed: 28 April 2006, Internet: http://www.moscowtimes.ru/stories/2006/04/28/043.html.

[22] Moe, Arild (2006), 'Sjtokman-beslutningen: Forklaringar og Implikasjoner [The Shtokman Decision: Explanations and Implications]', *Nordiskt Östforum*, No. 4

[23] RosBusinessConsulting (2005), 'Gas Pipeline to Secure Kaliningrad Supply', *RosBusinessConsulting*, Last accessed: 6 July 2005, Internet: http://top.rbc.ru/english/index.shtml?/news/english/2005/07/04/04133414_bod.shtml.

[24] Moscow News (2005), 'Russia's Gazprom Begins Construction of a North European Gas Pipeline', *Moscow News*, Last accessed: 28 November 2005, Internet: http://www.mosnews.com/money/2005/08/22/gazprompipeline.shtml.

[25] NEPG (2006b), 'Importance', *The NEGP*, Last accessed: 29 March 2006, Internet: http://negp.info/. The early official map also showed that the Nord Stream will run over the island of Gotland – this is not the case.

In contrast to the early plans, Finland has not been invited to join the project in its current form, but there are suggestions of legs to Denmark, Belgium, the Netherlands and the UK. Whether they will materialise remains to be seen and it is not necessarily Nord Stream that will push for such projects.

Technical Features, Process and Timeline

According to Nord Stream's plans, there will be two parallel pipelines that together will supply 55bcm/year of gas. Approximately at the middle of the route, there is supposed to be a riser, a service platform, for managing the flow of gas.[26]

Most analysts agree that Nord Stream's agenda is optimistic, but the overall time schedule for construction is as follows:[27]

1997-1999	Feasibility study
2005-2006	Conceptual design
2006-2007	Detailed design
2006-2008	EIA and permit-process
2008-2010	Laying of pipeline 1
2010	First supply of gas
2011-2012	Laying of pipeline 2
2012	Pipeline 2 operational

In August 2005, Gazprom started construction of a land-based leg in the Leningrad Oblast,[28] which often has been shown on TV. This is however not really Nord Stream proper as this pipeline lies outside the actual project and is not managed by the same company. The land-based stretch is Gazprom's own project and the pipeline can be used for supplying the Leningrad Oblast with gas or used for providing gas for LNG-terminals in the Gulf of Finland.

Apart from the political declarations and initial feasibility studies, the process was also boosted in November of 2006 when Nord Stream submitted a notification of intent to the littoral states of the Baltic Sea. It

[26] See Nord Stream *Nord Stream Project Information Document...*
[27] Nord Stream *Säker gasförsörjning...* p. 22.
[28] Moscow News 'Russia's Gazprom Begins Construction of a North European Gas Pipeline'.

was basically a series of technical documents that outlined the project and stated that Nord Stream has the intention to submit a formal application for the project in 2007.

In Sweden, the responsible governmental body for handling the issue is the Swedish Environmental Protection Agency (*Naturvårdsverket*).[29] It does not make any decisions but merely administers the Environmental Impact Assessment (EIA) process. In the same way as other affected states, Sweden asked relevant national agencies, NGO's and institutions to comment on the notification until the 26 of January 2007. During the following weeks, the reviews/comments from all countries were compiled and distributed to Nord Stream and to other affected states on the 16 February 2007.[30]

The next major step in the process will be when Nord Stream submits its formal application by the end of the summer of 2007 and the proper EIA-process is initiated. The Swedish government will make the final decisions on the appropriate legal grounds. It is not unusual that the processes of this kind take one to two years; in some countries, for example Germany, it can take up to three years.[31]

Key Points

- The pipeline will in reality be designed, built and operated by Gazprom and other subcontractors as Nord Stream has no operational staff or assets.

- The land-based stretch, which has already been built in Russia, is not really a part of the Nord Stream project. The actual construction is supposed to commence in 2008, but this schedule seems highly optimistic.

[29] According to its web site: "The Swedish Environmental Protection Agency is a national authority answering to the Swedish Government. The Agency has a staff of 550, and performs a pro-active, co-ordinating role in efforts to strengthen and broaden responsibility for the environment in society at large".
[30] Se for example: Naturvårdsverket (2007), 'Comments on Nord Stream AG's Planned Gas Pipeline', *The Swedish Environmental Protection Agency*, Last accessed: 28 February 2007, Internet: http://www.internat.naturvardsverket.se/.
[31] Hamilton *Naturgasledning på Östersjöns botten...* p. 6.

3 The Nord Stream – Consequences and Concerns

The chapter outlines and discusses some of the political and security concerns and consequences that Nord Stream entails. Compared to the pilot study, the chapter contains significant additions.

Rationale and Legitimacy of the Project

While the drivers behind the project are discussed further below, this section looks at how Nord Stream as a company presents the rationale and legitimacy of the project.

There are three official claims to legitimacy. Firstly it has TEN-status, secondly there is a need for increased supplies of gas to Europe and thirdly, spokespersons for the EU and other prominent persons have embraced the project.

Firstly, Nord Stream emphasises that the project is a *common European project* as it has been blessed by the so-called Trans-European Network-Energy (TEN-E) status.[32] In reality, the TEN-E status is not as important as it may seem. The intention is to provide financial support in an initial phase of a project in order to explore multiple options. Projects are also meant to contribute to the liberalisation of the European energy markets.[33]

A TEN-E project may be important in several ways, but not necessarily for the whole of Europe. For example, in 2001 Sweden received support for increasing power transmission capacity in central Sweden, which was important to Sweden but unlikely to benefit any other state. It is also worth underscoring that receiving TEN status is neither a *carte blanche* to the project *per se*, nor vis-à-vis other projects. This is important, as TEN-E support also has been given to land-based pipeline routes through the Baltic states.

Secondly, a principal position of the EU is that diversification of imports is necessary. Spokesmen for EU, including the EU Commissioner for Energy, Andries Piebalgs, has therefore been positive about the project,

[32] Nord Stream *Nord Stream Project Information Document...*

[33] See documents at: EU Commission (2007), 'Trans-European Energy Networks', *EU Commission*, Last accessed: 28 February 2007, Internet: http://ec.europa.eu/ten/energy/documentation/index_en.htm.

but the EU does not advocate Nord Stream over other options. Basically, any additional supply route would be welcomed. If other voices have to be considered, and there some criticism has been voice, and some information suggests that a majority in the European parliament is opposed to it.[34]

Quotes by EU representatives or other advocates of the project are often used by Nord Stream to build further legitimacy, a practice that sometimes is too enthusiastic and the affiliations of the spokespersons are not always revealed. To mention but one example, the former Swedish Ambassador to Moscow, Sven Hirdman, gives public presentations, speeches and interviews on the positive aspects of Russia's development[35] and how Nord Stream would benefit Sweden and Europe.[36] Hirdman enjoys great respect due to his career and Nord Stream posts interviews with Hirdman on its website in order to show the large international appraisal for the project.[37] However, even if his current affiliation does not necessarily affect his agenda, it may also be interesting to know that Hirdman works as a business consultant and is a board member of the company Varyag Resources, a company that deals with investments in Russian commodities.[38]

Thirdly, there is the issue of the future need for natural gas in Europe.[39] While an increased demand for gas is undisputable, it is worth stressing that the level can be questioned and that the presented figures ought to

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[34] Neuman, Jonas (2007), 'EU-politiker säger nej till gasledning [EU Politician Says no to Gas Pipeline]', *Sveriges Radio*, Last accessed: 14 February 2007, Internet: http://www.sr.se/cgi-bin/ekot/artikel.asp?artikel=1158542.

[35] Hirdman, Sven (2006), *Russia's Role in Europe*, Moscow: Carnegie.

[36] Hirdman, Sven (2007), 'Gasledningsprojektet i Östersjön [The Gas Pipeline Project in the Baltic Sea]', *Folk och Försvar*, Last accessed: 15 February 2006, Internet: http://www.folkochforsvar.se/files/RK_2007/hirdman.pdf.

[37] Savic, Vladislav (2006), 'Sven Hirdman, Former Sweden's Ambassador in Moscow, Sveriges Radio: "Fear of Russia Dominates the Debate on the Gas Pipeline"', *Swedish Radio/Dagens Eko (Reposted at Nord Stream)*, Last accessed: 15 February 2006, Internet: http://www.nord-stream.com/eng/press/media/page1/issue12/.

[38] Varyag Resources (2007), 'The Board of Directors', *Varyag Resources*, Last accessed: 15 February 2006, Internet: http://www.varyag.eu/default.aspx?page=omvaryag&meny=2&id=30.

[39] Nord Stream *Nord Stream Project Information Document...* , section 2.1-2.2 and Nord Stream (2007), 'Gas for Europe', *Nord Stream*, Last accessed: 15 February 2007, Internet: http://www.nord-stream.com/eng/gas/.

be scrutinised. In general, energy statistics are always subject to questioning and the case of Russia is particularly problematic as its resources are covered by the law on state secrets and are thus not disclosed in full. When it comes to prognoses of demand, Nord Stream however relies on data from the IEA. When the IEA speaks about meeting demand and security of supply, focus is usually on diversification of imports rather than on energy conservation. A careful reading of Nord Stream's material reveals that its analysis is based on IEA's so-called reference scenario.[40] This means that a prognosis is made on certain assumptions on sustained parameters of the energy sector. Basically, this is a 'business-as-usual-scenario'.

However, if Europe makes a modest effort to save energy and use energy more efficiently by using existing technology, the IEA's "alternative scenario" reveals that around 90bcm/year less is needed until the year 2030.[41] Thus there are arguments that the need for the additional 55bcm/year is not as urgent as Nord Stream claims it is.

If European ambitions to save energy are less serious than what the IEA deems possible, reduction in demand would perhaps reach a level of 30bcm. If so, it is not impossible that the second Nord Stream pipeline would be superfluous or that increased capacity of existing pipelines would be sufficient to meet the demand. Drawing such a conclusion might be stretching things a bit far, but the key point is that demand prognoses are not deterministic and taking them at face value may impede ambitions to conserve energy and invest properly.

Lack of Transparency and Murky Connections

The former German Chancellor Gerhard Schröder has been responsible for much of the project and has thus been more than pleased with the Russian-German agreement. When the agreement was announced, he subsequently claimed that there now "was interdependence in economic issues".[42] This can be seen as a natural continuation of the relations

[40] Nord Stream *Säker gasförsörjning...*

[41] IEA (2006), *World Energy Outlook 2006*, Paris: International Energy Agency (IEA), p. 183.

[42] Dempsey, Judy (2005), 'Russian Gas to Flow to Europe via Baltic Sea', *International Herald Tribune*, 12 April 2005, p. 1.

between the two countries that started when Schröder took office which was enhanced when Putin was inaugurated as President of Russia.

During Schröder's tenure, Germany became Russia's most important trading partner. The interdependence was seen in German dependence on Russian energy and Russian dependence on German goods and investments.[43] Germany's imports are set to increase within the coming decade and although diversification has become a keyword, geographic proximity to the world's supreme supplier of natural gas has left Germany with only one viable option, that is, Russia. As the interdependence largely is asymmetric and Russia attempts to advance its own independence, it is questionable whether it will be a security provider in the same way as the Coal and Steel Union in Europe was between Germany and France.

The personal friendship between Putin and Schröder is also a key explanation behind the Nord Stream project. The bonds between the two have continuously been strengthened, for example by mutual birthday invitations.[44]

Furthermore, the Head of Dresdner Bank's Russia Operations, Matthias Warnig, is the CEO of the Nord Stream project. It is interesting to note that Warnig and Putin, according to some sources of the Wall Street Journal, have been acquainted even since Putin's time in Dresden in the 1980s. Warnig was then an officer of the Stasi, the East German Secret Police and Putin was a representative of the KGB in Dresden. Warnig and Putin claim today that they first met in St. Petersburg in the 1990s.

Dresdner was also the bank that took care of the assessment of Yukos core assets (Yuganskneftegaz) before it was sold to Rosneft in an assets transfer scheme with shady undertones.[45] More specifically, the Dresdner Kleinwort Wasserstein, the investment branch of Dresdner bank, valued Yuganskneftegaz to between $14.7 and $17.3 billion (after liabilities), but

[43] Oldberg *Aktuell tysk säkerhetspolitik…*
[44] Ibid.
[45] Crawford, David and White, Greg (2005), 'Dresdner Official to Get Post with Baltic Pipeline', *The Wall Street Journal Online*, Last accessed: 9 December 2005, Internet: http://online.wsj.com/article/SB113407711212417638.html. Concerning the Yukos affairs, see Larsson *Russia's Energy Policy...* , pp. 89-112.

Rosneft in 2004 only paid $9.4 billion for it. In December 2005, Dresdner also bought one-third of Gazprombank for $800 million and acted as advisor to Gazprom when it acquired Sibneft for $13 billion.[46] There are reasons to believe that there is more to these connections than merely increased bilateral integration of the banking and energy sectors, although that lies outside the scope of this report to assess. It does however show how close the official and commercial ties between Germany and Russia have become.[47]

For long, there were speculations on both Putin and Schröder taking positions at Gazprom or the NEGP/Nord Stream.[48] There is no evidence to suggest that Putin would do so, but Schröder was nonetheless awarded the position of head of the 'shareholders committee' of the Nord Stream (which is similar to a board of directors).[49] He accepted the position on 9 November 2005 after Putin personally persuaded him,[50] but the official announcement came in March 2006.[51]

The reactions to the appointment have been disparate. Some consider the appointment to be good as it gives the project political clout, while for example Reinhard Buetikofer, the co-chairman of Germany's Green Party, and Rainer Bruederle, an official of the Free Democratic Party, have complained and questioned whether Schröder will be able to keep public and private affairs apart. The chief strategist of the Russian Alfa Bank, Chris Weafer, sees the appointment as a reward by the Kremlin for

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[46] Korchagina, Valeria (2006), 'Schröder Defends His Pipeline Role', *Moscow Times*, Last accessed: 31 March 2006, Internet: http://www.moscowtimes.ru/stories/2006/03/31/001.html.

[47] Note that there are several connection between Putin and German businessmen: Björk, Mikael (2006), 'Farliga förbindelser: Tyska SÄPO varnar för Putins gode vän [Dangerous relations: German Security Service Warns of Putins Good Friend]', 28 November 2006, p. 22.

[48] Economist (2005), 'Russia's Energetic Enigma', *The Economist*, 8 October 2005p. 75.

[49] Kommersant (2006), 'Gerhard Schroeder Confirms Engagement', *Kommersant*, Last accessed: 30 March 2006, Internet: http://www.kommersant.com/doc.asp?id=661666.

[50] Boykewich, Stephen (2006), 'Germans Question $1Bln for Gazprom', *Moscow Times*, Last accessed: 3 April 2006, Internet: http://www.moscowtimes.ru/stories/2006/04/03/001-print.html.

[51] Korchagina 'Schröder Defends His Pipeline Role'.

Germany's soft treatment of sensitive issues, such as Chechnya.[52] The legitimacy that Nord Stream could have gained from having Schröder on the board has nonetheless been reduced and could even be seen as a liability in terms of confidence-building.

More criticism followed when it was disclosed that Schröder would receive US$300,100/year for holding this position.[53] Moreover, there could also be even larger rewards in undisclosed deals. In April 2006, it was also revealed that Schröder, four weeks before leaving office, had agreed to a financial guarantee of one billion Euros by Deutsche Bank and KfW (the state-owned development bank) to Gazprom. The Merkel government found no irregularities, and the government did not comment on Schröder's position or financial deals.[54] Criticism from other actors was however harsh and the EU Commission has launched an investigation on the suspicion that it may constitute illegal state subsidies.

The case also raises questions about how appropriate it is for a prominent politician to take a job that is closely connected to previous responsibilities after leaving office. The current situation means that Schröder's successor, Angela Merkel, faces a tougher challenge in improving relations to the Baltic countries and Poland as Schröder's heritage continuously colours relations with these countries. However, during Merkel's first time in office, she took the opportunity to show Russia, the EU and the former Soviet states that it was possible to cooperate with Russia without sacrificing a firm stand on human rights and criticism of Russia's human rights violations in Chechnya. She made it clear that even though Germany retained its position on the Nord Stream project, the relation to Russia was, unlike the relation to the US,

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[52] Korchagina, Valeria (2005), 'Schroder to Head New Gas Pipeline', *The Moscow Times*, Last accessed: 12 December 2005, Internet: http://www.moscowtimes.ru/stories/2005/12/12/001.html.

[53] Korchagina 'Schröder Defends His Pipeline Role'.

[54] Benoit, Bertrand (2006), 'Berlin Clears Schröder over Guarantee to Gazprom', *Financial Times*, Last accessed: 4 April 2006, Internet: http://financialtimes.printthis.clickability.com/pt/cpt?action=cpt&title=FT.com+/+World+/+Europe+-+Berlin+clears+Schröder+over+guarantee+to+Gazprom&expire=&urlID=17787538&fb=Y&url=http://news.ft.com/cms/s/6c57626c-c33c-11da-a381-0000779e2340,s01=1.html&partnerID=1702.

not based on common values.[55] In addition, Merkel raised concerns of becoming too dependent on Russian energy and called for diversification and promoted energy efficiency.[56] Germany also became annoyed when Russia did not inform it of the actions against Belarus, despite being its preferred customer,

Furthermore, the lack of transparency within the Russian corporate energy sphere is endemic and adds to the concerns about the project. In this case, the lack of transparency is troublesome for several reasons. First of all, Gazprom has a tradition of being connected to rather dubious companies. One example of this is the company Rosukrenergo. When created, Rosukrenergo was registered in Zug in Switzerland and up to 50 per cent owned by Arogas Holding AG that was affiliated with Gazprombank (Gazprom's bank subsidiary) and with Gazprom itself.[57] Today, Gazprom has assumed control over the entire 50 per cent stake. The other 50 per cent was (and is) held in a trust of the Raiffeisen Bank in Austria. Who the real owners are has never been made public, but supposedly they are Ukrainians. Both the Russian Duma and the Ukrainian Rada have demanded to know who is behind the company but without success.[58]

Rosukrenergo has also been under investigation by the (now former) Head of the Ukrainian Security Service (SBU), Alexander Turchinov, for its links to organised crime syndicates.[59] In mid-August 2005, he dropped the investigation on Rosukrenergo after Yushchenko, allegedly in person, told him to do so, as it was upsetting the Kremlin.[60] In connection with that, Turchinov also accused the first aide to the president for

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[55] Oldberg *Aktuell tysk säkerhetspolitik…*
[56] Ibid.
[57] Kupchinsky, Roman (2006), 'Russia/Ukraine: Questions Raised About Gas Deal Intermediary', *RFE/RL*, Last accessed: 25 January 2006, Internet: http://www.rferl.org/featuresarticle/2006/01/a320b03b-185f-4733-b8df-e9322d7ccf8f.html.
[58] Belton, Catherine (2006b), 'Miller and Medvedev Talk of Transparency', *The Moscow Times*, Last accessed: 17 January 2006, Internet: http://www.moscowtimes.ru/stories/2006/01/17/041-print.html.
[59] Semikhova, Olga (2006), '"Gas Contract": a Forced Compromise, a Victory or Betrayal on Interests', *Ukrayinska Pravda*, Last accessed: 12 January 2006, Internet: http://www.pravda.com.ua/en/news/2006/1/5/4966.htm.
[60] Belton 'Miller and Medvedev Talk of Transparency'.

covering up for that "transnational criminal system".[61] According to the website of a Ukrainian daily newspaper, *obozrevatel.com.ua*, on 21 September 2005, the SBU officer in charge of the investigation, Andriy Kozhemyakin, was transferred from the case.[62] Since these developments took place, Turchinov has since been sacked from his post as head of the Security Service. At present, he is a part of Tymoshenko's block and a strong critic of Ukraine's energy policy.[63] Some of the links Turchinov is referring to are to Semyon Mogilevich, who is wanted by the American FBI.[64] Both Mogilevich and Rosukrenergo have denied any links between the two.[65] Another murky company is Trubny Torgovy Dom, a shell corporation that supposedly sells pipelines to Gazprom but also has dubious connections to United Russia, Putin's party.[66]

Secondly, the full corporate structure of Gazprom is unknown to the public. This means that Gazprom and Nord Stream could use shady subcontractors, intermediaries or subsidiaries (that may be registered offshore) and thereby dodge environmental or other responsibilities. The fact that Nord Stream is registered in Switzerland could add to the problem of transparency, as insight into the Swiss banking sector is limited.

In addition, it should be noted that Gazprom in its relations with international energy majors, for example Shell, has included clauses in the contracts that have been shielded even from the shareholders. Based on this evidence, we can conclude that participation of serious companies such as BASF or EON is not a guarantee for transparency.

Financial Problems or Pure Profit

According to Nord Stream, the company will invest $7.5 billion into the project, and it will be profitable. This is the only disclosed figure and it is therefore difficult to draw any firm conclusions from it. A few factors can nonetheless be brought to attention.

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[61] Semikhova '"Gas Contract": a Forced Compromise, a Victory or Betrayal on Interests'.
[62] Kupchinsky 'Russia/Ukraine: Questions Raised About Gas Deal Intermediary'.
[63] Semikhova '"Gas Contract": a Forced Compromise, a Victory or Betrayal on Interests'.
[64] Ibid.
[65] Belton 'Miller and Medvedev Talk of Transparency'.
[66] Larsson *Russia's Energy Policy...* , p. 150.

Extraction costs for gas in Russia are around $10-15/tcm and costs of transport amount to $1-2/tcm/100km. The capacity of Nord Stream is 55bcm/year and the sales price for gas is around $230-250/tcm. It is supposed to be in operation for 50 years. This shows that the profitability should be secured.

However, neither a long-term business plan nor financing plan has been carried out. Apparently, $7.5 billion is only parts of capital needed for construction. Costs for operation, maintenance, decommissioning are not included. In fact, there are signs that Nord Stream has problems in finding enough capital for the investment, a predicament that became obvious when the European Investment Bank started to put forward strict demands.[67]

The views from four experts in Europe can serve to illustrate the issue. Firstly, according to Alan Riley, Reader of Private Law at City University in London, figures from BASF, one of the owners of Nord Stream, point to an estimated cost of up to $18.5 billion.[68]

Secondly, Frank Umbach, one of the leading experts on energy policy in Germany, argues that the costs may well be underestimated and may well reach €10-15 billion.[69]

Thirdly, Roland Götz, a German economist also claims that a sea-based option of the same length would be more expensive than a land-based route, although transit fees would add to the cost. The present transit fees are largely secret but experts show that the transit fees paid to Poland for Yamal 1 reaches a level of €150-230 million a year;[70] a substantial amount.

Finally, the professor of gas research as the Oxford Institute for Energy Studies, Jonathan Stern, knows the additional cost of building undersea pipelines compared to land-based pipelines. He states that, although

[67] Sveriges Radio (2007), 'EU-bank tveksam till gasledning [EU-bank Reluctant to Gas Pipeline]', *Sveriges Radio (SR)*, Last accessed: 14 February 2007.
[68] Larsson, Robert (2007), *Nord Stream och Östersjöstaternas oeniga enighet [Nord Stream and the Un-Unified Unity of the Baltic Sea States]*, Stockholm: Swedish Defence Research Agency (FOI), 14 February 2007, FOI MEMO 1998.
[69] Hamilton *Naturgasledning på Östersjöns botten...* , p. 5.
[70] Ibid., p. 6f.

there is no rule of thumb in these cases, in the specific case of Nord Stream "Gazprom could have doubled the capacity of the existing Yamal line through Belarus and Poland at an approximate cost of $2.5 bn compared with approximately $6.5bn which the first Nord Stream line will cost."[71]

Furthermore, if the Environmental Impact Assessment process finds that the environmental implications are serious and thus expensive to tackle, costs will rise further. The competitiveness of Nord Stream is largely based on two things, cheap gas and lack of competition. The first batch of gas is supposed to come from the onshore Yuzhno-Russkoye field, which is already explored and developed, and therefore relatively cheap. The second batch, i.e. for the second pipeline, was meant to come from the undeveloped Shtokman offshore field in the far north. This is an undeveloped, distant and highly problematic field that will produce highly expensive gas. Therefore, at least half of Nord Stream's gas will be expensive.[72] It might still be possible to sell it on the continent as Russia has a monopoly position in some regions and markets.

According to Riley, while competition is rather poor today, the UK is increasing its imports of LNG from Qatar and Norway. He also states that there could, at current levels of demand, be a surplus of gas that can be sold via the interconnector pipeline to Holland and then to Germany. If Riley is correct in his assessment, then this gas would be much cheaper than Shtokman gas and thus, the profitability of Nord Stream would be reduced. Liberalisation of the European gas market would facilitate this option and there are incentives for the German parties of Nord Stream to obstruct such a development,[73] something that there are already signs of.

Military Presence in the Baltic Sea

During the construction phase, the Russian Baltic Fleet will be involved for the purpose of exploring the seabed and for protection purposes. On the 25 October 2006, Putin declared Russia's intentions.

> *And here, you know, one of our major priority projects is constructing the North European Gas Pipeline that will run under*

[71] Ibid., p. 6.
[72] Larsson *Nord Stream och Östersjöstaternas oeniga enighet.*
[73] See for example: Ibid.

> *the Baltic Sea and ensure that our energy resources go directly to our west European consumers. This is a major project, very important for the country's economy, and indeed for all Western Europe.*
>
> *And of course we are going to involve and use the opportunities offered by the navy to resolve environmental, economic, and technical problems because since the Second World War no one knows better than seamen how to operate on the bottom of the Baltic Sea. Nobody has similar means to control and to check the bottom, nobody can better accomplish the task of ensuring environmental security. All of this incorporates a few new, yet absolutely crucial directions for the navy's activities and of course, in this case, in the Baltic Sea.*[74]

An increased naval presence does not necessarily mean increased activity, but increased presence may lead to increased tension.

When it comes to Russia's military capability, it can be said that the increase began around 2003 at the time of Putin's second period. Russia's economic boom and high oil prices have resulted in new economic means to spend on military exercises and rearmament programmes. Today, the navy is prioritised in the same way as the Strategic Rocket Forces (RVSN). The military requisition programme points to new naval ambitions and over thirty vessels and several submarines have been ordered. However, it should be stressed that the ability for overseas invasions are still very limited and Russia is prioritising a brown-water navy.

Guarding Russia's economic interests is a task for the armed forces and navy, and strategic infrastructure for energy exports definitely belongs to this category. This orientation and Russia's renewed great power efforts, in combination with a high level of uncertainty for the future, make it extremely difficult to assess the long-term impacts on the Baltic Sea.

While naval activities in economic zones of the littoral states of the Baltic Sea are permitted according to international law, Nord Stream will give Russia a reason for increased presence should it ever feel a need for it.

[74] Putin cited in: Hirdman 'Gasledningsprojektet i Östersjön'.

From Moscow's perspective, patrolling the pipeline stretch should be welcomed as it aims to secure supplies to Europe, but an increased militarization of the sea can thus be expected and with that, tensions would undoubtedly follow.

Intelligence and Surveillance Aspects

The pipeline and the riser platform brings an increased intelligence capability. While Nord Stream is absolutely right insofar that it will not be a "spy base", the prospects of using the riser and pipeline, as platforms for active and passive sensors are rather good.

Yet, whether the riser is actually necessary is currently unclear. According to Carl B. Hamilton, a Swedish MP that follows the topic closely, there have been mixed signals from the Russian ambassador Alexander Kadakin and Dirk von Ameln of Nord Stream. According to Kadakin, it is possible to operate the pipeline without the riser, while von Ameln claims that there has to be one. Hamilton interprets this as: someone knows more than he wants to reveal as both cannot be right.[75]

Given the close connection between energy companies and security structures in general and the Kremlin and Gazprom in particular, there are reasons to highlight this problem. While there are legitimate reasons for surveillance for safety and security, it is extremely difficult to ensure that abuse of civilian technology does not occur. If this were to be the case, Russia would get a competitive intelligence edge concerning all subsurface, surface and aerial monitoring in the Baltic Sea. The pipeline is meant to be laid just next to the military exercise fields in Finland, so Finland should be prepared for increased monitoring of its naval exercises.

The Risk of Terrorism

Nord Stream is also quite correct in such a way that the risk for terrorist attacks is small and that, historically, the frequency of incidents against this kind of installations is low. However, it does happen occasionally, as demonstrated by a terrorist attack in Nigeria on 2 June 2006.

Despite its concrete coating, a pipeline is rather vulnerable and one diver would be enough to set an explosive device. However, the impact on

[75] Hamilton *Naturgasledning på Östersjöns botten...* p. 20.

such an assault would probably be rather modest and most likely a minor incident of this type would not result in a large explosion. The real danger would be if there were vessels above the pipeline during the explosion.

It would nevertheless be unwise to base a risk analysis on a best-case scenario approach. Given the current development in Russia and the country's coercive policies in Chechnya, threats toward Russian interests and citizens do exist. If the current trend continues it will get even worse and as the pipeline is supposed to be in operation for five decades, a high level of uncertainty must be reckoned with.

In contrast to the pipeline itself, the riser would be a somewhat more inviting target. Should a riser be constructed and staffed by Russian citizens, Russian demands for protection against terrorists would follow. Legally, this would fall under the jurisdiction of Sweden, as the riser would be located in the Swedish economic zone.

However, Russia has a strong ambition to protect its citizens and on numerous occasions has indicated having a doctrine of preventive and pre-emptive strikes anywhere in the world where Russian interests are threatened by terrorism. A new law is also being adopted in Russia, which says that the Russian president should be allowed to send Special Forces abroad without giving details to the Duma. These Special Forces would not necessary be from the Armed Forces, but more likely from the Security Service – the FSB. Hypothetically, forces could include the Vympel forces and given its previous operations at the Dubrovka and Beslan, there are reasons to be sceptical about their performance.

Naturally, cooperation on anti-terrorism can be a bridge between different state actors and Russia has been more than willing to promote international cooperation on the topic, especially in the post-nine-eleven-era.[76] Nonetheless, Putin claims that Russia is a role model in terms of anti-terrorism activities due to its successful operation in Chechnya. It is rather unlikely that the Russian way of conducting anti-terrorist operation is in line with the Swedish notion thereof.

[76] Oldberg, Ingmar (2006b), *The War on Terrorism in Russian Foreign Policy*, Stockholm: Swedish Defence Research Agency (FOI), December 2006, FOI-R-2155—SE.

Energy Political issues
Energy and security are often connected and there are implications on the European energy market due to this project, implication whose magnitude still is largely unknown. A few examples must be given.

A key problem for the EU is ownership unbundling within the energy sector. While the gas market has moved forward in terms of liberalisation, it still is fairly rigid and closed. Due to the intertwined Russo-German business, bank and energy sectors, Russia is increasing its influence over the European market. Also, as mentioned elsewhere in this report, even Germany could obstruct further liberalisation. For its part, Brussels has been largely impotent when it comes to unbundling the upstream as well as downstream energy sectors.

Nord Stream will spearhead Russia's strive to enter the European energy sector at the same time as Russia is reluctant to open its domestic sector to foreign competition. By co-ownership of assets in the European power industry, Russia could very well cross-subsidise its own gas power plants and thereby make other industries less competitive. This would create an artificial upholding structure that prevents the modernising of other energy sectors, such as nuclear and coal sectors. This would prevent the aging coal industry to move towards modern carbon capture and storage technology (CCS) that does not emit any carbon dioxide into the atmosphere. Most probably, the emission trade will also be affected.

Environmental Concerns
Detailing the environmental concerns is beyond the scope of this study, but there are numerous aspects that need to be considered.[77]

Russian State Control
The Russian leadership has an ambition to strengthen state control over strategic sectors. This is one reason why privately owned pipelines have in general not been allowed, with only a few exceptions to this rule. When it comes to pipeline-borne exports of gas and oil, Gazprom and Transneft have been in a monopoly position. During 2007 a new law enters into force, which states that only state-owned pipelines are allowed. The ambition is also to expand abroad. Russia has undertaken a task of acquiring energy companies, assets, infrastructure and resources

[77] FOI has analysed some of these in: FOI *Yttrande till Försvarsdepartementet....*

in and around Europe. This is to the greatest extent conducted by ordinary market means and results in an entrenched position for Russia and Russian companies near or in consumer markets. Quite obviously this facilities Russian lobbying in Europe.

Increased Russian Leverage on the bypassed States

One of the pivotal security concerns for the Baltic Sea region is that the Nord Stream will enhance Russia's power over the gas tap to Poland, Ukraine, and Belarus and to some extent also to the Baltic states. The reason is that the Nord Stream will bypass them and Russia will be able to turn off the tap to them without risking exports to other states. The result is that Russia's leverage over its neighbours increases. All of these states have severely negative experiences of Russian energy policy and they see the threats as imminent. They have even securitised the energy issues and included them in their national security concepts and other strategic documents.

The vulnerability of Russia's neighbours increases parallel to increases in Russia's strength, but their vulnerability is also exacerbated by a few other parameters. First, by being transit states for much of the gas to Europe, Ukraine, Belarus and Poland have enjoyed some counter-leverage on Russia as they have been able to control the tap for further exports to other end customers. Due to the Nord Stream, this will be reduced. To what extent this will have any practical impact is difficult to say, but the perceptions of a power loss are evident. And, perceptions are what states often act on, not realities.

Second, the states in question will lose some of the money they receive in transit fees. When Russia uses the Nord Stream for sending gas to Western Europe, the total amount sent through transit states will decrease. Given that only a limited amount of gas that can be exported to Europe at any given time, Russia will have a strong hand in its negotiations with transit states over transit fees. Furthermore, transit states will be less able to link the transit fees to concessions over gas purchases.

Third, although currently uncertain and unlikely, if a leg is built to Kaliningrad, Russia will be able to secure supply to the region. Naturally, Kaliningrad, as a Russian territory, is a top priority to Russia.

Kaliningrad gets most of its electricity from the Lithuanian nuclear power plant Ignalina, which hitherto has provided Lithuania with some counter-leverage on Russia, but this role is diminishing.

Fourth, the Russian notion of energy security usually means secure access to consumer markets. The Nord Stream will enable Russia to bypass the markets it pays less attention to. Russia will thus to some extent be able to prioritise more lucrative markets than the Baltic or CIS ones. Today, there is nothing that points in the direction of Russia abandoning these markets altogether, but the issue must be considered. This is also one reason why Latvia and Lithuania have stated that they disapprove of the Nord Stream.

Finally, there are reasons to assume that due to the Nord Stream the balance between Russia and its neighbours will become more asymmetrical than it already is. As Russia is the only, or in any case the principal supplier of gas, their vulnerability seems to increase more than the security of exports does for Russia. Consequently, this will upset regional stability.

Increased Russian Leverage on the Connected States

Naturally, Russia's ability to control the gas flow will increase with regards to the states that become connected to the pipeline. If one assumes that this will be Germany, the Netherlands and the UK, and possibly also Belgium, they might become more sensitive to Russian pressure.

If there will be technical possibilities for Russia to tamper with the flow of gas to individual states without affecting supply to others, there are tangible threats to the importing states, which must be thoroughly assessed. However, this does not seem to be an imminent threat. Irrespectively of the technical construction, Russia's power over European energy imports will be further strengthened and therefore it would be unwise to refrain from exploring scenarios where gas supplies are cut, for whatever reason.

It is true that Russia traditionally has been a reliable supplier to the 'West' and therefore many analysts conclude that Western Europe does

not have to worry about Russia's reliability.[78] However, are not Estonia, Latvia, Lithuania and Poland parts of 'the West' today? Without acknowledging the priorities of the new members, EU might lose legitimacy in its northern dimension and common EU-projects as well as integration in general might be more difficult to achieve.

There are also other concerns with dependence, which may or may not exactly be related to Nord Stream. First, industries and consumers of energy naturally want governmental policy to serve their interests. Should energy supplies to an importer be halted or otherwise messed with, for example as a result of the country's foreign policy, the importing energy companies would likely hold the government responsible. Possibly, they would then increase their lobby activities for some kind of cushioning policies, if not a shift in foreign policy. Should a disruption come about, only the importing companies would be initially affected. But, if long-duration interruptions were to come about, also end-consumers, e.g. the electorate, would be affected. Hence the matter has political implications and if thing go this far, an impact on energy consumption could possibly be seen. This has been the case in Ukraine.

Second, there are political questions to tackle as a result of increased imports of Russian energy, for example electricity (regardless of the Nord Stream). To mention one hypothetical example, where Sweden would close down its nuclear plants and import electricity from Russia. From Sweden's point of view, Russian electricity is environmentally unfriendly as it largely stems from coal and nuclear power. This could connect to a larger picture. Despite the agreement with the EU to phase out Ignalina, the profitability of the Lithuanian nuclear power plant might increase if it is able to sell more electricity. For example, this could occur if Russia sells its electricity to Sweden as Russia then may buy more electricity from Ignalina. According to Lithuanian politicians, Lithuania is prepared to keep the power plant running as long as it is economically feasible. Hence, Sweden would in theory contribute to the prolonged operation of Ignalina while closing down its own nuclear

[78] Monaghan, Andrew (2005), *Russian Oil and EU Energy Security*, Swindon: Conflict Studies Research Centre, November 2005, 05/65, and Stern *The Future of Russian Gas and Gazprom*.

plants.[79] In reality, though, EU decisions will probably undermine the probability of this occurring and a new power plant is instead planned.

Finally, it should not be forgotten that while energy imports are not only an issue of urgent energy consumption needs, the position of the refining industry and the potential for re-exports are also pivotal for the oil market. It should be noted that this issue has modest relation to Nord Stream. However, it means that importers of refined products from Sweden might experience disturbances in its imports due to Sweden's foreign policy. Naturally, this raises the threshold for a policy against Russia that risks affecting energy supplies. Lost autonomy and risks of embedded appeasement are other consequences.

Risks of Appeasement

The case of Germany has shown that when dependence on Russian energy has increased, appeasement towards Russia may follow. The friendship of Putin and Schröder has been a crucial factor, but so has the integration and cooperation by the major energy corporations Gazprom, Ruhrgas, E.ON and BASF/Wintershall been.

An apparent consequence put forward by analysts and journalists alike, which is not visible in the political declarations, is that German criticism of Russia's lack of democracy and rule of law seemed to vanish under Schröder. So did criticism about Russian human rights abuses and the war in Chechnya.[80] Germany's behaviour came under fire from both other European states and NGOs. As no state wants to be limited in its foreign policy by dependence on foreign powers, this risk must be acknowledged even if it only has a marginal impact.

The Risk of Regional and Intra-EU Frictions

There is also a risk of what can be called an energy dilemma. If the EU sees Russia as unreliable, it might try to diversify its imports. A result would be that Russia sees the EU as a non-committed consumer and thus

[79] Trelleborgs Allehanda (2005), 'Miljövänlig energi [Environmentally-friendly Energy]', *Trelleborgs Allehanda*, Last accessed: 31 August 2005, Internet: http://www.trelleborgsallehanda.se/apps/pbcs.dll/article?AID=/20050809/DEBATT/108090760/1098/OPINIONART.

[80] Benoit, Bertrand and Thornhill, John (2005), 'Fear That Gas Supply Gives Russia Too Much Power over Europe', *The Financial Times*, 12 January 2005, p. 2.

try to diversify its export further.[81] This may seem as a theoretical argument, but developments during 2006 show that it is a tangible risk. After a meeting between Putin and Merkel in Tomsk in April 2006, Putin publicly showed disaffection with Europe's perceptions. He stated that

> *Even during the Cold War, during the standoff between the two systems, the Soviet Union guaranteed energy to all its partners in Europe. Day by day, hour by hour!*
>
> *And now we hear about some sort of dependence on Russia. Understand us! Put yourself in our place. What are we supposed to do in these circumstances? We begin to look for other markets.*[82]

There are physical limitations to the extent of this risk as Russia does not possess the infrastructure to divert all its exports to Asia, but the Nord Stream shows how committed Russia is to invoke its priorities of energy export independence. However, at the same time as Russia sends a message of turning eastwards, the Nord Stream shows a commitment of westward energy transport.

The EU as such might be affected negatively by the project as a clash might emerge in the process of developing a common energy strategy. In March 2006, the EU declared its intention to launch such a strategy when it released its Green Book on Energy.[83] This 'energy game', where Russia aims to create and play by its own rules, may have wider repercussions on the development of a common EU energy policy as it also brings about risks of increased internal competition in the EU. It has been argued that as issues such as energy become securitised in the Baltic Sea region, problems also occur when states compete over access and influence within the EU framework.[84] Key points from the horizons of the new EU members have been that "the EU should expand its

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[81] Se discussion in Monaghan *Russian Oil and EU Energy Security*.
[82] Kolesnikov, Andrey (2006), 'Putin and Merkel's Market Relationship', *Kommersant*, Last accessed: 2 May 2006, Internet: http://www.kommersant.com/page.asp?idr=527&id=670446.
[83] EU Commission *Green Paper: A European Strategy for a Sustainable, Competitive and Secure Energy*.
[84] Browning, Christopher S. and Joenniemi, Pertti (2004), 'Regionality Beyond Security? The Baltic Sea Region after Enlargement', *Cooperation and Conflict*, Vol. 39, No. 3, p. 245ff.

redistribution possibilities within the Union in order to be able to solidarily assist a member state facing energy shortage or cut-off".[85] Russia's ability to sow dissension seems to be a key factor when it comes to European attempts to over-bridge any problem of this kind.

To conclude, the pipeline cannot be seen as a common European project, as it divides the EU into two halves, those that are for it and those that are against it. This is further elaborated on in the next chapter.

If bilateral projects with security implications for the new members prevail over common projects, it will be increasingly difficult for the new members to become security providers in the post-cold war security architecture of the Baltic Sea region. In a solidarity perspective, a responsible approach from the EU would however be to ensure that proximity to and thirst for energy would not be the only guiding factors in the European-Russian relations.

Becoming Dependent on Scare Resources

This report does not focus on geological or economic issues, but a comprehensive analysis of the Nord Stream and any state's increasing dependence on Russian gas, oil and electricity must encompass these dimensions as well. For example, there are reasons to believe that Russia's energy reserves that are available to Europe and for example located in Western Siberia are not as accessible as they seem. In addition, there is evidence that Russia's energy exports may be reduced in the coming decade. The reasons are many and this is not the place for such a discussion, but it illustrates the problem.

If a state such as Sweden flirts with the idea of importing Russian gas, it will have to face the question whether it is prepared to create a situation where it becomes dependent on gas in general, as Russia's geological ability to export gas in a decade or two can be questioned.

International Law and other Legal Aspects

There are several legal frameworks that affect the project, for example, the national laws on exclusive economic zones. There are also two international conventions that are applicable, the Esboo-convention and

[85] Unge, Wilhelm, *et al.* (2006), *Ideas for an EP Resolution on EU Energy Security*, Krakow: Insitute for Strategic Studies (ISS), 6 January 2006.

the Helsinki Convention (HELCON).[86] Given what has been said about the security political aspects of the pipeline, it can be questioned whether these would be the only applicable treaties. Several articles, written by professors of international law and other experts, show that there is room to broaden the legal scope and include the UN charter as a legal framework.[87] Some information even states that the project goes against the UN charter.[88]

Further Consequences and Issues of Concern

Five further points can be raised. Firstly, it is a common idea in dependence theory that vulnerability relates to the actor's liability to suffer costs also when policies have been altered, i.e. it is rather long-term in nature.[89] Consequently, there are several issues and questions that must be dealt with when dependence increases. Would a small state, such as Sweden, be willing to stand back in its advocating of human rights or democracy in order to satisfy its energy needs? Would it be willing to acknowledge Russia's activities in Chechnya as justified? Would it be willing to keep silent if fellow EU-members, such as the Baltic countries or Poland, experienced cut-offs, hostile take-overs or blackmail? Would it in such a case be willing to accept a worsening of the relations with these states as a result of keeping silent or taking Russia's stand?

Secondly, a key problem for the Baltic states and Poland is that they have few supporters in this matter. Some of the larger nations have interests in the project and those that are not affected are not necessarily willing to support the new members if it also risks affecting relations to the larger nations and to Russia. As Brussels has been rather positive, it is neither a natural ally against Russia, if anything were to happen. Even if a worst-

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[86] Riksdagen (2007), *Utrikesutskottets och miljö- och jordbruksutskottets offentliga utfrågning den 12 december 2006 om en gasledning i Östersjön – fakta om projektet – internationell rätt – tillvägagångssätt vid tillståndsprövning [The Foreign Committee and Environmental- and Agricultural Committee's Public Hearing 12 December 2006 on a Gas Pipeline in the Baltic Sea - Facts of the Project - International Law - process of Permission]*, Stockholm: Swedish Parliament, January 2007.

[87] Mahmoudi, Said (2007), 'Schweiziskt (!) gasprojekt kan stoppas [Swiss (!) Gas Project Can be Stopped]', *Svenska Dagbladet*, 6 February 2007.

[88] Bring, Ove*, et al.* (2006), ''Ryska gasledningen strider mot FN-stadgan' [Russian Gas Pipeline is Against the UN Charter]', *Dagens nyheter*, 28 November 2006.

[89] Keohane, Robert O. and Nye, Joseph S. (2001), *Power and Interdependence* (New York: Longman), p. 13.

case scenario is implausible, there are reasons to assume that even minor issues can become recurrent points of frictions. Examples of this are found below in chapter seven.

Thirdly, there is a media connection. The freedom of media in Russia has been crippled under Putin and the organisation "Reporters without borders" places Russia on 147th place out of 168 states. The largest TV station, NTV, and several newspapers and magazines, for example Kommersant, Komsomolskaya Pravda Izvestiya and Itogi are owned by Gazprom. Together with a culture of self-censorship, it may have an impact on the reporting in the pipeline matter. Possibly, newspapers such as Kommersant would give a person such as the vice Prime Minister Dmitry Medvedev a positive treatment in his race for the presidency, given his affiliation to Gazprom.

Fourthly: while the predictability of Russian policy has improved under Putin, the long-term stability and predictability of the course of the country's foreign policy is low since much depends on the next president. Both Yeltsin and Putin made the strategic choice to turn westwards. The life span of the Nord Stream pipeline, however, is fifty years. During this time and given the current constitution, Russia will be governed by seven to twelve presidents. Therefore, it would be unwise to rely on the present situation when assessing possible future implications.

A final consequence of the project is that that since a large area of the seabed will be covered by the pipeline, no other company will not be able to explore for minerals. This is one of many consequences from which it is difficult to assess and draw firm conclusions.

Saying No – Problems Solved?

Some political parties in Sweden argue that the pipeline can be stopped, and that this can be done within the existing legal framework.[90] However, critics of Nord Stream should be aware of a few things. The double-edged nature of the pipeline project is emphasised in several

[90] For example: Miljöpartiet (2006), *Med rätten på sin sida: Så kan regeringen använda internationell rätt för att stoppa gasledningen i Östersjön [With the Right on Your Side: How the Government Can Use International Law to Prevent the Gas Pipeline through the Baltic Sea]*, Stockholm: Miljöpartiet, 30 August 2006, N/A, and Hamilton *Naturgasledning på Östersjöns botten...*

ways. If the littoral states of the Baltic Sea find during the Environmental Impact Assessment process that the magnitude of the environmental problems is so large that the pipeline cannot be built, this does not mean that all problems are avoided.

For example, if Sweden on environmental grounds turns down the project, it would risk harming relations to Germany and Russia. Even if the grounds for decision are legitimate, it is possible that Russia sees them as politically coloured although Sweden has a tradition of doing things by the book. One reason for this could be that the Russian debate seems to be full of examples when environmental arguments are abused for political or economic reasons, for example on Sakhalin. As Russia has been against a pipeline in the Caspian Sea, on environmental grounds, Russia is possibly open to these concerns.

Furthermore, if Russia has an ambition to export gas from the Gulf of Finland to the continental Europe, it is highly likely that the existing plans of shipping gas as LNG would be intensified. This would be advantageous for distant importers of gas but one result would certainly be that the tanker traffic would increase. The Baltic Sea is already under heavy pressure in this regard and further shipments would pose an increased risk of accidents. The physical safety of LNG infrastructure and tankers is even more sensitive than pipelines.

The platform issue is also troublesome to handle. While it poses a plethora of problems, operations without a service platform might aggravate problems if there is a leak on the pipeline as it would be more difficult to operate pipeline pressure without it. The platform would also be useful since that it can be used to flare gas. Usually this is pure waste, but sometimes there are benefits as the environmental impact is less than releasing pure gas into the atmosphere.

Key Points

- Despite the advantages bringing new supplies of gas to Europe, Nord Stream cannot be seen as a *common European project* as the project goes against the principled interests of several EU members in this matter. Its TEN status is neither a *carte blanche* to the project *per se*, nor vis-à-vis other projects.

- The chronic lack of transparency of the project and of its mother company Gazprom gives room to question several aspects of the project that possibly would be non-issues if transparency was better. Nord Stream could use shady subcontractors, intermediaries or subsidiaries that may be registered off-shore and thereby dodge environmental responsibilities. The fact that Nord Stream is registered in Switzerland could add to the problem of transparency as insight into the Swiss banking sector is limited.

- The economic and financial aspects of the project are still unknown, unclear or secret. Most data point to the project being more expensive than other options but it nonetheless seems profitable, as the costs will have to be borne by the consumers.

- There is a risk of increased militarization of the Baltic Sea due to the Nord Stream and involvement of the Russian navy and thus, increased tension can be expected. Furthermore, Russia would get a competitive intelligence edge concerning subsurface, surface and aerial monitoring in the Baltic Sea if it decides to use the pipeline and riser as sensor platform.

- Should a riser be constructed and staffed by Russian citizens, then Russian demands for protection against terrorists are likely to follow even if the platform would fall under Swedish jurisdiction. Needless to say, this could result in political frictions. When it comes to cooperation in the matter, it is unlikely that the Russian way of conducting anti-terrorist operations is in line with Swedish notions of how to do so.

- Nord Stream will spearhead Russia's ambitions to enter the European sector at the same time as Russia is reluctant to open its domestic sector to foreign competition.

- There are numerous environmental aspects that need to be considered when it comes to construction, but also concerning its impact on the European energy market.

4 Perceptions and Opinions

This chapter provides a short overview of the perceptions and views held by the Baltic Sea littoral states. Most of the information is the same as one year ago and only minor updates have been made. The chapter only discusses certain security aspects, not the overwhelming criticism concerning the environmental problems that the project entails.[91]

Russia's View

A project of this scale would never materialise without strong support from the Kremlin. President Putin has given it his blessing and he is a strong driving force behind it. As indicated, the rationale behind the project from Russia's point of view is first of all that it reduces Russia's dependence on transit states, for example Belarus and Ukraine. In Russia's view, transit dependence is problematic from a geopolitical point of view, but expensive transit fees are also a strong argument. The Nord Stream project must be understood in the light of Russian reluctance to become dependent on actors and structures that it cannot control itself is a pivotal aspect of Russian foreign energy policy.

Russia's view is thus based on geopolitical priorities and several of the Baltic Sea littoral states see the project as a new Russo-German strategic energy axis. The Soviet Union was indeed a rather reliable energy supplier to Western Europe, even during the peaks of the Cold War. This reliability can be explained by its urgent need for hard currency. The European perceptions of the Soviet Union were nonetheless of such a nature that most importers limited their energy imports from the Soviet Union.

Today, Russia's inclination to use its energy policy as political lever against small neighbours has upheld old perceptions and concerns. Russia has so far been unwilling to acknowledge these concerns and bluntly defended its policy. Putin has chosen to emphasize the economic side to the project, rather than the political side by underscoring that "to politicize economic relations is counter-productive and harmful" and

[91] Many of these can be found at Naturvårdsverket's web site: http://www.naturvardsverket.se/.

further that "the Russian Federation respects interests of gas transit countries, but it is going to protect its economic interests".[92]

Germany's View

The energy issue has become so important to Germany that Chancellor Merkel ensured that energy security was the first issue to be addressed at the first national security meeting of the government. The plan is to include the issue in a new national security strategy.[93]

Traditionally, Russian gas has been imported by Germany via Belarus, Poland and Ukraine, but this has made Germany vulnerable to Russian supply interruptions aimed at Ukraine or Belarus, as well as to their counter-actions against Moscow. Nord Stream is therefore an excellent project for securing Germany's energy imports and mounting gas needs without facing the risks mentioned above.

Germany's energy dependence is also a key reason behind the embracing of the project even if there are diverging opinions on the best way to tackle the problem. It seems to be the case that half of the capacity of the Nord Stream is earmarked for Germany but Roland Götz, an energy analyst at the think-tank SWP in Berlin, claims that the energy security dimension of the Nord Stream is more of a selling point than a reality to Germany. The reason is that there are other and better options (for example the Yamal 2 route through Belarus and Poland).[94] The financial gains from the Nord Stream are also meagre to Germany.[95]

The economic side of the equation was discussed in the previous chapter, and given the fact that the Nord Stream will be several billion dollars more expensive than other options, and will affect gas prices the Nord Stream is no bargain. It is furthermore questionable to what extent German gas consumers are willing to support this option without actually knowing the impact on gas prices.

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[92] NEPG (2006a), 'Direct Speach', *The NEGP*, Last accessed: 29 March 2006, Internet: http://negp.info/news/news17.html.

[93] Benoit 'Berlin Clears Schröder over Guarantee to Gazprom'.

[94] Götz, Roland (2005), *The North European Pipeline: Increasing Security or Political Pressure?*, Berlin: The German Institute of International and Security Affairs (SWP), September 2005, SWP Comments 42.

[95] Götz, Roland (2006), 'The NEGP: German and European Interests', in: Kazin (Ed.) *Baltic Mosaic 2006* (St Petersburg: Baltic Research Center).

Poland's View

Poland is highly displeased with the Nord Stream project.[96] Some politicians have called it a 'nightmare' and ex-Prime Minister Marek Belka has pushed for alternatives in Brussels. A leader of the Polish opposition, Jan Rokita, also urged that the Nord Stream should be on the agenda in the negotiations between Russia and the EU.[97] Zbigniew Siemiatkowski, the former Head of Poland's Security Service illustrates Polish perceptions by stating: "Russia's new imperialism – yesterday tanks, today oil".[98] Poland's President, Alexander Kwasniewski has also been sceptic and called the project a mine to European security.[99]

The reason for the aversion is that from Poland's point of view, Nord Stream increases Russia's leverage on Poland, as Russia can turn off gas supply to Belarus or Poland without affecting the much more important customer Germany to the same extent as previously. The Nord Stream therefore increases Poland's and Belarus' vulnerability. This causes further frictions in the tense Russian-Polish relations and boosts Poland's ambitions to go into nuclear energy,[100] something which may have repercussions on Poland's other relations.

The overarching picture shows that it is possible to identify a Russian strategy to 'divide and conquer' within the former Warsaw Pact. While the Baltic states, Ukraine and Poland are supposed to be held on a short leash, Moscow has indicated a strategy of supporting a new energy hub in Hungary, a country that seems to hold idealistic perceptions of Russian energy trade. This is interesting to note, as its neighbours in the Balkans, for example Greece and Bulgaria, have been rather reluctant to allow a Russian entrenchment in the region.

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[96] Swiecicki, Jakub (2007), 'Europeisk energiförsörjning i polsk tappning [European Energy Supplies in Polish Style]', *Utrikespolitiska institutet (UI)*, Last accessed: 2 March, Internet: http://www.ui.se/epok/article.aspx?article_id=219.

[97] Pustilnik, Marina (2005), 'Russia, the New Energy Imperialist', *Moscow News*, 10-16 August 2005, p. 9.

[98] Zalewska, Luiza and Majewski, Michail (2004), 'Siemiatkowski odeslal J&S ad acta', *Rzeczpospolita*, 3 December 2004. (Quote kindly translated by Wilhelm Unge).

[99] Oldberg *Aktuell tysk säkerhetspolitik…*

[100] Unge, Wilhelm and Tobiczyk, Mateusz (Forthcoming 2006), *The Energy Problem - Security Leverage and Dependence (DRAFT)*, Krakow: The Institute for Strategic Studies (ISS).

Poland's attempts to diversify its energy imports by taking energy from Norway have largely failed,[101] even if there are some signs to the contrary. However, if Germany was to connect its gas pipeline network to Poland, and thereby reduce its vulnerability, Poland's scepticism might decrease. Intra-EU redistribution schemes could possibly tackle several of the issues discussed above.

Most analysts agree that Poland is right in its analyses, but the way it conducts policy in this matter is counter-productive both for itself and for EU. Poland has for example tried to prevent Russia from gaining too much influence and has used most of the levers it possesses. Some of the Polish policies have annoyed Moscow to a large extent, for example, when Poland named a roundabout after the Chechen president, Dudayev. But it has not only acted in an obstructionist manner, in fact, Poland has been a key driving force in the development of a common energy strategy for the EU. Since single member states have very limited leverage on Russia, Poland tries to build alliances, for example by suggesting a 'gas-NATO', an idea that was ill-prepared and found no support among fellow EU-members.

Estonia's, Latvia's and Lithuania's View

All three Baltic states have been affected by Russia's heavy-handed energy policy. Estonia has been somewhat better treated compared to Latvia and Lithuania, but it has nonetheless pushed for a gas pipeline to Finland to get an additional import route even if also that one would carry Russian gas.[102]

Latvia and Lithuania are largely against the project, but have on a few occasions put forward an ambition to get connected to the Nord Stream if it was built, although this stand is not for certain. The strong reason for such a leg is that Latvia has large storages in Incukalns and Doele.[103] Viktor Kaluzhny, Russia's ambassador to Latvia has said that the reason that any onshore pipeline through the Baltic states has not been considered is that it has been impossible to find a political dialogue

[101] Stern *The Future of Russian Gas and Gazprom*, p. 116.
[102] Sinijärv 'The NEGP: Estonian Perspective'.
[103] Sinijärv 'The NEGP: Estonian Perspective'.

between the countries.[104] It is highly unlikely that a side-pipeline, a spur, to them would be built.

Both Latvia's and Lithuania's energy relations with Russia have been filled with tension. One reason is Russia's strident attempts to attain control over Ventspils Nafta in Latvia by staging a oil cut-off to the port of Ventspils. The blockade has been going on since 2002 and the official reason has been that Ventspils' tariffs are too high compared to tariffs at Russian Primorsk. This policy has Moscow's approval, but several independent oil companies have objected and filed official complaints with the Kremlin. Latvian authorities have even contacted the EU Commission, arguing that the aggressive Russian policy is 'politically coloured', but those complaints have been met with little understanding.[105]

The Minister of Economy of Lithuania gave his view on Russia while saying "Don't Let Ivan to the Pipe",[106] which is an example of less diplomatic statements that will make it increasingly difficult for Lithuania to be taken seriously by Brussels. One of the problems that must be acknowledged is the Russian attempts to acquire Lithuania's Mazeikiu refinery. The official Lithuanian reluctance to this was so strong that when it decided to sell the refinery in 2001, it chose the US Corporation Williams International instead of a Russian company. Williams International thus took over parts of Mazeikiu Nafta, but Lukoil, which delivered oil to the refinery then made it more difficult to get oil from Russia.[107] This could be interpreted as a statement that Russia's reliability is greater if it controls the Lithuanian company. The process is ongoing and the situation is still not solved, but the refinery risks ending up in Russian hands anyway.

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[104] Spruds, Andris (2006), 'The NEGP and Russia's Gas Diplomacy: Latvian Perspective', in: Kazin (Ed.) *Baltic Mosaic 2006* (St Petersburg: Baltic Research Center)p. 18.
[105] Lelyveld, Michael (2003), 'Moscow Seeks Takeover of Latvian Oil Port', *RFE/RL*, Last accessed: 19 July 2005, Internet: http://www.rferl.org/features/2003/02/12022003171518.asp.
[106] Quote by the Minister of Economy of Lithuania, Vincas Babilus, cited in Zashev, Peter (2004), *Russian Investments in Lithuania: Politics, Business, Corporate Culture*, Turku: Pan-European Institute/Turku School of Economics and Business Administration, 10/2004, p. 13.
[107] Ibid., p. 17.

Another reason for Lithuania's reluctance to the project is also that its transit income from gas transport to Kaliningrad might disappear. However, this income is not pivotal to Lithuania and the loss is not as large as it first seemed.[108]

In sum, it can be said that the views held by the Baltic states can be characterised as a mixed concern over increased vulnerability, loss of money and counter-leverage, environmental concerns and the simple fact that the project does not provide any benefits to them, while the negative implications are numerous.

The View of Sweden and other States

In Sweden, the private sector has pushed for increased gas usage in Sweden, and the Nord Stream would clearly be beneficial to the companies involved if Sweden was connected. However, there is a strong parliamentarian majority against a Swedish connection so it is unlikely to come any time soon.[109] If Sweden is not connected, it will not benefit from it, but -as chapter three shows- it would have to endure some problems. However, this has little bearing on the legal sides of the project as permission to build it and the EIA process is shielded from party politics.

The UK has declared that it is positive to the Nord Stream project,[110] and it has been involved in it since 2003.[111] One reason is that the project has the subsidiary aim of connecting to the British grid. The UK has been, however, less eager to embrace Putin's policy and it was rather worried when Gazprom revealed its intentions to acquire a stake in British Gas.[112] The Netherlands holds similar views as the UK, which is understandable as any connection to the UK would also pass the Netherlands. The Dutch

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[108] Janeliunas, Tomas and Molis, Arunas (2006), 'The NEGP Drops Away Lithuania's Hopes to Become Transit Country.' in: Kazin (Ed.) *Baltic Mosaic 2006* (St Petersburg: Baltic Research Center), p. 23.

[109] Hamilton *Naturgasledning på Östersjöns botten...*

[110] Wagstyl 'Oil and Gas Needs Give Moscow Influence', p. 11.

[111] Sinijärv 'The NEGP: Estonian Perspective'.

[112] Macalister, Terry, *et al.* (2006), 'Russia's Gazprom Considers Bid for British Gas Owner Centrica', *The Guardian*, Last accessed: 6 February 2006, Internet: http://www.guardian.co.uk/russia/article/0,,1701338,00.html.

company Gasunie has also expressed its will to take part in the project.[113] In fact, construction of the UK-Dutch leg, the so-called Interconnector Expansion has already started, and it is expected to cost around SEK 1.8 bn.[114]

Denmark, unlike other Baltic Sea states, is a producer of gas. Hence, the Nord Stream could be seen as a competitor to Denmark. However, according to some prognoses, Denmark might become a net importer during the coming decade. Therefore, access also to Russian gas is welcomed.[115] Danish companies have further been involved in the environmental assessments of the project. Already in 1998 the company Rambøll presented a study to the Helsinki commission.[116]

Finland does not embrace the project and is concerned about the environmental aspects of the Gulf of Finland, although it has been rather passive in the public debate. Finland has also been upset about the fact that it earlier had plans for a similar project, a pipeline stretching from Finland to Germany where the Finnish company Neste Oy (later Fortum) together with Gazprom created the company North Transgas. Finland had looked forward to becoming a transit hub, but it became clear that Russia did not want any transit country.[117]

Finally, and for obvious reasons, Ukraine and Belarus have been against the project as they will lose money and counter-leverage on Russia to an even greater extent than the Baltic states do.

Key points

- Russia, Germany, the UK and the Netherlands support the project while Estonia, Latvia, Lithuania, Poland, Belarus and Ukraine are

[113] Global Pipeline Monthly (2005), 'Netherlands: Gasunie May Join Baltic Gas Pipeline Project', *Global Pipeline Monthly*, Vol. 1, No. 1, p. 4.
[114] Ringmar, David (2006), *Naturgasledning i Östersjön - North European Gas Pipeline*, Stockholm: Näringsdepartementet, 15 March 2006, Promemoria 2006-03-15.
[115] Kostisushev, Sergey (2006), 'Gas Perspectives of Denmark and Gazprom', in: Kazin (Ed.) *Baltic Mosaic 2006* (St Petersburg: Baltic Research Center), p. 37f.
[116] Sinijärv 'The NEGP: Estonian Perspective'.
[117] Smith, Hanna (2006), 'The NEGP and Growing Bilateralism Between Russian and the European Union', in: Kazin (Ed.) *Baltic Mosaic 2006* (St Petersburg: Baltic Research Center), p. 9.

explicitly against it and Sweden and Finland are to some extent reluctant to it as well.

- The rationale behind the project from Russia's point of view is primarily that it reduces Russia's dependence on transit states, for example Poland, Belarus and Ukraine.

- In Russia's view. yransit dependence is problematic from a geopolitical point of view, but expensive transit fees are also a strong driver behind Nord Stream.

- Nord Stream gives Russia greater leverage over bypassed states and it has the option of choosing to export to markets that are more lucrative and that hold a more positive view of Russia than the former Soviet republics do.

- From Germany's horizon, Nord Stream is an excellent project to secure its energy imports and mounting gas needs without risking having its supply cut by transit states or affected by Russia's policy against the transit states.

- Sweden has not yet taken any official stand. Rather, the government is sending mixed signals although spokespersons from all political parties as well as the public have shown a great degree of scepticism,

5 Alternative Stretches

This is a brand new chapter that has been included as the issue of an alternative stretch is frequently mentioned in the international discourse on the topic.

It is important to stress that the need for additional studies on alternative sea and land-based routes is not only asked for by the public, but the EIA-process actually demands that multiple options are explored.[118] So far, this has not been made by Nord Stream even if its press-releases suggest that alternative sea-based options will be explored.

Although Nord Stream at various presentations during 2006 claimed that the current stretch has been chosen and optimised with regards to the environment, this position can be questioned. It previously stated that there are political drivers behind these choices, something Nord Stream today denies.

Nord Stream has proposed a couple of alternative stretches, for example over Swedish territory or between islands Öland and Gotland. These alternatives have been turned down on economic grounds. According to Nord Stream's notification, two real options remain, namely the Yamal 2 via Belarus and Amber via Latvia and Lithuania pipelines. The Yamal option is laconically ignored with the reason that there is a need of diversifying transport routes. The Amber option is still said to be an open question.[119] This route is embraced by the Baltic states and even Estonia has been a strong advocate of the Amber pipeline.[120] It is thus remarkable that the Baltic states have not joined forces and shown Germany and other states that they are willing to commit themselves to this project and thus show that they can act maturely in the region. This option would connect Russia and EU without third parties and reliance on Belarus or Ukraine is thus unnecessary.

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[118] Riksdagen (2006), *Nord Stream Gas Pipline och MKB [Nord Stream gas Pipeline and the EIA]*, Stockholm: Riskdagens utredningstjänst, 8 December 2006, Dnr. 2006:2223.
[119] Nord Stream *Nord Stream Project Information Document...*
[120] Paet, Urmas (2006), 'Report by Foreign Minister of Estonia Urmas Paet on the Activities of the Baltic Council of Ministers in 2005', *Estonian Ministry of Foreign Affairs*, Last accessed: 31 March 2006, Internet: http://www.vm.ee/eng/kat_140/7138.html.

According to Nord Stream, one reason why a land-based pipeline cannot be used is that that such an option requires more compressor stations and that this would be an environmental problem.[121] Nord Stream is clear in its statements that it is not feasible to increase the capacity of the existing Yamal 1-system by more than 2-3bcm by the use of new compressor stations. While this is true, and it is not near the 55bcm/year that Nord Stream is to provide, a few factors must be brought to attention.

First of all, the most feasible option has never been to increase capacity on the existing pipeline, but instead to lay an addition pipeline next to the existing ones. There are great benefits to be gained from this option as current pipeline routes are already in place and so are support and maintenance facilities. The additional environmental impact would thus be extremely small compared to laying pipes under water.

Poland's stand on Yamal 2 has been rather negative, especially in the late 1990's. There are several reasons for this. One is that the ownership and operation of Yamal 1 was highly disadvantageous for Poland and negotiations on Yamal 2 were conducted with this in mind. This does not mean that Poland would take the same position today. Poland has primarily wished for LNG or gas from Norway, but the Yamal 2 option might get back on the agenda if some of Poland's demands in terms of control and transit fees are met. It would quite likely be more problematic to find investors in a project that relies on Belarus, compared to the Baltic Sea option.

In this context it must be said that any other suggestion than the Nord Stream would not fall under the responsibility of Nord Stream. Nord Stream is created for the sole purpose of bringing Russian gas to Europe via the Baltic Sea. Should any other option come onto the agenda, Gazprom itself would be the key company.

[121] See also: Larsson, Robert L. (2006b), *Nord Stream presentation 2006-11-29,* Stockholm: Swedish Defence Research Agency (FOI), 2 November 2006, FOI Memo 1905, and Riksdagen *Utrikesutskottets och miljö- och jordbruksutskottets offentliga utfrågning...*

The Alternative Sea Options

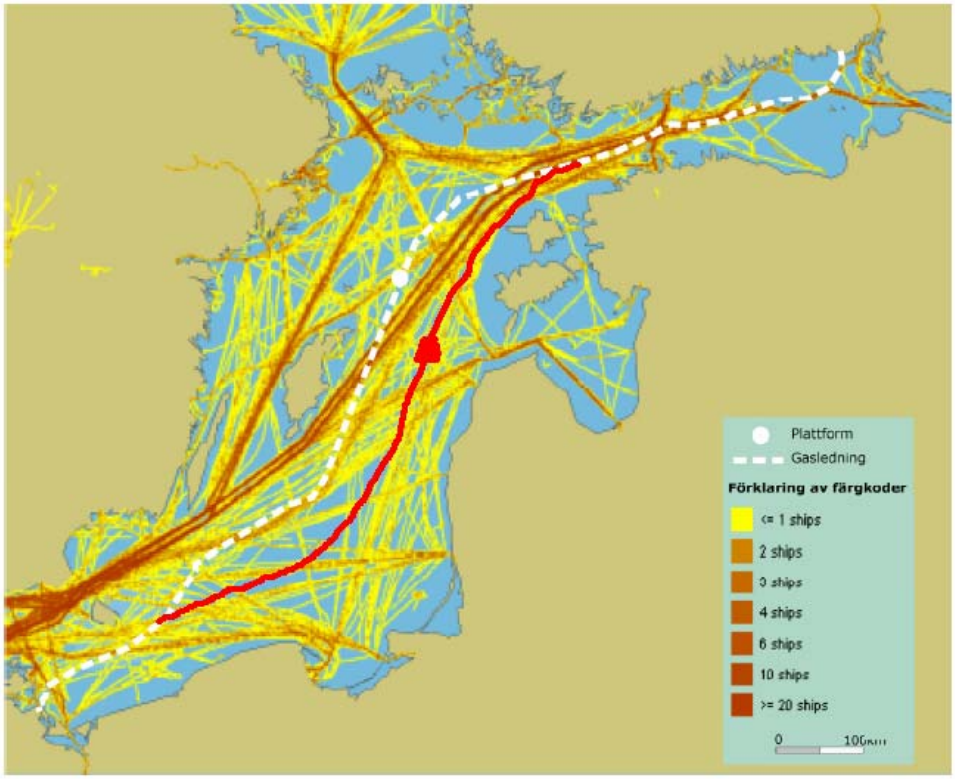
If the pipeline is built in the sea, there are questions about the exact stretch. The reason for laying the pipeline in the Swedish Exclusive Economic Zone (EEZ), and not in the Latvian or Lithuanian is motivated by environmental concern. These reasons are not disclosed in the notification. It is clear that Nord Stream deliberately has avoided a route in the EEZs of the Baltic states, even if this would result in a shortening of the pipeline by five per cent and a more straight stretch, which has been explicitly stated as an ambition.[122] In that case the stretch would run between East 21,2000; North 59,2167 (ID dot 15 according to Nord Stream map Dwg. 3.1) to East 18,7936, North 56,5241 (ID 17), which according to North Stream documentation is not a particularly troublesome part of the sea. This would result in economic savings as well as moving the suggested platform away from Gotland.

Besides the gains presented above, yet another option would be parallel to the current stretch, which would have the benefit of avoiding the two most dangerous intersections of the frequently utilised transport routes, something that reduces the risk of collision during the construction phase. Örjan Bodin at FOI has illustrated that in the figure on the following page.[123] The white line is the planned route, the multiple orange lines are sea lines and the red line is the proposed stretch.

[122] Nord Stream *Nord Stream Project Information Document...* , section 3.2.

[123] FOI *Yttrande till Försvarsdepartementet...* .

Figure 3: Stretch that avoids heavy tanker traffic



There is nothing that points to this suggested alternative stretch being a greater environmental problem than the existing stretch.

Furthermore, concerning the riser platform, Nord Stream quite rightly claims that it has to be located in the middle of the pipeline if it is to be of any use. The argument why the chosen location is the best is found in the profile of the seabed. Such profile of the seabed shows that there are only two shallow points along the stretch,[124] more precisely East 20,1268, North 58,4203 or East 19,6654, North 57,7769. However, these two locations are only the possible ones along the *current* stretch. If another route is chosen, there are multiple options, for example outside Vilsandi, Sörve or Ovisi. Possibly Estonia or Latvia would object to such a suggestion and this could be another regional point of friction.

Key Points

- While it is impossible to increase capacity on the existing Yamal pipeline to sufficient levels, this has never been a suggestion that has been taken seriously.

[124] Nord Stream *Säker gasförsörjning...*

- A feasible option would to lay an addition pipeline next to the existing ones. There are great benefits to this idea as current pipeline routes are already in place, as well as support and maintenance facilities. The additional environmental impact would thus be extremely small compared to laying pipes under water.

- It would quite likely be more problematic to find investors in a project that relies on Belarus, compared to the Baltic Sea option and likely also political problems would make the practical challenge larger. Therefore, the Amber options seem as the best possibility as it would connect Russia and EU without third parties.

- A land-based option would not be considered by Nord Stream and should another option come onto the agenda, it would likely be Gazprom itself that would be the key company.

- Nord Stream has avoided a route in the Baltic EEZs, even if this would result in a shortening of the pipeline by five per cent and a more straight stretch, which is an explicit ambition that would solve several of the existing risks, for example accident risks as the current stretch crosses the most frequently used shipping routes.

6 Sweden's Energy Situation

This chapter canvasses Sweden's energy situation in terms of production and usage. It provides an overview of its imports, more specifically of crude oil, natural gas and electricity.

Sensitivity and dependence are not problems *per se*. However, if the ways of tackling dependence problems are insufficient or if the supplier is unreliable, sensitivity leads to vulnerability. As Sweden for now seems unwilling to connect to Nord Stream, its energy situation will not be affected by Nord Stream to any greater extent. As a consequence, the chapter primarily serves the purpose of outlining Sweden's energy situation for the broader international public. Only minor updates have been made since the previous report.

Sweden's Energy Situation

Sweden is far from self-sufficient in energy and has a relatively high energy-usage ratio compared to other IEA countries. In 2003, the industrial sector took the lion's share of the energy consumption (39%), while the residential and transport sectors took 22% respectively. The commercial sector used 14%.[125]

The total primary energy supply (TPES) for Sweden was 51 MToe (million tonnes of oil equivivalents) in 2002. 34% of this was made up by nuclear energy, 29% of oil, 16% of biomass, 11% of hydropower, 5% of coal, 1.5% of natural gas, 0.7% of peat and 0.1% of solar and wind production. It must however be noted that nuclear power does not generate more electricity than hydropower does. This is an anomaly that stems from the fact that nuclear power is assumed to operate at 33% efficiency while hydropower operates at nearly 100% in converting the energy of water into electricity. Roughly speaking, two thirds of the heat produced by nuclear power is wasted through systems for cooling water. The TPES concept is thus a ratio of the energy loss measured at the raw materials compared to the final energy output at end consumers. There are ongoing research projects on reducing this waste. In other terms, nuclear and hydropower produced 46% each of Sweden's electricity in 2002.[126]

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[125] IEA (2004), *Energy Policies of IEA Countries: Sweden 2004 Review*, Paris: The International Energy Agency (IEA), p. 19.

[126] Ibid. p. 17f.

Table 1: Sweden's Crude Oil Imports 2001-2004					
Country	**Share of total import**				
	2001[127]	2002[128]	2003[129]	2004[130]	2005[131]
Denmark	12 %	15 %	18 %	29 %	25%
Russia	**5 %**	**20 %**	**19 %**	**27 %**	**36%**
Norway	46 %	34 %	38 %	26 %	25%
Iran	16 %	11 %	15 %	8 %	3%
Great Britain	9 %	13 %	5 %	6 %	4%
Venezuela	4 %	5 %	4 %	4 %	7%
Saudi Arabia	6 %	-	-	-	-
Others	2 %	2 %	1 %	0 %	4%
Sources: Svenska petroleuminstitutet 2001-2005,(2005 approximates from diagram).					

Due to the current intention of phasing-out nuclear energy in Sweden, the energy production shares would be expected to shift gradually away from nuclear power. But at the same time, hydropower will not be expanded as rivers are protected. Swedish policy stipulates that a transition towards ecologically sustainable sources should be promoted, and usage of fossil fuels should be kept low.[132] This is one reason why a governmental commission to minimise oil dependence was been created by the previous government. Whether the new government will embrace the findings of the commission remains to be seen.

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[127] Svenska petroleuminstitutet (2001), *Oljeåret 2001 Sammanfattning*, Stockholm: Svenska petroleuminstitutet (SPI).
[128] Svenska petroleuminstitutet (2002), *Oljeåret 2002 Sammanfattning*, Stockholm: Svenska petroleuminstitutet (SPI).
[129] Svenska petroleuminstitutet (2003), *Oljeåret 2003 Sammanfattning*, Stockholm: Svenska petroleuminstitutet (SPI).
[130] Svenska petroleuminstitutet (2004), *Oljeåret 2004 Sammanfattning*, Stockholm: Svenska petroleuminstitutet (SPI).
[131] Svenska petroleuminstitutet (2005b), *Oljeåret 2005 Sammanfattning*, Stockholm: Svenska petroleuminstitutet (SPI).
[132] IEA *Energy Policies of IEA Countries: Sweden 2004 Review*, p. 20f. To a great extent, these policies originate from an agreement in 1997 between the ruling Social Democratic Party (*Socialdemokraterna*), the Centre Party *(Centerpartiet)* and the Left Party (*Vänsterpartiet* – formerly the Communist party).

The commission was established in December 2005 with the purpose to facilitate structural development aimed at decreasing dependence on oil.[133] A series of public hearings have taken place, and reports have been published,[134] but no impact has so far been visible.

In 2004, Swedish use of natural gas (then 2% of total power production compared to 24% globally) generated about 9.3Twh.[135] The Swedish natural gas sector is currently being deregulated as the electricity and oil sectors already are.[136] According to suggestions put forward to the government by Svenska Kraftnät, the state-owned transmission operator, the aim is to manage the gas sector in the same way as the electricity sector. In the long-run perspective, the goal is to have a common Nordic gas market.[137] The development of natural gas is therefore very slow and has neither been promoted nor opposed by the government.

The IEA has further noted the existence of a Swedish perception that natural gas is a competitor to biofuels, a domestic resource with lower greenhouse gases (GHG) emissions. The Swedish tax regimes by and large favour biofuel and electricity before natural gas, but there are great inconsistencies. Peat, which is not very important for Sweden, has large emissions of GHG but is treated as biomass and consequently exempted from all taxation.[138] This has resulted in political clashes.

Sweden stopped domestic production of nuclear fuel in 1977 due to environmental reasons. Since then, fuel is mainly imported by the US

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[133] Swedish Government (2006), 'Kommissionen mot oljeberoendet [The Commission Against Dependence on Oil]', *Swedish Government*, Last accessed: 6 April 2006, Internet: http://www.sweden.gov.se/sb/d/6326;jsessionid=abqbOqO0Peaf.
[134] Kommissionen mot oljeberoende (2006), *På väg mot ett oljefritt Sverige*, Stockholm: Kommissionen mot oljeberoende, juni 2006.
[135] Energimyndigheten *Europas naturgasberoende* , p. 23.
[136] BM (2005), 'Naturgasen avregleras för företagskunder [Natural Gas is Deregulated for Corporate Customers]', *ERA*, Last accessed: 31 August 2005, Internet: http://www.era.se/nyh/vn.shtml?id=693848938.
[137] PJ (2005b), 'Naturgasen organiseras som elen [Natural Gas to be Organised as Electricity]', *ERA*, Last accessed: 31 August 2005, Internet: http://www.era.se/nyh/vn.shtml?id=583550632.
[138] IEA *Energy Policies of IEA Countries: Sweden 2004 Review*, p. 84.

Company Westinghouse Atom AB located in Västerås.[139] Given the fact that also nuclear power can be seen as an imported source of energy, IEA figures show that in 2002, of Sweden's total primary energy supply (TPES) 70% was imported.[140] Due to partisan reasons, the new government has proclaimed a moratorium on nuclear energy until 2010 and until then, no strategic decisions can be expected. The conclusion is that Sweden's situation generally can be seen as one of high import dependence and sensitivity.

Sweden's Energy Sensitivity – Russia in Focus

Imports of crude oil have shifted greatly over time, not least during the last years. Imports from Iran and Norway have gradually declined, while imports from Denmark seemingly have risen. One explanation is that statistics show country of dispatch rather than country of origin. Denmark is first and foremost a country of dispatch. The most interesting *de facto* rise is therefore imports from Russia. As seen in the table, Russia's share has risen by from 5% to 35% of total imports since 2001.

When it comes to heating gas oil (*Eldningsolja typ 1*), Russia is also the key state. In 2004, Sweden imported 262,000m^3 from Russia, which was a 44% share of the total imports. Concerning fuel oils (*Tjockolja Eo 2-6)* Russia's share was more modest of only 41,000m^3 (about 11%).[141]

Also when it comes to electricity, Sweden is turning to Russia. During cold winter days, Sweden's electricity gap is the largest in the Nordic region even if Finland and Norway also have problems. In 2003, the gap reached 1,900MW and 1,500MW (79%) of this was provided by Russia while the rest was provided by Poland and Germany.[142] Although

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[139] Uranium imports came from Canada, Russia, Uzbekistan and Australia. Näringsdepartementet (1995), *Betänkande omställning av energisystemet (med underbilagor)*, Näringsdepartementet, Energisektionen, SOU 1995:139-140, p. 115.

[140] IEA *Energy Policies of IEA Countries: Sweden 2004 Review*, p. 19.

[141] Svenska petroleuminstitutet (2005a), 'Import och export av eldningsoljor 2004', *Svenska petroleuminstitutet*, Last accessed: 12 August 2005, Internet: http://www.spi.se/statistik.asp?art=58. N.B. Statistics show countries of dispatch, not necessarily countries of origin.

[142] FNB (2003), 'Norden beroende av elimport', *Hufudstadsbladet*, Last accessed: 12 August 2005, Internet: http://195.255.83.67/cgi-

natural gas only makes up 1.5% of Sweden's TPES, it has taken 20-25% of the available market in those areas where it has been introduced and can be said to be popular among industrial consumers. The industrial sector uses 44% of the consumed gas within this geographical region. Currently all gas comes from the Dong company in Denmark and the gas grid is limited to the west coast between Trelleborg and Stenungsund. The Swedish importer, Nova Naturgas AB, is owned by Ruhrgas (30%), Statoil (30%), Fortum (20%) and Dong (2%).

Yet, Fortum and Sydkraft now E.ON, which is owned by German E.ON to 55% and Statkraft to 45%, have been interested in extending the gas grid also to Stockholm and the Mälardalen region.[143] E.ON is one of the forerunners in promoting increased usage of natural gas in Sweden.[144] Sweden does currently not use LNG, but there are plans for an import terminal in Stockholm or Nynäshamn. E.ON has also been granted permission to construct a new pipeline to Sweden from Germany via Denmark to Trelleborg – called the Baltic Gas Interconnector (BGI).[145]

Sweden's imports of Russian energy in specific can in conclusion be characterised as highly sensitive and highly dependent. An import index is however no proof of vulnerability, but only of sensitivity.

Sweden's Energy Vulnerability

In short, "the vulnerability dimension of interdependence rests on the relative availability and costliness of the alternatives that various actors face."[146] Hence, if there are no viable options, the situation goes from one of sensitivity to one of vulnerability. There are numerous issues that can be used to identify a situation of vulnerability.[147] Four general points can serve to illustrate when vulnerability occurs. A state, which is dependent, becomes vulnerable when:

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bin/mediaweb?Newsp=hbl&Date=031104&Depa=ekonomi&Story=06510709.txt&Model=juttu.html.

[143] IEA *Energy Policies of IEA Countries: Sweden 2004 Review*, p. 79f.

[144] Ringmar *Naturgasledning i Östersjön - North European Gas Pipeline*, .

[145] Energimyndigheten *Europas naturgasberoende* , p. 30f.

[146] Keohane and Nye *Power and Interdependence* , p. 11.

[147] Szuprowicz, Bohdan O. (1979), *How to Avoid Strategic Mineral Shortages: Dealing with Cartels, Embargoes and Supply Disruptions* (Toronto: John Wiley and Sons), p. 274.

> *1) The supply of the material in question is relatively concentrated in a few geographic sources, especially if they are in nations that have substantially different political or economic systems and aims,*
>
> *2) supply is readily subject to manipulation or to interruption as a consequence of such contingencies as political decisions, wars, internal upheavals, labour strikes, terrorism, or embargos,*
>
> *3) there are no readily available economical substitutes for, or stockpiles of, the particular material, and*
>
> *4) recycling possibilities are limited in scope or not feasible within the time available.*[148]

Sweden's ability to tackle dependence was often assessed during the cold war, especially in connection to trade with the Soviet Union.[149] Today, the issues have disappeared from public discourse, but still have to be tackled. Concerning the points above, it can be said that with regard to Russia, points one and two are of greatest importance and will be addressed to some extent in the following chapters. Stockpiling and storage issues, are managed by the Swedish Energy Agency that operates the Swedish National Emergency Sharing Organization (NESO).[150] Shortfalls in oil are met by demand restraint, fuel switching and stock draws. Sweden has no state-controlled oil stocks today.[151]

Dependence on oil for power generation has gradually decreased from 77% in 1979 to 33% today,[152] but it is unlikely that further decreases can be made according to IEA.[153] Stocks are thus necessary. In order to reach the IEA emergency reserve commitment, Sweden's regulation obliges oil companies and large consumers to hold stocks of oil (25% of last year's

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[148] Jordan, Amos A. and Kilmarx, Robert A. (1979), *Strategic Mineral Dependence: The Stockpile Dilemma*, Washington: Georgetown University/The Center for Strategic and International Studies, The Washington Papers 70, p. 18f.

[149] See, for example: Industridepartementet (1980), *Mineralpolitik: Slutbetänkande av mineralpolitiska utredningen [Mineral Policy: Final Report by the Mineral Policy Review]*, Stockholm: Industridepartementet, Statens offentliga utredningar 1980:12.

[150] The issue of recycling is not covered in this report.

[151] Energimyndigheten (2005), *Beredskapslagring av olja [Stockpiling of Oil]*, Eskilstuna: Energimyndigheten, p. 45.

[152] Ibid., p. 45.

[153] IEA *Energy Policies of IEA Countries: Sweden 2004 Review*, p. 85.

net imports or consumption). However, there are ongoing plans to close certain stockholding agreements with Denmark, Finland, Ireland and Great Britain.[154]

Redistribution of electricity for the Nordic countries is ongoing and the so-called Estlink between Estonia and Finland and NordNed between Norway and the Netherlands increase the capacity by 350 MW and 700 MW respectively outside Nordel.[155] Specifically Sweden has to import electricity during peak consumption periods in wintertime. The Svenska Kraftnät has been instructed by the government to keep a reserve capacity of up to 2,000MW, but it is seen as a temporary measure (between 2003 and 2008) while waiting for a commercially sustainable solution to meet peak demands.[156]

Although Swedish usage of gas is small, pipeline capacity for natural gas in Sweden is 2 bcm/year, which could be expanded to 2.9 bcm/year. Currently only 0.98bcm/year is used.[157] Due to technical and geological reasons, Sweden does not have any storage facilities for natural gas, apart from a plant for demonstrational purposes.[158] The Swedish system has further been spared from accidents, non-planned cut-offs or shortages, but this storage will likely be used if Sweden is facing a shortage in the future. Although the storage is so small that it only will have an impact on the margin. Should Sweden face a boycott or likewise, it does not have the resources to act alone. It would then have to use the mechanisms of the EU gas directive that grants support to single member states for up to eight weeks.[159]

In addition, not all of Sweden's imported oil is used for power generation. The transport sector uses 60% of imported oil, while the industrial sector takes 22%, residential sector 6%, and 6% is used for non-energy usage.[160] In general, one third of all refined oil is exported[161] and when it comes to fuel heating oils, Sweden exports much more than it

154 Ibid., p. 78f.
155 Nordel (2005), *Power and Energy Balances: Forecast 2008*, Nordel.
156 IEA *Energy Policies of IEA Countries: Sweden 2004 Review*, p. 27.
157 Ibid., p. 79.
158 Ibid., p. 82.
159 Energimyndigheten *Europas naturgasberoende* , p. 35.
160 IEA *Energy Policies of IEA Countries: Sweden 2004 Review*, p. 74.
161 Ibid., p. 78.

imports. Figures from 2004 for example show that Sweden imported 358,000m^3 and exported 3,222,000m^3, mainly to the USA, Great Britain, Norway and the Netherlands.[162] Hence, Sweden's dependence on Russian oil has bearing on issues related to power generation, but also on the refining industry. Finally it is a factor in the balance of trade when it comes to re-exports.

As indicated, neither dependence nor vulnerability poses an immediate danger unless something happens that triggers a crisis. The question naturally arises what would a trigger be? A few examples of what can be involved when a crisis is triggered are wars, revolutions, civil unrest, nationalisation, state monopolies, boycotts and low transport availability.[163] In Russia, basically all of these elements exists today, although it was some 15 years since the latest "revolution", namely the fall of the USSR.

When it comes to political risks connected to security of supply, there are security dimensions that lie beyond the issue of getting enough energy for imminent consumption needs. Therefore, if dependence is seen in a political security context, also sensitivity is important.[164] The vulnerability points listed above can be seen in the context of Russia becoming a key provider of energy to Sweden. This analysis only goes thus far, and a full vulnerability analysis including Swedish counter-levers on Russia would have to be made before any increase in dependence could be undertaking without any serious security concerns.

Key Points

- Sweden has, as a result of its energy policy and the political deadlock over nuclear power, ended up in a precarious situation.

- As no efficient, economically or politically feasible or environmentally sustainable alternative energy source has emerged, the closing down of nuclear reactors and the abstention from expanding hydropower have left Sweden with the only option, at least for the near future, of importing energy.

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[162] Svenska petroleuminstitutet 'Import och export av eldningsoljor 2004', .
[163] Szuprowicz *How to Avoid Strategic Mineral Shortages: Dealing with Cartels, Embargoes and Supply Disruptions* , p. 281. See this source for further comments.
[164] Keohane and Nye *Power and Interdependence* , p. 14.

- The import option is problematic as the imported energy is often produced in environmentally unsustainable ways, which are not in line with political priorities.

- Sweden's energy imports of Russian energy can be characterised as highly sensitive and highly dependent, especially concerning oil.

- For now, Sweden seems highly unlikely to connect to Nord Stream and thus its impact on the Swedish energy situation is modest.

7 Energy from Russia's Point of View

The starting point for this chapter is Russia's views, perceptions and intentions, as expressed by its policies, public statements and in official documents. The Kremlin's capabilities are covered further on. The chapter outlines a few cases when Russia has used its oil and gas as levers in its foreign relations, especially against the states of the CIS. These should be seen in the light of Russia's overall foreign policy and usage of other levers.[165]

Russia's Perceptions

Russia has outlined its intentions in a series of documents published since 1992 of which the latest is the official Energy Strategy, released in 2003.[166] It is the main document today and it has basically replaced earlier versions. The strategy states that one of Russia's prime concerns is energy security, but energy policy is also meant to contribute to the overarching goal of national security. Energy policy is supposed to be used to avert geopolitical and macroeconomic threats, and Russia therefore aims to take advantage of its geopolitical position. It explicitly states that energy national security is the main task of the energy policy.[167]

In general, there is a relatively high degree of harmony between what is stated in the strategy and the policies being pursued.[168] It can therefore be assumed that Russia will try, at least to a reasonable degree, to follow the main provisions also in the future. The strategy outlines Russia's goals, policy and visions to the year 2020, although most of it consists of statistics.

'Energy security' in the Russian notion differs from the European notion as it usually encompasses the idea that Russia must ensure access to consumer markets. Occasionally, the physical safety of important infrastructure is included. The security of supply for consumers is,

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165 This is the topic of a forthcoming report by FOI.

166 Ministry of Industry and Energy (2003), 'Energeticheskaya Strategiia Rossii na period do 2020 goda [Russia's Energy Strategy until the Year 2020], Utverzhdena no 1234-r, 28 August, 2003.' *Ministerstvo promyshlennosti i energetiki Rossii*, Last accessed: 7 February 2005, Internet: http://www.mte.gov.ru/docs/32/189.html.

167 Ibid. p. 17, 40f.

168 See Fredholm *The Russian Energy Strategy and Energy Policy: Pipeline Diplomacy or Mutual Dependence?*.

however, less frequently emphasised, which has been evident in international negotiations within the framework of the G8 and the WTO.

Russia's notion of energy and security also results in an ambition to reduce transit of energy carriers from territories controlled by the CIS states. At the same time Russia also wants to increase exports via channels controlled that it controls directly or indirectly. Reducing its own transit over third-part territory is a key issue for Russia and so is ensuring that vital infrastructure is developed and remains under state control.[169] This should be evident from the other chapters of this report. The strategy basically says that Russia opts for policies aimed at making other states dependent on Russian energy while Russia takes action to avoid its own export dependence. This is evidence of Russia acknowledging great importance to the risks stemming from dependence and the benefits stemming from independence.

Simultaneously, Russia aims to be a reliable trading partner.[170] This is a difficult balancing act that explains much of Russia's contradictory behaviour. It is also worth considering that the nature of the Russian state, as argued by Robert Cooper in his book 'Breaking of Nations', is to be characterised as 'modern' whereas Sweden and most parts of Europe instead are 'post-modern'.[171] Holding this perspective in mind facilitates understanding of Russia's pursued policy that focuses on hegemony, ownership and independence while interdependence has been a key word for the development within the EU.

The top-level leadership in Russia may be changing, but it is important to stress that Putin himself is not against private property, although he believes that private companies cannot take control from the state as the state speaks for the Russian people. The ceding of assets in the 1990's was a mistake that must be reversed. A mixed system where some

[169] Ministry of Industry and Energy 'Energeticheskaya Strategiia Rossii na period do 2020 goda [Russia's Energy Strategy until the Year 2020], Utverzhdena no 1234-r, 28 August, 2003.' , pp. 68-71.
[170] Ibid., p. 41.
[171] Cooper, Robert (2003), *The Breaking of Nations: Order and Chaos in the Twenty-first Century* (London: Atlantic Books).

property is state owned and some is private is best for Russia, but Putin dislikes the 'Western management-style'.[172]

Putin is driving a process of delineation of the energy and commodities sectors. He has the intention to continue marketisation where appropriate and to enhance state control over the commanding heights of the energy sector and the economy. Practically this means that the Kremlin will keep its grip over strategic resources and pivots for exports while the lion's share of the sector will be run by the market forces. It must however be underscored that the main actors (Gazprom, RAO UES, Rosneft and Lukoil) are Kremlin-loyal firms. Despite clashes of interests, it is highly unlikely that they would undertake strategic projects that are not sanctioned by the Kremlin.

Russia's Capabilities

Further, Putin's hard-line view on economic security and energy is not shared by all members of the government or administration and there are several fractions and agendas. The somewhat liberal groups, however, have much less impact on policymaking than the hard-liners do. According to some information, the highest echelons of power today have a background in the security structures, to an even higher degree than during the Soviet Union,[173] but the degree is subject of discussion and can be questioned.

It is important to underscore that these people, known as the *siloviki*, not only hold state positions within the bureaucracy or parliamentarian committees, but also virtually all important posts on the boards of Russia's energy companies (Gazprom, Rosneft, UES, Transneft to mention but a few).[174] As a result of this policy, a new echelon of politically correct state oligarchs has emerged. Putin has declared that these men hold board positions in order to secure the interest of the state, not to profit. As the level of corruption is high, there is nevertheless room to question if not the two possibilities can be combined. There are

[172] See: Olcott, Martha Brill (2004), 'Vladimir Putin and the Geopolitics of Oil', *The Energy Dimension in Russian Global Strategy* (Houston: The James A. Baker III Institute for Public Policy of Rice University).
[173] Novaya Gazeta (2005), 'Agenti Vliyaniya [Agents of Influence]', *Novaya Gazeta*, Last accessed: 5 July 2005, Internet: http://2004.novayagazeta.ru/nomer/2004/63n/n63n-s45.shtml.
[174] Larsson *Russia's Energy Policy...*

also reasons to stress that many Russian export hubs are controlled or at least influenced by criminal structures and the predictability of supplies is thus reduced even further. This is an aspect of security of supply that needs to be acknowledged and investigated but is rarely done either due to practical reasons or to the harsh climate for Russian journalists.

The powers of the president are somewhat problematic, as in some ways he is powerless, but in other ways extremely powerful. This has result in overzealous actions and may continue to do so. In strategic energy matters, it yet seems that most intentions of the President can be implemented. The parliament has become a conveyor belt for presidential decisions and the Kremlin's wish is largely obeyed both by state bodies and by energy corporations. Taken together, this means that the responsiveness to political decisions can be expected to be rather high, despite interdepartmental clashes and fractions.[175]

Old and New Powers

In this context, it could be said that economic success rather than military strength constitutes a state's power position. There are also indications that economic power today is more important than it has been. Traditional policy that gives priority to hegemony, sovereignty, and unilateralism will fail to produce the right outcomes, one IR theory argues.[176]

Consequently, to remain a strong nation, one needs to pay attention to 'soft power'. Too great an emphasis on traditional power runs the risk of undermining the soft power that actually may bring along a solution to a present problem.[177] 'Soft power' is merely not all means but military ones. Soft power also concerns values, ideas, culture and boils down to the ability to get a desired outcome by attraction, as others want what you want. Hard power, in contrast, is the ability to get a desired outcome by threats and rewards, no matter if they are economic sticks and carrots or military coercion. Hard and soft power together make up what neoliberals call 'behavioural power'.[178]

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[175] Ibid.

[176] Nye, Joseph S. (2002), *The Paradox of American Power: Why the World's Only Superpower Can't Go it Alone* (New York: Oxford University Press), p. 8f.

[177] Ibid., p. 8f.

[178] Keohane and Nye *Power and Interdependence* , p. 220.

Russia, which found itself in an awkwardly weak position after 1991, acknowledges the importance of soft and behavioural power, but the old ideological element has evaporated and been replaced by a pragmatic policy line where hard power prevails, even when it comes to economic means and energy policy. At a conceptual level, Russia's modern characteristics rest on the belief held by the Russian leadership that great power status primarily comes from its size, resources, armed forces and nuclear arsenal. Fifteen years of turmoil and relentless reform resulted in an impotent military situation where strategic missiles were the last, but highly symbolic, linchpin of Russia's great power status. Russia has therefore come to realise that economic levers can be used as both complements and as substitutes for military force, and they are gradually given greater roles in rhetoric and practice.[179] Energy is set to become Russia's primary non-military tool for boosting its international respect, partly by coercion and partly by reliability.

A better term for Russia's energy policy would be one of 'resource power', which refers to a possession of resources usually connected to the ability to get a preferred policy outcome.[180] Even if Russia does not have the ability to get a preferred outcome, it harbours illusions that it has, which is one reason why it tries to pursue such a policy.

Coercive foreign policy by economic means has often been a prelude to higher levels of conflicts. This means that trade restrictions, freezing of financial assets, embargoes etc. may be followed by military actions.[181] Today this does not have to be the case even if it has occurred, for example the sanctions against Iraq. Instead, coercive energy policy can stand as tool of power itself, either as a complement or as substitute to military force. Russia has lately refrained from overt military operations in the CIS area, but during times of strained relations between Russia and Georgia, there has been a military factor next to economic and political pressure.

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[179] Leijonhielm*, et al. Rysk militär förmåga i ett tioårsperspektiv - problem och trender 2005 [Russian Military Capability in a Ten-Year Perspective - Problems and Trends 2005]*.
[180] Keohane and Nye *Power and Interdependence*, p. 220.
[181] Neu and Wolf *The Economic Dimensions of National Security*, p. 7.

Whether the trend towards increased non-military pressure continues remains to be seen, were Russia's military strength to improve. Russia's conventional military capability is on the rise again. Uncertainties concerning the political, military and economic course of Russia and its energy policy will largely depend on the general development of the Russian state and society. A key factor is for example that the Kremlin and the energy firms act in tune when it comes to many projects of strategic nature. Russia for example focuses on strategically important but economically questionable infrastructure projects. Basically, Russia is willing to take economic losses to attain political gains, but if the whole process is taken into consideration and in the wider context, also the politically driven actions have an economic rationale.

Russia's Energy Supply Interruptions

In order to comprehend the risks posed by Nord Stream, a glance in the rear view mirror is essential. During Yeltsin's reign, energy cut-offs frequently occurred. The frequency has dropped since then, but the practice still seems to be used. While Russia's has been seen as a reliability supplier for many years, during 2006, more and more analysts started to question its reliability. Vladimir Milov, an independent Russian energy expert and former deputy Minister of Energy, argues that Europe should not take official Russian statements at face value and he questions the Russian reliability on several grounds.[182] A few cases can therefore be mentioned here.

Georgia is largely dependent on foreign energy suppliers and unexplained cut-offs have occurred on politically important occasions.[183] The official reason has been Georgia's debts,[184] but cut-offs seem to have coincided with special occasions, such as elections, bilateral negotiations

[182] Norrbom, Hans (2007), 'Ryssland opålitlig energileverantör: Putin använder gasen som påtryckningsmedel [Russia is an Unreliable Energy Supplier: Putin is Using the Gas as a Power Tool]', *Riksdag och Departement*, 6:2007, p. 16.
[183] Civil Georgia (2003b), 'Shevardnadze Calls for 'Revising the Contract' with the U.S. Energy Company', *Civil Georgia*, Last accessed: 19 July 2005, Internet: http://207.218.249.154/cgi-bin/eng/detail.pl?id=5034.
[184] Civil Georgia (2003a), 'Itera to Cut Gas Supply to Georgia Because of Debt', *Civil Georgia*, Last accessed: 19 July 2005, Internet: http://207.218.249.154/cgi-bin/eng/detail.pl?id=4833.

or Russian bombardment of Georgian territory.[185] One such occasion occurred in January in 2001[186] and other supply interruptions followed in 2003. It is worth underlining that Georgia (especially its MPs) often accuses Russia of everything negative that falls upon Georgia and interprets Russia's energy policy as a means to deliberately harm and hurt Georgia even if its not. One reason is that the only times Georgia receives international support is when Russia has misbehaved, and thus there are incentives to cry wolf.[187]

In Ukraine, Russia has attempted to gain influence by exchanging debts for infrastructure. There are also several examples of Russian pressure and coercive energy policy coinciding with one case occurring in 1993[188] and another in 1995.[189] Furthermore, ever since the beginning of the 1990s, Russia and Belarus have been arguing over energy and Gazprom has cut the gas flow on several occasions, in 2003 and 2004 for example. Some of these interruptions have affected Poland even if they were not meant to do so. [190] Another occasion was as late as in 2005/2006 when Russia turned off the gas flow to Ukraine after Ukraine refused to give in to Russian pressure of price increases and demands for transit pipelines.[191]

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[185] Cornell, Svante, E. (2001), 'The Caucasus under Renewed Russian Pressure: Realities on the Ground and Geopolitical Imperatives', *Analysis of Current Events*, Vol. 13, No. 3, p. 10.

[186]Baran, Zeyno (2001), 'Georgia under Worst Pressure Since Independence', *The Center for Strategic and International Studies (CSIS)*, Last accessed: 19 July 2005, Internet: http://www.csis.org/ruseura/georgia/gaupdate_0101.htm.

[187] See Larsson, Robert L. (2006a), *Konfliktlösning i Kaukasien: en säkerhetspolitisk lägesuppdatering 2006 [Conflict Resolution in the Caucasus: A Security Political Up-date 2006]*, Stockholm: Swedish Defence Research Agency (FOI), December 2006, FOI-R--2108-SE.

[188] For details of see Felgenhauer, Tyler (1999), *Ukraine, Russia and the Black Sea Fleet Accord*, Woodrow Wilson Center, Woodrow Wilson Case Study 2.

[189] Balmaceda, Margarita Mercedes (1998), 'Gas, Oil and the Linkages between Domestic and Foreign Policies: the Case of Ukraine', *Europe-Asia Studies*, Vol. 50, No. 2, p. 260.

[190] RFE/RL (2004), 'RFE/RL Newsline 18 February 2004', *RFE/RL*, Last accessed: 21 June 2005, Internet: http://www.rferl.org/newsline/2004/02/180204.asp.

[191] Larsson, Robert L. (2006d), *Rysslands energipolitik och pålitlighet som energileverantör: risker och trender i ljuset av den rysk-ukrainska gaskonflikten 2005-2006) [Russia's Energy Policy and Reliability as Energy Supplier: Risks and Trends in the Light of the Russian-Ukrainian gas Conflict 2005-2006)*, Stockholm: The Swedish Defence Research Agency (FOI), January 2006, FOI-R--1905--SE.

In the winter of 1992-1993, Yeltsin cut energy supplies to Estonia, Latvia and Lithuania in order to affect a policy change.[192] In Lithuania, Russia cut oil deliveries on nine occasions only in 1998-1999. The reason was that it wanted Lithuania to cede control over pipelines, ports and refineries to Lukoil.[193] Another example are the gas cut-offs that coincided with the adoption of Estonia's law on aliens, which affected the situation for the ethnic Russians living in Estonia.[194] Also in the case of Moldova, gas cut-offs and threats thereof have been common. In the winter of 1999 Gazprom cut off gas supply to Moldova, claiming Moldova's continuously rising debt as a reason.[195] To what extent these cut-offs have political underpinnings or not can be debated in each case, but the perceptions of the target states are clear and will thus have an impact on the overall energy relations.

At an aggregated level, it can be said that, according to the IEA, no full cut-off has occurred to Western customers since 1968 when energy deliveries started.[196] Apparently, Russia acknowledges a difference in importance between former Soviet states and Western Europe. On this basis, importers of Russian energy can be divided into three groups. The first group is the former Soviet territory, basically the CIS and the Baltic countries where numerous incidents have been recorded.

The second group is made up by former Warsaw Pact members of which some now also are EU and NATO members. Against these states, Russia has been less willing to use the energy weapon to the same extent as

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[192] Smith, Keith C. (2004), *Russian Energy Politics in the Baltics, Poland and Ukraine: A New Stealth Imperialism?*, Washington D.C.: Center for Strategic and International Studies (CSIS), December 2004, p. 6.
[193] Ibid., p. 6.
[194] Oldberg, Ingmar (2003), *Reluctant Rapprochement: Russian-Baltic Relations in the Context of NATO and EU Enlargements*, Stockholm: The Swedish Defence Research Agency (FOI), FOI-R--0808--SE, p. 51.
[195] Johansson, Andreas (2003), *Whither Moldova? Conflicts and Dangers in a Post-Soviet Republic*, Stockholm: The Swedish Defence Research Agency (FOI), FOI-R--0990--SE, p. 29.
[196] Ahrend, Rudiger and Tompson, William (2004), *Russia's Gas Sector: The Endless Wait for Reform?*, Paris: Organisation for Economic Co-operation and Development (OECD), Economic Department, 17 September 2004, Economics Department Working Papers 402 (ECO/WKP (2004)(25), p. 21.

against its former space and satellites, but they are definitely being seen as affordable "collateral damage".

Concerning the third group, which basically consists of the Western states of Europe, the USA and possibly Japan and India, no cut-offs *aimed at them* have been made as far is known, but issues of concerns exist, especially as these states are affected by Russia's policy towards the CIS states. How China is seen in Moscow can be debated, but it would likely fall into the Eastern Europe category. Russia cannot handle China in the same way as CIS states but it might be prepared to cut off supply and take political bad-will, should China and Russia be on a confrontation course.

Russia's Coercive Energy Policy in Aggregated Terms

If these cases are penetrated and put in a wider context, then a pattern emerges, namely that the energy lever can be used in several ways and serve several purposes. By and large, these actions can have military, political, social, economic or other non-military foreign-policy related underpinnings. There could be several imminent reasons or drivers, e.g. relate to a will to enforce some kind of political concession in ongoing negotiations, enforce infrastructure take-over, enforce economically favourable deals and make a political statement. [197] All incidents where Russia has used the energy weapon are political statements in one way or another, but in the 1990s, the driver of enforcing concessions was common. The findings further draw attention to the fact that Russia's previous usage of the energy tool has taken many forms, namely:

- supply interruptions (total or partial),
- threats of supply interruptions (covertly or explicit),
- pricing policy (prices as carrots or sticks),
- usage of existing energy debts,
- creating new energy debts,
- hostile take-overs of companies or infrastructure,

There have been over 55 incidents (cut-offs, explicit threats, coercive price policy and certain take-overs) since 1991, of which a few are

[197] Leijonhielm, Jan and Larsson, Robert L. (2004), *Russia's Strategic Commodities: Energy and Metals as Security Levers*, Stockholm: Swedish Defence Research Agency (FOI), FOI-R--1346--SE, p. 114f.

unconfirmed. At least twenty of these have occurred during Putin's reign. The frequency of incidents has largely remained constant. Only eleven of the incidents occurred without any political underpinning. The majority has both political and economic underpinnings. There are long-term strategic underpinnings in almost every case.

Over forty cut-offs of energy supplies have occurred against the Baltic and CIS countries since 1991, three unconfirmed and technical failures or sabotage not included. Fifteen of these were during Putin's tenure. In addition, there have been serious threats on at least three occasions that were put forward by Russia without any actions being taken. Incidents where Russia has put forward political demands in connection to its energy policy or exerted clear punishment for unwanted actions are matters of discussion and definition, but on seven occasions this appears to have been the case. Therefore, we can conclude that while incidents have kept on recurring, the number of explicit cut-offs has been somewhat reduced.

The argument is often heard that Russia's interruptions or infrastructure take-overs are market-driven actions. Indeed, this is true in some cases, but the argument basically rests on the assumption that the Russian companies can be characterised as market actors in the western sense and that there are neither political nor other underpinnings to their actions. To Russia's defence it must be said that acting in the grey zone between business and politics is also practiced by Western states and energy corporations. An important difference is that importers of energy are willing to *give* political concessions in return for energy while Russia *demands* political concessions as payments for a certain energy policy. This gives Russia a strong but blunt lever.[198]

Key Points

- 'Energy security' in the Russian notion encompasses the idea of secure access to consumer markets. It is also a key issue for Russia to reduce its own transit over third-part territory and ensure that vital infrastructure is developed and kept under state control.

[198] Details of method and further analysis will be presented in a forthcoming study by FOI. The actual cases can be read about in Larsson *Russia's Energy Policy...*

- The Russian energy strategy stipulates that Russia opts for policies aimed at making other states dependent on Russian energy while Russia takes action to escape own export dependence.

- Kremlin controls 100 per cent of the gas and 30 per cent of the oil. In addition, it controls all vital bottlenecks and all important infrastructures for exports.

- Kremlin does not always have to act by force as several actors act in harmony with the Kremlin's desire, sometimes due to a form of 'self-censorship' where energy firms refrain from acting in conflict with Moscow's intentions.

- Market, political and economic drivers exist under a single strategic umbrella in Russia. Often it boils down to the intention of extending Russia's influence abroad.

- The political level is prepared to endure political bad-will not only for its political priorities, but also for economic reasons. Energy companies are often willing to conduct economically unwise activities in the interest of the state.

- Russia has used its energy levers against the Baltic and CIS states at several occasions. This does not exclusively take the shape of supply interruptions, but also coercive price policy, selective marketisation or a policy of intimidation.

- The risk of experiencing a coercive policy is modest for most of Europe, but the new EU-members, such as the CIS states, may well be targeted.

8 Barriers and Triggers

This chapter deals with an issue that could act as a catalyst for strained relations between Russia and a single EU member in order to show that such negative scenarios are not as implausible as one might expect. The chapter also details some of the barriers that exist against supply interruptions.[199]

The starting point in this case is that Sweden, Denmark and the UK have all had difficult relations with Russia when it comes to issues related to Chechnya. Denmark can serve to illustrate the problem. In short, the Chechnyan spokesperson Ahmed Zakayev in 2002 appeared on a conference in Copenhagen. He was shortly afterwards arrested by the Danish Police on the grounds of being a suspected terrorist. Russia demanded that he should be extradited, but the Danish authorities refused as Russia could not produce sufficient evidence supporting the terrorist allegations. Consequently, Russia chose to boycott an EU summit in Copenhagen (that later was moved to Brussels) and threatened to boycott Danish goods.

Table 2: European Gas Dependence on Russian Gas Supplies 2003

Country	**% of total imports**	**% of total consumption**
Austria	77	65
Finland	100	100
France	24	23
Germany	37	33
Greece	76	76
Italy	32	26
Netherlands	17	6
EU15	28	18
Czech Republic	74	73
Hungary	86	66
Poland	85	58
Romania	91	29
Slovakia	100	97
Slovenia	60	60
Central/Eastern Europe (12 states)	87	60
Turkey	61	60
Total Europe (28 states)	38	26

Source: Calculated from Cedigaz, Trends and Figures in 2003 from *Natural Gas in the World 2003*, cited in Stern, Jonathan (2005), *The Future of Russian Gas and Gazprom*, Oxford: Oxford Institute for Energy Studies, p. 143.

The situation quickly became serious. Threats of boycotts were heard from Russian politicians and industrialists alike, even if officials claimed that business-relations would not be harmed. Many Danish companies operating in Russia nonetheless experienced 'bureaucratic checks' and

[199] For a longer comment, see Ibid.

other problems of red tape. Putin's political party, United Russia, called for that "[e]ach Russian must give up travels to Denmark, Danish goods, and contacts with Denmark [sic] companies."[200] In sum, Russia concluded that it basically was prepared to sacrifice Danish products and the Danish export market by responding with a boycott. Zakayev was nevertheless released.

In order to assess the impact of a potential boycott, one has to look at trade patterns and level of sensitivity and vulnerability. Danish exports to Russia for example mainly consist of foods and raw materials (42%), but also of machines and equipment (24%), furniture (3%), footwear (2%), pharmaceutical products (2%). 15 % of Russia's meat imports come from Denmark.[201] In the words of the Russian web-paper Pravda.ru:

> *We should also keep it in mind that Denmark is Russia's largest insulin supplier; thousands of Russian people suffering from diabetes need this medicine. The problem is very pressing; a presidential program was developed for substitution of imported insulin with domestically produced insulin. Unfortunately, production of Russian insulin hasn't started yet.*
>
> *It is not ruled out that Russian diabetics, as well as millions of Russians, are indignant at the Danish authorities that openly keep aloof from the "Ahmed Zakayev problem" and let Danish police settle it. Unfortunately, Russian diabetics might die without Danish insulin.*
>
> *…*
>
> *At the same time, this doesn't mean that we shouldn't seek Ahmed Zakayev's extradition at any price. We must. However, if the Danish authorities keep on hesitating with the extradition, Russian special*

[200] Akhtyrov, Akhtyam (2002), 'Denmark to Learn the Price to Pay: This is the Price Denmark Will Pay for Crossing Russia', *Pravda.ru*, Last accessed: 29 July 2005, Internet: http://english.pravda.ru/main/2002/12/04/40383_.html.
[201] Slobodanuk, Dmitry (2002), 'Boycott of Denmark Become Russia's Idee Fixe', *Pravda.ru*, Last accessed: 22 July 2005, Internet: http://english.pravda.ru/main/2002/11/06/39240_.html.

> *services should organize Zakayev's kidnapping for a subsequent fair and open trial in Russia.*[202]

The problems that in fact did emerge were not directly a matter of Danish national security, but experiencing these kinds of action or diplomatic pressure, stemming from formal or informal channels, has a bearing on both the foreign relations and the business climate. The impact on trade in the long perspective may be small, yet it is a question that is connected to all forms of dependency to a single supplier or to a specific market.

Furthermore, the case above is not a singular event and even the UK has been targeted for pressure by Russia for the same reasons. From a democratic point of view, it is somewhat problematic that a state may have to choose between prioritising rule of law and giving in to blackmail.

Sweden has also touched upon this sensitive issue, for example in 2005 when one of the cars belonging to the Russian embassy was destroyed by left-wing hooligans. Russia then let it be known that it saw the incident as a consequence of Sweden's soft line on terrorism. The reason was that the Chechnyan terrorist Shamil Basayev had been interviewed a few days earlier by the TT News service.[203] On other occasions, Sweden has been accused of giving in to Russian pressure. One example is a conference on Chechnya in 2004 where Umar Chanbiev, the Minister of Health of the non-Moscow loyal Chechnyan administration, appeared as a speaker. Allegedly, Russia attempted to put pressure on the Swedish Foreign Ministry not to take part. According to a Swedish Peace Group (*Svenska freds- och skiljedomsföreningen*) the Swedish authorities gave in to the pressure and abstained from participating.[204] In sum, the incident shows that not only the CIS states may be targeted for pressure.

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[202] Ibid.

[203] Henriksson, Ola (2005), 'Rysk diplomatisk protest mot bilbrand [Russian Diplomatic Protest Against Car Fire]', *Sveriges Radio/Ekot*, Last accessed: 29 July 2005, Internet: http://www.sr.se/ekot/.

[204] Careborg, Anna (2004), 'UD påstås gå Putins ärenden [The Foreign Ministry Accused of Running Putin's Errends]', *Svenska Dagbladet*, Last accessed: 8 December 2005, Internet: http://www.svd.se/dynamiskt/inrikes/did_8333150.asp, and Blom, Frida and Uggla, Martin (2004), 'UD vägrar fredsdialog [The Foreign Ministry

Political Barriers against Supply Interruptions

Nye and Keohane say that a weak state in its relations with a strong state can link unrelated issues as a means of extracting concessions from the strong state since the domestic interactions are less complex.[205] When it comes to energy trade in the CIS area, concessions received by weak states have most often been stemming from their blackmailing of Russia. This has been the case by Turkmenistan for example in its negotiations on gas prices. Turkmenistan has for example grown tired of Russia buying its gas cheaply in order to sell it to European customers at much higher a price. For their part, Moldova and Ukraine have also threatened to cut Russia's transit of gas to European markets. This can be interpreted as a counter strategy aimed at tackling Russia by using the same means as it has used against them. The counter-strategies of small dependent states thus include usage of the Russian transit dependence, which is a key reason behind Russia's ambition with Nord Stream. However, the barriers against bad behaviour by Russia are smaller than they seem at first.

One argument is that Russia needs revenues from energy exports and would thus not be inclined to cut supplies. This is only true when it comes to interruptions of any long duration. In basically all previous cases, cut-offs have been of rather short and most often only partial nature. They have not inflicted any great economic loss to Russia. In fact, some cut-offs have resulted in Russia being able to take over energy infrastructure, something that in the long run can be profitable. Besides, by having a currency reserve of over US$300bn and an oil stability fund of over $US80bn, Russia can easily afford any minor losses.

There is of course a degree of interdependence between Russia and the EU, as Russia is dependent on foreign states for transit, but Russia is willing to go to great lengths to bypass transit countries for example shown by Nord Stream. Most importantly, the asymmetries are so large that even the widest definitions of interdependence are not generous enough. Hence, Russia's capability to use the energy lever increases. Should a large conflict or even war materialise, although it may seem unlikely, dependence would be devastating.

Refuses Peace Dialogue]', *Svenska Dagbladet*, Last accessed: 8 December 2005, Internet: http://www.svd.se/dynamiskt/brannpunkt/did_8326076.asp.

[205] Keohane and Nye *Power and Interdependence*, p. 27.

Additionally, the impact from political bad-will that so far has fallen upon Russia has been non-sticking. Within the former Soviet territory, Russia's reputation as a reliable energy provider is already destroyed. The West got a wake-up call during the Russian-Ukrainian gas row of 2005/2006, and got a reminder concerning Belarus a year later, but Russia is practically insensitive to international criticism, which has been displayed by its stand on Chechnya. Hence, even if Russia misbehaves further, there is no evidence of this having an impact on the West's willingness to import Russian energy.

Key Points

- A trigger of a crisis can be small at first sight, but a crisis may develop in a vicious way once commenced.

- Even if problems are not matters of national security, pressure stemming from formal or informal channels has a bearing on both foreign relations and business climate.

- The impact on trade in the long perspective may be small; however, it is an issue that any state choosing to increase its dependency has to face.

- A state that chose to prioritise rule of law instead of giving in to blackmail might have to countenance pressure, even if the method or exact response differs in all cases.

- The barriers against coercive behaviour are very small. Only against long-duration supply-interruptions are the barriers sufficient safeguards against malign policy.

Appendix: Acronyms

AES	American Energy System
ASPO	Association for the Study of Peak Oil
Baltrel	The Baltic Ring Electricity Co-operation Committee
Bd	Barrels/day
Bcm	Billion cubic meters
Bmt	Billion metric tons
BPS	Baltic Pipeline System
BTC	Baku-Tbilisi-Ceyhan Oil Pipeline
BTE	Baku-Tbilisi-Erzerum Gas Pipeline
Cif	Cost, insurance, freight (for prices)
CIS	Commonwealth of Independent States
EIA	Energy Information Agency
EU	European Union
FEC	Federal Energy Commission
FOI	Totalförsvarets forskningsinstitut (Swedish Defence Research Agency)
FSB	Federalnaya Sluzhba Bezopasnosti (Federal Security Service)
IEA	International Energy Agency
G8	Group of eight
GHG	Greenhouse Gases
GTE	Gas Transport to Europe
IGO	International Governmental Organisations
LNG	Liquefied Natural Gas
Mcm	Million cubic meters
Mmt	Million metric tons
MP	Member of Parliament
MPS	Murmansk Pipeline System
NATO	North Atlantic Treaty Organization
NEGP	North European Gas Pipeline
NGO	Non-Governmental Organisation
OPEC	Organization for Petroleum Exporting Countries
P/R	Production/reserve ratio
PSA	Producer Sharing Agreement
TEK	Fuel and Energy Complex
Trcm	Trillion cubic meters
Tcm	Thousand cubic metres
TRA	Tax/Royalty Agreements
TRACECA	Transport Corridor Europe Central Asia
TPES	Total primary energy supply
UCTE	Union for the Co-ordination of Transmission of Electricity
UES	United Energy System
UHL	Unconventional Hydrocarbon Liquids
UN	United Nations
VIC	Vertically Integrated Company
WTO	World Trade Organisation

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