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When Sanctions Bite:

Global Export Leadership in a Competitive World and Russia's Energy Strategy to 2035

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Russia's more assertive role in international affairs, demonstrated by its annexation of Crimea in 2014 and intervention in the war in Syria in 2015 – and the statements of senior officials that suggest that such an approach will continue – has propelled it to the forefront of NATO's thinking. Much of the debate has focused on the military aspects of Russia's activity, and on how to reassure member states and deter further Russian aggression. But the question of energy security has also played an important, if less obviously prominent, role in that discussion – particularly in terms of the concerns about Moscow's deployment of the "energy weapon" to increase its influence in Euro-Atlantic politics.

In this context, the term 'diversification, which gained prominence following the Russian-Ukrainian gas disputes of 2005-06 and 2008-09, has had very different connotations in Western and Russian official statements.² The EU, US and NATO have insisted on the diversification of *sources* in order to secure alternative energy supplies and reduce reliance on Russia. The prioritisation of diversification of energy sources more than routes is considered to enhance

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2 Today the "Ukraine crisis" is often used to describe the deterioration in relations between the Euro-Atlantic community and Russia following the annexation of Crimea and the eruption of military conflict in Eastern Ukraine. But it is not the first "Ukraine crisis," which took place a decade ago, and are commonly known as the "gas wars." They took place in 2005-2006 and 2008-09, respectively, and were caused by Russia's decision to cut supplies to Ukraine. Moscow's official explanation was Kiev's non-payment for Gazprom's gas but the move was deemed in the West to be political. It is worth remembering that it was these "Ukraine crises" that spurred NATO to discuss how to address the Russian "energy weapon." As a result of this debate, NATO formulated the role it would play in energy security, and set this out in the Strategic Concept of 2010. Specifically, NATO agreed to "develop the capacity to contribute to energy security, including the protection of critical infrastructure and transit areas and lines, cooperation with partners, and consultation among Allies on the basis of strategic assessments and contingency planning." Strategic Concept (2010): Active Engagement, Modern Defence, *North Atlantic Treaty Organization*, p.17, http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf



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alliance and member-state resilience against Russia in the long-term, but the protection of critical infrastructure, transit areas and lines has been woven into NATO's Strategic Concept of 2010 on the assumption that Russia will remain a key supplier of gas to Europe in the short and medium term.³ This picture will be familiar to a Euro-Atlantic audience.

The difference in how the situation is understood in Moscow is stark. By diversification, Russia has consistently meant building new export pipelines to its principal existing markets in Europe bypassing Ukraine. Furthermore, even before 2014, NATO's attempts to give substance to its role in the energy sphere were widely interpreted in Moscow as "Washington's use of the institute of NATO as a tool, which (alongside the establishment of American military bases in the framework of the proclaimed war on international terrorism) would support the establishment of direct or indirect control of the USA over transnational flows of resources."⁴ Senior military officials have also described an international picture in which the primary military threat to Russia was a Western attempt to create an "energy NATO" and ensure its energy security at Russia's expense. At the same time, prominent Russian officials have pointed to their concerns about growing competition from the USA for control over natural resources and access to supply markets over the next decade, competition that may lead to military conflict in Russia's immediate neighbourhood, or even within Russia itself.

Such concerns have only strengthened since 2014. Statements calling on the Alliance to make energy diversification a "strategic transatlantic priority" and reduce Europe's dependence on Russian energy have fed Moscow's view that many of what it sees as the extraordinary external challenges that the Russian energy sector has encountered have been artificially created to counteract Russia's political influence.⁵ Similarly, Western sanctions are a source of anxiety for the Russian leadership, since they have affected the energy sector, and even though the Kremlin has dismissed their importance with President Vladimir Putin calling them "the theatre of the absurd,"⁶ this concern has been unequivocally admitted in Russian strategic plans.

These views have acquired a new dimension following the breakthrough in the shale oil and gas extraction in the United States and the lifting in December 2015 of the ban on US crude oil exports which had been in place since 1975. In fact, taken together, US shale gas developments and the current Western sanctions regime are perceived as national-level energy and security threats, since Moscow appears to be concerned about Washington trying to cut Russia out of its traditional supply markets in Europe and to become the supplier of hydrocarbons to East European and Baltic states, and even to Ukraine.⁷

In a mirror image of Western concerns, therefore, the Russian leadership believes that the US and NATO are using hydrocarbons as an 'energy weapon' by seeking to limit Russia's access to the three most developed markets in the world: the US, EU and Japanese – the so-called 'great triad'. This is having consequences for Russian strategic thinking and planning, and measures to overcome the challenge and to sustain Russia's preponderance as a global energy exporter have already been outlined. Indeed, taken together, these circumstances have driven a full-scale overhaul of Russia's energy strategy.

This paper explores this overhaul and its implications. To do so, it reviews the latest draft of the Energy Strategy to 2035 (ES2035) to understand how Russia has perceived the changes in its geopolitical and energy environment, how these perceptions have informed and shaped the new draft energy strategy, and what impact these strategies have had on the direction of Russian foreign energy policy.⁸

The process is important for two reasons. First, it emphasises the point that the Russian leadership engages in long-term strategic thinking, and has a structured strategic planning process. By law, the energy strategy is updated every five years, and in this case the updating is particularly important due to the scale of the global changes that will influence the Russian market. A more sophisticated understanding of Russia's strategic planning will illuminate Moscow's thinking, and thus help to overcome some of the persistent sense of surprise in the Euro-Atlantic community about Russian actions.

3 Transit areas and lines in NATO strategy of course do not apply to Ukraine alone. NATO also monitors the situation around the Straits of Hormuz, Malacca, Gulf of Aden and elsewhere. While the Ukraine crisis triggered the explicit formulation of NATO's energy goals, Europe is not the only theatre in which NATO has an interest. Yet Russia chooses to interpret the clause as directly against it – hence the talk of "energy NATO."

4 Marina Kuchinskaya, "NATO i problema energobezopasnosti" [NATO and the problem of energy security], Russian Institute of Strategic Studies, 14 October 2013, <http://riss.ru/analitics/4028/>

5 For NATO statements, see then Secretary General of NATO Anders Fogh Rasmussen quoted in Julijus Grublaukas, "NATO's energy security agenda," *NATO Review Magazine*, <http://www.nato.int/docu/review/2014/NATO-Energy-security-running-on-empty/NATO-energy-security-agenda/EN/index.htm>

6 "Putin: Vopros o sanktsiyakh priobretaet kharakter teatra absurda" [Putin: The question of sanctions gets the traits of the theatre of the absurd], *NTV Itogi Nedeli*, 11 January 2016, <http://www.ntv.ru/novosti/1593443/>

7 "Postavki gaza v Evropu prinesut SSHA odni ubytki" [Supplies of gas to Europe will bring nothing but loss to the USA], *Vzglyad*, 18 November 2015, <http://vz.ru/economy/2015/11/18/778799.html>; "SSHA mogut nachat' postavki gaza na Ukrainu v 2017 godu" [USA may start supplying Ukraine with gas in 2017], *Kommersant*, 20 June 2015, <http://kommersant.ru/doc/2752073>. This is a relatively new development in the Russian view of the world, after a period of official denials that shale would be profitable, viable or able to compete with Russian gas. The realisation is now that shale may be viable at a price of \$55-60/barrel.

8 Government of the Russian Federation, Draft *Energeticheskaya Strategiya Rossii na period do 2035 goda* [Energy strategy of Russia to 2035], pp. 3-15 and pp. 61-65, 2014, http://www.energystrategy.ru/ab_ins/source/ES-2035_09_2015.pdf

Second, it illustrates the great difficulty that Moscow faces in shaping a strategy. The document was due for publication in 2014. Already two years late, the delay is in part explained by the numerous ongoing question marks hovering over so many of the basic assumptions of strategic planning and the implications of getting it wrong. For a large energy resources exporter like Russia, the importance of understanding the external environment for making correct forecasts cannot be underestimated. The multiplicity of factors which influence and transform energy markets with global consequences (shale gas), the interdependent nature of the energy markets (inter-fuel substitution between gas and coal) and the growing mobility of commodities across the markets which enables consumers to source energy from various geographically remote suppliers (LNG) create huge uncertainties for Russian exports, meaning that making even basic assumptions to feed into the forecasting models is very difficult. Indeed, the biggest exercise is modelling Russia's own supply and demand of energy where a plethora of assumptions need to be made, and in a context where multiple lobbies, such as the atomic energy industry, continuously seek to influence the Strategy to enhance their own position.⁹

Moreover, government discussions of the scenarios proposed in ES2035 also unveil the conflicting strands within the strategy. In May 2016, for instance, the Energy Ministry, which is required to promote import substitution as part of the overall government objective to reduce reliance on imported commodities in key sectors, proposed in ES2035 a scenario in which only 1.3% of electricity production was to come from renewable energy. This was rejected by Deputy Prime Minister Arkady Dvorkovich (who is in charge of the energy sector), who returned the draft to the Ministry for further fundamental amendments. Energy Minister Aleksandr Novak's attempted objection that the scenario was grounded in reality as Russia does not produce its own solar batteries or wind turbines and would have to import them to grow production of renewable energy – which would be contrary to the government-backed import substitution policy – did not win support. Commenting on the situation, Deputy Chairman of the Federation Council Committee on Economic Policy Viktor Rogotsii stated that Russia would have to start producing the necessary renewables equipment domestically. He quickly added, however, that the strategy “did not always have to be

realistic but it had to be mobilizational and innovative,” whereas ES2035 resembled, in his view, “a bunch of old notebooks.”¹⁰ The draft ES2035 undoubtedly places heavy emphasis on hydrocarbons, both in terms of extraction, export and electricity production, but this emphasis is due to the fact that Russia has these in abundance and the set targets, if approved, would stand a chance of being met.

This paper first reflects on ES2035 and how it differs from the previous iterations of Russian energy strategies, looking at Moscow's view of the emerging geopolitical crisis in energy security and the fundamental changes in forecasts that Moscow is having to make. The paper traces the evolution of thinking in Moscow about energy over the last decade, and links this into wider concerns in Moscow about energy security and national security.¹¹ The paper then turns to assess in more depth the tasks laid out in the ES2035, particularly those of asserting Russia as the leading energy exporter and import substitution, before concluding with an assessment of China's role as an enabler of Russia's energy strategy implementation.

ES2035 and the Changing Strategic Horizon

The draft ES2035 reflects a series of important changes in Russian strategic planning. Perhaps most notable is the evolution that has taken place in Russian strategic thinking about energy and national security over the last five years. The Energy Strategy to 2020 (ES2020), adopted in 2003, states that a key task of energy policy is to ensure national security.¹² Yet in that document, and also in the subsequent iteration of the energy strategy adopted in 2009,¹³ geopolitical factors are mentioned only once, in parentheses, when acknowledged as potential external threats alongside macroeconomic and structural factors, which could undermine Russia's energy security.

By contrast, the draft ES2035 contains repeated references to the “geopolitical crisis which started in 2014 and which has entailed the imposition by a number of leading countries of financial, technological and other sanctions against Russia.”¹⁴ Though the fall in oil

9 For instance, the May 2016 version of the Strategy contained a target of building 6 new atomic stations, increasing nuclear energy in the total electricity production from 17% to 21%. This large increase in nuclear energy was one of the reasons that the draft was rejected.

10 “Pochemu vitse-premier Dvorkovich zavernul Energeticheskuyu strategiyu Rossii na pererabotku” [Why Deputy Prime Minister Dvorkovich returned the Energy Strategy of Russia for amendment], *Zolotoye Koltso: Yaroslavskaia Oblastnaya Gazeta*, 27 May 2016, <http://goldring.ru/news/show/124137>

11 A.V. Novak, Energy Ministry of the Russian Federation, *Energeticheskaya Strategiya Rossii do 2035 goda* [Energy Strategy of Russia to 2035], Moscow, October 2015, http://www.rspvo.ru/attachments/Energ_strategi_Novak.pdf

12 Government of the Russian Federation, *Energeticheskaya Strategiya Rossii na period do 2020 goda* [Energy strategy of Russia to 2020], 2003, p. 16, http://www.energiystrategiya.ru/projects/ES-28_08_2003.pdf

13 For a review of the previous strategies, see N. Mehdiyeva, “The 3 Ds: Development, Diversion and Diversification. Reviewing Russia's Energy Strategy to 2030,” *NDC Review*, November 2011, <http://www.ndc.nato.int/research/research.php?icode=0>

14 ES2035, p. 4.

prices for the Russian economy has been significant, in ES2035 the geopolitical crisis and sanctions appear to take precedence over the dramatic fall in hydrocarbons prices. This is not incidental or purely stylistic – the same sequence of influencing factors is adhered to in Energy Minister Aleksandr Novak’s presentation on the energy security strategy, reflecting the understanding that price fluctuations are cyclical and would not have in and of themselves required a full-scale fundamental review of the document.¹⁵

By contrast, the changes taking place in US shale energy are understood to be structural and thus could affect the global supply-demand of hydrocarbons for decades to come. Similarly, the sanctions are having a structural (rather than cyclical) effect because of their profound and lasting consequences for Russia’s relations with European states.

In sum, therefore, in combination with the shale technological revolution, which will likely result in the USA emerging as a supplier of LNG to Europe, the annexation of the Crimea and the resultant geopolitical crisis around Ukraine have direct relevance for Russia’s overall state security because they affect the long-term future of its energy exports. US shale and sanctions are thus understood in Moscow to be a dangerous combination for Russia, particularly since they are happening simultaneously. The seriousness of these external threats warrants “additional analysis and considerable reconsideration of the forecasts of the development of the Russian energy sector.”¹⁶

The impact of these external threats has been compounded by the fact that the results achieved in 2014 do not compare favourably to the forecasts made in Energy Strategy to 2030, adopted in 2009.¹⁷ While some figures remained broadly within the forecasted bracket (e.g. internal Russian demand for electricity), others have been significantly over- or under-achieving. Exports of coal, for example, stood at 77 million tonnes per annum in 2010 and, in Energy Strategy to 2030, were forecast to decrease slightly to 72-74 million tonnes in 2014-16. In actual fact, in 2014, they nearly doubled on the 2010 level to 121 million tonnes. Such miscalculations were not due to Russia’s inability to estimate its own capacities but to the failure to make accurate assumptions about the developments in the external environment. This, to be sure, is a complex task but the inaccuracy of the projections was another factor that triggered a full-scale review of the Energy Strategy to 2030.

ES2035 also differs from the previous iterations because of the way it divides the forecasts of the period between 2015 and 2035 into two (instead of three) phases. Phase I is now envisaged to last until 2020 (with a possible prolongation to 2022). Its proclaimed overall aim is to overcome the impact of the crisis on the economy, suggesting that in Russian official thinking, this crisis, due to its heavy geopolitical component, could last longer and require Russia to make more structural changes to overcome it than that of 2008.¹⁸ The draft ES2035 states:

*The key during the first stage is to overcome, as soon as possible, and with the least damage and expense, the crisis and its consequences for the economy which have been slowing down the energy complex, as well as to resist effectively the new challenges and threats, including financial, technological and other sanctions imposed by certain states. This envisages the diversification of the product and regional structure of production and consumption of the fuel-energy resources in order to increase the resilience of internal consumption and export deliveries.*¹⁹

The main aim of Phase II, from 2021, is to introduce innovative technologies and to achieve significant gains from improved efficiency, for instance, in recovering hydrocarbons, at existing mature fields. While in Phase I the projected numbers for the production and export indicators tend to be similar across the Favourable and Critical scenarios, Phase II is characterised by a substantial growth in production and export projections in the Favourable scenario. This is in contrast to the previous iterations of energy strategy which envisaged strong growth from a much earlier period – there is practically no growth in exports throughout the period in the Critical scenario.

Yet with the imposition of financial and technological sanctions, Russia does not have access to the much-needed finance and know-how to innovate or develop new complex projects, particularly in the Arctic offshore but also in multi-fuel fields (e.g. containing gas, gas condensate and helium). Russia also has very limited experience with gas liquefaction technologies (see below), and its surveying and mapping technologies, essential to prove the existence of probable resources, are not sufficiently advanced for the challenging offshore environments in the Arctic. Because many of the threats that Russia is facing are structural rather than cyclical, the

15 Novak, pp. 2-4.

16 ES2035, p. 4.

17 Government of the Russian Federation (2009), *Energeticheskaya Strategiya Rossii na period do 2030 goda* [Energy strategy of Russia to 2030], <http://minenergo.gov.ru/node/1026>

18 ES2020 was adopted in 2009 and envisaged that Russia would overcome the 2008 crisis by the end of Phase I (2013-15) – i.e. in 4-6 years. ES2035, drafted in 2014, envisages that Russia would overcome the current crisis by the end of Phase I which has been extended to 2020-22 – i.e. in 6-8 years. (ES2020, Section III; ES2035, pp. 15-16.)

19 ES2035, p. 15.

draft ES2035 considers a further deterioration in Russia's external environment and its geopolitical situation, even with possible tighter restrictions imposed on Russia's access to the Western markets. It is in this light that Asia and particularly China become more attractive partners.

This points to the third major evolutionary change in ES2035 compared to its predecessors: more explicit discussion of diversification of products and markets for energy. Diversification has been Russia's energy security policy since the early 2000s, taking shape even before the 2005-06 Russian-Ukrainian gas dispute (when the plans were made publicly known). As previously discussed, at the time, the Russian state set out to diversify away from Ukraine by bypassing its territory as a transit state. The end destination of Russian hydrocarbons was to remain the same but the route which they travelled to end-consumers in Europe was to change thanks to the construction of new bypass pipelines – most notably, Nord Stream and South Stream.

More recently, however, diversification has undergone a significant transformation, adding new dimensions and layers of complexity in response to the changes in the geopolitical and economic environment. Russia's energy strategies have reflected this evolution in official thinking. Today, Russia is still committed to diversifying away from Ukraine as a transit state witnessed by its determination to construct the second string of Nord Stream even after the Western consortium shareholders (E.ON, Wintershall, Shell, OMV and Engie) withdrew from the agreement following the objections of the Polish anti-monopoly regulator.²⁰ The Polish watchdog objected to Nord Stream 2 pipeline, claiming that "Gazprom already has a dominant position with respect to the transmission of gas to Poland, and the planned transaction [Nord Stream 2] could further strengthen the company's negotiating position with regard to users in Poland."²¹ As of December 2016, Gazprom remains the sole shareholder and intends to undertake the construction of Nord Stream 2 with or without partners. With the transit contract through Ukraine expiring in 2019, Russia will need to either construct additional pipeline capacity to deliver the gas to recipient states or renegotiate the contract with Ukraine.

As ES2035 elaborates, the term 'diversification' today also encompasses expanding into new energy products, most notably LNG, and also into new geographical markets. Both of these types of diversification are the result of the changes in the global market and Russia's geopolitical environment, in which the USA has emerged as a major producer of energy from shale, and the Euro-Atlantic community has imposed sectoral sanctions on

Russia. Senior Russian officials suggest a perceived link between the two, with Moscow suspecting Washington of imposing 'highly politicised' sanctions on Russia's energy sector in order to weaken it politically by denying it access to finance and technology.²² Lack of access to vital drilling technology would over time lead to sharp falls in production, inability to diversify export markets to Asia and, in the worst case scenario, to even meet its existing obligations to the European customers. In Russia's understanding, such an 'artificially engineered' situation would pave the way for the US to emerge as a key energy supplier to Russia's traditional export markets, whereas Russia's loss of its market share in Europe and the inability to expand in Asia would further weaken it geopolitically. Energy is thus inherently linked to Russia's geopolitical standing and its visions of itself as a great power.

Furthermore, to avoid "dependence" on the European market, Russia has been actively diversifying to Asia, particularly, China, and ES2035 suggests that the Asia direction of Russian energy policy should be expected to strengthen. Indeed, it is noteworthy that there is much more emphasis in ES2035 on the Asia-Pacific region than in previous strategies. The assessment that stands out in ES2035 is that, despite the geopolitical crisis and market transformation (i.e. shale gas), Russia can still increase its overall energy exports by 20% by 2035 (in the Favourable scenario). Specifically, gas could increase from 209 billion cubic metres (bcm) in 2014 to 324 bcm by 2030 before decreasing to 317 bcm in 2035.²³ Oil could increase from 235 million tonnes (mt) per annum in 2014 to 239 mt/annum in 2020 and 276 mt/annum in 2035. ES2035 underlines that such increases would only be possible if Russia pursued a flexible exports policy, restructuring away from its traditional markets in Europe and towards Asia-Pacific. Diversifying the product mix in favour of LNG would also support the geographic diversification of exports as it will give Russia access to more countries inaccessible by pipeline, particularly in the Asia-Pacific region.

It must be highlighted though, that the export growth of 20% stipulated in ES2035 is less than half the projected growth given in ES2020, where the forecast was between 45% and 64%. While some growth in exports has happened, gas exports in 2014 in fact fell on the 2010 level – from 223 bcm/year in 2010 to 209 bcm in 2014, and the prospects do not look encouraging given Europe's diversification policies. The same drop was seen in oil where the numbers stood at 248 mt/year in 2010 and only 235 mt/year in 2014.

20 "Gazprom board approved termination of Nord Stream 2 shareholder Agreement," *Russia Beyond the Headlines*, 11 November 2016, http://rbth.com/news/2016/11/11/gazprom-board-approves-termination-of-nord-stream-2-shareholder-agreement_647067

21 "Pol'sha vozrajaet protiv Nord Stream 2 [Poland objects to Nord Stream 2]," *Vedomosti*, 24 July 2016, <http://www.vedomosti.ru/business/articles/2016/07/25/650375-polsha-protiv-nord-stream> ;

22 Dmitry Medvedev, 'Meeting of the Government Import Substitution Commission,' 28 January 2016, <http://government.ru/en/news/21577/>

23 ES2035, Annex 1, pp. 68-69

In the light of the changes taking place in the interrelated US and European markets, Russia acknowledges, that it *cannot* grow its exports without diversifying to Asia and particularly to China. Despite the proviso that exports to Asia-Pacific will require large-scale upfront investment in infrastructure, the envisaged increases in exports are ambitious: oil exports to the region are projected to increase 1.8-2.2 times while gas exports to rise 8-9 times.²⁴

Energy Security as a Part of National Security

It is here that the National Security Strategy of the Russian Federation to 2020 (NSS2020), adopted in 2015, becomes pertinent to the understanding of the Russian energy strategy. The NSS2020 emphasises Russia's growing sense of vulnerability and insecurity, and the growing sense of competition in international affairs, especially in Russia's relationship with the Euro-Atlantic community. This competitiveness is most obvious in the military and political terms but it is also, as demonstrated above, energy-related. The NSS2020 asserts that economic pressure exerted through sanctions imposed by "the USA and its allies seeking to maintain their dominance in world affairs" is an instrument to "contain" Russia. Indeed, the Strategy emphasises that a full spectrum of political, financial-economic and informational tools is being used against Russia.²⁵ Having disclosed its threat perceptions, NSS2020 then sequences its strategic partnerships in a rather bizarre but noteworthy way.

The section of the NSS2020 entitled "Strategic stability and strategic partnerships" starts by outlining Russia's "increasing cooperation with partners in BRICS, RIC (Russia, India, China), the Shanghai Cooperation Organisation, 'the Asia-Pacific economic cooperation' forum, G20 and other international institutions."²⁶ It then lists "bilateral and multilateral cooperation" with the CIS states, CSTO, the Eurasian Customs Union and, again, the Shanghai Cooperation Organisation. In separate paragraphs, Russia highlights its "all-encompassing partnership and strategic cooperation" with China, before briefly mentioning India and moving on to emphasise once again the importance of the Asia-Pacific region. This is followed by a paragraph on Latin America and Africa. And *only then* does the NSS2020 talk about the EU, the USA and NATO. There are two paragraphs on

NATO, of which the last concludes the section by stating that the strategic depth of Russia's relations with the Alliance will be determined by its readiness to "take into account the lawful interests of the Russian Federation when conducting its military-political planning and to respect the norms of international law."²⁷

The sequence in which the partnerships have been presented is presently at odds with reality, but the text is interesting from the point of view of energy security as it acts as a marker of Moscow's evolving official thinking. Russia, which previously used its geographic position to present itself as a "Eurasian power" and largely relied on this as a lever in negotiations with Europe to get a better deal by arguing that it had 'options, has now made the pivot to the East and, more specifically, towards China. Spurred by the sanctions, deprived of access to technology and finance, and fearful of the loss of energy markets and influence, the Russian leadership is attracted by the prospect of strong, de-ideologised relations with China which, despite the slowdown in demand, has been willing to invest in expensive hydrocarbons projects in Russia and which continues to offer the prospect of growing markets for Russia's oil, gas and, in the longer term, coal.

Russia's willingness to work with Asia is also motivated by the prospect of signing long-term contracts which would guarantee demand for Russian energy. This is important because of the changing nature of international energy markets and Russia's ability to supply them. For instance, Russia's Shtokman field containing 3.9 trillion cubic metres of reserves in the Arctic offshore was destined in large part for the United States in the form of LNG but has had to be put on hold indefinitely after the arrival on the market of large volumes of US shale gas. Moreover, not only will the US market not need Russian gas for decades, but it will actually start to compete with Russia over market share in Europe. There is also an acknowledgement in Russia's official circles that maintaining the current share of the EU market will be impossible and that Russia's 'guaranteed' gas sales to Europe are only stable until the 'take-or-pay' contracts with European suppliers are in operation.²⁸ Many of these contracts, according to which European countries must take the agreed volumes of gas on an annual basis or face financial penalties, are due to expire in 2020-22, and given the anti-Russian sentiment as well as the ongoing development of spot trade at the gas hubs in the United States and Europe, Russia is unlikely easily to be able to extend many of them. Russia will, of course,

24 ES2035, pp. 7-10.

25 Security Council of the Russian Federation (2015) *Strategiya natsional'noy bezopasnosti Rossiyskoy Federatsii do 2020 goda* [National security strategy of the Russian Federation up to 2020], sections ii.9 and ii.12, <http://kremlin.ru/acts/bank/40391>; see also Richard Connolly, "Towards Self-Sufficiency: Economics as a Dimension of Russian Security and the National Security Strategy to 2020," *Russian Studies*, No.1, July 2016, <http://www.ndc.nato.int/research/research.php?icode=0>

26 NSS, section ii.87-107.

27 NSS, section ii.15.

28 For a selection of interviews with Russian officials and academics, see "SSHA vytesnyayut 'Gazprom' iz Evropy" [USA are squeezing Gazprom out of Europe], *Svobodnaya Pressa*, 18 November 2015, <http://svpressa.ru/economy/article/136312/>; see also, ES2035, pp. 16, 21, 23, 95-97.

continue to sell gas to Europe but increasingly, it will have to compete with other suppliers in the market and even if contracts are signed (and undoubtedly some will), they will be significantly more flexible than the prevailing ones. Russia will not have the same level of security of demand for its energy, and this is a future of which Russian officials are increasingly aware.

This was not a future that was imagined during the drafting of ES2020, but is now featuring prominently in the drafting of ES2035. This makes the tone and outlook of the two documents, written only a decade apart, very different, since ES2035 lays repeated emphasis on Europe's diversification and the consequent need for Russia to seek alternative markets.

Energy Exports Leadership as Russia's Top Task

Maintaining and strengthening Russia's position as a leading energy exporter has been and will remain a top national and energy priority, as explicitly stated in its energy strategies. The economic rationale for exporting resources is to bring in revenue and stimulate socio-economic development across the country, while the political and security rationale is to maintain the country's influence regionally and internationally.

ES2020 states that Russia has "considerable energy resource and deposits and a powerful fuel-energy complex" which form the "basis of its economic development" and serves as an "instrument for conducting internal and external policy."²⁹ It goes on to assert that "the country's role on the world energy markets in many ways determines its geopolitical influence."³⁰ It concludes that in the foreseeable future, exports of energy resources will remain "the key factor in national economic development and the economic and political position that Russia holds in the international community."³¹ ES2035 echoes this when it states that Russia must aim to remain "among the top three world leaders in the production and export of energy resources" in the next twenty years,³² but importantly, it elevates this aim to one of the three "strategic goals," the so-called goals of the "upper tier" (*zadacha verkhnego urovnya*).³³

In 2014-16, Russia's behaviour in the international oil

market reflected its understanding that competition for export markets is intensifying and growing production, despite low oil prices, may be the only way to maintain and expand its position. In his memoirs, Saudi Oil Minister Ali al-Naimi wrote that following his November 2014 meeting with Rosneft CEO Igor Sechin, he assessed the chances of Russia freezing its oil production as "zero."³⁴ He claimed that neither Saudi Arabia nor OPEC alone could have or should have cut production to stabilise the market and raise the price back up so instead al-Naimi masterminded the 'pump-at-will' policy according to which OPEC members were free to increase production without any quotas. This policy was, on the one hand, intended to drive US shale producers – whose cost base was estimated to be higher than that of conventional hydrocarbons producers such as Saudi Arabia and Russia – out of the market by bankrupting them. Although a number of US shale producers filed for bankruptcy protection when the oil price collapsed, overall, this strand of the pump-at-will policy appears to have backfired, and the policy was officially abandoned in September 2016. On the other hand, the policy was aimed at showing that without some collaboration between OPEC and non-OPEC suppliers, the price would collapse and this would benefit none of the producers.

Yet, despite the collapse in oil prices that the Saudi policy produced, Moscow perceived it to be in its interests continuously to increase output to gain a larger market share. In 2015, Russian production increased rapidly, reaching a new post-Soviet record of just under 11 million barrels a day in March 2016. This production level, the highest in the last 30 years, was largely maintained through to September but that month saw yet another jump of 400,000 barrels per day.³⁵ Earlier in the year, Energy Minister Novak had stated that Russia possessed the capacity to raise oil production to 13 million barrels per day and would do so "if others tried to win a larger market share."³⁶

The statement is important because it indicates that Russia would be producing oil specifically to send to international markets: it is the amount that Russia exports rather than the overall production (which could be used domestically) that will influence the markets. Here too, Russia's performance has been noteworthy as its oil exports (which are linked to production but are also influenced by a host of other factors such as the taxation regime and internal demand for oil) grew

29 ES2020, p. 4.

30 *Ibid.*, p. 4.

31 *Ibid.*, p. 50.

32 ES2035, p. 61. See also pp. 13 and 47.

33 *Ibid.* pp. 12-14.

34 Ali al-Naimi, *Out of the Desert: My Journey from Nomadic Bedouin to the Heart of Global Oil*, Penguin Books, 2016.

35 According to the IEA, as cited in "OPEC mozhet uvelichit' dobychu na stolko je, naskol'ko khochet eye sokratit' -- MEA" [OPEC may increase production by as much as it reduces it - IEA], *Vedomosti*, 11 October 2016, <https://www.vedomosti.ru/economics/articles/2016/10/11/660456-opek-uvlichit-dobychu-stolko-sokratit-mea>

36 "Pochemu OPEC proigryvaet bor'bu za dolyu na rynke nefi" [Why OPEC is losing the fight for market share], *Vedomosti*, 2 October 2016.

every month year-on-year in 2015 and 2016. The export growth, which generates foreign currency much needed at the time of the devaluating rouble, has been estimated at 18% between November 2014 and December 2016 compared to a 7% growth in oil production.³⁷

In line with its strategic energy plans, the Russian political leadership and Rosneft, had been working actively to increase supplies to China, and in 2015, Russia overtook Saudi Arabia twice as number one supplier of oil to the Chinese market.³⁸ Russia's share of China's crude market rose from 7% to 14%, at the expense of Saudi Arabia. Russia has since further improved its chances of solidifying its leadership position in the market thanks to the deal signed during Putin's June 2016 visit to China (his 13th official visit to China since 2000) under which Rosneft undertook to supply ChemChina (China National Chemical Corporation) with up to 2.4 million tonnes of oil per annum starting on 1 August 2016. The agreement was signed for a year but can be extended. Moreover, in an unprecedented move, Russia has been accepting Chinese currency yuan for its oil – something Saudi Arabia had reportedly refused to do.³⁹ While Russia is unlikely to want to increase production to 13 million barrels per day in an already oversupplied market, it has undoubtedly demonstrated that it has the capacity and political will to do so in order to carve out a bigger share of the market, particularly in China.

Russia's growing production and exports meant that the second strand of al-Naimi's 'pump-at-will' policy may have also failed. To be sure, on several occasions, Putin publicly supported OPEC's calls to rebalance the market through production cuts, no doubt motivated partly by the need to reduce the federal budget deficit which in 2016 reached 3.1% of GDP. Yet statements from other quarters were significantly more ambiguous.⁴⁰ Thus, only a week before production cuts were agreed between Russia and OPEC on 30 November 2016, the Energy Ministry stated that Russia would not cut but only freeze oil output and would only do that if OPEC came to an agreement on quotas among its own members. Novak stated that even a production cap would be a significant concession as Russia would be pumping up to 300,000 barrels per day less than planned for 2017.⁴¹ Rosneft CEO Igor Sechin was explicit about his company's plans to expand production and stressed that the "Russian oil industry is private

with a large number of foreign investors...the Russian government cannot manage the oil industry the way the government of an OPEC member-state can."⁴² Indeed, Russia's compliance with the OPEC agreement is not a given, and there are many ways in which the companies could obviate it in practice.⁴³ Nevertheless, even partial compliance will likely have a positive effect on the price as it would still be below market projections as well as Russia's proclaimed targets for 2017.

Even so, prior to the OPEC deal, Sechin expressed scepticism about the ability of Russia, Saudi Arabia, Iran and the USA to come to an agreement regarding output cuts citing "divergences on a whole spectrum of interests, including geopolitical and regional." The inclusion of the USA on Sechin's list is as unusual (OPEC decisions had never before been coordinated with the United States and the 30 November deal was not an exception) as it is indicative of Russian thinking: is Sechin suggesting that US capacity for increasing shale production and supplying the global market is such that no agreement between OPEC and non-OPEC states can be meaningful without Washington's participation? It is indeed possible that an oil price increase to \$55-60 per barrel will trigger a ramp-up in US shale production and Saudi Arabia will lose its traditional role as a swing producer of oil, with its place being taken by the USA. If so, then it is understandable why Russia is fearful of losing its influence in the market and why geographical diversification to the east is perceived to be Russia's long-term survival strategy.

Import substitution in oil and gas

If, as ES2035 makes clear, maintaining global leadership in energy exports is Russia's strategic goal, and if, as the above analysis demonstrates, this goal is perceived to be under threat from other suppliers (primarily, but not limited to, the United States) and Western sanctions, then the solution appears to be two-fold. The first is to continue growing hydrocarbons production even at times of low oil prices to gain a larger market share, which is exactly what Russia has been doing, focusing particularly

37 James Henderson, "Room for cynicism and hope in Russia's deal with OPEC," *The Oxford Institute for Energy Studies*, December 2016, pp. 8-9, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/12/Room-for-cynicism-and-hope-in-Russias-deal-with-OPEC.pdf>

38 According to China's General Administration for Customs, Russia (which in 2015 had 12% of the market) overtook Saudi Arabia (which had 15% of the market) in May and September. Russia supplied 927,000 barrels/day in May while contractually it had to supply only 500,000 b/d. (<https://www.ft.com/content/9eda3756-19bc-11e5-8201-cbdb03d71480> ; <https://www.rt.com/business/348826-russia-china-oil-exports/> ; <http://www.bloomberg.com/news/articles/2015-06-23/russia-pips-saudi-arabia-in-race-to-grab-china-oil-market-share>)

39 *Business Insider*, 2 February 2016.

40 "Vladimir Putin podderzhal initsiativu OPEC po ogranicheniyu dobychi nefi" [Vladimir Putin supported the OPEC initiative to restrict oil production], Energy Ministry of the Russian Federation, 10 October 2016 <http://minenergo.gov.ru/node/6192>; *Vedomosti*, 21 November 2016, <https://www.vedomosti.ru/business/news/2016/11/21/666242-rossiya-zamorozke-nefti>

41 Novak cited in Bloomberg, <http://www.bloomberg.com/news/articles/2016-11-24/russia-tries-to-dress-up-oil-freeze-as-cut-amid-opec-pressure>

42 "Igor Sechin verit v Kitay, ne verit v OPEC" [Igor Sechin believes in China, does not believe in OPEC], *Vedomosti*, 7 September 2015 <https://www.vedomosti.ru/business/articles/2015/09/07/607813-sechin-verit-kitai-ne-opek>; "Sechin ne vidit zachem by Rosnefti ogranichivat' dobychu" [Sechin does not see why Rosneft should restrict oil production], *Vedomosti*, 11 October 2016 <http://www.vedomosti.ru/business/articles/2016/10/11/660423-sechin-ogranichivat-dobichu>

43 Henderson, *op cit*.

on the Chinese market. The second is to make Russia “sanctions proof” by, among other initiatives, pursuing import substitution policy in the identified sectors of the economy.⁴⁴

In Russia, hydrocarbons production, particularly gas, has traditionally come from a small number of super-giant and giant fields located onshore in Western Siberia. Operational since the 1970s, many of these fields are now in decline. In 2014, over 80% of Russian production came from declining fields and the Russian government was acutely aware of the need to bring online new deposits. Part of the problem with this is that many of the new fields have complex geology and are located in Russia’s new hydrocarbon provinces such as the Yamal peninsula, East Siberia and the Arctic continental shelf. Producing hydrocarbons from fields in new provinces, particularly offshore, is technologically challenging and expensive due to their geophysical properties, the climatic conditions and the remoteness from the existing infrastructural centres. Foreign expertise, equipment and finance are needed to find and evaluate, and then extract and evacuate the abundant hydrocarbons of Russia’s new provinces. Yet the sectoral sanctions imposed on the energy sector mean that the Western equipment has become off-limits.

High-technology oil and gas equipment, particularly in extraction but also in prospecting, will play a vital role in the development of Russia’s next hydrocarbon “frontiers.”⁴⁵ Given the maturity of Russia’s West Siberian fields, access to high-tech equipment is seen as strategically critical to bring new large fields online and increase the yield from the declining fields. Without the development of eastern hydrocarbons, Russia would stand no chance of diversifying to Asia. At the same time, liquefaction technologies, which Russia does not possess, will be indispensable in giving it the capability to deliver gas to diverse markets, consistent with its ambition for geographical and product diversification.

Official statements reveal that the sanctions hit the energy sector the hardest.⁴⁶ The draft ES2035 states that the “dependence of the Russian energy sector on foreign technologies, equipment, materials, and software

support as well as services in a number of areas has reached a critical mark and created threats to Russia’s energy security.”⁴⁷ The Russian authorities responded by allocating considerable financial resources to support the development of energy extraction equipment domestically in an attempt to reduce the country’s dependence on foreign technology. Of the 19 priority technologies selected to receive state funds, twelve have been in the oil and gas sector, three in the electricity sector and four in coal.⁴⁸ In ES2035, the share of the domestically manufactured equipment in the total purchases of energy companies was set to rise to 60% by the end of Phase I (2020-22) and to over 85% by 2035.⁴⁹

The 90% figure articulated by Prime Minister Dmitry Medvedev in April 2016 as the percentage share of Russian-produced equipment in the total equipment purchases by the country’s largest oil and gas companies is somewhat misleading, as is his forecast that by 2021 (i.e. end of Phase I of ES2035), the share of domestic equipment in the total would rise to 97%.⁵⁰ Both numbers appear to refer (although Medvedev does not specify this) to the production and servicing of onshore pipelines, in which Russia has expertise, and to onshore field technology, in which the Russian-made equipment component is relatively high (up to 80%). The situation is cardinally different with northern offshore fields, particularly on the Arctic continental shelf,⁵¹ as well as onshore fields with complex geology (e.g. containing liquids).

The US sanctions specifically prohibit the transfer of technology for Arctic development, shale production and offshore fields which could produce oil from water depths greater than 500 feet.⁵² Natural Resources and Ecology Minister Sergei Donskoi believes that the license obligations of the oil and gas companies working offshore will be missed if no equipment is received from abroad.⁵³ Here again, China becomes a critical ally able to supply “effective, reliable and inexpensive equipment.”⁵⁴ Even the Yuzhno-Kirinsky block of Sakhalin-3 on the Russian Island of Sakhalin, which was a candidate for Gazprom-Shell cooperation but which came explicitly under the US sectoral sanctions, could be developed using Chinese technology.⁵⁵ This particular field is important because

44 Connolly, *op cit*.

45 *Ibid*.

46 “Aleksey Teksler vystupil na mezhdunarodnom investitsionnom forume ‘Sochi-2015’ [Aleksey Teksler presented at the international investment forum ‘Sochi-2105’], Energy Ministry of the Russian Federation, 2 October 2015, <http://minenergo.gov.ru/node/1367>

47 ES2035, p. 40.

48 *Minenergo*, 2 October 2015.

49 ES2035, p. 41.

50 “Zasedaniye pravitelstvennoi komissii po importozamescheniyu” [Meeting of the Government committee on import substitution], Energy Ministry of the Russian Federation, 25 April 2016, <http://government.ru/news/22797/>

51 Russia has experience working offshore in warmer waters such as the Caspian Sea.

52 James Henderson and Arild Moe, “Gazprom’s LNG Offensive: a demonstration of monopoly strength or impetus for Russian gas sector reform?,” *Post-Communist Economies*, v. 28 (2016), pp. 281-99: 289.

53 “Oborudovaniye nuzhno proizvodit’ v Rossii” [The equipment must be made in Russia], *Vedomosti*, 23 September 23, <https://www.vedomosti.ru/business/characters/2015/09/24/609996-oborudovanie-v-rossii>

54 *Ibid*.

55 *Ibid*.

it could supply gas to the Sakhalin-2 project, which already produces liquefied gas and which would provide a cost-effective source of new Russian LNG through the addition of a third train.⁵⁶

The policies of refitting the hydrocarbons sector through import substitution and turning to Chinese suppliers to procure technology and services aim to enable Russia to withstand the sanctions. As such, they are an inherent part of the wider securitisation drive across the key sectors of the economy intended to prepare Russia for a conflict with the West.

The sanctions' prohibition on the supply of high-end Western oil and gas technology to Russia is seen as a political move because the lack of such technology precludes or significantly delays the development of new hydrocarbons provinces. Russia is well aware that it still has contractual obligations to deliver gas to Europe and would be liable for stiff penalties if it did not do so. In a situation of falling production at mature fields and if no new provinces were brought online to grow production (assuming the absence of Western technology), Russia would have to focus on exports to Europe but would then be unable simultaneously to develop the Asian direction for its hydrocarbons.

This would create a trap for Russian energy. With European contracts running out in the 2020s, Russia could start exporting to Asia then, but developing a new export direction would take years, by which time market conditions may have changed, with Asia not needing Russian energy in the same volumes. Without guaranteed export earnings from oil and gas, Russia would find itself exposed and vulnerable. Thus, the absence of technology could limit Russia's output which would, in turn, preclude it from developing the Asian route for its hydrocarbons *while* maintaining the security of the European market (thanks to the contracts). Falling output and inability to diversify exports to other geographies would therefore preclude Russia from achieving its strategic aim of remaining a leading global energy exporter, which, as we have established, Russia explicitly associates not just with strengthening its national economy but also geopolitical influence.

In line with this logic, if the decline in production continued and European contracts expired in the 2020s (with European customers refusing to renew them), then Russia's geopolitical influence would be reduced, which would enable the United States to tighten the sanctions and apply other pressure mechanisms to further weaken the Russian state. In a compound problem, the weaker the state, the more effective the sanctions and other anti-Russian policy are likely to be. Therefore, US sanctions

on the energy sector are not just an energy problem; they are a national security problem of the highest order.

Working with China

Cooperation with China appears to be a solution to Russia's finance, technology and energy export problems. Since 2014, Russia's relationship with China has been seen as a geopolitical and economic counterweight to the West. Asia is being portrayed as a reliable geopolitical and economic partner, and a region where energy demand, particularly in China, will continue to grow underpinned, in Sechin's words, by "solid economic governance." Interestingly, long-running tensions with China, such as the porous border between the two states and migration of Chinese workers to Russia's eastern regions, which previously featured in all assessments of the prospects of Russian-Chinese relationship are now either conspicuously absent or heavily downplayed. In its 2016 report, the Valdai Discussion Club, which is closely related to the Russian authorities, concluded:

*Russia is not facing any threats similar to European ones in the East. In fact, it sees no threats in the East at all, and so thinks it deserves less attention at the top level. Russia, which has been working hard to repel the threat from the West, should use the absence of threats in the East to gain a stronger footing.*⁵⁷

The signing of an agreement between Russia and China in May 2014 to build the Power of Siberia pipeline after ten years of fruitless talks was consistent with Russia's aim to diversify exports to China (as set out in ES2035). The timing was not accidental. By 2014, Moscow was still facing significant uncertainty over the ability of the East European states to enforce the inter-governmental agreements for the South Stream pipeline amid the EU's claims that these agreements were in breach of its Third Energy Package (introduced in 2011). Rising regulatory pressure in Europe starkly contrasted with China's "self-help policy" and its preference for bilateral relations, accelerating Moscow's shift to Asia.⁵⁸

The introduction of the sanctions following the annexation of Crimea in March 2014 and prospects of US LNG in Europe, which Russian officials initially tried to downplay,⁵⁹ gave impetus to the Power of Siberia pipeline, the prospect of a gas export channel to China governed by a 30-year agreement starting in 2018 presenting itself as an attractive and secure option. Having signed the deal

56 Henderson and Moe, p. 287-88.

57 "Russia and Asia-Pacific in the 21st Century" *Towards the Great Ocean 4: Turn to the East*, Valdai Discussion Club Report, Moscow: 2016, p. 12.56

58 Bo Kong and Jae H. Ku, *Energy Security Cooperation in Northeast Asia*, London and New York: Routledge: 2015.

59 "Russia has plan of counter-measures against US sanctions – PM Medvedev," 20 May 2014, https://sputniknews.com/voiceofrussia/news/2014_05_20/Russia-has-plan-of-counter-measures-against-US-sanctions-PM-Medvedev-6408/

with China to construct the Power of Siberia pipeline in mid-2014, Russia publicly announced the cancellation of the South Stream project to the European markets on 1 December 2014. The Turkish Stream which Russia announced as a replacement to South Stream is not an infrastructure project of the same capacity, and it was likely proposed because Russia had already spent \$4.7 billion on the pipeline, primarily on the underwater pipelines to be laid across the Black Sea.⁶⁰ There have also been agreements signed between Rosneft and ChemChina for shares in petrochemical plants: for instance, according to one, ChemChina will take a 40% stake in Rosneft's planned petrochemical complex in the Russian Far East.

Official Russian statements have shifted away from emphasising Russia's geopolitical advantages as a 'Eurasian' state able to forge strategic ties with both Europe and Asia to presenting Asia, and specifically China, as an alternative to the West. Yet the picture is not as rosy as Russian officials make it appear. China's strong preference in financing projects has been to lend to Russian companies in exchange for supplies of oil and gas and, in some cases, technology. These are the terms on which Gazprom and Rosneft have signed all high-profile deals since 2013. Yet, according to Lukoil President Vagit Alekperov, his company does not work with such credits because they are simply too expensive.⁶¹ According to Alekperov, Lukoil had tried to negotiate with Chinese investors but it "never once had any luck."⁶² China's financing terms might be acceptable to the two state-owned giants as well as gas supplier Novatek because these companies benefit from tax breaks and are given licenses to work in areas which are off-limits to others (e.g. Arctic continental shelf) or export LNG internationally, among other exceptions. But from Alekperov's point of view, China is no replacement for Western finance or technology, and the sanctions will continue to bite, becoming, if they are extended beyond June 2017, more pronounced in the medium to long term.⁶³

While the terms on which China signed the energy agreements which had stalled for years over the two sides' inability to agree on prices, are not publicly known, it is very clear that Russia has had to make a number of concessions to achieve the 'breakthrough'. This is

because China treats many of the East Siberian fields as Russia's 'stranded assets, which are worth very little in monetary value and, as such, it has traditionally refused to sign contracts with European formulas for Russian gas. European long-term gas contracts are linked to oil (with a 6-9-month lag) but China wanted to link the price of Russian gas to coal. Moreover, with the deterioration of Russian relations with the West, China no doubt felt that it was in a position of advantage. One Chinese official involved in negotiations with Russia and knowledgeable about the CNPC strategy described it in the following terms: "Putin is currently in a tough situation. We all know this. One of the ways to help him get out of the mess is by trying to improve ties with China."⁶⁴

It is remarkable that in 2013, the Russian government, which came under intense lobbying from Rosneft and Novatek, showed itself willing to amend the law to allow these two non-Gazprom actors limited access to LNG exports. Prior to this, Gazprom enjoyed an absolute monopoly on gas exports. The decision was groundbreaking and touted by many observers as the start of the liberalisation of the gas sector. However, the move has not been motivated by the desire to liberalise: only two companies have been allowed access to the export market and even so, this access has been heavily circumscribed to the liquefied gas produced from offshore fields where the production of LNG was set out in the license at the time of its issuance. The incremental liberalisation that has taken place has been almost a side effect of the decision to develop LNG for export quickly in order to establish a more tangible presence in the Asia-Pacific market. This diversification of energy products and geographic markets has now been set out formally in ES2035.

Putin's hailed "strategic energy alliance" with China has resulted in the signing of a string of important agreements, notably the Power of Siberia pipeline and Yamal LNG. To be sure, the agreements with China may be less than optimal for Russia, with credits most likely more expensive than Western financing institutions would have provided in the absence of sanctions and the price formula for gas not based on European-type contracts. But the agreements serve a far more important purpose: they contribute to Russia's strategic goal of preserving

60 The Turkish Stream was put on hold as relations between Moscow and Ankara deteriorated following the shooting down of a Russian Su-24, but received a new impetus in autumn 2016 when an inter-governmental agreement was signed to build the pipeline in October 2016 during Putin's visit to Ankara. During that meeting, Russia also provided Turkey with a discount to the price at which Turkey imports Russian gas. A range of other cooperation projects were discussed, including in defence and space technologies. Commitment to the \$20 billion contract to build Turkey's first nuclear power plant at Akkuyu (for which the agreement was signed in 2010) had been confirmed as soon as relations normalised in August 2016.

61 "Kitayskiye kredity – samye dorogiye v mire" [Chinese credits are the most expensive in the world], Interview with Vagit Alekperov, *Vedomosti*, 6 September 2015, <https://www.vedomosti.ru/business/characters/2015/09/07/607751-kitaiskie-krediti-samie-dorogie-v-mire>

62 "U nas ni razu ne bylo udachi v peregovorakh s kitayskimi bankami" [We never once had luck in negotiations with Chinese bankers], Video of the interview with Vagit Alekperov, *Vedomosti*, 7 September 2015, <https://www.vedomosti.ru/business/video/2015/09/07/607775-u-nas-ne-bilo-udachi-s-kitaiskimi-bankami>

63 EU sanctions have been extended for another 6 months until 23 June 2017. There is currently uncertainty regarding US resolve to maintain sanctions past mid-2017 once President-elect Donald Trump takes office and given that that his nominee for the position of Secretary of State is ExxonMobil's Chairman and CEO Rex Tillerson, on whom Putin has bestowed the Order of Friendship and who was an avid proponent of US involvement on Russia's Arctic shelf. Exxon's activity on the shelf had to be halted following the imposition of sanctions. Tillerson only stepped down as the company's CEO after his nomination as Secretary of State. His resignation is effective from the end of 2016.

64 Chinese official was interviewed by Reuters, quoted in Andy Tully, "Russia Considers Letting Chinese Buy Controlling Stakes in Energy Fields," 2 March 2015, <http://oilprice.com/Latest-Energy-News/World-News/Russia-Considers-Letting-Chinese-Buy-Controlling-Stakes-In-Energy-Fields.html>

its leading position as an energy exporter in the long run by becoming an LNG producer and a supplier to Asia. To achieve this, the Russian leadership has even shown itself willing to change the law and weaken Gazprom's previously unassailable monopoly on gas exports. The practical implications are already underway: the first train of Yamal LNG should be operational by the end of 2017, and the project will reach full capacity by 2021. Rosneft is now following suit building an LNG export terminal on Sakhalin, while Novatek is exploring an option of developing Arctic LNG with Japan (despite Western sanctions).

Conclusions

In the view of the Russian leadership, energy is one of the most complex components of national security with pronounced strategic and security dimensions. The Russian official discussion demonstrates that the prevailing perception is that major energy decisions must be attuned to the political environment and synchronised with the state's national security policy. If they are not, then they could have dire consequences for the Russian state, including the loss of geopolitical influence, sovereignty and possibly even territorial collapse. Energy decisions are therefore intricately intertwined with broader security developments. ES2035 is an important indicator of this thinking. Though it does not discuss specific military aspects of energy security – such as Moscow's stated concerns about Western attempts to secure energy supplies and the potential for armed conflict over resource

control in Russia's neighbourhood – its tone matches that of other strategic planning documents, particularly the NSS2020.

The ES2035 also illuminates how Moscow's thinking is evolving as a result of the prolonged crisis in relations with the Euro-Atlantic community that began in 2014, and practical consequences of this thinking, particularly Moscow's efforts to diversify energy sources and transit routes away from Europe. It is revealing of how the Russian authorities understand the imposition of sanctions on Russia, and how Moscow is responding to them. The two main points are the attempt to implement import substitution measures to protect the energy sector from further sanctions and to diversify to China.

Given the close, often inseparable, linkages between energy and security in Russia's collective political psyche, it should be expected that Russian politicians and officials project their own pattern of assessment and decision-making on their counterparts in the Euro-Atlantic community. This includes NATO, which, having articulated the contours of its energy security policy, cannot now take a half-hearted approach to the issue, not least because it is already being seen by Russia as an instrument of the USA in the energy arena and therefore hostile to Russian interests. This alone elevates energy matters, such as US shale energy in Europe, Yamal LNG and the Power of Siberia pipeline, from the technical sphere and places them firmly in the geopolitical and security arena. It constitutes one, perhaps the most important, reason for why NATO must keep abreast of energy developments in Russia.