Chapter 10

European-Russian-Chinese Arctic Energy System

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Abstract

The Yamal LNG and Arctic LNG 2 projects have set an example of successful cooperation between French, Russian, and Chinese private enterprises. A new energy system that has long-term consequences for European-Russian-Chinese relations. In this chapter, we discuss how Russian Arctic LNG (liquified natural gas) links China and Europe in a global energy network of natural gas trade, and what role it plays in a transition of the world system from unipolarity to a loose biopolarity. We analyze geopolitical, geo-economic, and geo-strategic factors of the development of the new energy system. Our core argument is that the new European-Russian-Chinese Arctic energy system challenges the unipolar world order and American leadership. This research combines the results of theoretical and field research conducted in Russia, China, Northern Europe, and France.

Introduction: A new European-Russian-Chinese Arctic energy system

A new European-Russian-Chinese Arctic energy-and logistics system connects the European Union, (and especially its two leading member states, France and Germany), with the Russian Arctic and China in ways, which may surprise, and which contradicts trends in the international system today. This new energy system between Russia and China, together with France, (via the French oil and major Total), and Germany, (with the Baltic Sea Nord Stream 1 and 2 gas pipelines), counteract trends toward Sino-American loose bipolarity and attempts by the current US administration to reassert its post-Cold War global leadership.

This new European-Russian-Chinese Arctic energy system brings together the well-known voluminous oil and gas resources of the Russian Arctic and the geo-economic search since the 1500s for the Northeast Passage linking the global economic centers of East Asia and Europe. Today, climate change, and diminished sea ice, have made these energy resources

available for China as a rising economic power, and bringing the centuries-old geo-economic vision of linking East Asia and Europe closer to reality.

The new energy system was developing with Russian natural gas supply to Western Europe also through new direct pipeline infrastructure, Nord Stream 1, under the Baltic Sea. The Yamal natural gas deposits for LNG for both Europe and East Asia were developed within a consortium owned by Russian Novatek (60% of shares), China National Petroleum Corp. (CNPC) (20%) and French Total (20%). This consortium demonstrated the balance between Russian majority control of the natural resource and equal Chinese and European investment.

This chapter will analyze and discuss the tensions between the emerging Sino-American loose bipolarity, energy multipolarity, and the American pursuit of continued unipolarity through the case of this new European-Russian-Chinese Arctic energy system. American pushback against a rising China and a resurgent Russia in the field of Arctic energy is the background of this chapter. The chapter's core argument is that the new European-Russian-Chinese Arctic energy system challenges the unipolar world order and American leadership.

We propose the hypothesis that the new European-Russian-Chinese Arctic energy system will be opposed by the US, which is working to extend its unipolar order. For Russia, the new energy system is a matter of economic survival. In addition, the new system provides the basis for developing the Northern Sea Route connection between Europe and Asia under Russian control. Thus, Russia will take a strong stand for developing this energy system. For Europe and Asia, Russian Arctic natural gas provides reliable and competitive energy supplies of a less carbon-intensive alternative to coal and a bridging energy source to renewable energy. Investments in large energy projects strengthens the position of European and Asian companies in the Russian Arctic. However, Europe faces US opposition and internal European divisions. Thus, the European position in the new energy system will be unstable and secondary to Russia and China. For China, this new energy system contributes to the Ice Silk Road, a part of Belt and Road Initiative geo-economic strategy of the PRC. In this regard, China will support the development of the system to ensure its energy security. Sino-American competition under loose bipolarity may turn this new Arctic energy system into leverage for the different parties.

The structure of the chapter is first to present the evolving geopolitical framework of this new energy system from its origins in post-Cold War American unipolarity via the ruptures of the Ukraine-crisis and the Trump Administration's overt competition with China, to an emerging system of loose bipolarity and energy multipolarity. Subsequently, we present the geo-economic connections between Europe-Russia-China and the strategies of these parties as

well as of the US. Finally, we draw conclusions for future developments of this new energy system and its interaction with loose Sino-American bipolarity and energy multipolarity.

Geo-politics: the evolving world order and the European-Russian-Chinese Arctic energy system

The international system is marked by movement towards a Sino-American bipolar international system. The US and Chinese national economies stand out as much larger than then next line of national economies because of China's phenomenal growth since Deng Xiaoping's Open-Door reforms of 1978. This bipolar structure drives Sino-American competition (Tunsjø, 2018; Mearsheimer, 2019). The EU is a comparable economy, but it does not have the necessary political integration to act as a true third pole. This emerging Sino-American bipolarity is a loose bipolarity with substantial room for maneuver for the EU and Russia, India, and other great powers (Maher, 2018). One aspect of this order is what we call energy multipolarity based on large resources and producers beyond the US and China, as the Russian Arctic energy resources at the center of the European-Russian-Chinese Arctic energy system analyzed and discussed in this chapter.

The post-Cold War, unipolar base-line for the European-Russian-Chinese Arctic energy system

The Russian Arctic oil and gas deposits have been known for decades. The public and commercial plans for the Yamal LNG project developed in the 2000s under the unique American unipolar historical moment after the Cold War (Cooley & Nexon, 2020). Unipolarity allowed the US to pursue liberal ideological projects. The post-cold war unification of Europe with the enlargement of the EU and NATO was largely successful, whereas regime change in the Middle East had disastrous consequences (Mearsheimer, 2019). The Arctic reflected this US-led liberal international order, with the Arctic Council focusing on liberal questions of environmental protection, human rights, indigenous peoples and sustainable development (Bertelsen, 2020).

Another dimension of post-Cold War unipolarity was the dissolution of the Soviet Union in 1991 leading to socio-economic crises in Russian and post-Soviet society, which remains little understood in Western society. These upheavals made it impossible for Russia to compete as a great power and facilitated the spread of the US-led liberal international order in Europe with the expansion of the EU and NATO eastwards (Mearsheimer, 2014). Russia has sought a multipolar system since the 1990s, which protects its international systemic and domestic

political economic interests. Arctic energy and shipping are perhaps the most promising areas for Russia to pursue multipolarity (Kremlin, 2008).

China has grown as an economic power within the framework of US unipolarity and institutions. China was often framed as "biding its time", growing under this stable framework. The rise of China based on production-factors and goods export made Beijing the world's foremost importer of energy and commodities. The reform and growth of the Chinese economy brings the country back to its historical relative weight within the world economy, but in a more integrated world (Asian Development Bank, 2011).

Emerging Sino-American bipolarity as framework for European-Russian-Chinese Arctic energy system

The US has woken up to this moment of power transition and is pushing back against China and Russia trying to consolidate its unipolar moment and liberal international order resting on unipolarity (Mearsheimer, 2019). Power transition from West to East is exacerbated by American domestic social, economic and democratic crises, which also makes the US government a less reliable actor for its European allies. These domestic crises are reflected in the election of Donald J. Trump as president and illustrated by great inequality, poor health, political polarization, Congressional inability to pass budgets, fiscal imbalances, low electoral participation, gerrymandering, voter suppression, etc. (Case & Deaton, 2020).

Russia has recovered through higher oil prices and the rule of President Vladimir Putin, so Russia is able to act once again as a great power intent on guarding a surrounding sphere of influence.

The Russian leadership had the resources to protects its foreign and domestic interests in 2008 concerning Georgia and in 2014 concerning Ukraine, which the West would not counter directly (Mearsheimer, 2014). The control of natural resource rents depended on regime stability, in contradiction with the liberal project of American unipolarity and the tenets of the European Union. Both a resurgent Russia as great power and regime stability suggest why the Russian leadership neither tolerated attempted Georgian rapprochement with NATO in 2008 nor Ukrainian overtures to the EU in 2014.

The Ukraine crisis of 2014 was a major turning point for US policy regarding Russia. The EU and NATO responded to Russian actions against Ukraine with a range of economic, technological, and other sanctions against individuals and companies. This threatened the financing of the Yamal LNG project and forced Novatek to turn to increased Chinese financing from the Silk Road Fund and banks, discussed in depth below. ExxonMobil was forced to

abandon its exploration partnership with Rosneft in the Kara Sea (Farchy & Mazneva, 2017; Staalesen, 2018).

Russia has restored some of its Cold War defense presence in its Arctic, which has been interpreted as offensive in the West. This situation illustrates a classical security dilemma (Melino & Conley, undated). The US Navy and Air Force is operating closer to the so-called Russian Arctic nuclear bastion (Arun, 2020; Nilsen, 2020; Rogoway, 2020).

China is now in open competition with the US exacerbated by the Trump Administration with its unilateral actions and a trade-war. China is the first non-Western challenger in modern history, with the rise and fall of great powers and power transition between European states, which the USSR was part of (Haley, 2019). Power transitions have historically been very dangerous moments often leading to great power war. The Rise of China and the associated power transition is therefore a key academic and practical international political question today (Allison, 2017).

The US has become a less dependable global leader and protector of Europe. The EU as a major trading power can no longer rely on the US to uphold a global free-trade system based on the World Trade Organization. European NATO member-states are increasingly uncertain about US commitments to European security (Welt, 2017). Therefore, the EU is taking on a more geopolitical role for itself. The current European Commission presided over by former German minister of defense Ursula von der Leyen, presented itself as a geopolitical commission. The EU is poorly equipped institutionally to solve collective action problems, as demonstrated by negotiations over the Union's budget and coronavirus recovery fund. This institutional weakness is compounded with domestic social and democratic crises, illustrated by, for instance, a Danish Social Democratic government acting as fiscally conservatives in Europe for domestic political reasons (Sachs, 2020, Lars Trier Mogensen, 2020).

This chapter argues that the new European-Russian-Chinese Arctic energy system supports Chinese and Russian interests in multipolarity and undermines US unipolarity. The US is actively seeking to preserve its post-Cold War unipolarity, which is especially apparent from its policy towards China (Pompeo, 2020), as well as US policy towards Russian Arctic energy and shipping. Washington, DC, is actively working against the Nord Stream 2 gas pipeline bringing Yamal gas to Europe (Bureau of Energy Resources, 2019).

Here, it is useful to consider both the originally expected trajectory for the European-Russian-Chinese Arctic natural gas energy system and what happened with the Ukraine crisis. Had the Ukraine crisis not erupted with Western sanctions and Russian countersanctions, Russia would likely have focused on, and preferred, European financial and technological

partners for the Yamal and Arctic LNG2 projects. The percentage of European ownership and participation would have been relatively larger (Total, 20%), with the Chinese portion relatively smaller (CNCP, 20%). There might not have been any Chinese Silk Road Fund or Chinese bank financing, and Nord Stream 2 would have proceeded with less controversy.

[Map of Northern Sea Route and LNG system, marking Barents/White Sea, Kara Sea and Sea of Japan, including overland natural gas pipelines if possible]

(The map description).

This new energy system includes both the LNG projects as well as the means for its delivery via the pipelines and shipments. With shared infrastructure, the Yamal and Gydan peninsulas LNG projects benefit from the distance from Russia's borders with neighbors, thus remaining a stable and viable energy source for Europe and Asia. Currently, they serve as a pivot point for the major pipeline and shipment routes. Both Nord Stream 1 and 2 to Europe, as well as the future Power of Siberia II link to China, start here. In addition, the construction of the Sabetta facilities has contributed significantly to the development of the Northern Sea Route with its ports, focused on Asian markets. With this, the new LNG hubs in Murmansk and on the Kamchatka peninsula, (both projects may receive Chinese investments), will become transshipment points for European and Asian markets (Interfax, 2018). The above map shows the territorial gas pipelines as well as the three shipping areas: Europe hubs in the White and Barents Seas, Yamal and Gydan basic point in the Kara Sea, and the Asian dockings in the Bering Sea.

Geo-economic Arctic energy relations between Europe-Russia-China

The Chapter will present the geo-economic connections in the new European-Russian-Chinese Arctic energy system at the state and private company level, because these connections illustrate, how these state and commercial actors behave under changing international systemic conditions and contribute to reshape the world order through their actions.

The Europe-Russia connection in the new Arctic energy system

The Ukraine crisis greatly complicated the Europe-Russia-China Arctic energy partnership. Before spring 2014, this partnership was public and explicit between the EU, member states and Russia. After spring 2014, this partnership continued but was based on private companies on the EU side with implicit or explicit governmental support. These companies are first and foremost the French-based oil and gas major Total and secondly the partners in the Nord Stream 1 and 2 gas pipelines.

Russia is a traditional supplier of natural gas to the European market and maintains its position despite sanctions. In 2019, Russian gas increased its European market share with the biggest growth in Russian Arctic LNG, provided by Novatek (Kommersant, 2020).

Over the years, the history of Russian-European cooperation was enriched by many dimensions from nuclear and hydropower, and renewable power sources, to hydrocarbons, including natural gas. Before 2014, a series of agreements were concluded by Russia and European states as well as Russian and European companies (Kremlin, 2003; Oettinger & Shmatko, 2011).

Russia, the EU and its member states have established various collaborating mechanisms, such as EU-Russia energy dialogue with its Gas Advisory Council, providing a chance for a better understanding of each other's behaviors. Before 2014, Russia was considered the most promising and stable gas supplier, energy cooperation included the active discussion of a joint strategic vision with the EU (Oettinger & Novak, 2013).

Russian ventures, which were striving to prove their reliability on the hydrocarbon market, created an efficient network with European companies. One of the most successful is with France. For more than forty years, Russia has supplied gas to France, including to ultimate users (Ministry of Energy of Russian Federation, 2017).

France and Russia have formed different cooperation platforms such as the Russian-French Council for Economic, Financial, Industrial and Trade Issues, the Russian-French Center for Energy Efficiency, etc. This provide the opportunity of high-level dialogue between officials and top-managers (Centre franco-russe pour l'efficacité énergétique, nd) (Ministry of Energy of Russian Federation, 2017).

One of the most active French actors is its flagship energy firm Total, and its key Russian partners in Arctic gas industry Gazprom and Novatek (Gazprom, 2017). While cooperating with Gazprom, in 2007, the French company got a 25% ownership share in Shtokman Development AG. After the projects' temporary stop, Gazprom bought the shares back but promised to give Total a preference as a possible partner when it revives the project (TASS, 2015).

As for Novatek, Total holds 19.4% shares of this company (Gazprom holds 10%) (RosBusinessConsulting, 2020). Together with Novatek, Total participates in several large-scale projects. One project is the joint project of Total (49%) and Novatek (51%) Terneftegaz J.S.C. in developing the Termokarstovoye gas-condensate field in Yamalo-Nenets district (proven reserves of 18 billion cub metres) (Novatek, 2015; Total, 2015).

More well-known examples are Total's participation in Yamal LNG (20%) and Arctic LNG-2 (10%). As a shareholder of the two projects, Total contributes management experience, supports technological cooperation, and participates in cultural activities in the Yamal region. In addition, French companies, for example, Technip, participated in the construction of modules for the Yamal LNG, (in cooperation with the Japanese corporations JGC and Chiyoda) (TechnipFMC, 2018).

Daewoo Shipbuilding and Marine Engineering in South Korea has delivered 15 Ice-class Yamalmax LNG tankers. The first tanker is named after Total former President and CEO Christophe de Margerie. The symbolism of naming the lead ship after the late Total President and CEO should be noted. De Margerie was also known for speaking about trading oil in currencies other than US dollars, which would be a significant challenge for US unipolarity and support other large oil producers as Russia or Iran.

The Ice-class LNG tankers are much more expensive than regular LNG tankers, so LNG is reloaded outside ice-covered waters to save time operating the Ice-class LNG tankers. LNG is reloaded ship-to-ship in North-Norwegian fjords with the assistance of the Norwegian shipping company Tschudi Group. The US has criticized Norway for facilitating Russian LNG export (Humpert, 2020).

In addition, both French and other European companies participate in two Gazprom projects Nord Stream 1 and 2 that bring Yamal gas via a long chain of pipelines to Europe. GDF Suez (France) owns 9% in Nord Stream 1. Nord Stream 2 was designed before the Ukrainian crises to circumvent risk from Russian-Ukrainian gas disputes and is now controversial (Noël, 2019). France's initial noncommittal behavior towards the new line gave rise to controversies among European states, yet finally, in 2019, Paris decided to approve the project. That decision was against the strong opposition from right-wing politicians in the US and East Europe (Keating, 2019).

In turn, Germany played the role of the most reliable partner for this Gazprom project. The German government and industry are at the basis of the Nord Stream 1 and 2 gas pipelines connecting Russia and Germany directly under the Baltic Sea. The gas pipeline infrastructure is immobile, rendering Russia dependent on the German and European markets for these exports, (crude oil or LNG by tanker can travel to any customer). Russian market dependency mitigates European supply dependency on Russia (Gustafson, 2020).

Russia and Germany share a rich story of cooperation in the gas industry. Germany is the biggest consumer of Russian gas in Europe, with it representing around 69% of Germany's gas consumption (RIA Novosti, 2016). While the leading companies Gazprom, Wintershall,

WINGAS, and Ruhrgas (now a part of E Uniper Global Commodities SE), have strong networking and have established a series of joint projects and ventures including in the Russian High North (RIA Novosti, 2016; Gazprom, 2018).

The Russia-China connection in the new Arctic energy system

The Sino-Russian energy connection in the Arctic appeared in the aftermath of the Ukraine crisis. The two countries have concluded a series of agreements, including between the largest energy companies on both sides as Gazprom, Novatek, Rosneft, CNPC, CNOOC, Sinopec. Since 2017, joint statements regularly address the cooperation in the Arctic, including in the energy sphere. Being the most important part of bilateral trade, the energy sector considers as an important component of bilateral relations able to support many other spheres of cooperation (Russian-Chinese Energy Business Forum, 2019). In particular, comprehensive complex energy cooperation, (as it named in the Joint Statement of 2019), keeps in line with the overall agenda of comprehensive partnership and strategic interaction aimed to support multipolarity in the world (Interfax, 2020; Kremlin, 2019a). Both states are interested in raising the equality levels for participants in the global economic market, and present energy projects as a good case for the large-scale initiative of the conjunction between the Eurasian Economic Union (EAEU) and Belt and Road Initiative (BRI), with its Arctic branch (the Polar/Ice Silk Road, ISR) (Kremlin, 2017b; Kremlin, 2018c).

Due to shared views, the leadership of both states, which are tightly bounded with corporations, directly support cooperation in the sphere (Kremlin, 2019b). The Russian and Chinese companies received special conditions in particular to participate in LNG projects in the Arctic, including the tax breaks and the easing of legislative barriers, which provides long-term guarantees for stable profits for all the partners (Silk Road Fund, 2017). For instance, the Export-Import (ExIm) Bank of China, the State Development Bank of China, and the China Insurance Investment Co., Ltd. provided Chinese companies, (mainly to PetroChina, CNOOC, Sinopec), loans for producing modules for Yamal LNG (Sohu.com, 2017).

Under the aegis of bilateral cooperation, numerous opportunities and mechanisms for energy cooperation rapidly appeared. To start, there were leadership visits to both states, meetings between the heads of government of Russia and China, as well as remarkable forums in both states which proved to be platforms for negotiations on Arctic LNG. In particular, it is worth mentioning the Belt and Road Forum for International Cooperation, the St Petersburg International Economic Forum, Eastern Economic Forum, and the Russian-Chinese Energy

Business Forum that unites state officials, heads of energy corporations, banks, investment structures, and information technology (IT) companies.

The important platform for the development of economic cooperation is "The Arctic: Territory of Dialogue" Forum. Since 2017, the Chinese delegation at the event has been one of the largest and most representative. The list of guests from China has included Vice-Premier of the State Council Wang Yang, representatives of Poly Group, COSCO, and the China Marine Fuel Company. Important events take place within the context of the forum, such as the meeting of the Russian-Chinese Commission on the preparation of regular meetings of heads of government, led by Wang Yang and Dmitri Rogozin (The State Government of the PRC, 2018).

Subsequently, several companies have signed joint contracts for long-term cooperation and large-scale initiatives, such as the establishment of Maritime Arctic Transport LLC between Novatek, Sovcomflot, China COSCO Shipping Corporation Limited, and the Silk Road Fund (Novatek, 2019). In addition, the Arctic energy cooperation benefits by greater involvement of investment structures, that present the cooperation as a part of the BRI and the development of the Arctic Zone of Russia (Finmarket, 2016; Russia-China Investment Fund for Regional Development, 2018).

The LNG projects in the Arctic became one of the best cases of bilateral energy partnership, and of course, approved pilot projects for both states in the High-North (Huang, 2015). The greatest success was with the Yamal LNG and Arctic LNG-2 on the Yamal and Gydan Peninsulas that together will provide an annual volume of liquefied natural gas of 80 million tons (TASS, 2017). The first of these, the already-online Yamal LNG, will provide sixteen million tons of LNG per year with annual supplies to China of 3 million tons annually over twenty years. Chinese official media has defined it as a touchstone between the BRI and the Eurasian Economic Union and an example of international energy cooperation in the Arctic (Xinhua, 2017).

Following the sanctions, the Russian company Novatek was in need of alternative support. This gave more reasons for cooperation with China. With two Chinese giants of CNPC represented by the subsidiary China National Oil and Gas Exploration and Development Corporation (20%) and the Silk Road Fund (9.9%), China got a larger stake than French Total (20%).

However, Chinese participation is not limited only to the position of shareholders. The Silk Road Fund provided a loan in the amount of €730 million, and in 2016 the State Development Bank of China and the Export-Import Bank of China agreed to allocate US\$12

billion (Vedomosti, 2016). Thus, a significant part of the project financing for Yamal LNG (44%) was provided by China, and the participation of Chinese companies in the fulfillment of orders for a contract project could reach US\$140 billion. Therefore, this project, according to CNPC experts, is a combination of Chinese capital and market, Russian resources, and French technologies and management. In some Chinese media, the Yamal project is generally called "almost entirely Chinese" (CNPC, 2017; sohu.com, 2017).

The project is accompanied by active involvement of Chinese technologies. Seven companies, including CNPC and CNOOC, are contracted to build 120 modules for the Yamal project - 85% of the total required modules. The components are manufactured by CNPC Offshore Engineering Company and China Offshore Engineering Company, Ltd. On the CNPC website, the successful production of the drilling rig is described as the first step towards the Chinese business entering the Arctic drilling, where Russian and American companies previously maintained a monopoly. In addition, they state that participation in projects helped almost half of the Chinese shipowners overcome the crisis (Honghua group, 2015; CNPC, 2017).

The new joint project Arctic LNG-2 appeared on a streamlined path. Chinese companies showed interest in Arctic LNG-2 at least since 2016. Today, the share of CNPC in the project is 10%, the share of CNOOC is also 10%. That is equal to the joint share of French and Japanese share (Total 10%, Mitsui and Jogmeg – 10%). The design documentation for the Arctic LNG-2 is ready, and preliminary engineering and design work has begun. The launch is scheduled for 2022-3, however, due to the COVID-19 outbreak, this timetable may not be realized. The project will function in conjunction with existing Yamal infrastructure (Pavlovsky, 2017; Novatek, 2020).

Besides the two LNG projects, it worth mentioning other lines of Sino-Russian interaction in the field of LNG. The one is the interest to participate in future Arctic LNG projects, such as the Pechora-LNG project in Indiga near Murmansk, (with CNOOC as a possible partner). The project is related to the planned construction of the port, the railroad Barentskomur, and probably the pipeline to the Asia-Pacific (Pettersen, 2011). In addition, bilateral interaction includes the active cooperation of Chinese companies (CNPC, CNOOC, China Petroleum Engineering & Construction Corporation, the State Development Bank of China, etc) with Gazprom on gas-field exploration, extraction, and processing of hydrocarbons, including on the Russian Arctic shelf (Gazprom, 2016; Gazprom, 2017).

Finally, it bears mentioning that the Gazprom "Power of Siberia" pipeline that at full capacity will annually supply gas to China with the amount of 38 billion cubic meters

(Gazprom, 2015). Yet, the first project is not in the Arctic, as the "Power of Siberia 2" will likely deliver Yamal gas via Mongolia to China. This will establish an eastern dimension of the new energy system, running through the vast Russian territory (Pro-Arctic, 2020).

Geo-strategic consequences for Russia, China and Europe of the new Arctic energy system

Consequences for Russia of the New European-Russian-Chinese Energy System

For domestic policy reasons, being a part of the new energy system is naturally important for Russia. The Arctic's resources provide a solid foundation for the country's survival for the coming decades. At the same time, resource extraction in the Arctic breaks new ground for High North development. It brings together the obligatory use of shipping routes, ports, and railroads, as well as the construction of new facilities in the Arctic, the Far East, and including those along the rivers of Siberia. That means that the area, facing severe economic dislocation after the end of the Soviet Union, will get a long-desired chance to improve living standards with a higher level of connectivity and economic development (Sevastiyanov & Kravchuk, 2019).

In addition, the complexity of the gas extraction boosts technological developments, raises human capital, and, surprisingly, becomes a chance for environmental improvement. The close cooperation with international partners brings to light Arctic pollution, mostly appearing during the Soviet Union and the first years after it. The income from these large-scale projects brings financial support to mitigate the anthropogenic harm, a task which was simply too expensive earlier. The 2020 spillage of diesel near Norilsk in Siberia further emphasized a need to raise the ecological standards of extracting industries and lead to new restrictions.

Understandably, the Russian government highly values the abovementioned opportunities and puts efforts into its realization. In recent years, Moscow established eight "Support Zones" in the Arctic, eased taxation for extracting companies, set the task of reaching eighty million tons of transiting by 2024, (mostly due to the LNG), etc. The Russian Far East, which is now firmly connected with Arctic shipping, also became an important part of the new system and received significant support, both in business and in the field of socio-economic development (The Russian Government, 2014; The Russian Government, 2018; Kremlin, 2018a; Kremlin, 2018b; TASS, 2019).

For foreign policy reasons, long before the sanctions, Russia planned to merge spatial, and resource capabilities and to become a leading supplier of Arctic gas for Europe and, in the future, for Asian customers. After 2014, Russia relies further on gas production and export as

a stable fiscal and economic basis. Stronger ties with China that went jointly with remarkable gas contracts occurred to be a good deal for the Russian gas trade. For the industrial base of the Russian Federation, which is still dependent on resources, China's expanding energy needs, including rising gas consumption, provides the required long-term demand. At the same time, it is the European market which remains a key direction for current and potential Russian gas supplies (Gazprom, 2018).

In this regard, it is fair to say even more so than before 2014, Russia is interested in balancing cooperation between Asia and Europe, in order to diversify its economy from commodities exports and its domestic energy sources as well as reduce its market dependency on individual energy export markets (Ministry of Energy of the Russian Federation, 2019). A thaw in Moscow's relations with Europe would contribute to Russia's independent economic development, while further confrontation will represent an extremely undesirable scenario which challenges peaceful international cooperation in the Arctic. The debated possibility of imposing sanctions on Russia jointly with China in the Arctic may quickly transform the region into a zone of active geopolitical struggle (Congressional Research Service, 2020).

In fact, that is the key point as to why the new energy system falls into the question of Arctic security. Arctic gas, as one of the key goods along the Russian coast, demands critical infrastructure and need for stable and safe deliveries whether by pipelines or LNG tankers. As a supplier country, Russia is responsible for the stable and safe delivery in the long-term. This fact, coupled with the involvement of new actors in Arctic affairs and the need to safeguard the Kola Peninsula area with its role in strategic deterrence, forces Russia to build up its military capacities. These capacities atrophied during the *perestroika* era of the late 1980s and the subsequent retrenchment of the Russian economy during the Yeltsin years (Official Internet resources of the President of Russia, 2015; Bertelsen & Gallucci, 2016). However, Russian ambitions to keep the peace in the region for the purpose of trade and cooperation meet the new wave of great power rivalry, that query the feasibility of the new energy system in future (The Russian Government, 2008).

Consequences for China of the new European-Russian-Chinese Arctic Energy System

The emerging Arctic energy system is not a political priority for China but is has strong effects on domestic and foreign affairs. In domestic policy terms, the Arctic gas complements both the growing energy demand and the task of "greening" the PRC's economy. Subsequently, the PRC's participation in Russian Arctic gas development also strengthens the Chinese political regime by supporting ties between the CPC and Chinese corporations and hastening the

promised milestones of the country's economic modernization, as encapsulated in the "Two Centenaries" (McGregor, 2019).

At the same time, Beijing's participation in Arctic gas development in Russia spills into the foreign policy dimension. First, these policies fall into the scope of China's Arctic foreign policy goals, as stipulated in the 2018 White Paper (The State Government of the PRC, 2018). While placing its capital and technologies in Arctic extraction and shipments, China can both develop an identity as a major Arctic stakeholder and diversify its energy supplies.

Conceptually, large-scale projects in the Russian Arctic became an effective reason to propose the Ice Silk Road after 2017, as it served the interests of the PRC's complex vision of Arctic economic development. China has moved from research cruises in the Arctic Ocean to developing new trading routes with Europe and transporting LNG equipment and LNG. This explains China's steps to independently test the utility of the Northeast, Northwest, and Central Arctic Passages, and participate in the development of ports and logistics in the Russian Arctic, including interest in more rapid energy transportation. Furthermore, Chinese policies ground the country's future involvement in Arctic search and rescue for ensuring stable LNG supplies and goods shipments (Pan & Lu, 2013; Olesen & Sørensen, 2019).

Additionally, Beijing's input into the Arctic energy system forwards relations with Russia, the large neighboring state, whose politics is extremely important for PRC security. Russian resources complement Chinese market needs and, in the backdrop of mutual understanding, strengthen the coordinated drive to a multipolar system, (for instance, via the conjunction between the Eurasian Economic Union and the Belt and Road Initiative) (Kremlin, 2017a; Sovkomflot, 2019).

The second Chinese foreign policy dimension which benefits from the Arctic energy system involves the country's newfound global status. The key initiative of the Belt and Road encapsulates a vast scope of routes for trade and energy sources supplies all over the world (Lanteigne, 2015; Sørensen & Klimenko, 2017). This system is designed to diversify supplies and make China independent from relations with any state. To this end, Russian Arctic gas is a valuable contribution which is free from the constraints of the Strait of Malacca Dilemma (possible blockade of Chinese shipping through the Strait of Malacca), and piracy in the waters of Somalia. However, the major focus of the Belt and Road is not in the Arctic, but on China's Asian and Eurasian neighbors. Beijing aspires to diversify energy supplies via its own (underdeveloped) resources, purchases of Central Asian gas, and projects under the guidance of the Belt and Road Energy Partnership (Global Legal Insights, 2020).

Concequences for Europe of the new European-Russian-Chinese Arctic Energy System

The Europe-Russia-China Arctic energy system gives Europe access to price-competitive and reliable Russian oil and gas as well as a shorter shipping route to East Asia. Both are strategically advantageous to Europe and involve limited European investment. This system is in direct contradiction to American strategy to preserve post-Cold War unipolarity.

Long-term contracts, huge Russian Arctic gas resources, and stable state support make a cooperation with Russia beneficial for European companies. From domestic political reasons, Arctic gas supplies meet the raising European demand in gas. France is dependent on hydrocarbon imports for 50% of its usage of hydrocarbons. Gas makes up 14% of this import and its share will grow further. Thus, France is interested in increasing gas supplies. Amid the eschewing of coal and shale gas, and the politically sensitive use of nuclear energy, utilizing gas and renewable power sources form a strong alternative for the energy politics of France. Arctic gas has no less importance for Germany, which is banking on stable and cheap supplies from Russia to help with the "greening" of its economy replacing coal with gas.

For Europe, Soviet and now Russian Arctic gas mitigates political risk surrounding energy from the Middle East, North Africa, and other regions. For France, in line with Neo-Gaullist ideas, Russian Arctic energy helps to raise its independence in the international arena (Zaretsky, 2019). In addition, French capital and technologies in the High North promote the narrative of a French Arctic policy vision (Ministère des affaires étrangères et du développement international, 2016). For Germany, Russian-German energy connections strengthen Berlin's role in the European energy distribution system. Amid Franco-German close cooperation, marked by the Élysée and Aachen Treaties, their unanimous position on energy security enforces their leading positions in the European Union.

At the same time, Europe, and its US unipolar protector, have contradicting interests. The US highlights European energy dependence on Russia (while ignoring Russian market dependence on Europe). It also points to Ukraine losing transit rents as well as threats to Russian-Ukrainian mutual dependence. The US has appealed to the Nordics, Baltics, Central, and Eastern Europeans in these regards. The Trump Administration now imposes sanctions on companies involved in the laying of Nord Stream 2 with the explicit "intention is to stop construction of Nord Stream 2" (Bureau of Energy Resources, 2019).

For Europe, it presents a challenge of showing adherence to the alliance with the US and choosing an energy system which Washington favors, either to look for cheaper alternatives than a less attractive Russia, and to find a way to participate in a new energy system for Europe's own benefit.

Conclusions

The new energy network has two crucial features that supports its development amid the turbulent times. First, it reflects the shared intention of its participants to raise their independence in the global gas market. The European states challenged by instability in the Middle East. China wants to escape the Malacca Straits dilemma and Horn of Africa piracy, and thus needs to have diversified and stable energy supplies in the long-term and develop the Ice Silk Road as part of the Belt and Road Initiative. In turn for Moscow, stable cooperation in the gas supply trade is a matter of survival of the state. The Arctic pipeline infrastructure and LNG shipping form a client-focused strategic infrastructure that is extremely difficult and expensive to establish and with no chance to change partners at short notice. In this regard, while putting efforts into the Arctic gas development, Russian corporations strive to prove their reliability in the long term. It is arguable that, if Russia tries to manipulate its gas supplies and trade, or to stop the flow at some political discrepancy, that will ruin its image of a stable gas supplier not only for Europe but also for Chinese partners, who especially care about economic cooperation beyond any political controversies.

At the same time, new energy system shows shared intension to limit mutual interdependence. For Europe and China, Russian Arctic gas remains only one of the possible alternatives, which may be substituted by other sources. None of them are going to lose this advantage and both try to diversify energy sources. At the same time, Russia needs to stay a gas producer and tries to balance cooperation between European and Asian markets. Thus, new energy system is turning to be a trilateral equilibrium.

As hypothesized: Europe has internal divisions and lacks a shared strategic vision under the power transition to a loose Sino-American bipolarity. Europe continues to be dependent on the US, which seeks to obstruct European-Russian gas trade, especially concerning the Nord Stream 2 pipeline. The US will continue to promote its own version of the global energy system, to praise opposition from Baltic and Central European states, and to put pressure on Europe and engage (and deter) Russia in the High North. These moves may disrupt Russian-European ties and prompt Moscow to guard its interests in the gas market. Should Russia lose its key European partners for strategic Arctic infrastructure, it may provoke Arctic militarization and force Moscow to increase cooperation with actors in the Asia-Pacific region.

Is a more constructive scenario possible? It depends both on US policy and European strategic identity under the emerging loose Sino-American bipolarity. Can US Administrations

exercise more constructive and enlightened leadership of power transition amid American domestic social, economic and democratic crisis?

In general, the controversies examined here demonstrate the global demand for a more multipolar order, further flexible cooperation, and more effective engagement amongst relevant actors in decision-making. The choice to use this new energy system and to be able to cooperate with 'others' becomes a question of independence and the sovereignty of the states in the global arena. Due to a fragile Russian position in the new energy system, we see it not as an issue of actors' possible dependence of Russia, but one of decreased dependence on the US.

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¹ In Arctic affairs, the (translated) Russian term of the Northern Sea Route is standard for the Northeast Passage as the Northeast Passage follows the Northern coast of Russia and historically has been a major infrastructural artery of the USSR and now the Russian Federation. The Russian legal definition of the Northern Sea Route is east of Novaya Zelmya to the Bering Sea. We include looking at the Barents and White Seas.

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