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Priorities of Russian Energy Policy in Russian-Chinese Relations

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ABSTRACT

The priorities of Russian energy policy on the basis of Russian energy strategy until 2035 are proposed. Having narrowed the changes in Russia's energy policy, the article notes that the main priorities are strengthening the participation of China Development Bank in energy deals, building LNG and Pipelines in the context of energy cooperation, increasing the trust in Russia-China energy relations. The main limiting factor is not so much the limited resources as the costs of fuel production and the possibility of increasing the volume of energy exports to China, as well as low levels of energy efficiency and energy saving. In this situation, the possibility of progressive development of relations between China and Russia can be achieved only through fundamental changes in the industry. Expanding the field of cooperation energy investments is worth mentioning.

Keywords: Alternative Energy Sources, Energy Policy, Resource Saving, Energy Efficient Development, Energy Indicators
JEL Classifications: C30, D12, Q41, Q48

1. INTRODUCTION

The Russian Energy Strategy 2035 was approved in 2014 by the Government of the Russian Federation and consists of new objectives and priorities. The document includes the implementation of phases. The First phase includes goals intended for the period of overcoming the crises faced by the economy. The Second phase begins with an innovative development, energy efficiency and construction of the infrastructure of an already new economy. Successful implementation of the second phase relies on the development of the Eastern Siberia and the Russian Far East. The last third phase will work when the country will have developed an innovative economy with energy efficiency use that based on investments and innovations developed during second phase.

The Strategy represents the course for the country's long-term development. The Energy Strategy for the period up to 2035 outlines not only the internal targets but also the external challenges that Russia is facing e.g. energy market instability and oil price volatility. To avoid possible energy crises and to cope with them in a short period at the lowest cost, the Strategy presents the following tasks, central to the set objectives. Firstly, in order to pursue geographic and energy products diversifications, Russia is looking for new markets for its energy resources.

By product diversification, the Strategy means the following: light oil products, LNG, engine fuel, gas chemistry, electricity. All of these commodities will change Russia's role in the world energy market. Secondly, one of the main vectors determined in the Strategy is Russia's participation in the development of high technologies and energy services. Thirdly, to switch from exporting raw energy materials and start exporting highly processed materials. To meet the growing demand from resource-importing countries, Russia should improve the process of energy extraction and develop the processing of energy resources.

The Strategy supports that Russia is a leading country in terms of country's share in the world reserves as well as in annual production of oil. Moreover, the country holds the second place in coal reserves, 5th place in annual coal production, and a quarter of the worlds traded natural gas is provided by Russia.

The Strategy emphasizes that the global energy market is under transformation process that is accompanied with the appearance of new players (China and India). Therefore, competition between countries for new energy markets is increasing. The World energy system transformation is intensifying with energy market uncertainty, high-energy price volatility, continuing financial crises and worsening of the environmental conditions in the world. The Russian Energy Strategy accepts the increasing importance of energy security that is actively pursuing by the countries as well as highlights the stability of energy supply the countries.

The Strategy devotes a special role to renewables and highlights the lack of Russia's contribution towards the worlds' renewable markets development. Thus, to improve the situation "stage-by-stage" the Strategy should be incorporated with consistent international cooperation, on the condition that Russia will have the scientific and technical achievements in its portfolio to be offered.

The "stage by stage" strategy is also covering pipeline construction in Eastern Siberia and the Russian Far East to supply gas to the fast growing energy demands in Asian countries. This pipeline system should become a part of the unified system of the gas supply pipeline net for Asian-Pacific countries.

For the country's economy, energy export will play as an important role as before but the interdependence between growing economies and energy exports should decrease. Therefore, energy exports should not be the only source of Russia's economic development.

The Strategy states that Russia will develop energy cooperation with countries of the Asia-Pacific region and will decrease the reliance on European markets. The current situation with the energy export to the Asia-Pacific region is that the rate of liquid hydrocarbons export is only 6%.

In terms of natural gas, the export should be increased as well and account for 20%, while the current figure is around 5%. The gas export share of the Asia-Pacific region in the export structure for the first phase is 11-12%, for the second phase 16-17% and for the third phase 19-20%. Energy export to China will be increased significantly in comparison with Russian supplies to Europe.

Along with the main energy supply option via pipelines, there is another supply option aiming at developing natural gas transportation, namely LNG. The project of developing LNG requires well-developed infrastructure for boosting persistent LNG deliveries to foreign countries.

LNG has to become an equivalent to the traditional supply option, namely pipeline supply. In this way, the increasing importance of LNG is fully admitted by the Russian Government and the Russian energy companies' representatives in the light of energy market transformation.

To conclude, the current the Energy Strategy 2035 is very important for the country, for the future of Russia's Energy Sector, and all its participants (in the Government and in Russian energy producing companies functioning on equal business conditions). Moreover, without the presence of the Russian companies abroad, assigned targets will be hard to achieve that in turn will definitely influence companies efficiency and profitability. All the outlined tasks are central for boosting Russia's growing economy as well as for maintain long-term energy cooperation with foreign countries.

2. LITERATURE REVIEW

The concept of power builds on that of realism according to the schools of International relations theory. This research therefore focuses on power as a mean to govern resources. (Morris and Barlaz, 2011) points out that power makes actors control and seek impact with events.

Mikhaylov (2019a) and Mikhaylov et al. (2019) made the forecast of power consumption concludes that a hierarchical structure of power-possessed actors exists. Therefore, in the context of cooperation interdependence between units (e.g. states or companies) takes a significant place. Moreover, the energy industry is seen as a powerful one where decisions are made by the most powerful energy consumers: crypto markets and industries (Meynkhard, 2019; Wustenhagen and Bilharz, 2006).

Energy security is a part of national security that is always dominated by realism (Jaramillo and Matthews, 2005; Lopatin (2019a).

In addition, energy security is developing within the international system which is determined by balance of power between nations (Milbrabdt et al., 2014, Morgan and Yang, 2001).

Interdependence theory has been developed by proponents of liberal schools. According to this theory, actions of states and actions of non-state-actors such as organizations or companies, affect other members of society who having capacity might behave politically. Therefore, the main task is to create and maintain beneficial cooperation (Mikhaylov, 2018a; Mikhaylov, 2018b).

First, interdependence of interests leads to a deep cooperation that eliminates use of force. Second, interdependence constitutes hierarchies of issues that countries face.

Chiemchaisri et al. (2012) and Gardner et al. (1993) found points out that asymmetrical dependence of states on each other is not a necessary condition for cooperation. Intense preferences today mean great concessions tomorrow.

Therefore, in terms of agreements between states we might assume that asymmetrical interdependence is an opportunity to exercise influence for both powerful and weak actors (Amini and Reinhart, 2011; Bansal et al., 2013).

Keohane and Nye believe that the level of costs during bargaining or negotiations depends on the levels of interdependence between countries. Low cost can be achieved if an actor is less dependent and vice versa (Ahmed et al., 2014; Mikhaylov et al, 2018; Nyangarika et al., 2018).

Structure and process are always interrelated and affected by each other. Process (mostly relationships) in such an international system is affected by structure (distribution of competences) and by features of significant units or actors (state actors or non-state actors). Therefore, the authors contend that information on preferences and structure are vital for any strategy.

Lastly, the liberal theory suggests that national interests are subject to change via learning processes. New information, knowledge development and experience transfer are prioritized by liberal theorists (Bove and Lunghi, 2006; Cai et al., 2011).

Haas considers learning as a vital component in strategic interdependence between nations. He believes that learning makes countries reconsider their national interests. Etheredge sees learning as a very complex process that leads to an updated understanding of reality.

The scope of the research covers key energy institutions (Gazprom, Rosneft, CNPC, Sinopec). Liberalism has allowed for the development of studies of institutions or in other words institutionalism. Institutionalism investigates several aspects such as functions of institutions, how institutions arise and how they constrain individual behavior. This research considers government officials and energy companies as two separate institutions. Individual behavior is related to private energy investments.

Denisova (2019) and Denisova et al. (2019) adds one more type of institution to those mentioned above, namely coalition. He also specifies that institutes are used to contending with each other especially if they are from the same field.

Institutionalism seeks to analyze how institutions can be united in a power block. Many experts affirm that institutions can be dependent and independent. Whether an institution is dependent or not is mostly determined by people that establish and structure an institute (Nyangarika et al., 2019b; Nyangarika et al., 2019a).

3. METHODS

By carrying out the Chinese government's policies, CDB has become a significant player in the Chinese energy cooperation with the following countries: Russia, Brazil, Venezuela, Turkmenistan and Ecuador. Nowadays, in order to develop the energy sector in China, which is a key industry, it is impossible to dispense with CDB and its energy backed loans (EBLs).

CDB has provided EBLs to foreign energy companies Transneft and Rosneft, Brazilian Petrobas, Venezuelan Petroleos de Venezuela SA (PDVSA), Turkmen Turkmengas, Ecuadorian PetroEcuador. All these energy companies are currently holding a bank account at CDB. The concept of relationship between the Chinese, foreign energy companies and CDB will be analyzed in the section of discussion.

The role of CDB can be analyzed in two ways. First, when the foreign companies open accounts in CDB, these accounts assigned the Chinese energy companies to deposit payments for energy that was supplied to them. Second, CDB lends to the foreign companies when they need money to conduct energy projects.

Providing a huge amount of loans to foreign companies is a very risky decision for the bank, therefore in order to secure its energy loans, CDB might withdraw an interest rate from the accounts assigned for energy payments if any of the mentioned companies will meet a problem to recover the loans because of the economic instability in those countries.

Hereby, this complex relationship assures large energy export revenue-backed loans from CDB to the energy companies and oil deliveries from these companies to China.

In such a manner, the countries which are in need of funding for energy projects are cooperating with CDB, which is willing to finance these big, projects or deals. CDB is helping the Chinese firms to cooperate with the foreign energy companies and to participate in significant overseas projects.

Presented scheme shows us that CDB is a donor in energy cooperation between domestic and foreign companies whose participation at the same time is strategic for the Chinese government.

The research investigates energy cooperation between Russia and China from perspectives of Political Economy and International Relations, which together constitute notions of either International Political Economy (IPE) or Global Political Economy (GPE).

However, from the standpoint of GPE, politics and economics are separate fields. As such the research explores whether the Russia-China energy cooperation tends towards IPE or GPE.

If we look at realism and liberalism, both schools of International relations theory consider politics as a political and economic exchange between nations. Realism stresses the importance of power and security for a nation's survival. Liberalism holds that economic incentives are vital for nations' prosperity.

However, in general military power prevails over economic power and brings a higher level of costs to a society than economic power.

In this regard, the following sections describe realism and its concept of power; not to mention liberalism with its theories of interdependence and institutionalism.

4. RESULTS

The economic rise of China is based on political and economic factors. China Development Bank (CDB) combines these two factors and is successfully expanding China's influence in Latin America, Africa and Asia. In the context of energy cooperation, the role of CDB should not be undervalued. CDB is a very powerful, state-owned bank in China that provides the financing of China's overseas projects. CDB "has more than twice the World Bank's assets."

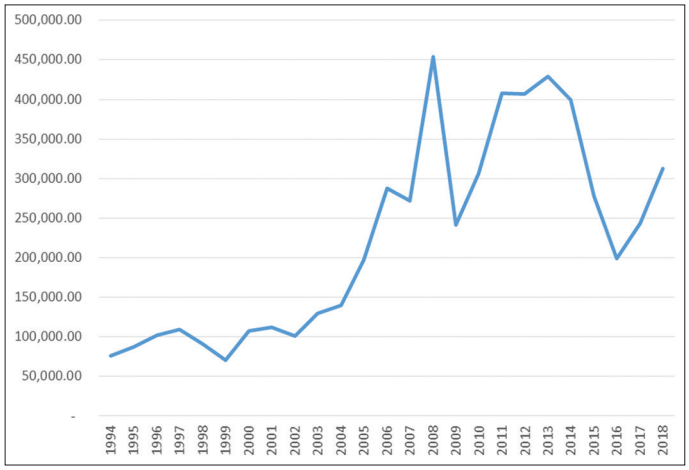
The success of Chinese energy companies inside and outside China ties closely with CDB. CDB is financing the Chinese government's policies and helping to boost China's economy growing as well as expanding China's geopolitical energy strategy around the world.

For this mission CDB has established a financial cooperation with Shanghai Cooperation Organization (SCO), has implemented principles of cooperation within the ASEAN–China Free Trade Area (ACFTA), and has been cooperating with the World Bank in Africa; and has successfully managed overseas investment funds such as the China-Portugal Fund and the China-Africa Development Fund.

The price for the Russian natural gas to China is bound to market price of oil and oil products, like in to all international contracts with the Western partners. This is a verified price formula. The final price will be calculated according to this formula, and as the President said it satisfies Gazprom and the Chinese partner, CNPC. The estimation of the price for the natural gas to China is probably between $360 and 3,701,000 per cubic meters (Figures 1 and 2).

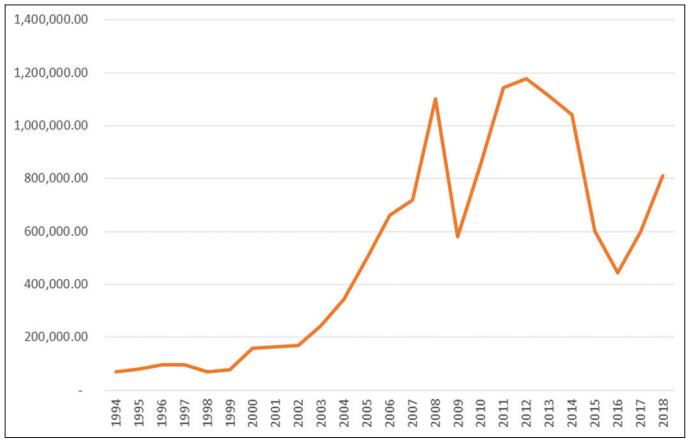
In offshore projects exploration and production (E&P) is conducted by foreign energy companies and national/regional government or a state energy company.

Figure 1: Gas export from Russia, mln. USD



Source: Thomson Reuters, Minenergo

Figure 2: Oil export from Russia, mln. USD



Source: Thomson Reuters, Minenergo

Such an agreement should be regarded as knowledge sharing agreement because involved parties are participating in mutual E&P activities.

The cooperation with the Asian partners should be extended not only because of the sanctions (the most popular opinion among experts why Russia pivots to Asia) but from the point of view of an amount of energy resources the Eastern Siberia possesses.

The development of East Siberia is prioritized by the Russian "Energy Strategy 2035."

Kovytka and Chayanda are newly discovered energy resource deposits in the Eastern Siberia and natural gas supply centers for China, proven recoverable resources - three trillion cubic meters of gas, R/P ratio is 50 years. After the state visit in May, 2014, Vladimir Putin declared that estimated amount of investments from the Russian side is $55 bn. and around $20-25 bn. is a Chinese portion.

Expanding the field of cooperation energy investments is worth mentioning. Generally speaking energy investment is a very broad and complex issue. Investment flow from the both sides is an example of countries' interest in developing bilateral cooperation. The Russian investments to China may reduce price that China is paying for the Russian gas. It is economically worthwhile decision and win-win situation for both countries. If an amount of the Russian investments will increase, while the Russian gas price for China will decrease. The Russian energy companies will also be able to obtain discounts for the Chinese resource extraction equipment as detailed on the CNPC website. Significantly to mention that technology is mostly transferred from the West to developing countries.

Russia is among top ten export partners of China (on the 8th place), in 2018 the export increased. Russia is importing more from China, than China from Russia; exporting less than China to Russia. Russia's export is mainly oil and therefore until "Power of Siberia" pipeline is under construction the China export will outweigh Russian export (Tables 1-3).

Table 1: Energy production

Oil	Gas	Coal
(Mt)	(Bcm)	(Mt)
487.6	663.6	326.1

Source: Thomson Reuters, Minenergo

Table 2: Energy reserves

Oil reserves (Mt)	Natural gas reserves (Bcm)	Coal reserves	Total energy reserves
1.854	4.1	272.6	23%

Source: Thomson Reuters, Minenergo

Table 3: Russian energy production and consumption balance till 2035

Balance	2015	2020	2025	2030	2035
Domestic consumption	964	1002	1057	1090	1115
Production	1873	2043	2220	2295	2335

Source: Thomson Reuters, Minenergo

Following the participants' views over bilateral cooperation, China has several projects in South America, where the Russian companies can be considered as partners in terms of launching new projects. For example, according to CNPC website, the company has been presented in Venezuela since 1997 and possesses assets and equity. Gazprom operates in Venezuela since 2005 and cooperates with PdVSA, the Venezuelan energy company in joint projects such as Robalo project, Urdaneta project.

Lastly, for the Russia-China relationship it is significant to cooperate in the areas of knowledge transfer in generating electrical power. With regard to the grid projects that were mentioned by a participant from the State Grid Corporation, China has introduced new technologies in their projects that are used to transmit its power grids electricity over long distances, which may Russia find practical for the development of its power grids. Indeed, the UHV projects (ultra-high voltage) that have been commercialized in China have united two countries.

The agreement includes technology transferring and development of "smart networks." Notably, the term "knowledge transferring" between the countries that was discussed with all the participants has another term, "smart networks developing" Smart networks developing is one of the aims that is prioritized by the state grids of both countries.

5. DISCUSSION

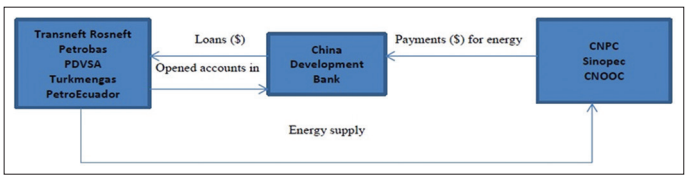
5.1. CDB Participation in Energy Deals

With respect to "loan for resources" the majority of the participants indicated that this concept has been applying by China in Africa and in Latin America. However, the same approach is being employed in Russia. In order to meet energy demand the Chinese are using the same instruments.

The literature review on CDB describes original intents of CDB' participation in energy deals with the developing countries. This research reveals its role that is demonstrated in a scheme below. The scheme has been developed on basis of primary and secondary data collection. On the left side there is a list of foreign energy companies apart from Transneft which is a pipeline operator in Russia (Lopatin, 2019b) (Figure 3).

On the right side there are three major Chinese energy companies are purchasing energy resources from foreign energy companies. Payments for energy resources to foreign companies go through opened accounts in China Development Bank. The Bank is also giving loans to foreign energy companies for any energy projects. If any emergency happens and a foreign energy company is not be able to pay back an interest rate to CDB, the Bank will deduct an interest rate or any other fees from payments for energy paid

Figure 3: China energy supply scheme



by the Chinese energy companies. Therefore, having accounts with the CDB means to mitigate risk for both Russia and China. Furthermore, the CDB being an investment arm allows the Chinese firms having access to loans for investment at interesting prices.

In the light of recent imposed sanctions against Russia, the USA and Europe is encouraging Russia and China to develop a close cooperation. For example, in the financial and bank sectors, the Russian energy companies will build a business with the Chinese banks which have expressed their interest in providing banking services to the Russian companies.

5.2. LNG and Pipelines in the Context of Energy Cooperation

The gas industry is built on three sectors: natural gas, liquefied natural gas (LNG) and shale gas. The participants' views over shale gas extraction in Russian are supported by the former Russian Minister of Energy, member of the Board of Directors of Gazprom, Igor Yusufov.

Yusufov noticed that the amount of Gazprom natural gas reserves is enough to meet the energy demand on domestic and foreign markets.

Therefore, for Gazprom shale gas extraction is not a priority. Shale gas extraction might be interesting for other Russian companies if they find this activity a profitable one. Also, the more advanced technologies a company has access to, the higher the profitability on shale gas exploration, development and production (E&D, E&P).

However, he points out that from the economic point of view the extraction of shale gas is not profitable. Revenue from sales of shale gas is less than the cost of production. Therefore, the priority in Gazprom export strategy should be given to natural gas and then LNG which in return gives opportunity for independent companies such as NOVATEK to enter to the Russian and foreign energy market.

However, Yusufov added that without Gazprom's support is essential. For example, Yamal LNG, a JV between Novatek (60%), Total (20%) and CNPC (20%), is supported by Gazprom.

Several participants think that the Russian energy strategy should be reconsidered. Due to their geopolitical position Russia and China should keep construction onshore long distance pipelines and develop LNG sector. LNG is a growing sector that plays an important role in today's energy system.

However, countries can't substitute pipeline with LNG, especially when they are sharing borders.

But, definitely Russia should enlarge its supply portfolio in order to enter new markets. Both supply options require a significant amount of investments.

5.3. Trust Deficit in Russia-China Energy Relations

In 50s-60s, first oil was discovered in China and the Soviet Union was developing the Chinese fields and building the whole energy

industry in China. Both countries had a very close cooperation, the perfect example of knowledge and technologies transferring. The Soviet Union had a huge control over the Chinese energy production. China did not bring these resources to international market; the energy was used only by China and the Republics of the Soviet Union.

However, Khrushchev's speech in 1956 led to the ideological disagreements between the countries. After the Soviet Union experts left China and the Chinese took the control over the energy market into their own hands. Ideological divergence actually has had a huge impact on oil and gas business between Russia and China and led to the mistrust from the Chinese side.

The Chinese don't want to have the Russian companies in their oil and gas business. This political element will always exist between them.

According to the Gazprom website, there are eleven fields in different countries where Gazprom is conducting exploration and development (E&P) of energy resources with its energy partners. Gazprom obtains 15 licenses to use resources outside the country: eight licenses to produce hydrocarbon resources and seven to conduct geological activities.

However, there is no hydrocarbon resource development led by Gazprom in China. In addition to the historical reasons, there is a company strategy. Therefore, the question can be asked directly to the representative of Gazprom. It is likely to be a part of Gazprom strategy where to operate.

Nowadays, energy business between Russia and China is a political and then a commercial business. It is a purely national and a company strategy that can't be separated. Once you allow another energy company, foreign investments entering to a market, you should start being open and transparent in activities, in everything what you have. However, energy industry is a strategic sector for all countries and transparency issue is a very debatable one.

The Chinese and Russian energy policies reflect some dominant patterns. Energy policy changes along with the development of international relations. There are a lot of theoretical approaches that are helping to understand the development of international relations. The role of politics in energy cooperation has fully been based on the participants' attitude towards vertically integrated projects and their views on the governments' participation in energy deals. This chapter will mostly try to match international theories with energy reality in Russia and China.

Mikhaylov (2018a; 2018b) presents the findings over an inseparable link between energy and politics.

For example, she outlines that domestic hydrocarbon production and domestic consumption are transforming global energy market. Second, she highlights that growing nationalism in countries that has been extensively developing based on extensive energy export strategy.

Third, there is an increasing role of politics in gas markets. Four, transit countries tend to be one of the reasons that might undermine "peace pipeline" nature. Five, "diversification" of energy resources is a product of desire to avert from possible conflicts between countries. Six, energy infrastructure has become a very attractive target for terrorist and separatist activity. Seven, there are two groups of participants which share the control over energy market: one group controls consumption and the second one- production. The first control is a matter of privatization, belong to business representatives, the second control belongs to the government.

Lastly, energy cooperation might last very short period and, therefore, is seen as an unstable type of cooperation between countries. Political conflict that directly or indirectly touches upon energy supply is a way toward confrontation between countries. All these findings can be easily correlated to the current energy cooperation between Russia and China.

Liberalism prioritizes knowledge transfer and learning which lead to a transparency. Transparency in energy cooperation between national energy companies is significant and from the viewpoint of liberal tradition in international relations leads to the progress. "Recourse dependency" of resource-rich countries is likely a cause for resources-related conflicts as well as it can be viewed as a vulnerable side of "rentier states" According to the liberal tradition and analyses that was conducted by the economists in the 70s-80s, resources-rich countries show a slow economic growth.

In addition to the concept of power the finding indicates the role of geopolitics in energy cooperation between Russia and China. The participants' answers support the theory on realism and geopolitics which are summed up to the following:

1. Russia and China are actively pursuing an access and control over natural resources that are crucial for their national interest, power and security.
2. Russia is becoming more and more vulnerable relying on energy export.
3. The competition over natural resources between countries and their national energy companies is increasing and has led to on-shore and off-shore joint projects.

Apart from realism and liberalism this research has discovered one more dimension, radicalism. Nationalism is a product of a radical approach such as socialist radicalism that is being applied in international relations as well. Nationalism in the context of Russia's future development is a very controversial topic. The emphasis on nationalism was delivered several times by the participants. It undermines a long term country's development and should be reconsidered by the Russian government authorities.

To conclude, realism, liberalism and radicalism have been always taken as independent, different approaches in international relations. However, Russia and China is a good example of the combination of these approaches. Moreover, the research explored that the Russia-China energy cooperation tends towards IPE.

Two countries are interdependent on each other and the interdependence is asymmetrical which means that energy

cooperation has led to win-win cooperation in other areas apart from energy. The Russian and Chinese intense preferences during the Natural Gas negotiations mean great concessions for other projects, such as trading, investing, etc.

Energy cooperation between Russia and China is a very complex phenomenon; it is structured and determined by the Russian and Chinese high level officials. Russia and China are strong economies expanding their areas of cooperation- yet dependent in one another in many ways.

The participants argue that investment risk of these supply options is different. Pipeline project can be carried out by one company which will be responsible for the construction of the pipeline. There is a priori knowledge about an enough amount of energy resources that will be exported.

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