



МЕЖДУНАРОДНАЯ ТОРГОВЛЯ
В УСЛОВИЯХ ГЛОБАЛИЗАЦИИ

INTERNATIONAL TRADE
IN THE CONTEXT OF GLOBALIZATION

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**Cross-border trade in energy resources:
Features of the Central Asian region**

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Abstract. The article is related to the role and place of the Central Asian region in a cross-border energy resources trade at present stage. On the one hand, there are two countries in Asia, which are in the list of the world's largest importers of energy resources — India and China. On the other hand, the Central Asian countries (with the exception of Kyrgyzstan and Tajikistan) and Russia are net energy exporters, herewith this kind of export is all-important for their macroeconomic stability. It is not surprising that the problems of organizing mutually beneficial trade in energy resources throughout the Central Asian region are among the most urgent issues for all interested parties' agenda. So, the analysis and assessment of the energy component of cooperation between the Russia, Central Asian states, China and India lies in the focus of the article. Of course, India is not directly integrated into the energy architecture of the Central Asian space, but its large domestic market is one of the drivers of energy supplies growth. Therefore, it is advisable to consider India as an external actor that has a significant impact on the ongoing processes. Current practice of multilateral participation shaping the energy dialogue can also have a great importance in the geopolitical context — as a factor of either additional cohesion or increasing contradictions in the given region.

Keywords: The Central Asian region, exporters and importers, energy resources trade, energy diplomacy, multilateral cooperation, geoeconomic issues

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Трансграничная торговля энергоресурсами: особенности региона Центральной Азии

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Аннотация. Исследованы роль и место региона Центральной Азии в трансграничной торговле энергоресурсами на современном этапе. С одной стороны, в Азии есть две страны, которые входят в список крупнейших мировых импортеров энергоресурсов, — Индия и Китай. С другой стороны, страны Центральной Азии (за исключением Кыргызстана и Таджикистана) и Россия являются чистыми экспортерами энергоносителей, при этом данный вид экспорта крайне важен для их макроэкономической устойчивости. Неудивительно, что проблемы организации взаимовыгодной торговли энергоресурсами во всем Центральноазиатском регионе являются одними из наиболее актуальных вопросов повестки дня всех заинтересованных сторон. Итак, в центре внимания находится анализ и оценка энергетической составляющей сотрудничества между Россией, государствами Центральной Азии, Китаем и Индией. Конечно, Индия напрямую не интегрирована в энергетическую архитектуру центральноазиатского пространства, но ее большой внутренний рынок является одним из факторов роста поставок энергоносителей. Поэтому целесообразно рассматривать Индию как внешнего субъекта, оказывающего значительное влияние на происходящие процессы. Нынешняя практика многостороннего участия в формировании энергетического диалога также может иметь большое значение в геополитическом контексте — как фактор либо дополнительной сплоченности, либо усиления противоречий в рассматриваемом регионе.

Ключевые слова: Центральная Азия, экспортеры и импортеры, торговля энергоресурсами, энергетическая дипломатия, многостороннее сотрудничество, геоэкономические аспекты

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Introduction

The leaders of Kazakhstan, Uzbekistan, Turkmenistan and Russia paid great attention to energy diplomacy throughout the 2000s in order to increase their export of energy resources as the demand was growing, primarily in China. Sure, large and

influential countries initially promoted this agenda more effectively. Russia, that was overcoming the consequences of the severe economic crisis of the 1990s, and China, that sought to strengthen its position as an influential trade and economic power, wanted to join forces in order to find a place among the full-fledged “movers” of the world economy. The Central Asian countries, who also sought to strengthen their positions, at the same time tried to preserve economic ties with Russia and also enter the Chinese energy market. These countries did not have funds to intensify the mining operations (primarily oil and gas). Therefore, they planned to use loans from Chinese and Russian companies to start these operations with an eye to the subsequent sale of the extracted energy resources to China.

This approach generally suited the government of the People’s Republic of China, since it understood that with China’s double-digit GDP growth rates at the beginning of the 21st century, the volume of domestic primary energy production would soon be insufficient to meet the country’s needs. Several attempts have been made to create a common investment model to ensure the development of deposits in Central Asia and the construction of infrastructure for oil and gas supplies to China, but in the end these issues are still being resolved within the framework of bilateral relations. Nevertheless, an appropriate investment mechanism (the Interbank Association, IA) was launched under the auspices of the Shanghai Cooperation Organization (the SCO) in 2005.

The idea of IA was to establish an overall database on investment projects proposed for joint implementation within the SCO, foster business partnership, and coordinate actions in the information space. It was planned to accumulate up to 1 billion of US\$ in the accounts of the Interbank Association and invest it in the realization of key projects of multilateral cooperation, most of which were directly related to energy sector. In general, these institutions have subsequently proved their effectiveness, despite the complex bureaucratic procedure for approving priority projects (The Shanghai Cooperation Organization, 2021). But there are still a number of unresolved problems that hinder the realization of joint energy projects, and most of these problems are hidden in the geoeconomic dimension, the attention of researchers and analyst to which will only increase.

It should also be noted that among the Central Asian states, the article will consider those that have large reserves and export potential of oil and natural gas. These are Kazakhstan, Uzbekistan and Turkmenistan. Respectively, Tajikistan and Kyrgyzstan, which have excellent conditions for the development of renewable energy (and a number of investment agreements in this area are currently being negotiated), but do not have reserves of primary energy resources with export potential, are not included in the structure of this study.

Taking into account the nature of the tasks set, the authors apply universal scientific research methods, such as system, factor and comparative analysis, as well as scenario forecasting methods. Statistical information was taken from such international databases as IEA.org, Ourworldindata.org and British Petroleum (BP Statistical Review of World Energy, 2020). We emphasize that the article deliberately does not consider all the issues related to the trans-border energy resources trade in the Central Asian space and mostly focuses on urgent energy cooperation problems, since

it largely determines the current conditions and nature of the interaction between countries which have stable national interests and strive to find a mutually acceptable balance. However, a comprehensive methodological approach and the emphasis on the structure and nature of given research paper allow us to talk about a sufficient foundation for achieving relevant scientific results.

Our research is based on a serious analytical fundament. The problems of energy transition from exporters to importers in Central Asia are in the focus of attention of many researchers and international analytical bodies. Thus, problems with interfacing content are mainly addressed in the reports International Energy Agency (China Power System Transformation, 2019; India Energy Outlook, 2021; Gas 2020. Analyzing the Impact of the COVID-19 Pandemic on Global Natural Gas Markets, 2020), articles of Chow, E., & Hendrix, L. (2010) “Central Asia’s Pipelines: Field of Dreams and Reality”; Ralph, W. (2014) “China’s New Energy Geopolitics: The Shanghai Cooperation Organization and Central Asia”; Mitrova, T., & Yermakov, V. (2019) “Russia’s Energy Strategy 2035: Struggling to Remain Relevant”; Scalamera, M. (2020) “The 2020 Oil Price Dive in a Carbon-Constrained Era: Strategies for Energy Exporters in Central Asia”. Analytical reviews of the media (such as South Asian Voices, Neftegaz.ru) and official data of companies/organizations (CEIC, Gazprom, The Shanghai Cooperation Organization) are also of considerable importance.

Prerequisites for the energy cooperation in the Central Asian region

Before considering the trends in the development of energy resources trade throughout Central Asia and giving a comprehensive assessment of its potential, it is necessary to outline the current situation in this area and determine the most significant milestones. It is also required for general understanding of the energy policy “motivation” of separate countries. And the first focus should be on importing countries, since they are the main engines of cross-border trade not only today, but also on the horizon of 2030–2050.

China is the biggest consumer of primary energy resources in Asia. More than 60% of China’s energy balance belongs to coal, and this is the only resource that the country is able to provide itself without buying abroad. Dependence on oil imports reached 70% in 2019 (here and further, the data are taken for 2019, because in 2020 and 2021 there was a strong negative impact of the pandemic); that year China’s total economic demand for crude oil was 420 million tons. The main suppliers are the countries of the Persian Gulf (50% in total), but in recent years the share of African countries such as Angola, Algeria, and Nigeria in oil imports has increased (about 20%) due to geopolitical tensions in the Middle East. In 2019 Russia accounted for 13% of China’s oil imports, and by 2022, its share may increase to 17% (China Energy Consumption, 2020).

Domestic natural gas production (about 140 bcm per year) ensures 60% of China’s needs, while imports amount to about 80 bcm a year with a total consumption of 220 bcm, according to 2019 data. Among the main LNG suppliers are Australia, Qatar, the United Arab Emirates, Malaysia, and Indonesia (up to 60%). Gas is also supplied

via a pipeline from Central Asia from the territory of Turkmenistan and Uzbekistan (35 bcm a year). The Power of Siberia gas pipeline, launched in December 2019, is expected to deliver natural gas from Russia with a maximum volume of 38 billion bcm a year (Gas 2020. Analyzing the Impact of the COVID-19 Pandemic, 2020).

China pays much attention to the development of renewable energy sector (RES). Currently, the country has 48 nuclear reactors at 17 nuclear power plants with a total capacity of 45.6 GW. As of December 2019, solar and wind power plants with a total installed capacity of 370 GW were operating in China. Taking into account the capacities of hydroelectric power plants, wherein China also ranks first in the world (352 GW), there are more than 700 GW of renewable energy. It is expected that RES will generate up to 60% of electricity in 2050 (China Power System Transformation, 2019). India largely follows the Chinese path with a lag of about 10–15 years. The main resource for energy supply is also coal, but, unlike China, India does not have sufficient coal deposits. Because of the annual GDP growth of 4–6%, which, according to experts, will be exactly preserved throughout the 2020s and even later, the demand for oil and gas is also increasing.

In 2019 India imported 250 million tons of coal, which is about two-thirds of its demand. The country's own natural gas and oil production is also low. In total, India consumed 220 million tons of oil and about 70 bcm of natural gas in 2019. Dependence on oil imports was 85%, gas imports was about 50%, despite the fact that consumption of these resources is growing rapidly, and India, in fact, does not enable to increase domestic production, so it is reasonable to expect strengthening in the trend of dependence on primary energy supplies from abroad. The main suppliers are the same countries of the Persian Gulf and the Middle East, South Africa, some other African countries, Brunei, Indonesia and Australia (India Energy Outlook, 2021).

The total installed capacity of renewables in India at the end of 2019 was about 90 GW. Wind energy capacities constituted 40 GW, solar energy included 35 GW, hydropower and biofuels were 15 GW. The government of the country has officially set a goal to bring the installed capacity of renewables to 450 GW by 2030 with the help of measures to stimulate private business in this area. However, estimating the average annual rate of construction of power plants based on renewable energy, the implementation of this plan looks doubtful (Renewable Energy Industry in India, 2021).

As for nuclear power plants (NPPs), India has been paying attention to the development of this type of generation only since the late 1980s. Currently, the country has 22 nuclear reactors at 7 nuclear power plants with a total capacity of about 7 GW. There are plans to build another 7 GW of nuclear capacities by 2030, and cooperation Russia's corporation Rosatom is of great importance here. Since the early 2000s, Rosatom has been building 6 power units at the Kudankulam nuclear power plant in India with a total capacity of 6 GW, which is the largest nuclear power facility in India. The completion of construction and commissioning of all power units is planned for 2025. Nowadays 2 reactors are actually in operation. Thus, India expects a significant growth in the contribution of NPPs for energy production (Schepers, 2019).

For Russia, as one of the world's largest energy exporters, Chinese and Indian markets plays a special role in both economic and geopolitical dimensions. Since

relations with the “old” energy partners (mainly the EU states) have not evolved in the best way in recent years, and now, as a result of sanctions, can even reach minimum levels for many decades, Russia is trying to diversify the geography of its energy exports (Chauhan, 2019). In this sense, the Central Asian states, such as Kazakhstan — partially included in the Eurasian Economic Union (EAEU) — provide good opportunities in terms of Russian energy resources transit and also form perspective markets for Russian technologies for the construction of energy infrastructure, in particular pipelines. As mentioned above, India and China are constantly increasing their energy imports. Therefore, there are still a lot of niches for Russian suppliers in domestic markets of these two countries.

It is obvious that in the context of energy resources trade China is a key export market for the Central Asian states. These countries are located in the depths of the Eurasian continent and are not able therefore to use sea trade routes. Accordingly, they need to invest in the construction of oil and gas transportation network, which becomes a field for the implementation of joint projects with China. Thus, the proven oil reserves in Kazakhstan amount to about 5 billion tons, in Uzbekistan it is 1 billion tons. The subsoil of Turkmenistan contains 19 tcm of natural gas (10% of global reserves), Kazakhstan — about 3.8 tcm and 2 tcm in Uzbekistan, and this is not all the confirmed reserves (BP Statistical Review of World Energy, 2020).

It is clear that Kazakhstan and Uzbekistan arouse increased interest from China’s oil and gas corporations. An additional factor is not only the convenient geographical location of the Central Asian states, but also the relative weakness of national political regimes. The elites are ready to seek support from strong neighbors, such as Russia and China, in return for providing them with favorable conditions within the framework of trade and investment cooperation in energy areas. The great importance of the Central Asian region for cross-border trade in energy resources is due to its geopolitical position and peculiarity of the economic structure of its member countries, which are poorly oriented towards the production of commodities with high added value and prefer to go a simpler “raw material” way.

The launch of the large — scale Chinese Belt and Road Initiative in the early 2010s further emphasized the importance of Central Asia for China as a conductor of its foreign energy policy. Russian companies invest more in a modernization of regional energy supply system as well. There are also projects for Indian companies to participate in the development of hydrocarbon deposits in Central Asia. But it is difficult to implement due to contradictory India-China bilateral relations and the high geostrategic risks of building pipelines to India’s northeastern territories.

Targets for the energy markets development in the countries under consideration

We consider these targets given the interests and long-term plans of the two unofficial alliances that form current energy landscape of the Central Asian region: these are the exporting and importing countries of energy resources. Russia comes first on the list of energy exporting countries. Russia’s state budget is approximately

formed by 50-60% on the basis of revenues from the primary energy resources' sale. Therefore, it leads to high risks of fiscal policy due to price fluctuations on the global markets as well as has a negative effect on macroeconomic stability. One of the measures to achieve such stability is the conclusion of long-term contracts with reliable and geopolitically "close" energy importers, which, without a doubt, belong both China and, to some degree, India.

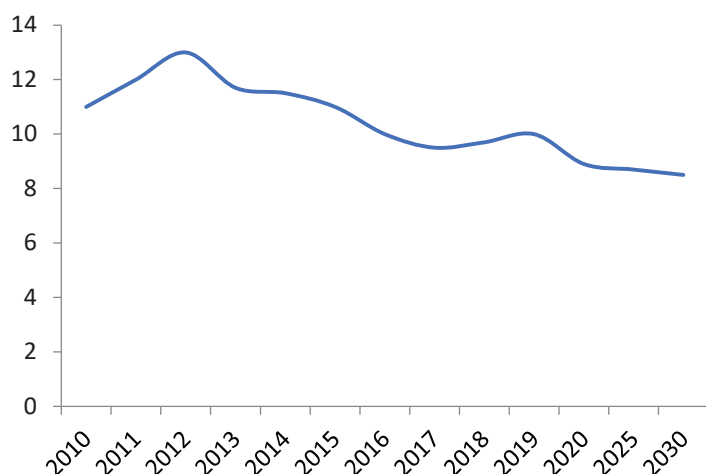


Figure 1. Russia's share in global energy exports until 2030, %

Source: Retrieved April 19, 2022, from <https://ourworldindata.org/energy/country/russia>; authors' finding

According to Figure 1, Russia's share of global energy exports is declining. 2030 as a forecast date is not chosen at random because the trends of the energy markets' development are the most indicative and predictable on a ten-year period. Russia is aimed at maintaining the status of an "energy superpower", but along with a reduction of the energy exports' share in budget revenues up to 40%. This means that with a gradual reduction in oil production, the energy trade structure will change in favor of natural gas, a "cleaner" type of fuel (Mitrova & Yermakov, 2019). As for the priority task of the energy development targets for the Central Asian states such as Kazakhstan and Uzbekistan, the major volume of energy exports will go to China in 2020s, but it needs foremost appropriate infrastructure.

In fact, China's Belt and Road Initiative (BRI seeks to build a regional community of shared interests and norms, where China desires to contribute to the system of global governance) in relation to Central Asia just assumes an increase in energy imports from these states. It turns out that China benefits threefold from this cooperation. Therefore, China invests in the creation of infrastructure, a profitable investment, then receives energy resources at prices below the global market and strengthens its geopolitical position in the region. It is also important that China has no real intention to change the governance and political regimes in Central Asia (Scalamera, 2020).

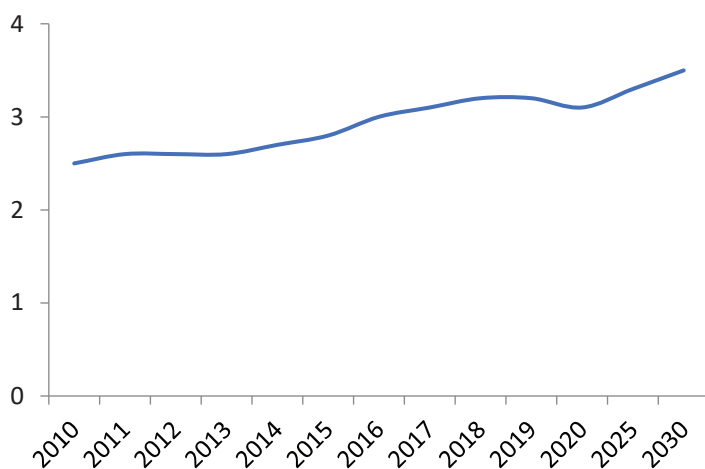


Figure 2. Kazakhstan's share in global energy exports until 2030, %

Source: Retrieved April 19, 2022, from <https://ourworldindata.org/energy/country/kazakhstan>; authors' finding

Such position fits well into the upward trend of energy exports from Kazakhstan (Figure 2). Obviously, that Kazakhstan's share in the world energy exports will gradually grow, mainly thanks to China. There are also prospects for increasing sales of Kazakh oil and gas through the transit system of Russia's pipelines to the European Union. The situation in Uzbekistan is slightly more complicated, as at the current rate of natural gas exports the main gas-condensate fields may be depleted by 2030 (Figure 3). However, Chinese and American companies have been actively conducting geological exploration in Uzbekistan for several years, and it is more than likely that new fields will be exploited by 2025. For example, in 2020 it was discovered a new gas well on the territory of the Kultak-Kamashinsky block in the Qashqadaryo region with reserves of more than 17 bcm (Scalamera, 2020).

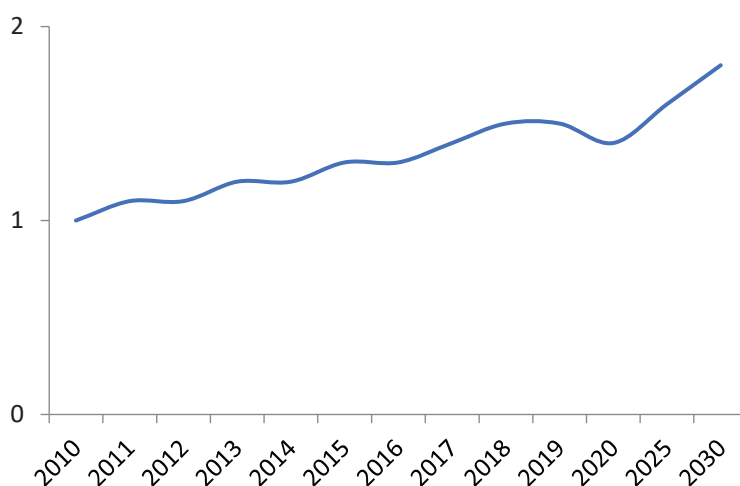


Figure 3. Uzbekistan's Share in Global Energy Exports Until 2030, %

Source: Retrieved April 19, 2022, from <https://ourworldindata.org/energy/country/uzbekistan>; authors' finding

As for Turkmenistan, then geological exploration works are continuing in the country with the participation of mainly Chinese specialists in order to search for and further develop new deposits (Figure 4). This is necessary to maintain Turkmenistan's position as one of the largest producers of primary energy resources in Asia and also in global markets. Therefore, we should expect a gradual increase in the volume of Turkmenistan's trade with neighboring countries. Exploration and development of oil and natural gas fields, such as Galkynysh (formerly South Yoloten), Osman, Minara, Tagtabazar-I and others, construction of gas treatment and processing units at the above mentioned fields and also development of gas-to-liquid (GTL) technology provides Turkmenistan an opportunity to become a crucial cross-border energy supplier in Central Asia, competing with Russia for the sales of pipeline gas to China.

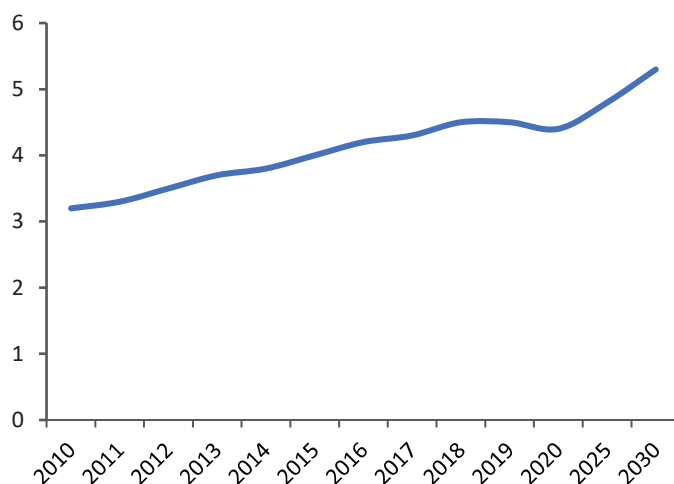


Figure 4. Turkmenistan's share in global energy exports until 2030, %

Source: Retrieved April 19, 2022, from <https://ourworldindata.org/energy/country/turkmenistan>; authors' finding

Russia's and Central Asian states' export energy policy is conditioned by the requirements of energy resources in India and China, two fundamentally important markets in Asia. Their importance will only increase in the long term period, and even taking into account statements about the transition to a carbon-neutral economy by 2060 (with a sharp increasing in the energy balance the share of renewable energy sources, including hydrogen), there is no sense to talk about abandoning primary energy resources. An assessment of India and China energy markets configuration is vital for making decisions about expanding/narrowing export destinations by the group of exporters. But this requires a detailed analysis of national strategies and plans, as well as long-term trends in the energy development of potential importing countries, e.g., in the area of expanding the role and importance of renewable energy, shifting priorities in favor of natural gas, hydrogen, etc. Such an analysis takes effort of the entire research groups and is out the article's tasks, but a brief description of the structure of Indian and Chinese energy consumption should be represented.

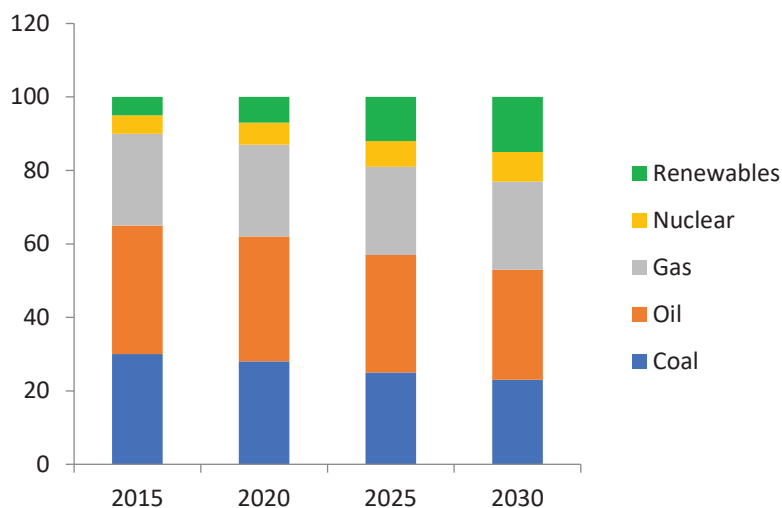


Figure 5. Structure of India's total energy demand, %

Source: Retrieved April 19, 2022, from <https://www.iea.org/reports/india-energy-outlook-2021>; authors' finding

By 2030, India's energy balance is not about to change significantly compared to 2020 that indicates the maintaining stable domestic demand for imported fossil fuels (Figure 5). India's GDP is projected to grow further by 4-6% a year, which leads to an extensive development of India's economics, namely, the construction of new energy, industrial, transport and housing infrastructure facilities. After 2030, it is expected the transition to an intensive type of development, that is the increasing of the energy production efficiency, a large-scale introduction of innovative technologies and intelligent industry management systems. Therefore, India's domestic market will have a high capacity for exporters of primary energy resources for a long time (India Energy Outlook, 2021).

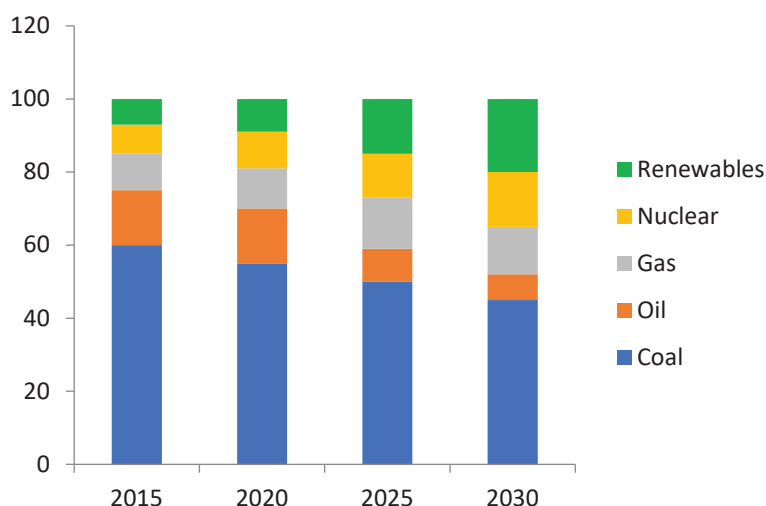


Figure 6. Structure of China's total energy demand, %

Source: Retrieved April 19, 2022, from <https://www.iea.org/reports/china-power-system-transformation>; authors' finding.

By 2030 mainly due to ecological challenges, the share of coal in China's energy balance is expected to significantly decrease, as the Chinese government aims to provide comfortable living conditions for its citizens, especially in metropolises. The share of oil will also shrink (Figure 6). Though the importance of natural gas will grow, after all, a complete transition to renewable energy and nuclear energy is not possible in any country in the world, as well as in China (China Power System Transformation, 2019). Such a situation preserves and even increases the niches for energy exporting countries in the given region. The main targets for the market's energy development for India and China are evident. First of all, it is timely and comprehensive provision of domestic needs to maintain high rates of economic growth. The matter concerns a gradual decline in the share of exports of "dirty" energy sources (coal, oil) in favor of "cleaner" ones such natural gas and renewable energy sources, including hydrogen. In addition, the task is to mitigate regional energy supply imbalances (different energy supply of provinces and individual territories) by expanding interstate energy trade zones.

Assessment of the cross-border energy trade potential

Cross-border energy resources trade throughout the Central Asian region has different dimensions and directions. The mechanism of multilateral coordination of the conclusion and implementation of energy contracts is only being discussed, as well as perspective projects for the joint construction of energy infrastructure (e.g., wind power stations and solar power stations).

Ultimately, several major projects have been already implemented. One of them is the Russian Eastern Siberia — Pacific Ocean (ESPO) oil pipeline, which has a branch leading to the border with China near Blagoveshchensk. Since 2011, 25–28 million tons of crude oil was annually delivered to China through this section, and its maximum throughput capacity is 30 million tons a year. Another 30 million tons of oil annually goes to China by tankers from the ports of the Russian Far East. So far, there are no concrete solutions for the construction of additional oil pipelines from Russia to China. However, there is a possibility of increasing sea supplies by expanding the capacity of both ESPO branches (ESPO Oil Pipeline, 2020). Thus, through this system, Russia will be able to supply China with about 80 million tons a year — a confident first place on the exporters' list.

This project was implemented jointly by Russia and China, but it has great infrastructural significance for Central Asia as an example of successful realization of a large-scale initiative based on state participation and also investment agreements between major energy players. Within the framework of cross-border trade, ESPO pipeline allowed to work out the appropriate mechanisms for concluding contracts and their maintenance, which is a good foundation for the future.

The same can be said about the second large-scale project — Power of Siberia gas pipeline that was commissioned at the end of 2019. The export capacity of this

route (which also connects with China in the Blagoveshchensk area) is 38 bcm of natural gas a year. The contract for its supply was originally signed for a 30-year period. During this time, China should receive about 1 tcm of Russian gas. In fact, this agreement has become an important economic and geopolitical foundation for the construction. It is likely that by 2030–2035, the second branch of the gas pipeline will be built, since the recoverable gas reserves in the fields of Eastern Siberia are about 3 tcm. China's demand for natural gas is only growing. In addition to pipeline gas, Russia supplies China with LNG of approximately 5 million tons with the prospect of increasing it to 15 million tons by 2030. So, it can be assumed that Russian gas will provide 40% of Chinese demand for this energy resource (Gazprom Project Data, 2021).

Despite the fact that total energy exports from Russia will decline, mainly due to a reduction in supplies to the EU markets. The ever-growing Asian market will provide a stable niche for Russia in this area, providing a “second breath” for its extractive industry. Geographical and geopolitical factors prevent the construction of the land transportation routes for energy resources from Russia to India. But a significant increase in LNG and oil supply by tankers is likely up to 10 million tons of oil and 5 million tons of LNG by 2025–2030 (Gas 2020. Analyzing the Impact of the COVID-19 Pandemic, 2020).

Central Asian states are strongly connected to Russia and China by energy transport infrastructure. Here can be mentioned the successful implementation of the idea of the Caspian Pipeline Consortium (launched in 2004), intended for the supply of Kazakh oil to the port of Novorossiysk (the Black Sea coast of Russia) for its further resale to consumers in the European Union and also some East Asian states besides China (Japan, South Korea). The annual volume of oil transportation through this system is about 70 million tons a year. In 2006, the Kazakhstan — China oil pipeline with a capacity of 15 million tons a year was put into operation. The average annual volume of oil transportation through it is 11 million tons (Chow & Hendrix, 2010).

In the field of natural gas trade, the situation is as follows. Since the Soviet era, Central Asia — Center gas pipeline system with a throughput capacity of 80 bcm of gas a year has been in operation. Passing through the territory of Turkmenistan, Uzbekistan and Kazakhstan to the regions of Central Russia, pipeline was the only energy transportation artery for given states. Nowadays, the volume of gas transportation is relatively small (about 10 bcm a year) due to a major accident in 2009 in Turkmenistan and pricing conflict between Gazprom (the sole buyer) and Turkmengaz as the most significant seller, that occurred in 2015 (Alifirova, 2016). This transportation system should be modernized, as well as it requires large investments with a payback period of up to 10 years.

In 2013 three sections of the Central Asia — China gas pipeline with a total throughput capacity of 55 bcm a year were completed thanks to the credits of Chinese investors. In fact, now 35 bcm of gas are delivered annually through this route from Turkmenistan, 10 bcm from Uzbekistan and 6 bcm from Kazakhstan. Since 2014, a feasibility study for the construction of the fourth section of this gas pipeline with

a capacity of up to 30 bcm a year has been conducted (Ralph, 2014). Thus, China by 2030 can provide more than 60% of the domestic market demand for natural gas through supplies from Russia and Central Asia. Discussions are also continuing on projects to build a pipeline to India from Central Asia through China or Afghanistan, if the domestic political situation there allows. In the meantime, the most likely scenario is that Russia may become an intermediary in oil and gas trade between the states of Central Asia and India. For this purpose, Russian infrastructure, created for trade with China and other Asian states, can be used.

Conclusion

In addition to the countries mentioned in the article, the Central Asian region also includes Kyrgyzstan and Tajikistan. Kyrgyzstan does not get any significant oil, gas and coal reserves, but has excellent natural and climatic conditions for the development of renewable energy. Tajikistan also has few hydrocarbons, but meaningful gold reserves (about 500 tons). Moreover, from a perspective of hydropower potential Tajikistan ranks the 8th place in the world, equivalent to generating annually 527 billion kWh of electricity. No wonder that China and Russia have stakes in gold mining companies and offer projects for the construction of hydroelectric power plants, wind power and solar power plants in these countries (The Energy Sector of the Republic of Tajikistan, 2019).

It is necessary to briefly consider the role and influence of geopolitical factors on the cross-border energy trade in the region under consideration. In the early and mid-2000s, these geopolitical factors did not play a special role in this process, but the situation changed in the 2010s. On the one hand, China started consistently and persistently promoting its own agenda of trade and economic integration in the Asia-Pacific region. Sooner such a situation led to certain contradictions with the United States, Japan, and Australia that stand for a liberal international trade regime. On the other hand, in 2014–2015 Russia faced serious sanctions from the EU and the United States that predictably accelerated the process of rapprochement with China and strengthening of cooperation within BRICS and the SCO.

The main feature of cross-border energy trade in the Central Asian region is the active involvement of non-regional players in the process, which are included in the list of leading world powers and have global interests in energy trade. Thus, purely local issues are becoming weightier in the context of the national interests of major players seeking to ensure their energy security. The nature of the energy policy pursued by all the parties concerned in Central Asia is implemented in the long term perspective and is based on partnerships (even more — “friendly relations”, stemming from a common vision of regional development models) that often going beyond the conclusion of standard supply contracts and requires full consensus.

It is obvious the energy agenda today is still in great demand and this trend will only increase in the foreseeable future. So, it is difficult for China to develop without Russian and Central Asian energy resources. Russia and

Central Asian states face difficulties in consumer markets without Chinese manufacturing products, supplies of digital techniques, high-tech materials and equipment as well.

References

- Alifirova, E. (April 2016). Gazprom Resumed Gas Purchases in Turkmenistan. *Neftegaz.ru*. (In Russ.) Retrieved April 6, 2022, from <https://neftgaz.ru/news/transport-and-storage/442490-uregulirovano-gazprom-vozobnovil-zakupku-gaza-v-turkmenistane/>
- BP (2020). *BP Statistical Review of World Energy*. Retrieved April 8, 2022, from <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2020-full-report.pdf>
- Chauhan, P. (July 2019). Cooperation against Competition: India and China in the Energy Sector. *South Asian Voices*. Retrieved April 15, 2022, from <https://southasianvoices.org/cooperation-against-competition-india-china-energy-sector/>
- China Energy Consumption (2020). *CEIC data*. Retrieved April 11, 2022, from <https://www.ceicdata.com/en/china/energy-consumption>
- China Power System Transformation (2019). *International Energy Agency Technology Report*. Retrieved April 14, 2022, from <https://www.iea.org/reports/china-power-system-transformation>
- Chow, E., & Hendrix, L. (2010). Central Asia's Pipelines: Field of Dreams and Reality. *The National Bureau of Asian Research Special Report*, 23, 1–42.
- Gas 2020. Analyzing the Impact of the COVID-19 Pandemic on Global Natural Gas Markets (2020). *International Energy Agency Fuel Report*. Retrieved April 18, 2022, from <https://www.iea.org/reports/gas-2020/2019-cool-down>
- Gazprom Project Data (2021). *Power of Siberia Gas Pipeline. The Largest Gas Transportation System in the East of Russia*. Retrieved April 19, 2022, from <https://www.gazprom.ru/projects/power-of-siberia/>
- India Energy Outlook 2021 (2021). *International Energy Agency Flagship Report*. Retrieved April 20, 2022, from <https://www.iea.org/reports/india-energy-outlook-2021>
- Mitrova, T., & Yermakov, V. (2019). *Russia's Energy Strategy 2035: Struggling to Remain Relevant*. Paris: French Institute of International Relations Publication, 40 p.
- Ralph, W. (2014). China's New Energy Geopolitics: The Shanghai Cooperation Organization and Central Asia. *The German Journal on Contemporary Asia*, 133, 24–51. <http://hdl.handle.net/10419/109043>
- Renewable Energy Industry in India (2021). *India Brand Equity Foundation Data*. Retrieved April 20, 2022, from <https://www.ibef.org/industry/renewable-energy.aspx>
- Scalamera, M. (2020). The 2020 Oil Price Dive in a Carbon-Constrained Era: Strategies for Energy Exporters in Central Asia. *International Affairs*, 96(6), 1623–1642. <https://doi.org/10.1093/ia/iaaa164>
- Schepers, N. (2019). Russia's Nuclear Energy Exports: Status, Prospects and Implications. *Non-Proliferation and Disarmament Papers*, 61, 1–15.
- The Energy Sector of the Republic of Tajikistan (2019). *Ministry of Foreign Affairs of the Republic of Tajikistan*. Retrieved April 23, 2022, from <https://mfa.tj/en/main/view/185/the-energy-sector-of-the-republic-of-tajikistan>
- The ESPO (Eastern Siberia Pacific Ocean) Oil Pipeline. (2020). *Hydrocarbons Technology*. Retrieved April 25, 2022, from <https://www.hydrocarbons-technology.com/projects/espopipeline/>
- The Shanghai Cooperation Organization Official Data (2021). Retrieved April 26, 2022, from <http://eng.sectsco.org/docs/about/faq.html>

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