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# Security Review

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**Impact of the Russia-Ukraine War on the Global Energy Policy**

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As a result of the Russian military aggression that started in Ukraine on February 24, 2022, fundamental changes are expected in the global energy policy, as Russia, rich in energy resources as it is, is one of the main actors in that field. The degree of dependence of EU member states on Russian gas and oil is so high that despite the sharp confrontation with Moscow, it is impossible to completely abandon the import of Russian energy resources in the short term. The solution in the relatively long term is the development of alternative energy routes and sources, which requires time and finances.

### **Russia's role in the global energy policy**

#### *Russian oil exports*

In January 2022, the production of crude oil and condensate in Russia reached 11.3 million barrels per day. In December 2021, Russian oil exports were 7.8 million barrels per day, 60% of which were exported to Europe. Russian oil imports to Europe were 4.5 million barrels per day (34% of total imports). Europe received 750,000 barrels per day through the “Druzhba” pipeline system, including 250,000 barrels via Ukraine.<sup>1</sup>

#### *Russian gas exports*

Russia is the world's largest gas exporter. In 2021 alone, Russia produced 762 billion cubic meters of gas, of which 210 billion was exported through pipelines.<sup>2</sup> Russia exports a large part of its gas to Europe through the pipeline network. In this regard, we can distinguish the pipelines that connect to European countries through the transit states (Ukraine and Belarus) and pipelines (“Blue Stream”, “TurkStream”, and “Nord Stream”), which were built in recent years to reduce dependence on transit countries, especially Ukraine.<sup>3</sup>

In 2021, the EU imported 155 billion cubic meters of gas from Russia (140 billion in the form of pipeline gas and 15 billion in the form of liquefied gas), that is 380 million cubic meters per day, which was 45% of EU imports, and 40% of gas consumption in the EU. In 2017 and 2021, the total gas consumption of the European Union and Great Britain was 495 billion cubic meters, in 2018 - 482 billion, in 2020 - 478 billion.<sup>4</sup>

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<sup>1</sup> International Energy Agency. 2022. “Oil Markets and Russian Supply”. <https://www.iea.org/reports/russian-supplies-to-global-energy-markets/oil-market-and-russian-supply-2>.

<sup>2</sup> International Energy Agency. 2022. “Energy Fact Sheet: Why does Russian oil and gas matter?”. <https://www.iea.org/articles/energy-fact-sheet-why-does-russian-oil-and-gas-matter>.

<sup>3</sup> International Energy Agency. 2022. “Gas Market and Russian Supply”. <https://www.iea.org/reports/russian-supplies-to-global-energy-markets/gas-market-and-russian-supply-2>.

<sup>4</sup> Mike Fulwood, Jack Sharples and James Henderson. 2022. “Ukraine Invasion: What this Means for the European Gas Market”. *Oxford Energy Comment, The Oxford Institute for Energy Studies*. 1-14. <https://www.oxfordenergy.org/publications/ukraine-invasion-what-this-means-for-the-european-gas-markets/>.

## **The Western response to the Russian military aggression**

At this stage, the European Union has imposed six packages of sanctions on Russia. In the 5th package of sanctions, the purchase, import, and transit of coal from Russia was to be prohibited by August 2022, amounting to a loss of 8 billion USD per year for Russia.<sup>5</sup>

In the 6th package of sanctions, by December, the EU will refuse to buy Russian crude oil, which EU countries receive by sea, amounting to 2/3 of the EU's imported Russian crude oil. Two months later, the import of all kinds of Russian oil products will also be banned. At this stage, for an unknown period of time, no embargo will be imposed on the transportation of Russian crude oil through the "Druzhba" pipeline. If we take into account that in 2021, the European Union imported 48 billion Euros worth of crude oil and 23 billion Euros worth of oil products from Russia, the ban on Russian oil will significantly reduce Russia's revenues. At the same time, the West is prohibiting EU companies from insuring tankers transporting Russian oil.<sup>6</sup> No sanctions have been imposed on gas imports at this stage, however, even before the start of the war, Germany suspended the implementation of the "Nord Stream-2" project (the gas pipeline connecting Russia and Germany).<sup>7</sup>

In parallel with the sanctions, a number of international energy companies announced their immediate or phased withdrawal from the Russian market. It will be a significant blow to the Russian energy sector if companies "Schlumberger", "Baker Hughes", and "Halliburton," which provide the Russian energy sector with advanced technologies and services, leave the Russian market.<sup>8</sup>

## **How should the EU replace Russian gas and oil?**

### *The 10-point plan*

According to experts of the International Energy Agency, the European Union, if it implements a package of measures compatible with the "European Green Agreement", will be able to reduce Russian

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<sup>5</sup> Press release. "Ukraine: EU agrees fifth package of restrictive measures against Russia". 2022. [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_22\\_2332](https://ec.europa.eu/commission/presscorner/detail/en/IP_22_2332).

<sup>6</sup> Jan Strupczewski. 2022. "Factbox: EU's 6th sanctions package against Russia, including oil". *Reuters*, June 3, 2022. <https://www.reuters.com/markets/europe/eus-6th-sanctions-package-against-russia-including-oil-2022-06-03/>.

<sup>7</sup> Sarah Marsh and Madeline Chambers. 2022. "Germany freezes Nord Stream 2 gas project as Ukraine crisis deepens". *Reuters*, February 22, 2022, <https://www.reuters.com/business/energy/germanys-scholz-halts-nord-stream-2-certification-2022-02-22/>.

<sup>8</sup> James Henderson. 2022. "Thoughts on the impact of foreign companies exiting the Russian oil and gas industry". *The Oxford Institute for Energy Studies, Energy Insight: 112*: 1-18. <https://www.oxfordenergy.org/publications/thoughts-on-the-impact-of-foreign-companies-exiting-the-russian-oil-and-gas-industry/>.

gas imports by a third by the end of the year.<sup>9</sup> Agency experts have developed a 10-point plan.<sup>10</sup> If the EU tries to cut off Russian gas more quickly, it may also need to take less popular steps, such as increasing the use of coal in the energy sector.

If the 10-point plan is implemented, experts predict that the European Union will be able to compensate the losses gradually: during the year, it will be possible to receive 30 billion cubic meters of gas from alternative sources, including Azerbaijan and Norway. It is also possible to save energy as a result of various measures, for example, by lowering the heating temperature by 1 degree.<sup>11</sup>

### *The EU's Plan*

In response to the energy crisis, the European Commission presented a plan – the "REPowerEU Plan"<sup>12</sup> on May 18, 2022, its goal to quickly reduce dependence on Russian fossil fuels. The EU's plan looks more optimistic and ambitious than the 10-point plan.<sup>13</sup> According to the plan, in the short term, the demand for gas should be reduced, yielding immediate results. The member states of the European Union pay 1 billion US dollars per day to Russia for the import of energy resources. In the period February 27-March 27, the EU paid four times more to Russia for energy imports than it helped Ukraine. In the medium term, oil and gas imports should be diversified, the role of the Southern Energy Corridor should be increased, and new infrastructure should be built, including liquefied gas terminals. Long-term measures envisage increasing the use of renewable resources in overall energy production.<sup>14</sup>

It is expected in the EU that by the end of 2022, it will be possible to reduce the import of 155 billion cubic meters of Russian gas by 2/3 (101.5 billion cubic meters). To achieve this goal, it is necessary to increase the import of liquefied gas by 50 billion cubic meters, expand the import of pipeline gas by an additional 10 billion, and intensify the production of biomethane by 3.5 billion. In parallel, in addition, it is possible to save 38 billion cubic meters with energy saving measures across the EU.<sup>15</sup>

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<sup>9</sup> As a result of the implementation of the measures planned within the framework of the Green Agreement adopted in 2020, the European Union should become climate-neutral by 2050. See in detail: European Union, <https://eu4georgia.eu/ka/green-deal/>.

<sup>10</sup> International Energy Agency. 2022. "How Europe can cut natural gas imports from Russia significantly within a year". <https://www.iea.org/reports/a-10-point-plan-to-reduce-the-european-unions-reliance-on-russian-natural-gas>.

<sup>11</sup> International Energy Agency. 2022. "A 10-Point Plan to Reduce the European Union's Reliance on Russian Natural Gas". <https://www.iea.org/reports/a-10-point-plan-to-reduce-the-european-unions-reliance-on-russian-natural-gas>.

<sup>12</sup> See the document: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A230%3AFIN&qid=1653033742483>.

<sup>13</sup> European Commission, Press release. 2022. "REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition". [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_22\\_3131](https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131).

<sup>14</sup> Ilaria Conti, James Kneebone. 2022. "A first look at REPowerEU: The European Commission's plan for energy independence from Russia". *Florence School of Regulation, European University Institute*. <https://fsr.eui.eu/first-look-at-repowereu-eu-commission-plan-for-energy-independence-from-russia/>.

<sup>15</sup> Mike Fulwood, Anouk Honore, Jack Sharples, Marshall Hall. 2022. "The EU plan to reduce Russian gas imports by two-thirds by the end of 2022: practical realities and implications". *The Oxford Institute for Energy Studies*,

### **What will change for Russia?**

Many countries of the world depend on the import of energy resources from Russia; however, Russia's income also largely depends on the export of oil and gas, comprising 45% of the Russian federal budget in 2021. In the last year alone, due to high prices on energy resources, Russia received 400 billion Euros from oil and gas exports to Europe.<sup>16</sup> The gradual rejection of Russia's energy resources by the West, and especially the EU countries, will progressively reduce Russia's income, precipitating severe economic and political consequences for Moscow.

The withdrawal of Western companies from the Russian market, like the sanctions, will have an impact in the medium term rather than the short term. The development of Russia's liquefied gas sector and oil fields located in rough climatic areas will be especially difficult, as Western technologies and knowledge play a crucial role in these areas.<sup>17</sup>

### **What will change for Ukraine?**

As a result of the construction of new pipelines (Nord Stream, TurkStream), Ukraine's importance for Russia as a transit nation decreased in recent years. In 2021, 25% of Russia's pipeline gas to the EU and the UK went through Ukraine, down from 60% in 2009.<sup>18</sup> Despite the reduction of the transit function, Ukraine still received 2 billion USD per year for the transit of Russian gas. Due to the war and Western sanctions, these revenues will be lost for Ukraine.

At the same time, since the beginning of the hostilities, the Russian armed forces have destroyed or damaged much of the energy infrastructure. By the end of March, electricity consumption in Ukraine had decreased by 30%, electricity production by 40%, gas production by 15%, and coal production by 30%. In the warzone, the compression stations which ensured the transportation of Russian gas to Europe through Ukraine, were closed.<sup>19</sup> After the cessation/slowing down of hostilities, the main challenge for Ukraine will be to restore the aforementioned energy infrastructure.

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*Energy Insight: 110.* 1-28. <https://www.oxfordenergy.org/publications/the-eu-plan-to-reduce-russian-gas-imports-by-two-thirds-by-the-end-of-2022-practical-realities-and-implications/>.

<sup>16</sup> Jake Horton, Daniele Palumbo & Tim Bowler. "Russia sanctions: Can the world cope without its oil and gas?". *BBC*, 31 May, 2022, <https://www.bbc.com/news/58888451>.

<sup>17</sup> James Henderson. 2022. 17.

<sup>18</sup> International Energy Agency. 2022. "Gas Market and Russian Supply". <https://www.iea.org/reports/russian-supplies-to-global-energy-markets/gas-market-and-russian-supply-2>.

<sup>19</sup> Claudia Carella. 2022. "Ukraine: the war fought on the energy front. Interview with Ukrainian energy expert Maryna Ilchuk". *Florence School of Regulation*. <https://fsr.eui.eu/ukraine-the-war-fought-on-the-energy-front/>.

## The Southern Energy Corridor – An Alternative Route

One of the most important alternative gas import routes for EU countries is the Southern Energy Corridor.<sup>20</sup> Since January 2021, Azerbaijan has been supplying Greece and Italy with gas through the territory of Georgia and Turkey via the Trans-Anatolian pipeline (TANAP - on the territory of Turkey) and the Trans-Adriatic pipeline (TAP - from the Turkey-Greece border to Italy). The capacity of TAP is 10 billion cubic meters, of which 8 billion is for Italy and 1 billion for Greece and Bulgaria. Considering the current capacity of the pipeline, the European Union could import an additional 2.85 billion cubic meters of gas from Azerbaijan.<sup>21</sup>



*Azerbaijan-Europe connecting gas pipeline. Source: [bankwatch.org](http://bankwatch.org)*

Although, at this stage, the opportunities to maximize the gas export from Azerbaijan are limited, as a result of the implementation of further infrastructure projects, it will be possible to export an additional amount of gas in several years. In the long term, the Southern Energy Corridor may also carry Turkmen gas. For this, it will be necessary to build a pipeline connecting Turkmenistan-Azerbaijan at the bottom of the Caspian Sea. Turkmen gas has been a target of gas importing countries for a long time; however, due to the lack of necessary political support and finances, the project was not able to get off the ground. In the newly created geopolitical reality, there is an opportunity to partially replace Russian gas with Turkmen supplies.

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<sup>20</sup> The Southern Energy Corridor also includes the Southern Gas Corridor, which is an initiative of the European Commission, and aims to transport Caspian and Middle Eastern gas to Europe. Its goal is to reduce Europe's dependence on Russian gas and improve gas supply security.

<sup>21</sup> Mike Fulwood, Anouk Honore, Jack Sharples, Marshall Hall. 2022. 13-14.

At the same time, as a result of the technical renewal of the existing energy infrastructure, it will be possible to transport more oil from Azerbaijan through the oil pipelines crossing Georgia (the Baku-Supsa and Baku-Tbilisi-Ceyhan pipelines). And in the future, this route can also serve to carry oil from the countries of Central Asia.

### **Main conclusions**

- The European Union will manage to abandon the import of Russian oil sooner than Russian gas. By the end of 2022, the EU could reduce oil imports from Russia to a minimum level, which will be a big financial blow to Russia. As a result of the already announced sanctions, Russia could lose 1/3 to 50% of its oil revenues.
- Replacing Russian gas in 2022 will be a difficult task. According to the developed plan, the European Union should free itself from its dependence on Russian energy resources by 2027, while, by the end of the year, it should find ways to replace 101.5 billion cubic meters of Russian gas, which is quite an ambitious plan. It is more possible to reduce gas consumption and use more renewable energy resources in electricity production in the long term, by 2030. However, before that, it will have to be decided how to proceed in the next 2-3 years.
- One of the ways for the EU to replace Russian energy resources is to develop alternative routes. In this regard, special importance is attached to the development of the Southern Energy Corridor, which implies the transit of additional oil and gas resources on the territory of Georgia. The increase in the technical capacity of the existing pipelines will make it possible for the European Union to receive more Caspian (Azerbaijani, Turkmen, Kazakh) resources.
- As a result of the embargo on Russian oil and gas exports, Russia's revenues will gradually decrease. As part of the strategy to reduce dependence on the European export market, the Eastern Siberia-Pacific Ocean pipeline system and the "Power of Siberia" gas pipeline have already been put into operation. However, despite the existence of the pipeline system in the east, Russia will not be able to completely replace the export market of the West, as there is no proper infrastructure to do so at this stage. At the same time, Asian consumers are paying much less for Russian oil and gas in the current situation.
- As a result of the sanctions imposed on the import of energy resources from Russia, fuel prices have already increased in the West, which, most likely, will rise further throughout the year. The inflation caused by the current events will be an additional load for the population.<sup>22</sup> Increased energy prices will directly affect consumers and businesses. High prices in the energy sector will directly affect the cost of production and therefore raise the price of food products.<sup>23</sup>

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<sup>22</sup> "War in Ukraine: West hits Russia with oil bans and gas curbs". *BBC*, March 9, 2022, <https://www.bbc.com/news/world-us-canada-60666251>.

<sup>23</sup> Peter Levi, Gergely Molnar. 2022. "How the energy crisis is exacerbating the food crisis". *International Energy Agency*, 14 June, 2022, <https://www.iea.org/commentaries/how-the-energy-crisis-is-exacerbating-the-food-crisis>.



