

Dear Ladies and Gentlemen,

When analysing a project, it is important to see not only what its initiators show, but also what they ignore and try to hide. The Nord Stream 2 is such a project, where there is something that is overlooked and something that is carefully hidden.

As you know, greenhouse gases are not just CO₂. Conventional natural gas - methane CH₄ - "helps" global warming much more efficiently than CO₂. Its greenhouse potential is 25-84 times higher than the carbon dioxide potential. The harmful effects of methane emissions into the atmosphere appeared in scientific research only in the early 2000s. In Russia, this has been highlighted in studies by the Arctic and Antarctic Research Institute (AARI), the Siberian Branch of the Russian Academy of Sciences in the context of the development of Arctic gas and oil fields, construction of the Nord Stream pipelines, and natural gas liquefaction projects on the Yamal Peninsula.

According to the German federal government, the strongest argument in favour of Russia's Nord Stream and Nord Stream 2 projects is the greater use of natural gas as a transition fuel to achieve the goals of decarbonisation and climate neutrality. Indeed, CO₂ emissions from gas combustion are on average one-third lower than emissions from coal or oil combustion. That is, by using gas from Nord Streams, they say, you can get a significant reduction in CO₂ emissions in the atmosphere over Germany and the EU. The pipelines themselves do not emit anything into the atmosphere, because these are sealed pipes that lie at the bottom of the Baltic, they do not have gas compressor stations that emit CO₂ and methane.

But this argument is false. The Nord Stream 2 is only a 1,200-kilometer offshore section of the new gas transmission system from the Bovanenka gas field on the Yamal Peninsula to the German-Czech border with a total length of 4,700 km. That is, **it is necessary to estimate the total effect of reducing greenhouse gas emissions not only because of the local effect in Europe, but also considering the entire pipeline route with dozens (!) of compressor stations using natural gas as fuel.** After all, methane and CO₂ emissions into the atmosphere occur in Yamal and on the route to Europe.

Therefore, a certain reduction in CO₂ emissions in Germany due to greater use of gas from Russian streams, will respond to additional CH₄ emissions in Yamal and together with CO₂ on the route to Europe. Because methane is tens of times more aggressive than carbon dioxide, the overall reduction in greenhouse gas emissions seems questionable. Given the order of magnitude more aggressive methane compared to CO₂, this means that **the positive effect of reducing CO₂ emissions in Europe will**

be completely "neutralized" by the negative effect of increasing CH4 and CO2 emissions in Yamal and over the gas route to the EU!

Loud figures for reducing CO2 emissions amid tacit agreement with increasing emissions of more aggressive CH4 are the wrong way to achieve the Green Deal's goals for Europe. After all, **the Earth's atmosphere is the same both over Germany and over Yamal.** Therefore, the arguments of supporters of NS2 about the environmentally friendly project, at least, are incorrect and frankly - false.

By the way, the German Institute for Economic Research believes that to achieve the EU's climate goals by 2030, it is necessary to halve the share of gas in the energy balance, and by 2040 - to abandon it altogether. A recent report by the "Scientists for the Future", a group of scientists created in 2019 in Germany, Austria and Switzerland, notes that, **given methane emissions from natural gas production and transportation, expanding its use could have the same negative climate impact, as well as the use of coal. What does Nord Stream 2 look like in this context with its 50-year life cycle?**

Scientists in Russia itself are also sounding the alarm about increased methane emissions from the Arctic due to industrial activities to develop oil and gas deposits. A feature of the Yamal, as well as most of the Arctic coast of Russia, is the saturation of the permafrost layer with methane hydrates - a very unstable ice-like mixture of methane and water. Global warming has destabilized the permafrost in the Arctic, it has begun to melt, and with it the permafrost deposits of methane hydrates have begun to degrade, releasing large amounts of methane into the atmosphere. Looking at the satellite monitoring data of the European Space Agency, local anomalies of high concentrations of methane in the atmosphere over the Yamal are due to increased anthropogenic emissions in areas of active gas production and transportation. It was in the Yamal in 2010s that the phenomenon of cryovolcanism, unusual for Earth, appeared, caused both by the natural explosive emission of methane from the permafrost and stimulated by the industrial activity of Russian companies in the fragile Arctic nature.

Therefore, development of the Arctic gas and oil fields and the construction of long-distance transcontinental pipeline infrastructure by Russia is a global environmental and climate crime. The accomplices of this crime at the European end of the pipeline are several German federal governments, led by Angela Merkel, during whose chancellery the first Nord Stream was put into operation, and now she tries to complete the Nord Stream 2 pipeline.

Conclusions and recommendations

- 1. We need an American-European green initiative to ban the development of fossil resources (coal, oil, gas) in the Arctic regions, where they lie under a layer of permafrost saturated with methane hydrates. First of all, in the Russian Arctic - in Yamal, where Gazprom and Novatek operate, and in**

Taimyr, where Rosneft's VostokOil megaproject is launched. Of course, Russia will ignore such a ban. Then the EU, if it is committed to the Green Deal, needs to introduce an additional anti-emission tax on Arctic gas and oil imported by EU companies in an amount that will make investments of Russian and foreign companies in Arctic production obviously unprofitable.

2. The Nord Stream 2 with its 50-year life cycle, in this context, is not only superfluous, but also, given the above - harmful. Any talks with Russia on combating global climate change should begin with a demand to halt the increase in gas production in the Yamal, the development of oil deposits in the Taimyr and the abandonment of plans to develop new hydrocarbon fields in the Arctic. **The Nord Stream 2 project should be stopped as a matter of priority.** A positive example in this context is the US administration's ban on oil development in the Arctic sector of Alaska. **What is needed now is an American-European "operation to force Russia to abandon the development of Arctic hydrocarbon deposits."**

Now briefly about corruption as the second important aspect of Nord Stream 2.

You can see that Gazprom is very fond of Switzerland, which has many offices of its subsidiaries that do business in the European Union. One of the features of Swiss commercial law is that it does not require public financial reporting. Although bearer shares officially ceased to exist in April this year, the lack of transparency in the financial activities of joint stock companies is generally maintained. This is optimal for schemes of "elegant corruption". In the case of Russian gas pipeline projects, the canton of Zug is a convenient place for "Schröderization" of the European politicians. Russia's opposition leader Gary Kasparov described the Kremlin's policy aptly: "Europe has failed to export democracy to Russia. But Putin has managed to export corruption to Europe," "Russia's biggest export is not gas or oil, but corruption."

If Nord Stream 2 succeeds, it can be said that these exports will bring the biggest dividends to the Kremlin kleptocracy and its German partners. The shareholder agreement between the project participants stipulates that the Swiss company-operator will receive payment for gas transportation services from the moment of its commissioning, regardless of whether it will contain gas at all and in the amount equivalent to the maximum design capacity of 55 billion cubic meters per year. This explains why Gazprom and its partners are trying to complete at least one line and make a formal commissioning ceremony. After that, another engine of the Kremlin's pan-European corruption will start working.

From this moment, more than \$ 1.4 billion a year will drip over 50 years into the account of the Swiss company Gazprom and be distributed opaquely to "the right people" in Europe. Thus, not only gas flows will be managed by the Russian-German tandem. The money flow also would be managed through the canton Zug in Switzerland, where, presumably, the main operating offices of the "streams" are

located nearby, but outside the EU, and they regularly "pump money" regardless of the volume of gas transportation. Therefore, it is not surprising why the network of influences of the Kremlin gazocracy is so extensive in the United States and Europe, as was brilliantly shown in the research by Kateryna Smagliy and Ilya Zaslavsky two years ago.

Therefore, the Biden administration's intention to refrain from sanctioning Nord Stream 2 looks like a capitulation of American democracy to Russia's gazocracy and corruption and will result in further "Schröderization" of European politicians. In the future, this will only lead to even greater Russian-German rapprochement with a simultaneous strengthening of anti-Americanism in Europe.

It is necessary to initiate an international study of the activities of the Swiss offices of Gazprom's subsidiaries. The solution is approaching. It will come in the coming months. In this context, it seems that the time has come for Kyiv and Warsaw to join forces with their allies on the banks of the Potomac and Spree to encourage Washington and Brussels to take decisive action to stop the "bad deal for Europe" forever.