CUTTING THE TENTACLES OF RUSSIAN ENERGY 'OCTOPUS'

DiXi Group follows on the series of materials aimed at exploring the foreign ties of key Russian energy companies for the elaboration of proposals for expanding sanctions limiting the international influence of the Russian energy sector.

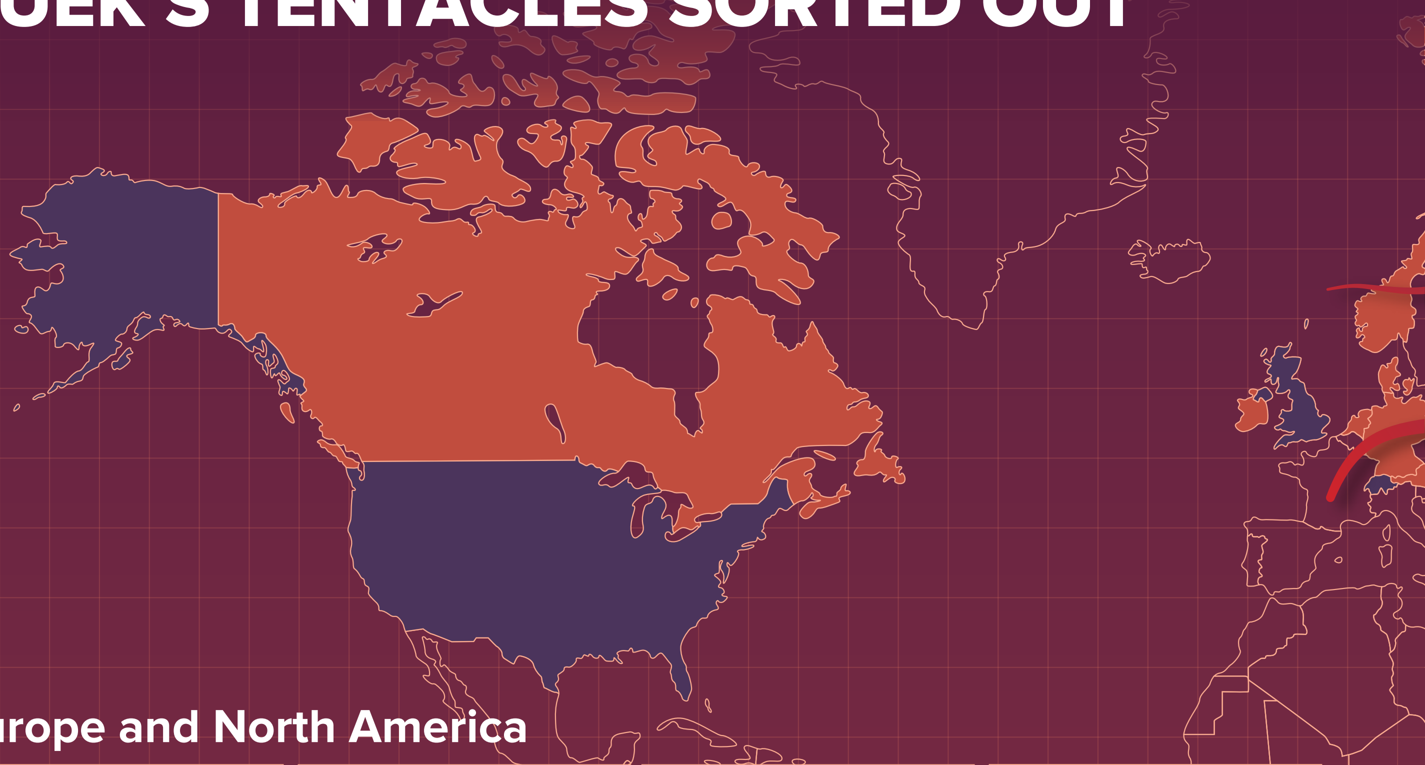
SUEK

dixigroup ANALYTICS ON DUTY

INTERNATIONAL RENAISSANCE FOUNDATION

The paper was prepared with the support of the International Renaissance Foundation. The material reflects the position of the authors and does not necessarily reflect the position of the International Renaissance Foundation.

SUEK'S TENTACLES SORTED OUT



Europe and North America

GERMANY
Hamburger Energiewerke GmbH
trade
EnviroChemie GmbH
tech&service
GeCma Components Electronic GmbH
Commerzbank
finance

POLAND
SUEK Polska Ltd, Barter Coal Sp.Z.o.o.
office

LITHUANIA
UAB Suek Baltic
office

AUSTRIA
Unicredit Bank Austria AG
finance

DENMARK
JSC Nordea Bank
finance

IRELAND
Intesa Sanpaolo Bank Ireland PLC
finance

NETHERLANDS
ING Bank NV
finance

LUXEMBOURG
SGBT Asset Based Funding SA (Societe Generale Group)
finance

SWITZERLAND
SUEK AG headquarters
office
SUEK Logistics
logistics
Asea Brown Boveri Ltd
tech&service

NORWAY
Golden Ocean Management AS
logistics

UK
UAB Suek Baltic
office
Eurotherm Technology
tech&service
Renaissance Capital, Rabobank London
finance

US
SUEK AG Corp, SUEK US LLC
office
Bank of America, City Group
finance

CANADA
Asea Brown Boveri Ltd
tech&service

Plans – MoU, no formal agreements regarding any sphere

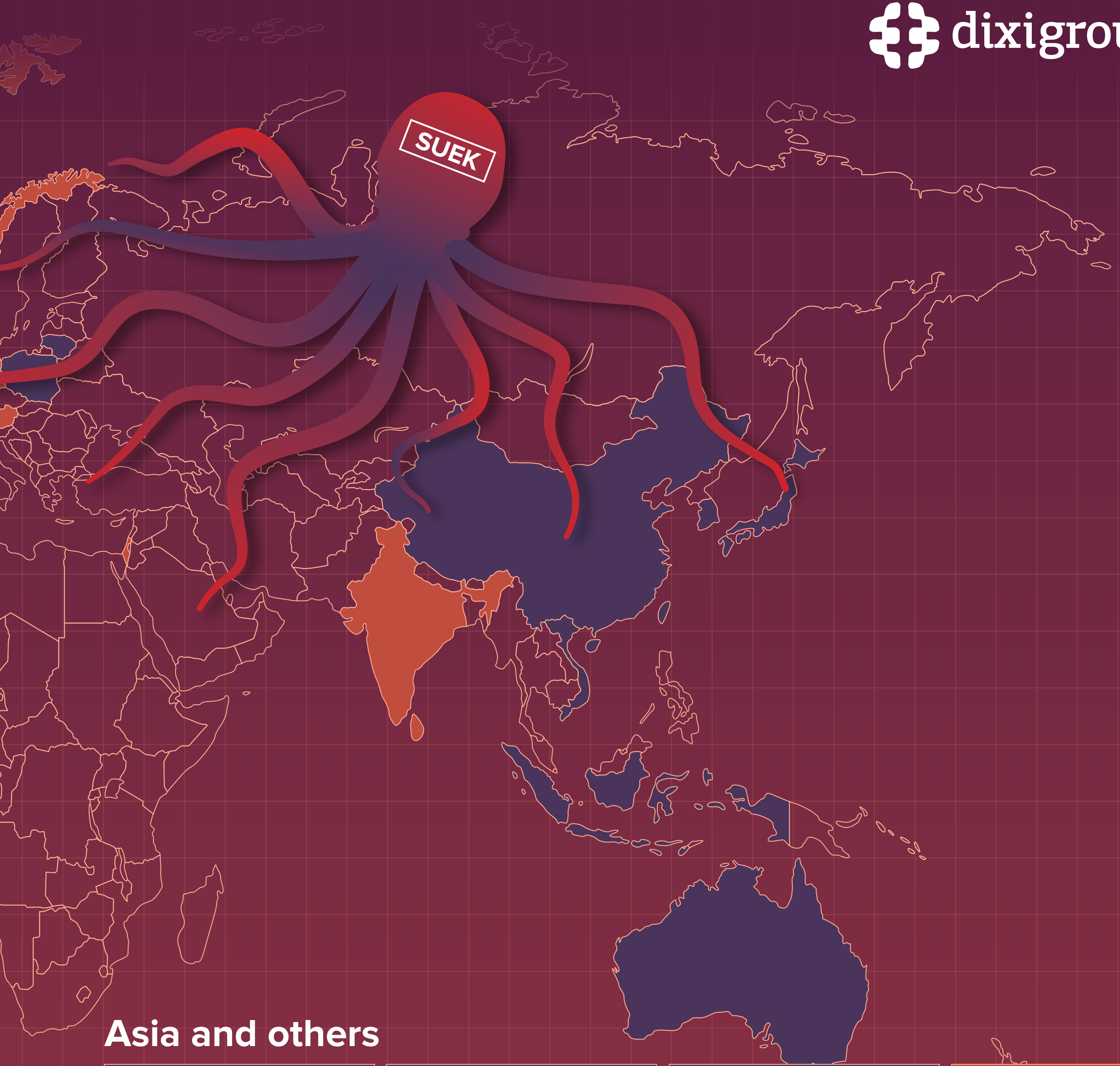
Office* – availability of subsidiaries or registered representative office in a country outside Russia (without taking into regard potential commercial sales)

Trade – commercial supplies or already signed agreements for future supplies of coal and coal-related products, equipment produced in Russia

Logistics – providing or organizing of infrastructural services supplementary to trading (storage or transportation)

Tech&Service – providing technological upgrading, decarbonization, supporting technical services to Russian partner; receiving contracts for construction of facilities; joint research or knowledge-sharing projects

Finance – providing of financial resources in different forms by specialized entities



Asia and others

CHINA
SUEK Beijing Trading, SUEK Shanghai Trading Co Ltd, SUEK Shanghai Trading Harbin branch
office
Industrial Bank of China, Bank of China, China Construction Bank, Agricultural Bank of China
finance

TAIWAN
SUEK AG Taiwan Branch
office

JAPAN
SUEK Japan Corporation
office
NEXI
plans

REPUBLIC OF KOREA
SUEK Korea Ltd
office
POSCO Energy
trade

VIETNAM
Representative office of SUEK AG in Hanoi City
office

INDONESIA
PT SUEK Trading Indonesia
office

INDIA
UltraTech Cement, National Thermal Power Corporation Limited
trade
Tata Power
plans

** Countries with SUEK organizational presence (subsidiaries or regional offices) are highlighted in darker shade. In the situation, when the information about particular corporate buyers is mostly absent in public sources, it provides us with an understanding about markets of highest priority for SUEK.*

SRI LANKA
trade

ISRAEL
National Coal Supply Corporation
trade

AUSTRALIA
SUEK Singapore Trading PE Ltd
office

HOW TO CUT SUEK'S TENTACLES

dixigroup ANALYTICS ON DUTY

1

SANCTIONS

Expand the sanctions against SUEK and its subsidiaries

2

Impose the sanctions against any ships carrying SUEK's coal to the world market

3

Enforce U.S. secondary sanctions on the trading of Russian coal and ensure effective monitoring of origin, supplementing the embargo

4

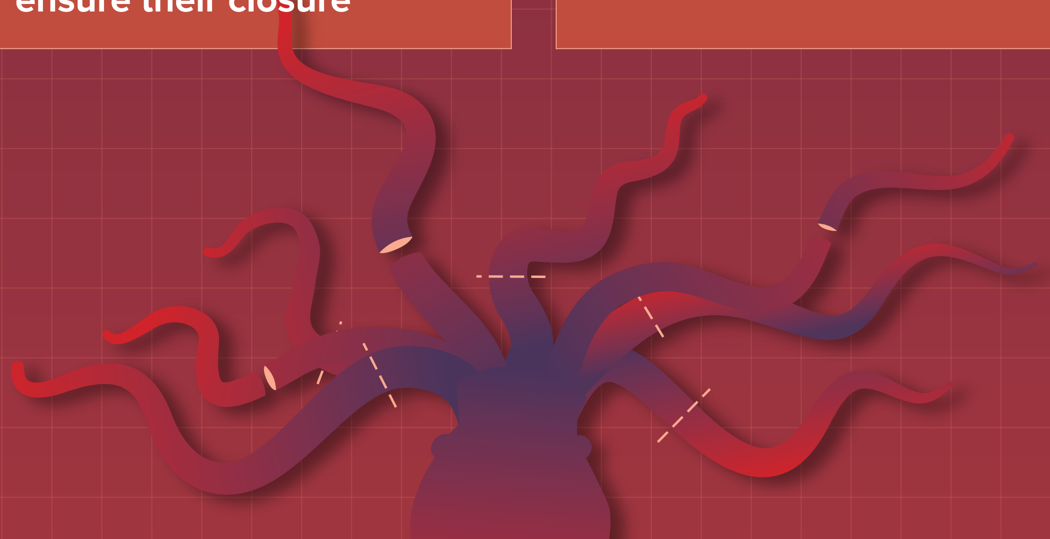
Advocate the adoption and effective implementation of a ban on Russian coal supplies by Japan, the Republic of Korea, Taiwan, and other Asian markets

5

Monitor the activities of SUEK AG offices in countries joining the Russian coal ban and ensure their closure

6

Ensure the proper implementation of sanctions on the transfer of technology



The trading in fossil fuels such as oil, natural gas and coal represents a substantial share of revenues of the Russian state budget. In the situation of a full-scale Russian military invasion of Ukraine performed, disrupting the economic potential of the Kremlin regime to finance the war remains the key non-military way of stopping Putin's aggression.

While in the previous series of analytical papers we have explored companies representing oil, natural gas, nuclear and electricity generation industries, concentration on Siberian Coal Energy Corporation, the largest representative of the Russian coal industry, also makes sense.

Why coal (still) matters? Russian exports before and after the war

Despite the relatively lesser amount of revenues it brings for military spending of the Kremlin and decarbonization trends of energy policies globally, coal industry preserves its strategic importance. Coal-fired power plants generated a record amount of electricity in 2021 accounting for 36% of the global power mix. In 2021, the EU generated only 15% of electricity from coal. Nevertheless, extremely high prices of natural gas made coal a more attractive and relatively cheaper option. The growth in prices for coal (API2 benchmark have risen more than threefold from 70 EUR/t in May 2022 to 300 EUR/t in May 2022 and almost 380 EUR/t at the end of June 2022) due to the inability of production to meet the increased post-pandemic demand provides economic grounds to develop coal projects further.

Russia holds the world's second largest coal reserves, ranks 5th in coal consumption and is the third-largest exporter of coal. In the last decade, the general volume of Russian coal exported abroad has steadily risen from 130.4 million tons in 2012 to 215.1 million tons in 2021. Three main destinations of the Russian coal exports are maritime routes from the Russian Far East, Black Sea, Baltic Sea and Murmansk. Exports are relatively diversified with the largest shares directed both to the EU and East Asian markets.

Despite Russia being the fourth largest carbon dioxide emitter in the world and pledging to achieve net-zero emissions until 2060, the Russian government had ambitions of developing the Russian coal industry further. The government's strategy adopted in 2020 provided plans for an increase of coal production by 50% to 668 million tons and doubling of exports to 392 million tons by 2035, which could provide a 2.5 times increase in the amount of taxes paid. These plans were drawn despite negative social and environmental impacts. Some media have reported earlier poor working conditions for the Russian coal miners and weak safety standards.

The sanctions following Russia's full-scale invasion of Ukraine have substantially influenced the Russian coal industry. Before the sanctions were introduced, key suppliers of Russian coal such as Centrica, BP, Orsted, Vattenfall made a pause in receiving Russian coal waiting on the decisions of Western governments. International banks suspended issuing letters of credit backing the planned deliveries fearing future sanctions.

The U.S. introduced a Russian coal imports embargo in March (nearly 300,000 metric tons imported in 2021) which was followed by similar bans adopted in the UK (almost 2 million tons), Japan (19.73 million tons, 11%) and by the EU 5th sanctions package. The latter provided for a transitional period until August 1 for the full implementation of embargo provisions. In 2021, the EU received 48.7 million tons (predominantly steam coal) which accounted for 21.8% of the total Russian coal exports and represented nearly half of the EU coal imports. The region of Germany, the Netherlands and Belgium was especially vulnerable, having obtained 67% of coal imports from Russia. According to the European Commission President Ursula von der Leyen, the total value of Russian coal imports by the EU is 4 billion EUR.

Such a high level of dependency on Western markets would lead to an observable change in the Russian supplies. Geopolitical uncertainties and logistical barriers were transformed into negative statistical numbers: the officials of the Russian Ministry of Energy have reported that the Russian coal exports dropped by 20% in April 2022 and the projected annual decrease at that point of time comprised 9% year-on-year.

The Russian Deputy Prime Minister Alexander Novak has publicly announced that Russia can redirect its European coal supplies to Asia via maritime shipping from the European ports. Both China and India remain the largest driver of global demand for coal and, after some pause just after the start of the war, are actively purchasing Russian coal (the numbers of Russian coking coal delivered to China are already record-breaking). Coal India Limited has already announced two tenders for transportation of 6 million tons for one year (which almost equals the total Russian supplies to India in 2021). Despite the considerable planned increase in domestic production, China is still interested in expanding its imports. Beijing has suspended tariffs for coal imports which would benefit foremost the Russians (since the Australian coal imports are banned in China and the supplies from Indonesia were already delivered without tariffs due to the trade agreement of China with ASEAN).

Nevertheless, as of now, Russia has no infrastructural ability to fully redirect its European coal supplies to Asia via railway. Even some current coal transportation capacities were not performing their planned volumes well, especially after the start of full-fledged invasion. E.g., in March 2022, coal transportation in the Irkutsk region was only 30% of planned volumes. The Russian media circulated information that 63 million tons out of 172 million of total Russian steam coal exports could be diverted to other destinations. To win the market share, Russian companies are forced to offer coal to Asian markets with a nearly 40% discount - which looks quite similar to discounts on oil exports. Additionally, the cost of freighting ships from Russia increased 3-4 times since the start of the Russian full-scale invasion of Ukraine which represents another challenge.

Diversification away from Russian coal also represents a challenge for Europe. There are a couple of alternatives to at least partially substitute the Russian products. The U.S. is expected to increase its production by 9 million tons until the end of 2022, while Colombia might add 14 million tons during the same period. Another option is South Africa: European companies have increased imports via Richards Bay Coal Terminal from 2.3 to 3.2 million tons – almost by 40% percent. Countries which received coal from this destination include Spain, Germany, the UK, Poland, and Ukraine. Partially, this increase might be explained by the transformation of global supply chains as China, being a prominent buyer of South African coal, has not made any purchases as of May 2022. However, logistics issues with the public railway system will inhibit the increase in South Africa's coal exports.

The role of SUEK. Company's profile

Speaking about the corporate actors in the Russian coal industry, it is impossible not to pay attention to the most influential Russian company in this sector. Siberian Coal Energy Company (SUEK) is the largest Russian coal producer and exporter, the fourth largest coal supplier in the world market (after Glencore, Bumi, and Sinamas) and the second cargo shipping operator in Russia. Its 2021 revenue accounted for 9.7 billion USD, including 6.4 billion USD received from coal trading. SUEK employs 73,000 people and has paid 835 million USD to the Russian state budget in 2021. In October 2021, SUEK for the first time placed its bonds on the international capital markets, raising 500 million EUR. Interest of both Russian and foreign investors was criticized by environmental finance NGOs and activists.

The largest shareholder of SUEK was the Russian billionaire Andrey Melnichenko. According to the Forbes estimates, he is worth nearly 11 billion USD and belongs to the Top 10 richest persons in Russia. In the first months of 2022, he was among a few oligarchs whose fortune has only increased. SUEK activities, especially those concerning logistics, are closely connected with the working operations of EuroChem which is another major asset owned by Melnichenko. Additionally, the media claimed that the former company director Vladimir Rashevskiy controlled a minor 7.8% shareholding.

In 2021, SUEK produced 102.5 million tons which makes it the largest coal producer in Russia. The company's coal reserves account for 7.5 billion tons which are the fifth largest corporate reserves in the world. Its extractive assets are located in different Russian regions: Kuzbass, Transbaikalia, Khakasia, Krasnoyarsk. A strong presence in the eastern part of the country gives SUEK a competitive advantage for trading its coal on the Asian energy markets.

The coal extracted by SUEK can be divided into four main categories: coal with low content of ash for local power plants, high-calorific coal with low content of sulfur and nitrogen, coking coal, and smokeless briquettes for private households. SUEK pays much attention to environmental standards of the markets it is interested in. Its information materials claim the company exports only washed coal (i.e. processed and of high-quality). For that purpose, the Russian coal giant owns the respective infrastructure, such as eight washing plants, two processing facilities for cleaning larger coal, fifteen crushing and sizing facilities.

Exports represented 81% of 7.3 billion USD revenues from the coal segment of SUEK business. These operations are performed via the specialized trading arm SUEK AG with distribution offices located in eleven countries (see the table below). In 2021, SUEK exported 54.5 million tons of coal, with 34 million tons shipped to Asian markets, while the rest of 20 million tons went westwards. The main destinations of SUEK's coal included China (10 million tons), Japan (8 million tons), Taiwan (6 million tons), Republic of Korea (4 million tons), Germany (4 million tons) and Morocco (4.5 million tons).

The trade strategy of SUEK is supported by its ownership of infrastructure located in the areas strategic for SUEK's regional commercial strategy. The company operates five ports: Murmansk Commercial Seaport (15.2 million tons bulked in 2021) and Murmansk Bulk Terminal (5.4 million tonnes) for the northern direction, Vanino Bulk Terminal/Daltransugol (19 million tonnes) and Maly Port (3.5 million tonnes) for the eastern direction, and Tuapse Bulk Terminal (1.6 million tons) for the southern direction. SUEK planned to invest 390 million USD until 2025 to expand the annual capacity of Vanino Bulk Terminal from 24 to 40 million tons. This project could play a profound role in enabling a continuing pivot to the Asian markets of the Russian coal industry.

The general geographical structure of SUEK coal exports is as follows:

- 54% is delivered from Vanino, Maly Port and Vostochnyi to the Eastern markets: China, Hong Kong, Taiwan, Japan, Republic of Korea, India, Vietnam, Malaysia, Philippines, and Mexico.
- 37% are shipped via Murmansk and Ust-Luga to Germany, Scandinavia (Finland, Denmark), the ARA region (Netherlands and Belgium), and the Mediterranean countries (Spain, Italy, Morocco, Israel, and Turkey).
- 2% of southern supplies are transported to Bulgaria and Turkey from Tuapse and Azov (before 2022, SUEK also reported that the Ukrainian port of Izmail located in the Odessa region was also part of the supply chain).
- 7% is transported via railroads, predominantly to China and Poland.

At the end of 2020, the logistics assets of SUEK and EuroChem were merged into a single entity - National Transportation Company (NTC) which is one of the three largest Russian stevedoring companies and gondola car operators. NTC operates over 53,000 railcars which makes it one of the largest logistics operators in Russia. 77% of its transportation is covered by SUEK deliveries. In general, 120 million tons of different cargoes were transported by railcars in 2021 and almost 46 million tons were transshipped (incl. 36 million tons of coal supplies).

Apart from coal production and transportation, SUEK activities include participation in the Russian power market and district heating. Since 2011, these assets were separated into a specialized entity – Siberian Generating Company. Its installed electricity capacity accounts for 17.5 GW of 27 power plants (26 operating on coal and 1 on natural gas). In 2021, the company sold 72.9 TWh of electricity and 40.3 million GCal of heat energy, having generated 6% of the total Russian electricity supply. SUEK is aimed at expanding its electricity capacities, being reported by the media as one of those interested in acquiring the assets of Fortum which decided to leave the Russian market after the start of full-scale aggression against Ukraine. However, after Fortum's failure to ensure its quick withdrawal from Russia until July 1, it is unclear whether SUEK will remain in the list of possible buyers.

This also explains why technological development is another focus of SUEK operations. The company is actively implementing the so-called COMMod (DPM-2) programme aimed at renovation of existing producing infrastructure for increasing the reliability of electricity and heat supply and improving the environmental impact in the areas of its operation. Digitalization of production processes is another high priority of SUEK.

SUEK has its own Siberian Scientific Research Institute of Coal Beneficiation which concentrates on the elaboration of technological solutions for its operating activities. Since 2019 SUEK owns Novosibirsk-based ELSIB, a Russian manufacturer of power equipment. The key technology developed by this company is the production of turbine generators ranging from 60 to 130 MW which constitutes 60% of the Russian market in this segment. Apart from extensive participation in modernization of local Russian power stations (including those owned by Siberian Generating company and cooperation with Rosatom), ELSIB has also a track record of exporting equipment to India, Kazakhstan, Georgia, Belarus, and Ukraine.

The impact of sanctions on SUEK

The EU 5th sanctions package provided a coal import ban since August coupled with pledges of Japan and the Republic of Korea to end dependency on Russian coal, which could substantially harm SUEK's export strategy. Additionally, Melnichenko was included in the list of personal sanctions (# 721) which provide prohibition for entering the EU, asset freezing and prohibition for dealing with companies owned by sanctioned persons. The main rationale for including him was due to his presence in Putin's meeting with representatives of the Russian large businesses on the first day of the Kremlin's full-scale invasion of Ukraine. Additional personal sanctions against the SUEK owner were imposed by the United Kingdom and Switzerland. Melnichenko's superyacht Sailing Yacht A was arrested in Italy in March, but his another superyacht Motor Yacht A was seen in the United Arab Emirates where it could not be seized by Western governments. As of August 2022, Melnichenko managed to escape the U.S. restrictions.

After the imposition of these sanctions, Melnichenko appealed to the EU General Court seeking opportunities for canceling his blacklisting. Additionally, his representative announced that Melnichenko has left the position in SUEK's board of directors, ceased to be the company's beneficiary, and that his wife is the final beneficiary of the Cyprus-based firm controlling 90% of the company. Nevertheless, Alexandra Melnichenko was included in the list of sanctioned persons in the EU 6th sanction package adopted in June, which will be similarly implemented in Switzerland. SUEK AG with headquarters in Zug is already planning to relocate to Dubai. Another SUEK shareholder, Vladimir Rashevskiy, was also sanctioned by the EU in mid-March and immediately left his position in the company's board. Similar restrictions against him were imposed by the UK, Switzerland, and Australia.

Some companies have already terminated their contracts with SUEK for the implementation of the coal embargo. E.g., LTG Cargo from Lithuania has announced termination of its contract with SUEK Baltic (in 2021, the company imported 60,000 tonnes of coal from SUEK).

Alexandra and Andrey Melnichenko (source: Weltwoche)

SUEK’s tentacles sorted out

From the all described above considerations, it is essential to map the company’s influence on an international scale taking into account its developed institutional trading structure. Such analysis could be useful in determining how the sanctions on Russia could be more effective.

Regional Branches

Country	Name of subsidiary	City of Registration	Date of registration
Switzerland	SUEK Logistics GmbH	St. Gallen	2009
UK	UAB SUEK Baltic	Northwich	2019
Poland	SUEK Polska, Ltd.	Gdansk	2007
	Barter COAL Sp.z.o.o.	Bialystok	2018
Lithuania	UAB SUEK Baltic	Vilnius	2014
U.S.	SUEK AG, Corp.	Miami	2011
	SUEK US LLC	Duluth	2016
China	SUEK Beijing Trading Harbin Branch	Beijing	2014
	SUEK Shanghai Trading Co., Ltd	Shanghai	2014
	SUEK Shanghai Trading Harbin Branch	Harbin	2014
Taiwan	SUEK AG, Taiwan Branch	Taipei	2007
Japan	SUEK Japan Corporation	Tokyo	2015
Republic of Korea	SUEK Korea, Ltd.	Seoul	2013
Vietnam	Representative office of SUEK AG in Hanoi City	Hanoi	2017
Indonesia	PT SUEK Trading Indonesia	Jakarta	2015

External partners

UltraTech Cement, India	In June 2022 bought 157,000 tonnes of coal for 172.7 million CNY (25.8 million USD) from Dubai-based unit of SUEK; the supply was delivered by bulk carrier MV Mangas from Vanino bulk terminal in Russia
National Thermal Power Corporation Limited, India	2016 contract with ELSIB on supply of two electric engines for Vindhyachal thermal power plant
Sri-Lanka	bought the discounted SUEK coal for 17 million, USD, contract signed by country’s government
Hamburger Energiewerke GmbH, Germany	mentioned in the 2021 SUEK annual report as a trading partner
POSCO Energy, Republic of Korea	mentioned in the 2021 SUEK annual report as a trading partner
National Coal Supply Corporation, Israel	mentioned in the 2021 SUEK annual report as a trading partner
Golden Ocean Management AS, Norway	In 2021, performed 18 joint delivery races with SUEK AG of freights up to 80,000 tons

Keyser & Mackay, Netherlands	agreement since November 2016, distribution of SUEK's SphereFill Hollow Ceramic Microspheres
Asea Brown Boveri Ltd., Switzerland-Canada	delivered a compact eHouse solution based on high-performing UniGear Digital switchgear solution to safeguard the distribution of power and ensure production uptime at SUEK's Vanino bulk terminal in Russia
EnviroChemie GmbH, Germany	provided the plant technology for mine water treatment (including water recycling) for a SUEK-operated coal mine
GECMA Components Electronic GmbH, Germany	SUEK's usage of MTL GECMA workstation remote terminals for the production of modular degassing installations for preliminary degassing of coal seams and pumping out concentrated methane-air mixtures from mined-out spaces
Eurotherm Technology, UK (a subsidiary of Schneider Electric)	providing equipment for SUEK facilities (thyristors EPower and 2400 Temperature Controllers)
Nippon Export and Investment Insurance (NEXI), Japan	2019 MoU on cooperation, establishing information exchange framework to identify potential cooperation projects with Japanese companies, NEXI help in purchasing Japanese equipment in 2012, insured expansion of a SUEK mine
Tata Power, India	2021 MoU on cooperation in "identifying and targeting opportunities in Russia and other geographies of common interest"
Industrial Bank of China, Bank of China, China Construction Bank, Agricultural Bank of China ING Bank NV, Netherlands Unicredit Bank Austria AG Commerzbank AG, Germany Rabobank London, SGBT Asset Based Funding SA (Societe Generale Group), Luxembourg Intesa Sanpaolo Bank Ireland PLC JSC Nordea Bank (Denmark)	In May 2017, participated in the SUEK's 1 billion USD pre-export finance facility (four Chinese banks loaned 307 million USD in two tranches to repay in 2022 and 2024)
Bank of America, U.S. Citigroup, U.S. Renaissance Capital, UK Commerzbank, Germany	in 2021, bought the SUEK bonds with maturity in 2026

RECOMMENDATIONS

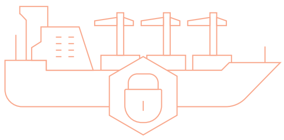
The following measures are needed to ensure the effective limiting of SUEK influence in the international energy sector, inhibiting the opportunity of the Kremlin to receive revenues from the company's activities and using the dependence of Russian coal as an instrument of political leverage in the times of high energy prices.

1. Expand the sanctions against SUEK and its subsidiaries.

For achieving a higher alignment of the Transatlantic sanctions on Russia regimes, it is needed to include SUEK and its affiliated companies (SUEK AG, National Transportation Company, Siberian Generating Company, ELSIB), SUEK owners (Andrey Melnichenko and Vladimir Rashevskiy) and board members (Samir Brikho, Michael Hogan, Juerg Seiler, Mikhail Kuznetsov, Stepan Solzhenitsyn, Sergey Tverdokhleb) to the U.S. Special Nationals and Blocked Persons List. This move will block fully these assets and other property of the mentioned persons and will prohibit U.S. persons to have any business relations with these people or entities.

Also, SUEK shall be included in the respective annexes of Council Regulation (EU) No. 269/2014 of 17 March 2014 concerning restrictive measures in respect of actions undermining or threatening the territorial integrity, sovereignty and independence of Ukraine, which provide the EU sanctions on Russia. Additionally, the Swiss authorities should consider not only personal sanctions against SUEK's owner but restrictions directed to activities of the Russian corporation itself. The United Kingdom sanctions should also be very helpful in weakening SUEK's international positions. Poland created effective precedent in this sphere, having sanctioned three SUEK's subsidiaries and affiliated entities in April 2022 (SUEK Polska Sp. z oo, Eurochem Polska sp z oo, Barter Coal sp z oo).

SUEK is not listed on foreign exchanges, therefore, possible measures related to imposing additional financial restrictions will not have substantial impact on its activities. Yet, the existing sanctions prohibiting Russian energy companies from access to Western capital markets should be properly enforced.



2. Impose the sanctions against any ships carrying SUEK's coal to the world market.

It should prevent the Russian company from redirecting cargoes to the Asian consumers to preserve some share of its profits. As for now, the EU-flagged ships are free to transport Russian coal to third countries which constitutes an important loophole which needs to be closed.

Additionally, it is worth considering prohibition for the Western companies to provide insurance certification of Russian coal freights. It will pose substantial hurdles for SUEK and will increase the cost for its transportational operations. Also, such a measure will have a relatively smaller impact on the shipping industry in comparison with similar restrictions concerning crude oil transportation and, therefore, will be easier to implement.

3. Enforce U.S. secondary sanctions on the trading of Russian coal and ensure effective monitoring of origin, supplementing the embargo.

Despite major logistics problems, Russia will try to reorient its coal supplies earlier shipped to Europe to the Asian markets. The planned capacity extension of the Vanino Bulker Terminal (16 million tonnes per year) is smaller than the number of deliveries SUEK will lose because of existing or potential sanctions (roughly two-thirds of 20 million tons shipped in 2021 to the Atlantic region without deliveries to Morocco and Turkey which are unlikely to be sanctioned) and approximate volume imports (18 million tons) by the Western allies in Asia (Japan, Republic of Korea, Taiwan).

One might expect additional massive infrastructural investments from SUEK to close this emerging gap. However, the extremely high coal prices could preserve a stable level of the company's revenues even in the situation of a decrease in exports. The secondary sanctions similar to those which were already introduced against the shipping of Iranian oil should make SUEK deliveries toxic even in those countries, whose governments are not favorable to the idea of imposing sanctions on Russia.

4. Advocate the adoption and effective implementation of a ban on Russian coal supplies by Japan, the Republic of Korea, Taiwan, and other Asian markets.

Last year, these countries bought a total of 18 million tons of SUEK's coal which accounts for nearly one-third of the company's yearly annual export volumes. Japan has already announced its steady removal of coal supplies from Russia. The situation with South Korea was less pronounced despite information it will consider alternative supplies. Despite condemning the Russian invasion, Taiwan has not yet introduced sanctions related to the Russian energy sector. The availability of other major coal producers in the region (Australia, Indonesia) and China's refusal to buy Australian coal should provide the opportunity to substitute the Russian coal supplies in the short term.

5. Monitor the activities of SUEK AG offices in countries joining the Russian coal ban and ensure their closure.

Six out of eleven countries, where the trading arm of SUEK has its foreign offices, have announced preparation for the Russian coal embargo. These include the U.S., the UK, Switzerland, Poland, Lithuania, and Japan. South Korea and Taiwan could also potentially join this club. It is essential to ensure that these offices will be closed without any possible reorientation of trading from other suppliers which could continue to generate profits for SUEK and the Russian budget. The continued presence of SUEK offices in these countries might lead to the elaboration of some schemes of intransparent trading of Russian coal labeled under the fake country of origin, as blends etc.

6. Ensure the proper implementation of sanctions on the transfer of technology.

The 2021 annual report of SUEK specifies that the company works with suppliers of equipment from ten countries, however, they are not specified in any open sources. The general restriction imposed by the U.S., the EU and the UK could effectively cut these ties. SUEK does not have foreign assets which makes it substantially harder for the company to circumvent existing restrictions on obtaining the new technologies abroad. Nevertheless, it is essential to monitor the actual compliance of all market players with the legal rules of particular companies, taking into account previous cases of deliberate breaching of the sanctions regime by Western companies (as it was in the controversial story of Siemens selling turbines for electricity generation in Crimea occupied by Russia).

Existing contracts should be terminated to avoid another possible gap and address the issue of possible relocation of purchased equipment to other places or adding new equipment/technology supplies, by amending the initial contracts (as it was in the case of France-based defense manufacturer Thales and other companies supplying dual-use goods to Russia after 2014).