Russian coal sector

Draft findings of ENERPO's project on energy transition in Russia March 2021



1. The historical stages of the Russian coal industry



2. The significance of coal for the Russian economy

Coal in energy balance (2019)

The structure of energy consumption for electricity generation (%)



- Coal 17.44% (+1.45% to 2010) Oil 0.6% (-0.23% to 2010)
- Nuclear 20.02% (+3.57% to 2010) Hydro 18.62% (+2.55% to 2010)
- Natural gas 49.82% (-0.42% to 2010)

Coal export/domestic use (2019)



- Total coal production (Mt) **439.2** (+117.2 Mt or +36.39% to 2010)
- Total coal consumption (Mt) 254.7* (+33.6 Mt or +15.24% to 2010)
- Total coal export (Mt) 205.4 (+89.7 Mt or +77.5% to 2010)



3. Coal industry risks review

Transition risk factors

- Energy and climate policies
- 2) 3) Consumers' preferences
- Technologies

Economic costs

- 1) Assets impairment
- 2) Unemployment
- 3) Enterprises, households and government's revenue losses

Possible risks for the financial sector

- 1) Equity investors' portfolio losses
- 2) Higher loan default ratios for banks
- 3) Higher pay outs and portfolio losses for insurance companies
- 4) Decline in returns

Macroeconomic risks

1) Government (budget deficit, higher cost of debt, risk of default)

- 2) Companies (lower investments, lack of external finance, bankruptcy)
- 3) Households (lower consumption, lower investments, overindebtdness)

 Transition to low-carbon economy is considered in Russia as real threats to the loss of a significant part of the country's income (about 25% of GDP) from the export of hydrocarbons (the previous slide);

- CBAM is the serious challenge for the Russian coal industry.

From the moment the CBAM is introduced, which according to plan is to happen in 2022, the Russian economy may lose over EUR 50 billion by 2030. According to those calculations, the costs *Russian companies will have to incur are* somewhere between EUR 3 and 4.8 billion a year.

4. Coal competitiveness analysis



\$US / mmbtu

FINDINGS:

Positive

- Lower price among energy sources
- Lower price volatility
- Steady demand
- Export diversification
- Infrastructural constraints

Negative

- Low investors attractiveness

- High carbon risks for the industry

5. Possible scenarios of the Russian coal industry further development

Table 2. The 3 scenarios and their assumptions

Business as usual (BAU)	If the level of demand and the world price for coal enables the industry to remain profitable, the capacity of transport infrastructure will be the main bottleneck for increases in coal production. In this scenario, tariff and non-tariff barriers for coal transportation and exports are the only factors crucial for industry development.
Demand decreases	If the pace of global energy transition to low-carbon energy sources
due to the global low-	accelerates, there will be a drop in demand for coal from the main coal
carbon energy transition.	importers. Industrial production of coal products will begin to decline,
	and the coal industry will be at risk. The crisis will lead to the closure of
	enterprises with the highest cost of production, specialized in the
	exclusive extraction and processing of coal. Companies will need to adapt
	and implement clean coal technologies.
Demand in the Asia-	Demand for coal in the Asia-Pacific region will allow coal companies to
Pacific compensates	fully compensate for decline in sales of coal to the Western exporters. New
for low-demand from the	markets in developing countries in Asia and North Africa will be the main
main importers.	driver of growth. Under this scenario, a sharp increase in demand for
	Russian coal imports from India is expected.



Key findings

- Private and competitive sector that went through many crises and reforms
- Independent companies with no unified strategy for further development
- The future of the industry depends on transport infrastructure for export
- Domestic clean coal technologies are not available
- There is no alternative to traditional use of coal in Russia



Thank you

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This project is a collaboration between Climate Strategies, European University at St.Petersburg (EUSP), Fridjtof Nanses Institute (FNI) & Higher School of Economics (HSE)

https://climatestrategies.org/projects/russian-coal-sector-transition/

