

# Energy security of Belarus

The economic model of Belarus is based on cheap energy resources from Russia. Despite perceived benefits, this has led to negative consequences for the economy and the country.

- 1. Belarus' energy sector critically depends on Russia, which owns OAO "Gazprom Transgaz Belarus" (former "Beltransgaz"), main pipelines, and storage facilities. Belarus imports 84% of its consumed energy resources from Russia, produces 90% of its electricity and 80% of its heat from Russian gas. The Belarusian NPP has not solved the issue, as Belarus is obliged to purchase fuel from Russia and repay loans, and the station often remains idle. Low gas prices hinder the development of renewable energy sources (renewable energy accounted for only 3.4% in 2020), and due to the NPP, there is essentially a moratorium on their construction.
- 2. **Technological lag** has resulted in Belarus' economy being competitive only under the condition of low gas and oil prices. Oil revenues were not invested in modernization, and due to cheap gas, <u>investments in energy-efficient technologies were considered economically unfeasible</u>, leading to the slow development of many industries.

Belarus' economy is vulnerable to rising energy resource prices, the loss of the EU market due to non-compliance with environmental standards, and decreased competitiveness in the Russian market, where energy prices are even lower.

In Norway, market prices for energy resources are in effect, and excess revenues from oil sales form the Norwegian Government Pension Fund Global, invested in Norwegian and foreign companies. In 2021, the value of the assets reached \$1.3 trillion, or \$237,255 per citizen.

- 3. Energy dependence has led to interference in Belarus' internal and external policies, threatening sovereignty. The leadership of Russia uses energy resources as a weapon, sharply raising prices or cutting off supplies to Moldova, Armenia, and EU countries. After the pipeline is blocked, Belarus' gas reserves will last a maximum of two weeks.
  - Imports in 2020 amounted to 18,768 million cubic meters of gas at a price of \$128.5 per 1,000 cubic meters.
  - The market price in Europe in 2023 is projected not to exceed \$530 per 1,000 cubic meters.
  - Under long-term contracts, the US is <u>ready</u> to supply gas at a price of \$380 per 1,000 cubic meters.

The country's fuel and energy complex not only provides electricity and heat to our homes but also supplies fuel and energy to industry, transportation, agriculture, and the service sector. The fuel and energy complex is responsible for 38% of CO2 emissions that cause climate change, which we experience in Belarus in the form of heatwaves, droughts, floods, and hurricanes. Therefore, it is crucial to change the country's energy balance, reduce gas consumption, and develop renewable energy.

In 2022, thanks to the <u>RePowerEU plan</u>, the European Union managed to reduce gas consumption by 13%, cutting Russian gas supplies from 40% to 10% through energy savings, supply diversification, and green energy development.

#### Benefits for Belarusians

The development of clean energy will allow for savings on energy resources, create new economic sectors and jobs, boost exports, reduce air pollution, and improve the quality of life for Belarusians.

Every citizen of the country can contribute to making the energy system more sustainable and benefit from investments in energy efficiency and clean technologies.

# How to ensure energy security for Belarus?

Belarusian experts consider it likely that Russia may exert pressure on Belarus by limiting or halting gas and oil supplies. Therefore, they have developed <u>scenarios for Belarus' energy supply</u> in case of disruptions in energy resource deliveries from Russia. Belarus needs to <u>reduce gas consumption</u>, especially Russian gas, and <u>replace it with green energy</u>.

According to Belarusian experts and the International Renewable Energy Agency (IRENA), it is possible to:

- Reduce gas consumption to 52% by producing biogas, using biomass for heating, utilizing renewable energy sources (RES), and industrial heat.
- Successfully develop solar and wind energy throughout the country.

#### Long-Term Strategy **Emergency Measures** 1. Reduce Overall Gas Consumption - Reduce building heat losses (insulation, window replacement) - Save heat and electricity: lower building heating temperatures, - Employ energy-efficient heating (heat pumps, solar collectors, switch off building lighting, industrial heat) implement energy-efficient lighting - Transition to electricity for cooking and water heating. - Limit non-energy use of gas - Substitute gas in industry - Enhance energy efficiency in production - Develop green financing and subsidize energy-efficient projects

## 2. Diversify Energy Resource Supplies

- Purchase oil, gas, and LNG from other suppliers in the market via transit through Lithuania and Poland
- Implement operational control of Beltransgaz for actions in Belarus' interests
- Import electricity

- Enter into long-term supply contracts
- Establish a proprietary or joint Baltic LNG terminal with other countries.
- Restore the Novopolotsk-Klaipeda oil pipeline for deliveries from Lithuanian and Latvian ports to the Novopolotsk refinery
- Find fuel suppliers for the Belarusian NPP

## 3. Substitute Gas with Other Energy Sources

Switch CHP plants to fuel oil (this measure cannot be permanent due to harm to people, the environment, and equipment)

Use biomass (wood, pellets), restrict their export

- Develop renewable energy sources:
  - solar and wind for electricity generation
  - hydrogen for balancing RES and the NPP end export
  - biogas from organic waste for local heat and power supply and substituting gas in CHP plants.
- Conduct an audit of the Belarusian NPP and launch the second unit.
- Invest in energy storage and distribution systems, power grids.

## Sources of Reform Financing

Significant funds will be required for RES construction, more expensive energy carriers, energy efficiency measures, and support for citizens and businesses in high-risk areas. Savings on energy supply, which costs about \$6 billion annually, can be directed towards clean energy.

Sources of financing could include the EU Economic Assistance Plan, investments, and loans from the IMF, EBRD, EIB, contributions from Belarusian businesses and citizens.

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