Energy consumption and energy efficiency

SASB EM-MM-130a.1

Operating in the Arctic zone, Nornickel places significant focus on developing its own energy infrastructure and improving the efficiency of energy use. Nornickel pursues an energy policy aimed at ensuring a reliable and uninterrupted supply of clean energy to all stakeholders, while also contributing to the achievement of the goals of the Energy Strategy of the Russian Federation until 2035.

Nornickel's priorities in energy

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- Guaranteed energy security for the isolated Norilsk energy system
- Transition to environmentally safe and resource-efficient energy
- Sustainable use of natural resources and energy efficiency
- Maximised use of equipment with verified Russian origin
- More efficient management of energy facilities

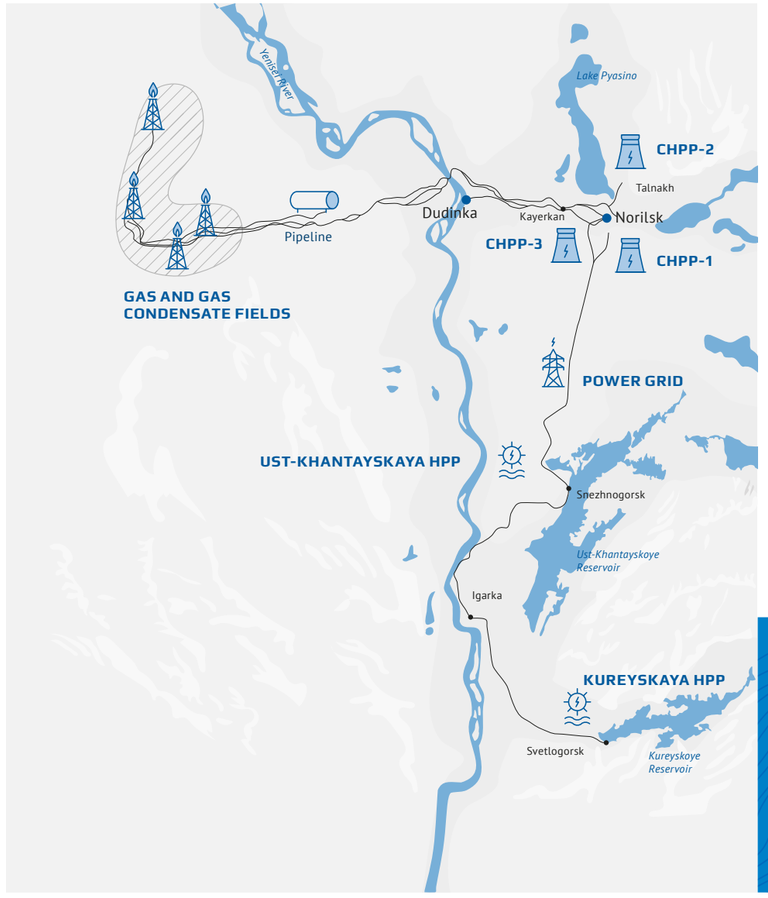
Nornickel's key activities contributing to the goals of Russia's energy development strategy

- Efficiently meeting the needs of the Russian Federation's social and economic development by ensuring adequate production and export volumes of goods and services from the fuel and energy sector
- Spatial and regional development of the energy sector through transformation and optimisation of energy infrastructure in line with the evolution of domestic and global markets for energy products and services
- Achieving technological independence and enhancing competitiveness in the fuel and energy sector, meaning a sufficient level of in-house expertise and locally manufactured equipment to ensure stable operations and long-term development

Modernisation of the Energy Division's infrastructure

In the Norilsk Industrial District, the Company's enterprises comprising the Energy Division are the primary energy suppliers for both industrial operations and local communities. These energy facilities are located in the Norilsk District, operating under the harsh natural and climatic conditions of the Arctic. For a brief overview of these assets, please see Nornickel's 2023 Sustainability Report.

Modernisation of energy infrastructure facilities in 2024



To ensure uninterrupted supply of all types of energy to consumers in the Norilsk Industrial District and improve the performance of generating units at combined heat and power plants (CHP) plants and HPPs, as well as to reduce energy losses along the entire energy generation and distribution chain, Nornickel is renovating its generation fleet and energy grid infrastructure in 2024:

- A retrofitting project was completed for a gas pipeline's underwater crossing of the Bolshaya Kheta River
- Drilling operations continued on five wells at well pad No. 4 of the Pelyatkinskoye gas condensate field
- Pre-commissioning operations were organised at the booster compressor station of the Severo-Soleninskoye field
- Construction and installation activities were completed for the revamp of Unit No. 2 of CHPP-2
- The upgrade programme was continued for emergency diesel fuel tanks
- A CNG filling station was commissioned in Norilsk

MED-10, UNCTAD A.3.1

The total cost of CAPEX projects to expand electricity and heat generation capacity, as well as power grids and heat networks, amounted to RUB 4.7 billion in 2024.

Use of renewable energy sources

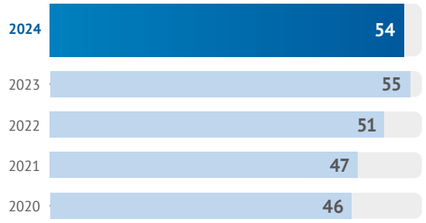
Nornickel considers renewable-energy projects as one of the avenues for achieving its climate goals. Given the extreme natural and climatic conditions at the Group's production sites, the use of solar, geothermal, and wind energy remains limited. However, the Company is exploring technological and organisational opportunities to install additional renewable energy capacity.

For more details, please see the Nornickel's climate change strategy and projects sub-section.

In the long term, the Company plans to build a balanced energy system based on a mix of nuclear, thermal, and hydro generation.

In 2024, the share of electricity generated from renewable sources reached 54.4% for the Group. This is slightly lower than in the previous year but exceeds the target of 46% set by the 2031 Environmental and Climate Change Strategy.

Share of renewables in total electricity consumption by Nornickel Group (%)



Total energy consumption by the Norilsk Nickel Group (TJ)

GRI 302-1, 302-3 / UNCTAD B.5.2 | GRI 14.1.2, 14.1.4

Indicators	2020	2021	2022	2023	2024
Fuel consumption	141,237	151,235	141,909	137,150	**133,746**
Self-generated energy from renewable sources (HPPs)	15,310	14,586	16,152	16,800	**16,686**
Electricity and heat purchased from third parties	11,200	10,891	11,005	8,701	**8,660**
Electricity and heat sales to third parties	17,254	19,974	18 968[1]	19 216[2]	**18 838**[3]
Total energy consumption across the Group (1 + 2 + 3 – 4)	150,493	156,738	150,098	143,435	**140,254**
Energy intensity (GJ / RUB mln)[4]	135	117	127	116	**120**

[1] Including 4,183 TJ of electricity and 14,785 TJ of heat.
[2] Including 4,203 TJ of electricity and 15,012 TJ of heat.
[3] Including 4,108 TJ of electricity and 14,730 TJ of heat.
[4] To calculate internal energy intensity, the Group's total energy consumption and revenue under consolidated financial statements were taken as the numerator and the denominator, respectively.

Fuel consumption by Group companies by type of fuel (TJ)

GRI 302-1 | GRI 14.1.2

Indicators	2020	2021	2022	2023	2024
Total fuel consumption	141,237	151,235	141,909	137,150	**133,746**
Natural gas	122,216	130,867	125,934	121,643	**117,940**
Coal[5]	2,180	1,557	2,027	1,562	**1,765**
Diesel fuel and fuel oil	13 939[6]	15,097	13,623	13,080	**13,471**
Petrol and jet fuel	2,902	3,715	325	312	**297**
Lignite[7]	–	–	–	552	273

Electricity and heat consumption by Group companies

GRI 302-1 / UNCTAD B.5.1 / MED-22 | GRI 14.1.2

Indicators	2022	2023	2024	Including in 2024	
				electricity	heating and steam
Electricity and heat consumption by the Group companies (TJ)	60,143	59,687	**60,034**	30,266	29,768
Including:					
• The Norilsk site's production enterprise (Talnakhskoye, Oktyabrskoye, Norilsk-1 deposits)	31,307	32,991	**33,628**	14,604	19,024
• The Energy Division's energy enterprise	6,045	5,907	**6,003**	4,032	1,971
• The Kola site's metals and mining enterprise	9,289	9,097	**8,975**	6,199	2,776
HPP share in total electricity consumption in the Norilsk Industrial District	56%	58%	**58%**	–	–
HPP share in total electricity consumption by the Company	51%	55%	**54%**	–	–
HPP share in total electricity and heat consumption by the Company	27%	28%	**28%**	–	–
Share of renewables in total electricity and fuel consumption	11%	12%	**12%**	–	–

[5] The Company uses coal as a chemical feedstock in its production processes and does not use it for heating purposes.
[6] Taking into account the diesel fuel lost irretrievably as a result of the CHPP-3 accident in May 2020.
[7] The Company uses coal as a chemical feedstock in its production processes and does not use it for heating purposes.