ENERGY ASSETS

Nornickel owns an integrated network of fuel and energy assets, including four hydrocarbon deposits.

Most of Nornickel's production facilities are located beyond the Arctic Circle, operating in sub-zero temperatures for eight months of the year. It is therefore critical for the Group to ensure energy supplies to its production and infrastructure facilities, as well as to communities in its regions of operation.

Norilskgazprom (100% stake) produces gas and gas condensate at the Pelyatkinskoye, Yuzhno-Soleninskoye and Severo-Soleninskoye gas condensate fields, as well as the Messoyakhskoye gas field.

2,728 Mcm[1]
natural gas production

114 kt
— gas condensate production

46%
— electricity generated from renewable sources

Start of production: 1969

Gas reserves
244 bcm

Gas condensate reserves:
4,576 kt

MINING VOLUME

Asset	2018	2019	2020
Natural gas, Mcm	2,896	2,804	2,728
Taimyrgaz[2]	2,027	0	0
Norilskgazprom	869	2,804	2,728
Gas condensate, kt	90	92	114
Taimyrgaz[2]	88	0	0
Norilskgazprom	2	92	114

[1] Data on gas condensate production include production losses (carryover with separation gas
[2] in 2019 was the reorganisation of Taimyrgaz.

Norilsktransgaz (100% stake) transports natural gas and gas condensate from deposits to consumers.

The length of gas and gas condensate pipelines totals 1,602.5 km. The pipelines were commissioned between 1969 and 2018.

NTEK (100% stake) is focused on electricity and heat generation, transmission and sales harnessing the assets of Norilskenergo, a branch of Nornickel. Energy is produced from both renewable (e.g. hydropower) and non-renewable (e.g. natural gas) sources. NTEK supplies electricity, heat, and water to households in the city of Norilsk and to all production facilities within the Norilsk Industrial District. In terms of its location and operational mode, the local electricity grid is isolated from the national grid (the Unified Energy System of Russia), which means stricter reliability requirements. NTEK operates five generating facilities – three thermal power plants with installed electricity generation capacity of 1,115 MW, and two hydropower plants (HPPs) with total installed capacity of 1,101 MW. The total installed capacity of all plants is 2,216 MW.

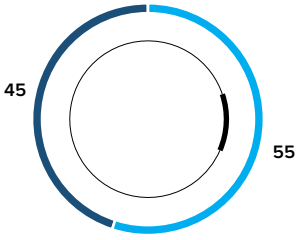
Ust-Khantayskaya and Kureyskaya HPPs are Nornickel's two renewable electricity generation facilities. In 2020, renewables accounted for 46% of total electricity consumed by the Group and 55% of total electricity consumption within the Norilsk Industrial District.

To boost the share of renewables such as hydropower, capture fuel and energy savings, and improve the reliability of energy and gas supplies, Nornickel's investment programme contains a number of large-scale priority projects. Selected major projects being implemented by Nornickel to improve equipment reliability, enhance energy efficiency, and boost product output:

- Replacement of seven hydropower units at Ust-Khantayskaya HPP
- Replacement of power units at CHPP-2 and CHPP-3 in Norilsk
- Upgrade of power grids, main gas pipelines, and gas distribution networks within the Norilsk Industrial District

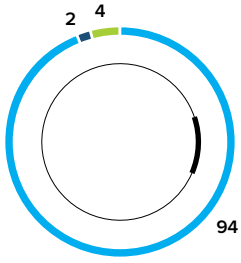
Arctic-Energo (100% stake) supplies electricity to Kola MMC and other Group entities in the Murmansk Region, is a default electricity supplier within its area of operations and has the right to trade in the wholesale electricity and capacity market. The company was established to ensure energy independence, efficient and uninterrupted electricity supply at cheapest rates to Kola MMC operations. In 2020, it sold 2,596,781 thousand kWh of electricity.

POWER GENERATION BREAKDOWN IN THE NORILSK INDUSTRIAL DISTRICT IN 2020 (%)



- Renewable energy sources (hydropower)
- Hydrocarbons (natural gas)

ARCTIC-ENERGO ELECTRICITY SALES BREAKDOWN IN 2020 (IN KOLA PENINSULA) (%)



- Kola MMC
- Population
- Other consumers