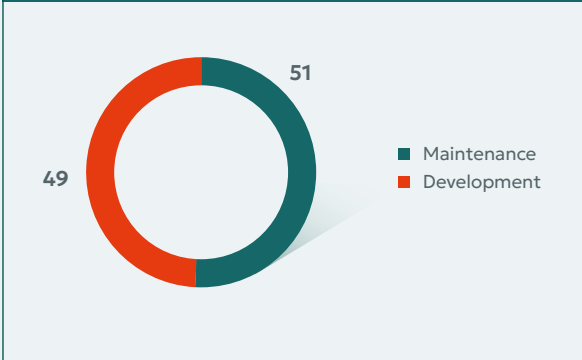


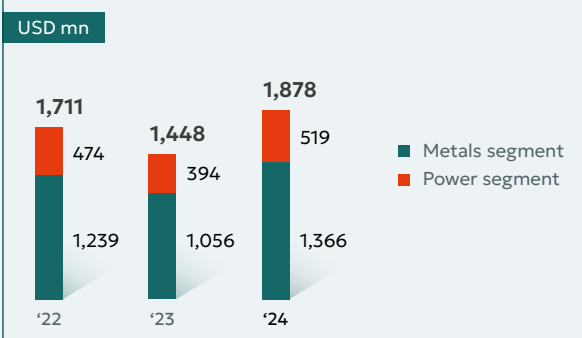
Investment programme and modernisation

Our investment programme is fully aligned with the Group’s strategic objectives and covers the Power and Metals segments. The key focus areas are modernisation and expansion of existing facilities and improvement of the infrastructure reliability.

Breakdown of capital expenditures¹ in 2024, %



Changes in capital expenditures by segment, USD mn



¹ Capital expenditures are cash flows related to investing activities – acquisition of property, plant, and equipment and intangible assets. The results for the Group are given after consolidation adjustments.

Modernisation to support transition to pre-baked anode technology

Description

Large-scale transition of Bratsk Aluminium Smelter (BrAZ) and Krasnoyarsk Aluminium Smelter (KrAZ) in Siberia to pre-baked anode technology and state-of-the-art and environmentally friendly electrolyzers designed in-house. The project is expected to take a decade for completion.

Goal

1,070 ktpa
Capacity to be modernised

2024 results

The KrAZ and BrAZ projects were approved by state experts. Site preparation was completed, construction and installation work is underway, equipment supply contracts are being negotiated



Metals segment



Taishet Anode Factory (TAF)

Description

The project is essential to ensure uninterrupted supply of high-quality pre-baked anodes to Siberian aluminium smelters and reduce primary aluminium production costs. The implementation of the project will help ensure 100% localisation of anode production, avoid the need to consume imported products and, as a result, reduce dependence on external suppliers.

Total investments in the project have amounted to more than RUB 52 billion (USD 511.4 million). Stage 2 is expected to be launched in 2025.

Goal

400 ktpa
Planned capacity of Stage 2

2024 results

The second anode baking furnace was launched

Power segment



CHP modernisation under the CCA NGF² programme

Description

CHP modernisation under the CCA NGF programme is aimed at eliminating the shortage of electricity in Siberia.

Expected investments will be more than RUB 170 billion by 2029 (USD 1.7 billion). Project with guaranteed profitability.

Goal

690 MW
Increase in installed capacity of CHP-11 due to implementation of CCA NGF projects

2024 results

Core equipment design and supply contracts were signed

Selection stage	First stage 01.03.2024	Second stage 29.08.2024
Selected	460 MW	230 MW
Units	Units 10, 11	Units 12
Start date for capacity sales	31.12.2028	01.07.2029

² Competitive capacity auction for new generating facilities.



New Energy HPP modernisation programme

Description

To improve the safety, reliability, and efficiency of the Angara and Yenisei cascade HPPs, a programme is being implemented to replace their core equipment, including hydraulic units and runners. The programme is expected to increase efficiency by up to 8% and reduce greenhouse gas emissions.

Investments in the programme up to 2026 will total RUB 21 billion (USD 206.5 million¹), including RUB 19 billion (USD 186.9 million) already invested.

Goals

>2.4 bn kWh

Annual additional HPP generation starting from 2026

2.8 mt of CO₂e

Avoided GHG emissions from coal-fired generation per year

2024 results

2.5 bn kWh

Additional HPP generation in 2024

2.9 mt of CO₂e

Avoided GHG emissions from coal-fired generation in 2024

The first stage of modernisation of Irkutsk HPP was successfully completed in 2024. Four out of eight hydraulic units were replaced. At the same time, runners were replaced at Krasnoyarsk HPP and Bratsk HPP

Development of hydropower

Description

En+ is working on the issue of building new large HPPs. The implementation of these projects will be feasible provided that effective mechanisms for the return of invested funds are developed.

Expected investments will total more than RUB 500 billion by 2042 (USD 4.9 billion).

Goal

2.2 GW

Potential installed capacity of new HPP projects

2024 results

4 HPP

construction projects are under consideration

Small HPP projects

Description

The Company remains committed to the development of small-scale hydropower projects. In particular, En+ is making progress on the small-scale Segozerskaya HPP project in Karelia, Russia, taking advantage of a state programme supporting renewable-energy projects through the capacity allocation contracts (CACs) mechanism.

Goal

200 MW

Potential installed capacity of new small HPP projects

2024 results

The construction of a concrete dam of the pressure front was started at Segozerskaya HPP

Wind power project

Description

A project to produce and supply wind power to the Russian power system.

According to preliminary plans, phased commissioning of capacity is planned until 2031. Expected investments will total more than RUB 100 billion (USD 983.5 million).

Goals

1 GW

Potential installed capacity of the wind farm

Up to 3 bn kWh

Potential wind power generation

2024 results

Wind measurements are being performed, the grid connection design is being developed; initial permits were obtained

CHP modernisation under the KOMMOD² programme

Description

The programme is aimed at improving the reliability and safety of CHPs. Total investments up to 2028 will amount to about RUB 26.4 billion (USD 259.6 million), realisation is subject to effective mechanisms for the return of invested funds.

Goal

1.4 GW

Installed capacity of CHPs to be modernised

2024 results

As of the end of 2024,

3 projects

out of eleven selected in the Irkutsk Region for the KOMMOD programme were completed; supply of power commenced at six out of eleven supply point clusters (55% of planned capacity)

Development of Zashulan coal deposit

Description

The Zashulanskoe coal deposit project (with commercial reserves of 663 mt) is aimed at developing the resource base for coal-fired generation and export sales of coal.

The project is planned to reach its full capacity by the end of 2027. Planned investments are more than RUB 49.8 billion (USD 489.8 million).

Goal

5.0 mt

Annual production of coal for exports

2024 results

The construction of a road and a substation to supply electricity to the coal mining site commenced



¹ Hereinafter in this section, calculated using the RUB/USD exchange rate of RUB 101.6797 per dollar as at 31 December 2024.

² Competitive selection of modernisation projects.