

GHG EMISSIONS AND ENERGY EFFICIENCY



2020 highlights

- Total GHG emissions 43.63 MtCO₂e.
- GHG emission intensity 1.97 tCO₂e/tcs.
- Total energy consumption 351.81 million GJ.
- Energy intensity 23.34 GJ/tcs.

2020 Key events

- Release of the first Climate Change Report.
- Adoption of ambitious new climate-related targets.
- Organizational changes in energy efficiency management that have enabled the involvement of the shops where energy consumption directly occurs.
- Reconstruction of blast furnace No. 6.
- Continued work to install the gas top pressure recovery turbine at EVRAZ NTMK.

Material topics

- Energy.
- Carbon Emissions.

Global sustainable development goals



GHG EMISSIONS

As mining and metallurgical operations are energy intensive and generate significant volumes of greenhouse gas emissions (GHGs), EVRAZ recognises

its obligations in the area of climate change mitigation and understands that businesses must play an active role in finding solutions to prevent negative

and irreversible impacts resulting from further rises in global average temperatures.

Management approach

GRI 103-2

Climate-related issues are handled within the framework of EVRAZ HSE management structure, where:

- The Board of Directors deals with climate change corporate governance, goal setting, and risk management issues at its meetings. Monitoring climate risks and the opportunity management process and approving an appropriate level of risk appetite for the Group also fall

under the remit of the Board of Directors, with the Audit Committee supporting these functions.

- Discussions of climate change-related issues take place at regular (twice a year) meetings of the HSE Committee, which determines an acceptable level of exposure to climate risks and assists the Board of Directors in overseeing the implementation

of the Climate strategy, as part of the Environmental strategy.

- The CEO of EVRAZ has ultimate responsibility for climate risk management and ensures the effective organization of the climate risk management system.
- The elaboration of climate-related projects is carried out by the Working Group on Environmental strategy (at CEO level), which is made up of representatives

from both production divisions and various directorates (financial, strategic, risk management, HSE).

- The Risk Management Working Group (at CEO level) is chiefly responsible

for collecting climate risk identification and assessment results for all EVRAZ business processes, and also elaborates measures to reduce the impact of these risks on the Group as a whole.

- Responsibility among executive management for performing climate-related tasks is delegated based on respective matters and powers.

EVRAZ elaborates and adopts various measures to combat climate change and is guided by three core principles:



considering **climate risks** and opportunities in the business model



supporting cooperation to combat **climate change**



introducing advanced technologies to **lower GHG emissions**

With a projected rise in global demand for high-quality steel, due to factors such as the development of the construction sector and urban transport infrastructure (including rail transport), EVRAZ sees great potential and opportunity for using the steel industry's products to assist in transitioning to a low-carbon economy. As the world's only full-cycle vanadium manufacturer, the Group considers its own vanadium products to be valuable materials for renewable energy generation (e.g. the application of vanadium alloys in the construction of wind turbines can

increase their service life). Identifying opportunities to use the Group's products for a low-carbon future enhances the long-term sustainability of the business model.

EVRAZ supports global initiatives to combat climate change, as well as national climate-related strategies in the countries where it operates. In compliance with the Companies Act 2006 (Strategic and Directors' Report) Regulations 2013, the Group commenced annual measurements of GHG emissions at all its enterprises in 2013.

A substantial part of EVRAZ's efforts to lower total and specific GHG emissions relates to energy and fuel consumed at the Group's facilities. By implementing best practices and technologies, EVRAZ boosts energy efficiency and increases the use of renewable and secondary energy sources. The Group is working to reduce the carbon intensity of its energy sources and to raise its own power generation and self-sufficiency levels by recycling 100% of secondary energy resources generated at its metallurgical plants.

2020 results

Since 2011 the Group has participated in the CDP Climate Change Programme and recorded a "D" score in 2020, even though the requirements of the CDP questionnaire became more stringent.

Another milestone for the Group in 2020 was joining the UN Global Compact initiative, which considers business as a force for good and drives companies' awareness and actions in order to achieve Sustainable Development Goals by 2030. EVRAZ has made a voluntary commitment to work on implementing 10 universal sustainability principles, which will support the Group's efforts to promote the transition to a low-carbon future. As a participant in the UN Global Compact, EVRAZ promotes a preventative approach to environmental challenges and greater environmental responsibility, and also carries out work to develop and implement green technologies, such as those that lower its GHG emissions.

EVRAZ's commitment to lowering greenhouse gas emissions is reflected in its goals. The Group has set a target for the period 2018–2022 of maintaining specific Scope 1 and 2 GHG emissions from steel production (the Steel and North America segments) at below 2 tonnes of carbon dioxide equivalent per tonne of crude steel (tCO₂e/tcs). This target was achieved in 2019, with a level of 1.97 tCO₂e/tcs. In 2020 EVRAZ was able to meet the target, with the same value of 1.97 tCO₂e/tcs.

In 2020 the Group improved and updated the Environmental strategy, which sets forth new and ambitious climate-related goals for up to 2030, using 2019 as a baseline year. Steps include:

- Reducing specific Scope 1 and 2 GHG emissions from EVRAZ's Steel segments (the Steel and North America segments) by 20%, in compliance with the Paris Agreement. Work to meet this goal will

involve implementing modernisation and energy efficiency measures, with energy efficiency projects being a core component of EVRAZ's efforts to lower GHG emissions. In addition to energy efficiency initiatives, during the development of the Group's Environmental strategy EVRAZ assessed several promising projects for switching to the best available technologies aimed at reducing GHG emissions, including the return of sinter gases to the sinter furnace and gas tank installation to recover converter gas and heat at oxygen converter shop no. 2. It is planned to adopt these technologies in the future as part of the implementation of the Environmental strategy up to 2030.

- Utilising 75% of methane (CH₄) emitted in the process of degassing carried out during coal mining.



Case study

Climate Change Report 2020

In October 2020, EVRAZ published its first dedicated **Climate Change Report** compliant with TCFD recommendations and providing additional information about the Group’s approach to climate change. This includes the role played by top management in this area and the organisational structure of climate-related risk management.

The report comprises key indicators on GHG emissions from their first assessment (2013) to 2019 with more detailed information on GHG emissions for 2019 (Scope 1 GHG emissions simultaneously by country and GHG type were disclosed for the first time).

Information on the EVRAZ vision for a low-carbon future for steel producers was provided in the report, as well as cutting-edge technologies for the metals and steel industry’s decarbonization that EVRAZ is ready to consider for implementation in the future.

GRI 201-2

In 2020, EVRAZ conducted its pioneer climate scenario review and its first steps in assessing climate-related risks and appropriate opportunities in accordance with TCFD recommendations. Results of this analysis were presented in the Climate Change Report. Representatives of the top management participated in the preparation of risk maps for various EVRAZ’ business units and business processes.

A qualitative evaluation has comprised eight climate risks, including transition and physical risks relating to weather conditions, and it has shown that there is no critical threat to the normal operation of the Group at present. In the scenario where the global average temperature does not rise by more than 1.5 degrees, transition risks will become relevant for EVRAZ (e.g., reputational risks associated with increasing expectations for action on climate change from multiple stakeholders). As it gets to 4.5 degrees, the significance of physical risk management to the smooth running of business operations is expected to increase. The Group plans to strengthen climate risk assessment in the future.

In general, the release of this report has enabled EVRAZ to enhance the quality of its climate disclosure, and by adopting TCFD recommendations, the Group keeps stakeholders informed about the risks it faces due to climate change, as well as opportunities to manage these risks. When necessary, for instance, if there are significant changes in the approach to climate change, the Group plans to release new Climate Change Report.

Hence, the Climate Change Report highlights the high degree of engagement of the Group’s top management in addressing climate change issues, as well as in climate risk management processes. Having taken initial steps in the assessment of physical and transition climate risks in 2020, EVRAZ aims to further improve climate risk management processes by integrating physical and transition climate risks into the Group’s business strategy and regular risk assessments. The Group recognizes the need to consider physical and transition climate risks in its strategic planning.

The Climate Change Report disclosed the physical risks that the Group pays the most attention to, their monitoring and managing. The report also outlines the drivers of the identified physical risks and the measures in place to mitigate them, including initiatives to implement a closed water supply system and maximize the use of recycled water, to enhance regular monitoring of weather conditions and the health of production equipment, etc. The key initiative to reduce the Group’s impact on increasing climate change and the severity of physical climate risks are the activities under the energy efficiency programs, the implementation of which allows EVRAZ to reduce greenhouse gas emissions and to achieve the goal by 2030 to reduce specific direct and indirect energy GHG emissions by 20% compared to the 2019 level.



Stakeholders: EVRAZ, government, local communities.

Value for stakeholders: contributing to the achievement of national goals on clean environment.

Value for EVRAZ: transparent disclosure on climate issues, responsible business approach.

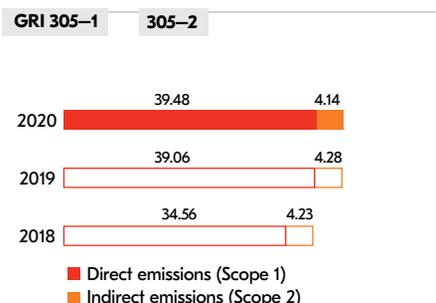
GRI 305–5

As above, EVRAZ discloses data in tCO₂e (tonnes of carbon dioxide equivalent). EVRAZ estimates direct emissions (Scope 1) of all seven GHGs¹ stated in the Kyoto Protocol and indirect energy emissions linked to the purchased electricity and heat (Scope 2). The 2006 IPCC Guidelines for National Greenhouse Gas Inventories (IPCC 2006) and the WRI/WBCSD GHG Protocol Corporate Accounting and Reporting Standard are used for the emissions inventory².

In 2020, during the process of developing the new Environmental strategy's goals, EVRAZ has taken initial steps in assessing its Scope 3 (indirect non-energy) emissions, and it plans to improve its approach to estimating total greenhouse gas emissions, including the methodology for calculating them, in 2021.

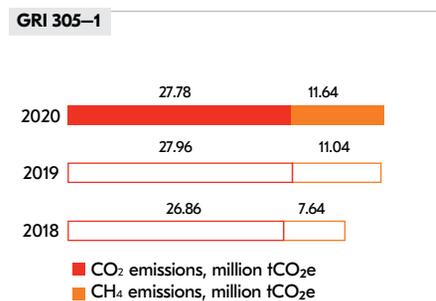
In 2020, nearly all of EVRAZ's GHG emissions remained at the same level, rising by only 0.64% compared to 2019. There was also a 1.1% rise in the Group's direct GHG emissions, whereas 2020 saw a 3.3% reduction in Scope 2 EVRAZ emissions. The latter was due to lower steel production at the Group's North American assets, which have no integrated power plants and have to purchase electricity from the market, and a decrease in electricity purchases by Russian steel mills.

EVRAZ Scope 1 and 2 GHG emissions, 2018–2020³, million tCO₂e



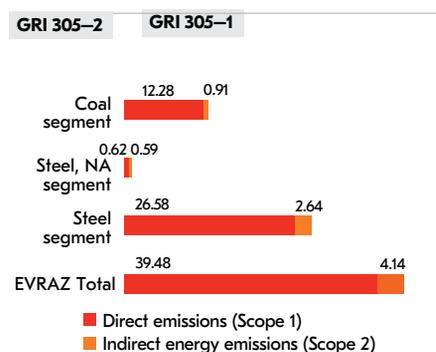
The growth in Scope 1 EVRAZ emissions was mainly attributable to an annual increase in methane emissions (by 5.4% vs. 2019), due to higher methane concentrations in the coal seams and more intense degassing at some mines.

EVRAZ Main Scope 1 emissions, 2018–2020, million tCO₂e



As methane is combustible, the Group carries out preliminary degassing to improve employee safety. To improve efficiency in this regard, it is important to increase the volume of gas captured. This generates higher methane emissions, and to reduce these, EVRAZ plans to implement research and development projects on methane utilisation in 2021.

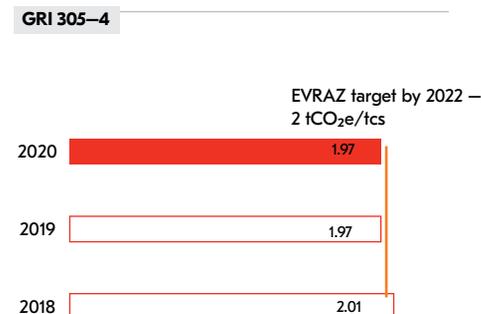
EVRAZ GHG emissions by segment in 2020, million tCO₂e



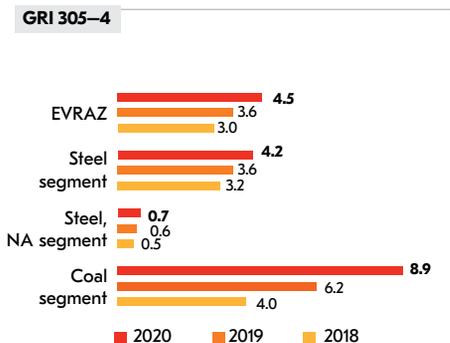
The Steel segment (incl. North America) continues to generate a significant portion of the Group's gross GHG emissions, and accounted for 70% of the total GHG level in 2020. Operations in the Coal segment accounted for 30% of overall GHG emissions in 2020, almost all of which (94%) were methane emissions.

Overall emissions in the steel sector (the Steel and North America segments) were 1.0% lower than the 2019 level, mostly due to a slight decline in crude steel production, and hence the specific intensity of GHG emissions remains at the same level of 1.97 tCO₂e/tcs.

Specific Scope 1 and 2 GHG emissions from steel production (Steel and North America segments), 2018–2020, tCO₂e/tcs



GHG emissions per consolidated revenue, 2018–2020, kgCO₂e/US\$



¹ Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC) and perfluorocarbons (PFC), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃)
² The inventory comprises all enterprises controlled by EVRAZ. Facilities removed during the year have been incorporated into the accounting for the period in which they were part of the Group. Only enterprises that were considered immaterial for the consolidated emissions on the basis of their production figures were not included. Direct CO₂ emissions from operations were calculated using the carbon balance method for carbon flows throughout production facilities, including fuel use. Emissions of other GHGs were calculated based on measured volumes, changes in the inventory or IPCC 2006 factors and models (including for methane emissions after coal mining) where there is no direct measurement data. Indirect emissions were estimated using country- or region-specific emission factors, if available, or other factors provided by UK Defra.
³ The 2020 greenhouse gas emissions data have been refined as a result of verification, so they differ from those previously disclosed in the Annual Report for 2020.