

APPROVED BY
Chairman of the Board
JSC "Almalyk MMC"
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Climate change POLICY

JSC "Almalyk MMC" (hereinafter referred to as "Company") is the largest copper producer in Central Asia. The main products of the Almalyk Mining and Metallurgical Complex include refined copper in the form of cathodes, refined gold and silver ingots, technical selenium and tellurium, sulfuric acid, copper and zinc sulfate, ammonium perrhenate, metallic molybdenum, copper wire, and copper wire in enamel insulation.

JSC "Almalyk MMC" acknowledges that addressing the issue of global climate change is a production priority. The Plant's Climate Change Policy (hereinafter referred to as "the Policy") is aimed at reducing greenhouse gas emissions, adapting to climate change, protecting public health, and safeguarding the environment.

The Policy entails the modernization of the Company production assets using the best available technologies and green solutions, enhancing energy efficiency, and developing renewable energy sources.

Mission and Values of the Plant

The Plant's mission is to establish an approach to assessing the impact of climate change on production activities, reduce greenhouse gas emissions, and increase energy efficiency across all production units of the Plant, taking into account advanced global practices and the goals of the Paris Agreement.

Key Principles of the Climate Change Policy

The principles of the Climate Change Policy define the fundamental principles on which the measures to reduce greenhouse gas emissions and adapt to climate change are based. The key principles of the Plant include:

- 1. Adaptation to Climate Change:** The Climate Policy is aimed at developing and implementing strategies to adapt to already observed and anticipated global climate changes.
- 2. Mitigation of Climate Change Effects:** The Climate Change Policy outlines measures aimed at reducing the Plant's impact on the climate and limiting the adverse effects of global warming.
- 3. Energy:** Increasing the share of renewable energy sources (RES) contributes to a more sustainable and environmentally friendly energy system, achieving sustainable development goals and reducing the consumption of non-renewable fuels.

4. Reducing Financial Risks: Address potential negative financial consequences of climate change and the costs associated with transitioning to renewable energy sources.

5. Mitigating Climate Risks: Develop a Climate Strategy for the Plant.

6. Financial Benefits of Transitioning to RES: The Policy outlines the financial opportunities available when transitioning from traditional energy sources to renewable energy sources.

7. Integrated Approach: The Climate Policy is integrated and encompasses all industrial units and technological equipment of the Plant.

8. Principle of Responsibility: Company takes responsibility for its contribution to global climate changes and takes measures to reduce greenhouse gas emissions and adapt to the consequences.

9. Public Participation: Active involvement of various groups, public organizations, businesses, and other stakeholders is an essential principle of the Climate Policy, as it enhances the legitimacy and effectiveness of decisions made.

These principles form the basis for developing and implementing the Policy aimed at mitigating the effects of climate change and ensuring a sustainable future for the Plant.

Goals of the Plant

The goals of the Climate Policy aim to reduce the Plant's impact on the climate and adapt to ongoing changes. The objectives of the Climate Policy include:

1. Reducing Greenhouse Gas Emissions: The main goal of the Climate Policy is to commit to reducing greenhouse gas emissions, such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), which are the primary causes of global warming and climate change (the Plant aims to reduce greenhouse gas emissions by 35%).

2. Limiting Global Warming: The Climate Policy aims to prevent dangerous consequences of global warming by controlling greenhouse gas emissions.

3. Creating Opportunities for Innovation and Development: The Plant aims to develop the RES sector, fostering innovation in energy efficiency and integrating various energy sources into the grid.

4. Developing a Climate Strategy: This includes analyzing the current situation, setting goals and priorities, developing specific measures and mechanisms for their implementation, and monitoring and evaluating the achievement of set goals.

5. Assessing Climate Risks: Identifying, assessing impacts, implementing, and monitoring.

Tasks, Commitments, and Implementation Mechanisms

JSC "Almalyk MMC" sets the following tasks and commitments in the area of climate change:

- Continue to disclose total energy consumption from non-renewable sources by fuel type in the Sustainability Report and develop a plan to reduce energy consumption from these sources.
- Continue to disclose total energy consumption from renewable energy sources (solar energy).
- Increase the share of alternative energy sources to reduce greenhouse gas emissions. The Plant has solar panels and electric vehicles on site, and plans to increase energy consumption from RES in production by 2024.
- Regulate and account for greenhouse gas emissions. The Plant conducted an inventory of greenhouse gas emissions in 2022 and intends to develop a strategy to reduce greenhouse gas emissions.
- Prevent potential financial consequences associated with climate change: increased production costs from traditional energy sources, carbon tax, and other factors.
- Enhance energy independence: Using RES reduces dependence on imported fossil fuels and lowers risks associated with energy price fluctuations.
- Improve energy efficiency in production and transport, significantly reducing greenhouse gas emissions.
- Create new jobs. The development and implementation of the Climate Policy also aim to stimulate economic growth by creating new jobs in the Strategic Development and Transformation Management Department of the Plant.
- Raise employee awareness about the rational use of natural resources and measures to prevent climate change: using public transportation, reducing overall consumption of goods and services that produce significant greenhouse gas emissions during production.

*Annex to the Climate Change Policy
approved by the Chairman of the Board
on May 6, 2024*

MEASURES for decarbonization and achieving carbon neutrality of Almalyk Mining and Metallurgical Complex (AMMC) by 2050

1. Introduction

The mining and metallurgical sector ranks among the top three industries worldwide that emit greenhouse gases (GHGs), alongside the energy and oil and gas sectors.

Government policy plays a crucial role in decarbonization, where it is important to find balanced solutions that support "green" projects across various sectors of the economy. Under the Paris Agreement on Climate Change, Uzbekistan has committed to reducing greenhouse gas emissions per unit of GDP by 35% by 2030 compared to the 2010 level. To fulfill its commitments under the Paris Agreement, Uzbekistan has adopted several legislative acts that aim to implement measures for fuel and energy savings, modernization of energy-generating facilities, reduction of losses in power grids, implementation of energy-efficient technologies in construction, large-scale deployment of renewable energy sources (solar energy, solar collectors, small hydroelectric plants, biogas units, wind turbines,

etc.), and improvement of waste management systems.

Given these trends and the country's commitments, AMMC (hereinafter referred to as the "Complex" or the "Company") recognizes its potential to significantly contribute to achieving national goals. As a result, the Complex has decided to develop and implement a corporate Decarbonization Plan and Carbon Neutrality Strategy (hereinafter referred to as the "Plan"). The Plan outlines AMMC's climate ambitions, systematizes key approaches, assesses the current level of GHG emissions, and identifies measures for reducing its carbon footprint.

The climate strategy is expected to be developed for the period 2024-2025.

1.1 Company Activities and Associated Greenhouse Gas Emissions

AMMC is a leader in Uzbekistan's non-ferrous metallurgy industry. Its production capacities are based on copper-molybdenum, lead-zinc, and gold-silver deposits located in the Tashkent, Jizzakh, Namangan, and Surkhandarya regions of the Republic.

The Company's main activities include:

- Mining of mineral resources (ore);
- Processing of extracted ore at concentration and gold extraction plants;
- Production of more than 10 types of finished products, such as copper (cathodes, wire rod, enamel wire), metallic zinc, and sulfuric acid;

During AMMC's operations, greenhouse gases are generated from:

- The consumption of fossil fuels (diesel, fuel oil, coal) for technological needs and boiler rooms,
- As well as fuel combustion by mobile sources (vehicles and equipment).

Given the nature of its activities and GHG emissions inventory data, the predominant emissions are indirect emissions from Scope 2 (Chart 1). The main energy consumers and direct sources of greenhouse gas emissions associated with the combustion of fossil fuels include:

- **Copper segment enterprises**, which include the technological chain for the production of copper products;
 - **Thermal power plant (CHP)**, providing heat supply to the units of the plant, including the copper segment enterprises;
 - **Zinc production;**
 - **Other units of the plant not included in the copper segment;**
 - **Consumers of thermal energy from municipal enterprises and the population of the city of Almalyk.**

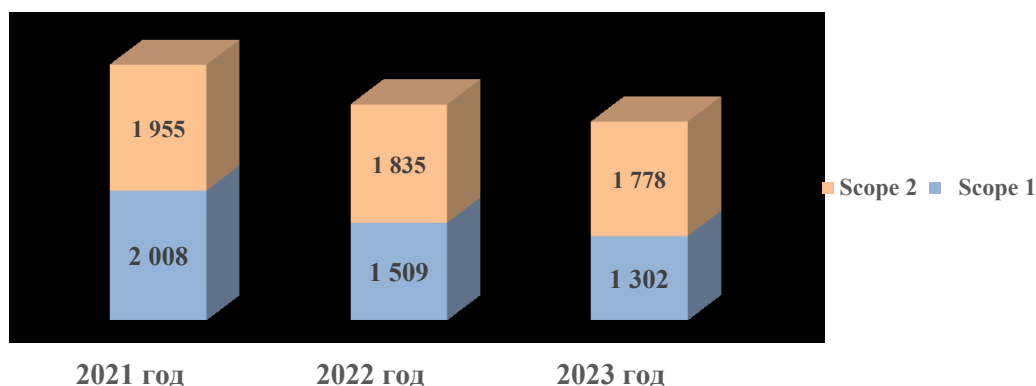


Chart 1: Direct and Indirect GHG Emissions for 2021-2023 (thousand tons of CO2-equivalent).

The structure of the Company's direct emissions (Scope 1) of greenhouse gases in 2023 is shown in Chart 2.

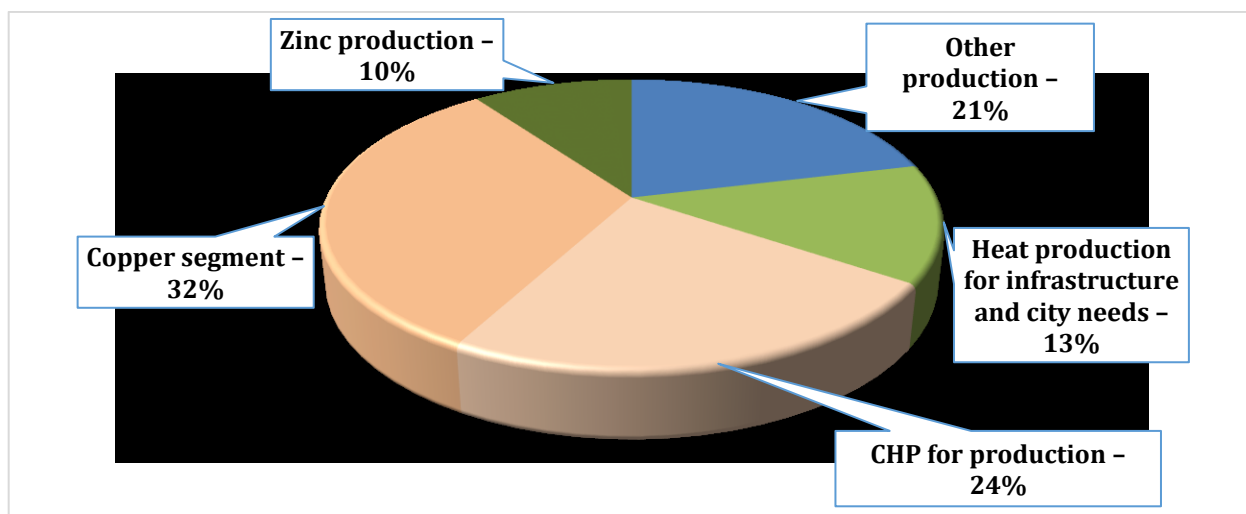


Chart 2: Structure of AMMC's Direct GHG Emissions in 2023

Total indirect Scope 2 emissions in 2023 amounted to 58% (1,778 thousand tons of CO2-equivalent) of total emissions. Scope 2 emissions are directly related to the purchase of energy resources for internal needs. The calculation of Scope 2 emissions is based on data on electricity consumption volumes and the application of emission factors for the Republic of Uzbekistan from publicly available IPCC sources.

The Company pays significant attention to GHG emissions and carbon footprint reduction. To raise public awareness about the need to reduce greenhouse gas emissions, AMMC's labor collectives support and participate in national initiatives, such as "Green Space," "Green Belt," and also organize their own events to attract attention to the issue, including tree planting and greening activities.

Given that ore mining and processing are energy-intensive processes, the Complex aims to increase energy efficiency and reduce energy consumption by implementing more energy-efficient equipment, rational use of natural resources, and modernization of production processes. The Company's approach to energy management is based on the energy management systems implemented at AMMC facilities in

accordance with the international standard ISO 50001:2018.

Boundaries of the Decarbonization Plan and AMMC's Achievement of Carbon Neutrality

To conduct an evaluation, all of the Company's subsidiaries were analyzed and grouped according to their primary activities into four business segments:

1. Ore mining;
2. Concentration complex;
3. Metallurgical complex;
4. Auxiliary activities.

2. Scenarios for Achieving Carbon Neutrality

A crucial factor in decarbonizing production and achieving carbon neutrality for the Complex and its products is improving energy efficiency and increasing the share of renewable energy sources (RES) used. Recently, intensive construction and commissioning of photovoltaic power stations (PPS) have been taking place, not only in Uzbekistan but also on AMMC's territory. With the commissioning of PPS, the Company expects to significantly reduce electricity consumption generated from fossil fuel combustion by up to 65% by 2030.

2.1 Setting the Goals and Objectives of the Carbon Neutrality Plan of Almalıy Mining and Metallurgical Complex (AMMC)

The global trend towards decarbonization and the transition to green technologies has been gaining significant momentum and is now entering an intensive phase. AMMC intends to develop along these lines, focusing on moderate, balanced, and consistent decarbonization and the development of renewable energy sources.

Scenarios for achieving carbon neutrality involve implementing energy efficiency measures at major sources of greenhouse gas (GHG) emissions, increasing the share of RES, and modernizing the vehicle fleet (or purchasing electric vehicles).

Under the current carbon neutrality plan, AMMC identifies two main development scenarios for itself and one baseline scenario:

- Pessimistic (Baseline) - A scenario of inertial development where the Company takes no steps toward decarbonization;
- Realistic - A scenario of gradual carbon neutrality achievement, considering the moderate pace of the country's decarbonization;
- Optimistic - A scenario of ambitious and accelerated carbon neutrality achievement.

Considering global and local drivers and the Complex's commitment to the goals of energy transition and carbon neutrality, AMMC outlines the following objectives in the Realistic Scenario:

- Reducing direct and indirect GHG emissions by 15% by 2030, 25% by 2035, 35% by 2040 and 50% by 2050 from the 2023 level;

- Increasing the consumption of RES to 400 GWh annually;
- Planting up to 300,000 trees annually.

Organic emission reduction will be achieved through the implementation of operational efficiency measures and the reconstruction of production facilities, with future plans for expanding or reducing production volumes.

Inorganic reduction will be achieved through new projects at the corporate level that contribute to reducing the Company’s overall carbon footprint. These include:

- Optimization solutions and capital energy efficiency measures,
- Increasing the share of energy consumption from RES
- Carbon capture and sequestration initiatives.

2.2 Optimistic Scenario for AMMC (Achieving Carbon Neutrality by 2050 for Scopes 1 and 2)

The Realistic Scenario involves implementing energy efficiency measures and expanding the share of RES ambitious enough to meet the goal of reducing GHG emissions.

This scenario envisions a reduction from the 2023 baseline level of direct and indirect GHG emissions by 15% by 2030, 25% by 2035 and 50% by 2050.

It also includes a gradual reduction in the carbon intensity of the national energy grid through a moderate increase in the share of RES and alternative energy sources to 10% by 2030 and 25% by 2050.

Optimistic Scenario	2030	2035	2040	2050
Target GHG reduction	15%	25%	35%	50%
Target GHG emissions of AMMC (thousand tons of CO ₂ -eq)	2 618	2 310	2002	1540
Share of RES and alternative energy	10%	15%	22%	25%

This scenario outlines several areas for reducing GHG emissions:

- Reductions through operational efficiency improvements and production facility upgrades, taking into account future production plans (including energy efficiency measures and significant capital investments in plants and equipment);
- Reductions through new corporate-level projects aimed at lowering the Company’s carbon footprint. This scenario considers building in-house RES facilities and purchasing electricity generated from RES on the market, with subsequent distribution among the Company’s assets;
- Gradual vehicle fleet renewal with electric vehicles;
- Offsetting the carbon footprint through carbon sequestration projects, including tree planting and greening of existing areas.

2.3. Pessimistic Scenario

The pessimistic scenario for development assumes maintaining the current energy and carbon intensity levels of AMMC's production.

Under this scenario, there are no specific goals or obligations for reducing greenhouse gas (GHG) emissions. Any reduction in GHG emissions is driven by factors such as:

- The natural decommissioning of production capacities;
- The scheduled implementation of recommended measures following energy audits and other routine activities.

MEASURES
for decarbonization and achieving carbon neutrality JSC "Almalyk MMC" by 2050

№	Event name
1.	Reduction of Direct GHG Emissions Scope 1 (Scope1)
1.1	Installation of solar collector systems
1.2	Purchase of hybrid/electric vehicles (to reduce gasoline consumption)
1.3	Phasing out the use of coal, fuel oil, and heating oil at the Combined Heat and Power Plant (CHP)
1.4	Implementation of measures according to energy audits on energy conservation and efficiency, especially in heat-utilizing equipment
2.	Reduction of Indirect GHG Emissions Scope 2 (Scope2)
2.1	Procurement of green electricity (increasing the share of renewable energy from renewable energy sources)
2.2	Installation and expansion of solar power plants
2.3	Use of frequency converters
2.4	Development of an energy conservation and efficiency program, with a detailed energy analysis for the Company
3.	Green Planting Initiatives
3.1	Planting green areas

2.4. Identification of Directions and Other Carbon-Negative Projects Required for Decarbonization and Achieving Carbon Neutrality

The cumulative effect of organic and inorganic measures for reducing emissions will ensure the Company achieves its stated decarbonization goals. However, to create a buffer, the analysis will assess the ambition of the organic reduction program, targeting an overall reduction in emissions. This allows the Company, through well-developed inorganic reduction measures at the corporate level, to manage decarbonization risks effectively.

Instruments for achieving AGMK's preliminary climate ambitions include:

- Resource conservation and increased operational and energy efficiency within existing programs, expanding the ambition of emission reduction projects;
- Involving renewable energy in the overall energy balance and disseminating best practices to ensure sustainable GHG reduction according to the Company's goals;
- Engaging offset mechanisms to support the Company's objectives, providing flexibility in decarbonization tools and attracting additional resources for decarbonization efforts.