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Al-Farabi Kazakh National University
Member of the Board – Vice Rector for the
Scientific and innovative activities

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REGULATION ON CARBON DIOXIDE EMISSIONS MANAGEMENT AND REDUCTION OF CARBON DIOXIDE EMISSIONS AT THE UNIVERSITY

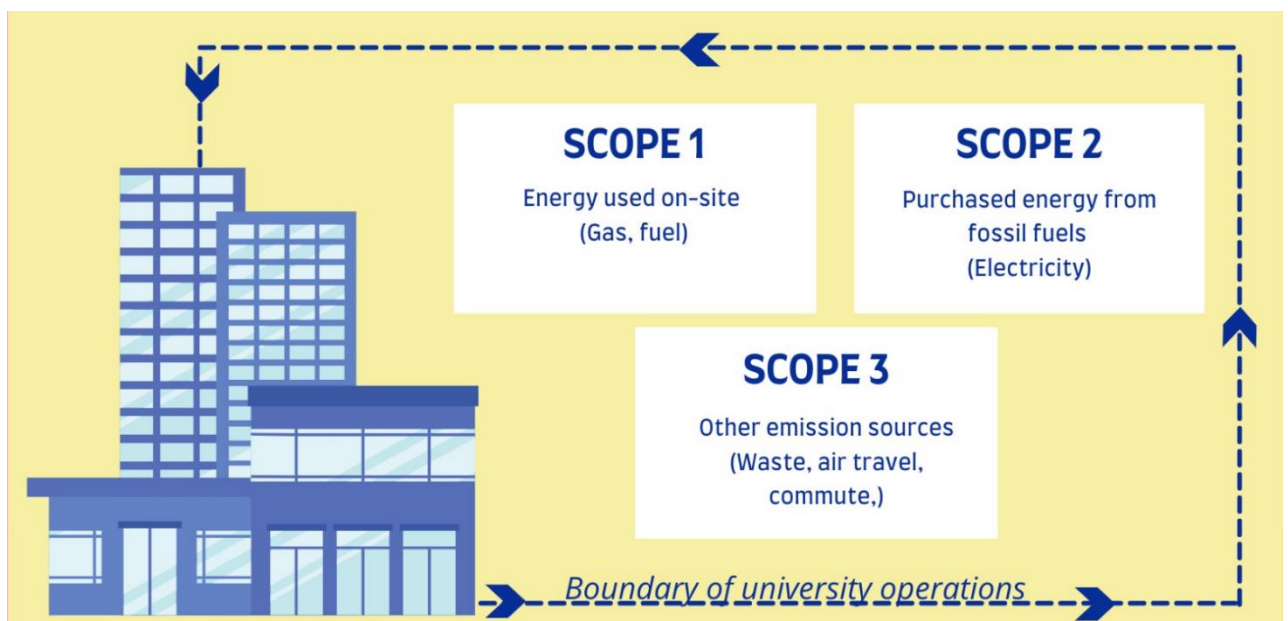
ALMATY, 2024

Introduction

Carbon dioxide (CO₂) is the most common greenhouse gas. Other greenhouse gases include methane, nitrous oxide, and other gases that trap heat and cause warming. Different greenhouse gases have varying abilities to retain heat in the atmosphere, so quantitative measures of greenhouse gases are evaluated as carbon dioxide equivalents (CO₂e).

The Greenhouse Gas Protocol (<https://ghgprotocol.org/standards>) classifies organizational greenhouse gas emissions into **three scopes** for tracking and reporting:

- **Scope 1** – All direct emissions from an organization's activities or under its control. This includes fuel combustion on-site, such as in gas boilers and vehicles.
- **Scope 2** – Indirect emissions from the electricity purchased and used by the organization. These emissions occur during energy production and are eventually used by the organization.
- **Scope 3** – All other indirect emissions from the organization's activities that come from sources not owned or controlled by the organization. These typically account for the largest share of the carbon footprint, including emissions from business travel, procurement, waste, and water use.



Scope 3 accounts for all indirect greenhouse gas emissions that were not included in Scope 1 and 2. At present, Scope 3 greenhouse gas emissions are not subject to mandatory reporting under the GHG Protocol standard, which considers

only direct emissions from stationary, flaring, and transport fuel combustion and process and waste emissions.

As a result of the activities of Al-Farabi Kazakh National University, there are emissions not owned and controlled by the University relating to scope 3 emissions.

Scope 3 emissions categories include:

- purchased goods and services
- capital goods
- fuel and energy activities
- transport and distribution
- waste generated in the course of operations
- business travel
- processing of realised products
- utilisation of sold products
- processing of sold products at the end of their useful life
- investments.

One of the goals of the university's sustainability plan, as well as the strategy for achieving carbon neutrality by 2050, is to account for and reduce scope 3 emissions. The university is analysing scope 3 emissions by looking at the different categories that can be tracked. The following areas of relevance to the university are identified:

- waste generated by operations;
- the number of vehicle trips on campus;
- Indirect emissions specific to educational institutions.

Due to global climate change and the need for sustainable development, the university has decided to develop measures to manage and reduce carbon dioxide (CO₂) emissions on its campus. This regulation defines the main principles and processes aimed at minimising CO₂ emissions.

1. General Provisions

1.1 The purpose of the provision is to create an effective system for managing carbon dioxide (CO₂) and other greenhouse gas emissions at the university, and to implement emission reduction measures to achieve a sustainable environmental balance and fulfil international commitments to reduce carbon footprint.

1.2 Objectives:

1.2.1 Ensure continuous monitoring of carbon emissions;

1.2.2 Develop and implement programmes and projects to reduce CO₂ emissions;

1.2.3. Raising awareness and involving all staff and students in the environmental management process;

1.2.4 Co-operation with external partners to implement emission offsetting initiatives.

1.3 **Scope:** This regulation applies to all units of the University, including academic, administrative, research and student organisations.

1.4 Basic Concepts:

1.4.1 Carbon dioxide (CO₂) emissions: Pollutants emitted into the atmosphere as a result of university activities (energy consumption, transport, waste, etc.).

1.4.2 Sustainable development: Development of the university taking into account environmental, economic and social aspects.

2. Objectives and principles of CO₂ emission management

2.1 The University sets long and short term carbon reduction targets. The main target is to achieve carbon neutrality by 2050, with intermediate targets of a 20% reduction in emissions by 2030.

2.2 Emissions Management Principles:

- **Transparency:** All emission management actions should be transparent and open to the public.
- **Responsibility:** Each unit of the university is responsible for its CO₂ emissions and must take action to reduce them.
- **Innovation and Sustainability:** Utilise the latest technologies and adopt sustainable practices to reduce emissions.
- **Systemic approach:** Emissions are managed at all levels of the university through coordination between academic and administrative structures.

3. Monitoring and reporting

3.1 The University agrees to collect CO₂ emissions data annually from all sources, including:

- Electricity consumption;
- University owned vehicles used by staff and students;
- Construction and renovation activities;
- Water and resource use;
- Waste management processes.

3.2 The CO₂ emissions report will be published on the University website and submitted to the relevant regulatory authorities for verification and certification.

3.3 The responsibility for monitoring is assigned to a specially established **Environmental Commission** of the University, which includes representatives of various departments.

4. Measures to reduce CO₂ emissions

4.1 The University implements the following emission reduction measures:

- **Improving the energy efficiency of** buildings and equipment;
- **Switching to renewable energy sources** (installation of solar panels, utilisation of wind energy, etc.);
- **Optimisation of transport policy**, including support for the use of public transport, carpooling and bicycles;
- **Minimising waste** and encouraging recycling;
- **Switching to digitalised working formats** to reduce paperwork and resource consumption.

4.2 Green building principles will be applied to new buildings and refurbishments, including the use of energy efficient materials and technologies.

4.3 The University will organise regular events to raise awareness among staff and students of ways to reduce carbon footprint.

5. CO₂ emission compensation

5.1. If emission reductions cannot be sufficiently achieved, the university can use carbon footprint offsetting programmes such as supporting green infrastructure initiatives in cities.

6. Liability and control

6.1 All structural subdivisions of the University are obliged to take an active part in the implementation of measures to reduce CO₂ emissions and report on the fulfilment of the set tasks.

6.2 **The Environmental Commission** annually audits the implementation of emission reduction measures and prepares a corresponding report.

6.3 In case of non-compliance with the provisions of this document, the university units may be subject to internal disciplinary measures.

7. Final Provisions

7.1 These Regulations shall come into force from the date of its approval and shall be subject to revision at least once every three years, taking into account

changes in legislation, scientific data and best international practices in the field of greenhouse gas emissions management.

7.2 The University reserves the right to adjust the goals and methods of carbon dioxide emissions management based on the results obtained and changing environmental conditions.