Appendix No. 11
to the minutes of the Management Board of the Joint-Stock Company
Export Credit Agency of Kazakhstan
dated December 12, 2024 No. 120

«Approved
by the decision of the Board of the Joint-stock company
Export Credit Agency of Kazakhstan
dated December 12, 2024
(Protocol No. 120)»

Methodology for calculating greenhouse gas emissions of the Export Credit Agency of Kazakhstan Joint Stock Company

Astana, 2024

SUMMARY OF IND

Name of the IND	Methodology for calculating greenhouse gas emissions of the Export Credit Agency of Kazakhstan Joint Stock Company
Owner of the IND	Department of International Cooperation
Access level	Publicly available
Activities aimed at familiarizing structural units with the IND	E-mail distribution within 1 (one) business day from the date of posting the IND on the Internal Portal network drive

Content

Chapter 1. General provisions 4
Chapter 2. Goals and objectives of the Methodology 4
Chapter 3. Organizational boundaries of the Methodology 5
Chapter 4. Direct GHG emissions (SCOPE 1) 6
Chapter 5. Indirect GHG energy emissions (SCOPE 2) 6
Chapter 6. SCOPE 3 emissions 7
Chapter 7. Final provisions 9
Appendix 1 10
Appendix 2 11
Appendix 3 13

Chapter 1. General provisions

1. This Methodology for calculating greenhouse Gas Emissions of the Export Credit Agency of Kazakhstan Joint Stock Company (hereinafter referred to as the Methodology) regulates the calculation of greenhouse gas emissions generated by the Export Credit Agency of Kazakhstan Joint Stock Company (hereinafter referred to as the Company).

2. The purpose of the Methodology is to determine the method and procedure for calculating greenhouse gas emissions (Scope 1, 2, 3) arising from the Company's activities, to describe the method for quantifying the Company's greenhouse gas emissions, and the calculation limits.

3. This Methodology has been developed in accordance with:

1) the legislation of the Republic of Kazakhstan;

2) The strategy for achieving carbon neutrality of the Republic of Kazakhstan until 2060;

3) Methods for calculating greenhouse gas emissions and uptake, approved by Order No. 9 of the Minister of Ecology and Natural Resources of the Republic of Kazakhstan dated January 17, 2023;

4) The Greenhouse Gas Protocol (hereinafter referred to as the GHG Protocol) is an international standard for accounting for greenhouse gas emissions;

5) The international standard ST RK ISO 14064-1:2019 (ISO 14064-1:2018) «Greenhouse gases. Requirements and guidelines for the quantification and reporting of greenhouse gas emissions and uptake/removal at the organizational level»;

6) The Guidelines of the Intergovernmental Panel on Climate Change (IPCC) Intergovernmental Panel on Climate Change (IPCC) on effective practices and consideration of uncertainty factors in national greenhouse gas inventories.

4. The following basic terms, definitions, and abbreviations are used in this Methodology:

1) Greenhouse gases (GHGs) are substances with high strength that allow sunlight to pass through, but at the same time delay infrared radiation originating from the earth's surface. Gases listed in the Kyoto Protocol are: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); sulfur hexafluoride (SF_6); and nitrogen trifluoride (NF_3);

2) The global warming potential (hereinafter referred to as GWP) is a coefficient describing the effects of radiation exposure (the degree of harm to the atmosphere) of one unit of a given GHG in relation to one unit of CO_2 over a given period of time;

3) The carbon footprint is a set of GHG emissions that are released as a result of human, business, or government activities. GHG emissions are classified into scopes, the so-called «Scope», which make it possible to determine the impact of Society on the environment;

4) The GHG Protocol (Greenhouse Gas Protocol) is a set of industry guidelines and other tools for accounting for greenhouse gas emissions, as well as a widely used international accounting tool for understanding, quantifying and managing greenhouse gas emissions. The Protocol development is coordinated by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD);

5) The emission factor is a value that converts activity data into emission values. They are published by various organizations such as local and state government and intergovernmental agencies;

6) CO_2e is the equivalent of (e) carbon dioxide (CO_2). The «carbon dioxide equivalent» is the standard unit for calculating GHG emissions, regardless of whether they are emissions of carbon dioxide or another gas, such as methane. The Methodology uses units such as tCO2e (tons of carbon dioxide equivalent) or gCO2e (grams of carbon dioxide equivalent).

Chapter 2. Goals and objectives of the Methodology

5. The objectives of the Methodology are:

1) contributing to global efforts to mitigate and adapt global climate change;

2) reducing the carbon footprint and quantifying greenhouse gas emissions resulting from own activities based on the guidelines of the National Greenhouse Gas Inventories (IPCC, 2006), Methodology for Accounting for the scope of the GHG Protocol Scope 2 Guidance;

3) annual publication of information on the Company's greenhouse gas emissions.

6. The objectives of the Methodology are:

1) explanation of the Company's management and employees about sustainable development and the Company's carbon footprint;

2) disclosure of information about the environmental impact of the Company.

Chapter 3. Organizational boundaries of the Methodology

7. The methodology can be revised, adjusted and improved upon changes in the Company's development priorities and operating conditions, as well as in cases of adjustments to standards and recalculations of emission factors.

8. The results of GHG emissions calculations are published on the Company's corporate Internet resource annually, in the first half of the year following the reporting year, in accordance with Appendix 1 to this Methodology.

9. The Company also discloses information on environmental impact annually in the annual report/sustainability report posted on the Company's corporate Internet resource, as well as in other social networks. The obtained results of calculations on emissions can be the basis for reducing emissions from the Company's activities.

10. When assessing GHG emissions, an operational control approach was used, in which the Company takes into account all GHG emissions from facilities over which the Company has operational control. The quantitative assessment of GHG emissions is carried out for the executive body of the Company and the Representative Office of the Company in Almaty city.

11. The structural unit of the Company, which directly determines the principles and directions of the Company's activities in the field of sustainable development, is the structural unit responsible for the international cooperation of the Company.

The structural unit that provides information for calculating GHG emissions from the use of official vehicles for the Company's management is the structural unit responsible for the Company's operational activities.

The structural unit that provides information on routes and distances for calculating GHG emissions from trips (business trips), as well as the average number of employees of the Company in the reporting year, is the structural unit responsible for managing the Company's human resources.

Information on electricity, energy consumption, and water consumption is requested from the owner of the building where the Company's offices are located.

12. To help differentiate between direct and indirect sources of emissions, increase transparency, and provide convenience for different types of organizations, three Scopes are defined for GHG accounting and reporting purposes.

GHG emissions under Scope 1, according to the Protocol, are direct emissions generated from the combustion of fossil fuels such as natural gas, oils, coal, fuel oil, diesel fuel, gasoline on equipment owned or controlled by the organization.

GHG emissions from Scope 2 are direct emissions generated from the consumption of electrical and thermal energy.

GHG emissions under Scope 3 are emissions that occur outside an organization but are related to its activities. Scope 3 includes 15 categories.

Appendix 2 to this Methodology lists all types of emissions according to the GHG Protocol, categorized.

Chapter 4. Direct GHG emissions (SCOPE 1)

13. GHG emissions assessment Scope 1 is carried out within the framework of the Company's activities.

Due to the specifics of its activities, the Company does not burn fuels for heating, electricity generation and transport, does not produce volatile emissions from industrial processes, does not release or burn liquefied natural gas (LNG), and also does not have N_2O emissions from agricultural activities.

At the same time, the building of the Baiterek Business Center (hereinafter referred to as the Baiterek Business Center), in which the Company is located, is under the management of the Kazakhstan Housing Company Joint Stock Company (hereinafter referred to as KZHK JSC). The building of the Baiterek Business Center has a diesel generator set, the emissions from which are taken into account in the calculations of Scope 1 «KZHK» JSC.

14. Formulas for calculating emissions from business trips of the Company's management (rented vehicles).

These trips belong to the Category 8 «Upstream leased assets» of the GHG Protocol Scope 3 Guidance. However, in this Methodology, emissions from rented vehicles are indicated in Scope 1 due to the fact that the Company controls the routes and travel schedule of vehicles for management services.

15. The Protocol provides the following methods for calculating this category:

1) A fuel-based method that involves determining the amount of fuel consumed during business travel (i.e., emissions from transportation companies within application areas 1 and 2) and applying the appropriate emission factor for that type of fuel;

2) A distance-based method that involves determining the distance and mode of business travel, and then applying the appropriate emission factor for the mode used.;

3) An expense-based method that involves determining the amount of money spent on each type of transport for business trips and applying secondary emission factors.

The Company makes calculations according to the distance-based method.

Formula 1.

distance traveled depending on the type of vehicle (vehicle – km) × specific emission coefficient of the vehicle (dCO2e/km of vehicle or gCO_2) = CO_2 emissions from trips (business trips) on trains, planes, and rented cars

The following coefficients are used for the calculation:

Direction	**Emission factors, TTW gCO_2e/km**		
	Avia	Railway	Auto
Internal	116	21,7	180
International	77	-	-

Source: EIB Project Carbon Footprint Methodologies.

**TTW means the number of grams of carbon dioxide equivalent emitted by a vehicle for each kilometer traveled, taking into account the entire chain of events from fuel supply to energy transfer to the wheels.*

Chapter 5. Indirect GHG energy emissions (SCOPE 2)

16. GHG emissions assessment Scope 2 is carried out within the framework of the Company's activities, located in the office at 55a Mangilik El Avenue, Astana, and for the Representative Office in Almaty.

17. Within Scope 2, emissions from electricity and heat consumption are quantified. Such emissions are the result of the Company's activities, but actually originate from sources that do not belong to it, namely from power plants where combustion takes place.
No assessment of N_2O and CH_4 emissions is carried out, since the total emissions of these gases for thermal power grids do not exceed fractions of the mass of CO_2 emissions.

18. Formulas for calculating emissions from electricity and heat consumption.

The Protocol provides two methods for calculating Scope 2: the location–based method and the market–based method. In accordance with the nature of the Company's activities, the Methodology should use the «local-based» method of accounting for direct and indirect energy emissions. The method reflects the average intensity of emissions from energy generation within a certain region where energy consumption occurs.

The formula for calculations:

Formula 2.

electric/thermal energy consumed by the Society × emission factor from 1 kWh or Gcal in the region = CO_2 emissions from electric and thermal energy consumption

To calculate the GHG emission coefficient from 1 kWh or Gcal in the region, the value from the «EIB Project Carbon Footprint Methodologies» (Carbon Footprint Methodologies of EIB projects, https://www.eib.org/attachments/lucalli/eib_project_carbon_footprint_methodologies_2023_en.pdf), which provides a number of emission factors on the basis of which GHG emissions can be calculated. The table below shows five different values for national power grids.

When calculating, it is necessary to take into account that the Company and its Representative Office in Almaty do not own the entire building, but rent part of the premises, and will be calculated using the following formula:

Formula 2.1.

(the area of the Company's premises is the total area of the building) × the total electricity consumption of the building = kWh used by the Company

GHG emission coefficients from electrical and thermal energy

Emission factors in gSO_2/kWh (The impact of non-CO_2 greenhouse gases is negligible. For calculation purposes, the coefficients below can be considered as CO_2e.)					
A country/ territory/ island	Combined cost-effective periodic power generation	Cumulative margin of stable electricity production/electricity consumption	Electricity consumption/ losses in the grid High-voltage grid +2%	Electricity consumption/ network losses MV +4 grid%	Electricity consumption/ network losses Low voltage grid +7%
Kazakhstan	698	532	543	554	569

Source: EIB Project Carbon Footprint Methodologies.

Chapter 6. SCOPE 3 emissions

19. GHG emissions assessment Scope 3 is carried out within the framework of the Company's activities, located in the office at 55a Mangilik El Avenue, Astana, and for the Representative Office in Almaty.

20. Based on the accepted classification of GHG emission categories, the following sources have been identified:

1) employees travel to work in vehicles that do not belong to the organization, such as the employee's personal vehicle, bus, taxi;

2) business trips (business trips) by train and plane;

3) business trips of the Company's management and employees (rented cars).

21. Formulas for calculating emissions from trips of the Company's employees to their place of work in vehicles that do not belong to the organization.

This category includes emissions associated with transporting workers between their homes and workplaces. They belong to Category 7 («Employee Commuting») of the GHG Protocol Scope 3 Guidance.

Emissions associated with workers' commuting are caused by:

1) traveling by private vehicle;

2) by bus;

3) by other means of transport (for example, railway, planes, subway, cycling, hiking).

The Protocol provides the following methods for calculating this category:

1) A fuel-based method that involves determining the amount of fuel consumed during commuting and applying an appropriate emission factor for that type of fuel;

2) A distance-based method that involves collecting data from workers on the nature of commuting (for example, the distance traveled and the mode used for commuting) and applying appropriate emission factors to the modes used;

3) The averaged data method, which involves estimating emissions from employee commuting based on averaged data on the nature of commuting.

The Company performs calculations according to the method of averaged data according to the formula:

Formula 3.

total number of employees × % of employees using transport × one-way distance (km of vehicle or km as a passenger) × 2 × number of working days per year × emission factor for this type of transport (gCO2e/km of vehicle) = CO_2 emissions from workers traveling to work in vehicles that do not owned by the organization

For this purpose, the structural unit responsible for the international cooperation of the Company sends a questionnaire for full-time employees with the necessary data for the calculation. A sample questionnaire is provided in Appendix 3 to this Methodology.

Emission factors for calculation

Emission coefficient for personal vehicles, gCO2e/km of vehicle	180
Emission coefficient for buses, gCO2e/km of vehicle	97
Emission coefficient for taxi, gCO2e/km of vehicle	128

Sources: EIB Project Carbon Footprint Methodologies.

22. Formulas for calculating emissions from trips (business trips) on trains and airplanes, as well as rented cars.

Emissions related to business travel belong to category 6 «Business Travel» of the GHG Protocol Scope 3 Guidance and are caused by:

1) by air travel;

2) passing by rail;

3) by bus;

4) automobile trips (for example, business trips in rented cars or vehicles owned by employees, with the exception of employee trips to and from work);

5) other types of transportation.

When calculating, formula 1 is used.

Chapter 7. Final provisions

23. Changes and additions to the Methodology are made in accordance with the procedure established by the Company's internal documents.

24. The structural unit responsible for the international cooperation of the Company regularly monitors the Methodology for its updating.

25. The methodology is required for publication on the Company's corporate Internet resource.

Appendix 1
to the Methodology for calculating emissions greenhouse gases of the Joint-Stock company Export Credit Agency of Kazakhstan

The form of the table on CO2 emissions in 20__

Scope of coverage 1	1. _____ tCO2e (from using official vehicles to service employees and management).
Interim result	_____ tCO2e
Scope of coverage 2	1. _____ tCO2e (from the purchased electricity); 2. _____ tCO2e (from the purchased thermal energy); 3. _____ tCO2e (from water consumption and heating).
Interim result	_____ tCO2e
Scope 3	1. _____ tCO2e (estimated emissions of workers from trips to work by private and public transport); 2. _____ tCO2e (from railway trips); 3. _____ tCO2e (from air travel); 4. _____ tCO2e (from using rented vehicles for business trips); 5. 17 tCO2e (from the use of rented vehicles for morning and evening transportation of workers); 6. 1.1 tCO2e (from the use of leased vehicles to service management and employees).
Interim result	_____ tCO2e
Total (total emissions of coverage areas 1, 2 and 3)	_____ tCO2e

Appendix 2
to the Methodology for calculating emissions
greenhouse gases of the Joint-Sstock company
Export Credit Agency of Kazakhstan

Classification of Scope 1, Scope 2, Scope 3 according to GHG Protocol

Scope 1

Direct emissions from sources owned or controlled by the organization. These emissions can come from a variety of sources, including:

- burning fuels for heating, electricity generation and transportation;
- volatile emissions from industrial processes;
- release and combustion of liquefied natural gas (LNG);
- N_2o emissions from agricultural activities.

Scope 2

Indirect emissions from the production of purchased energy:

- purchased electricity;
- purchased steam, heat and cooling.

Scope 3

1) **Upstream and downstream transportation and distribution**: This category includes emissions from the transportation of goods and services throughout the supply chain, from extraction of raw materials to final delivery to the consumer;

2) **Business travel**: This category includes emissions from employee travel for business purposes such as air travel, train travel, and car travel;

3) **Waste**: This category includes emissions from waste disposal such as burial, incineration and recycling;

4) **Capital goods**: This category includes emissions from the production and transportation of capital goods such as machinery and equipment;

5) **Leased assets**: This category includes emissions from the use of leased assets such as vehicles and office space;[1]

6) **Employee commute**: This category includes emissions from employee commuting to and from work, such as car rides and public transportation;

7) **Extraction and processing of products and services sold: This category includes emissions from supplier and customer activities** related to the production and use of the company's products and services;

8) **End-of-life treatment of sold products and services: This category includes emissions from the disposal of products and services at the end of their useful lives**, such as recycling, incineration and burial;

9) **Purchased goods and services**: This category includes emissions from the purchase of goods and services from suppliers such as stationery, food, and utilities;

10) **The franchise fee**: This category includes emissions from paying the parent company's franchise fee;

11) **Insurance premiums**: This category includes emissions from insurance premiums such as property insurance and liability insurance;

12) **Marketing and advertising**: This category includes emissions from the production and distribution of marketing and advertising materials such as billboards, television advertisements, and print advertisements;

13) **The rent**: This category includes emissions from paying rent for office space, storage space, and other spaces;

[1] In this Methodology, emissions from rented vehicles are indicated in Scope 1 due to the fact that the Company controls the routes and travel schedule of vehicles for management services.

14) **IT services**: This category includes emissions from using IT services such as data centers and cloud computing;

15) **Other**: This category includes emissions from any other activity not included in other categories.

Appendix 3
to the Methodology for calculating emissions
greenhouse gases of the
Export Credit Agency of Kazakhstan Joint Stock company

Survey of employees of the Export Credit Agency of Kazakhstan Joint Stock Company on the route and method of travel to their place of work

	Structural division	Full name of the employee	Own vehicles		Public transport (approximate mileage from home to place of work)	Taxi (approximate mileage from home to place of work)	Transportation to and from the workplace (yes/no)	Walking distance to the place of work (approximately km from home to the place of work)	Note
			Approximate mileage from home to place of work	Vehicle brand, fuel consumption					
1									
2									
3									
4									
5									

Approval sheet

According to the project: Methodology for calculating greenhouse gas emissions of the Export Credit Agency of Kazakhstan Joint Stock Company.
Developer: Department of International Cooperation of the Export Credit Agency of Kazakhstan JSC.
The owner of the IND is the Department of International Cooperation of the Export Credit Agency of Kazakhstan JSC.

Name of the position	Last name, first name, if any, patronymic	Date of signing	Signature
Deputy Chairman of the Board	A.E. Bektybayeva		
Managing Director	A.A. Lukina		
Director of the Department of International Cooperation	A.Zh. Bekbasova		
Director of the Department of Human Resource Management and Organizational Activities	A.K. Kenesova		
Head of the Compliance Service	A.S. Zhakaeva		
Director of the Risk Management Department	L.G. Shabarbayeva		
Director of the Legal Support Department	S.K. Nurmukhambetov		
Director, Department of Project Management and Information Technology	M.S. Tuyakbaev		
Sustainable Development Manager	N.B. Abenova		

Deputy Chairman of the Board **A.E. Bektybaeva**

Managing Director (Project Office) **A.A. Lukina**

Director of the Department **A.K. Kenesova**

Director of the Department		**L.G. Shabarbayeva**
Director of the Department		**S.K. Nurmukhambetov**
Chief Manager - Secretary of the Public Council		**F. Isanova**
Director of the Department		**M.S. Tuyakbaev**
Head of the Compliance Service		**A.S. Zhakaeva**
Chief Compliance Officer		**B. Tumenbayev**
Director of the Department		**A.Zh. Bekbasova (acting D.G Tokaev.)**
Sustainable Development Manager		**N.B. Abenova**