LIETUVOS BANKAS
EUROSISTEMA

Lietuvos bankas Carbon Footprint Report

2023

Contents

1. Introduction

Climate change is a planetary challenge that poses a threat to the economies and financial systems of Lithuania and other countries around the world. Lietuvos bankas, acting within the boundaries of a central bank's mandate and considering Lithuania's international obligations (Paris Agreement, European climate legislation) and national goals (National Energy and Climate Action Plan of the Republic of Lithuania for 2021-2030), is taking active measures to combat climate change in all areas of responsibility entrusted to Lietuvos bankas. The main areas of Lietuvos bankas environmental efforts are outlined in the Green Strategy of Lietuvos bankas for 2023-2025 (see Chart 1).

Chart 1. Green Strategy of Lietuvos bankas for 2023–2025

In order to achieve the fourth goal set in the Green Strategy, *"Ensure the greenness of Lietuvos bankas daily operations by reducing the CO_2 footprint of the organisation's activities"*, Lietuvos bankas annually prepares and publishes a report on its carbon footprint, i.e. greenhouse gas (GHG) emissions.

Lietuvos bankas has been calculating its carbon footprint since 2017. This year, the assessment of carbon footprint was significantly improved in order to apply and comply with the accounting standards of the international GHG protocol[1] as comprehensively as possible. An external consultant was also engaged for this purpose. Due to changes in the calculation, the results for 2023 are not comparable with the data of previous years.

The carbon footprint calculations and their results were verified by Bureau Veritas Lit UAB, which confirmed that Lietuvos bankas' carbon footprint report for the period from 1 January 2023 to 31 December 2023 was prepared in accordance with the requirements of ISO 14064-1:2018 and the Greenhouse Gas Protocol: a Corporate Accounting and Reporting Standard (see Annex 2).

[1] *The Greenhouse Gas Protocol: A Company Accounting and Reporting Standard*, https://ghgprotocol.org/.

2. Methodological aspects of carbon footprint assessment

2.1. Scope of assessment

GHG accounting at Lietuvos bankas is carried out using the organisation's **activity control method**, covering only those objects where Lietuvos bankas exercises direct control over activities, and excluding those activities performed by companies that are not directly controlled by Lietuvos bankas. For this reason, Lietuvos monetų kalykla UAB is not included in the calculations (see Table 1).

Lietuvos bankas carries out its activities in the following office building complexes: Totorių g. 4, Totorių g. 2, Gedimino pr. 6, Vilnius (complex 1), Žirmūnų g. 151, Vilnius (complex 2), Maironio g. 25, Kaunas (complex 3), Žalgirio g. 90, Vilnius (complex 4).

The report covers the period from 1 January 2023 to 12 December 2023.

Table 1. Scope of assessment

Building complex	List of all legal entities/objects that Lietuvos bankas owns and/or exercises financial or operational control over	Ownership share of the legal entity, %	Financial control	Operational control
1.	Gedimino pr. 6, Gedimino pr. 8 / Totorių g. 2, Totorių g. 4	100	Yes	Yes
2.	Žirmūnų g. 151	100	Yes	Yes
3.	Maironio g. 25, Kaunas	100	Yes	Yes
4.	Žalgirio g. 90	0	No	Yes
5.	Lietuvos monetų kalykla UAB	0	Yes	No

2.2. Categorisation of GHG emissions by scope

The carbon footprint is calculated by dividing the sources of GHG emissions into three scopes:

Scope 1: direct emissions on the territory of Lietuvos bankas or in facilities owned by it, resulting from energy production or other activities related to fuel combustion;

Scope 2: indirect emissions due to the consumption of energy that was produced outside the bank;

Scope 3: indirect emissions outside the bank that are not controlled by Lietuvos bankas but are related to its activities.

The categories of scopes examined and included in the GHG accounting are presented in Table **Error! Reference source not found.**. 11 out of 15 Scope 3 categories provided for in the GHG Protocol were assessed as relevant for Lietuvos bankas. Emissions related to investments are not included in this report, as the climate-related assessment of investments is presented in a separate report of Lietuvos bankas[2].

[2] Lietuvos bankas: Climate-related disclosures of Lietuvos bankas non-monetary policy portfolios, 2023, Lietuvos bankas sėkmingai mažina su klimato kaita susijusias rizikas – jo valdomas finansinis turtas „žalėja" | Lietuvos bankas.

Table 2. Scopes of assessment examined and included in GHG accounting

Scope 1	
1.1. Direct emissions from stationary combustion facilities	
1.2. Direct emissions from mobile devices	
1.3. Direct emissions caused by gas leaks	
Scope 2	
2.1. Indirect emissions from acquired electrical energy	
2.2. Indirect emissions from acquired thermal energy	
Scope 3	**Evaluation method**
3.1. Purchased goods and services	A vendor-specific approach and a cost-based data approach
3.2. Capital goods	A vendor-specific approach and a cost-based data approach
3.3. Fuel and energy-related activities not included in Scopes 1 or 2	Mean data method
3.4. Upstream transportation and distribution	Distance-based method
3.5. Waste generated in operations	Method specific to the type of waste
3.6. Business travel	Distance-based method and cost-based data method
3.7. Employee commuting	Distance-based method Working hours-based method
3.8. Upstream leased assets	Asset-specific approach
3.9. Downstream transportation and distribution	Data method specific to waste management
3.10. Processing of sold products	Not assessed
3.11. Use of sold products	Not assessed
3.12. End-of-life treatment of sold products	Method specific to the type of waste
3.13. Downstream leased assets	Method applied to the selected tenant
3.14. Franchises	Not assessed
3.15. Investments	Not assessed (assessed in another BoL report)

2.3. Data sources

In the preparation of the report, data from suppliers' acceptance-transfer acts, fuel write-off acts, service provision reports submitted by suppliers, invoices, financial data of Lietuvos bankas, and an internal survey were used.

GHG emission indicators are obtained from various sources; the following international databases were used: DEFRA (2023), AIB (2023), IEA (2023), OneclickLCA (2023), EXIOBASE v3.8.2 (2021), ecoinvent (2012, 2021), EPA (2023), Circularecology (2023), and AEA (2001). Emission indicators for hotel accommodation were missing from some European countries, therefore, the average of hotels in other European countries according to DEFRA (2023) data was used. It should be noted that almost 78% of all

emissions of Lietuvos bankas in 2023 (calculating electricity consumed using the market-based method) were calculated using DEFRA (2023) emissions indicators.

In addition, due to the lack of more accurate data for Scope 3, 85.8% emissions of Scope 3 and respectively 76.6% of all emissions of Lietuvos bankas in 2023 (market-based method) were calculated using the cost-based method, according to which the amount of GHG is calculated by multiplying the amount of expenses by the emission indicator applicable to that type of expense.

3. Carbon footprint calculation results

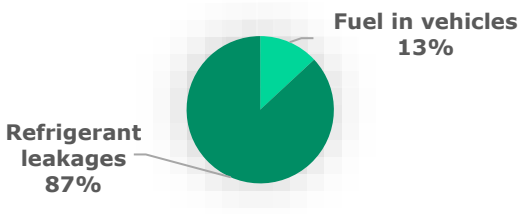
3.1. Assessment of direct GHG emissions (Scope 1)

Total Scope 1 emissions generated by Lietuvos bankas in 2023 amounted to **106.7 t CO_2e**.

Table 3. Scope 1 emissions

Scope 1 direct emissions	Emissions, t CO_2e
Fuel in generators	0.4
Fuel in vehicles	13.9
Refrigerant leakages	92.4

Chart 2. Scope 1 emission sources

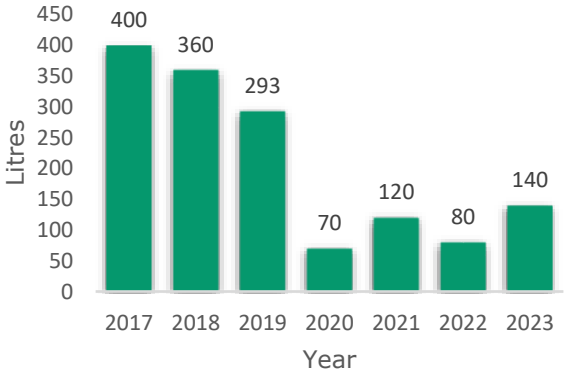


3.1.1. Fuel in generators

Diesel power generators in buildings are used to protect against power outages.

In 2023, the generators in the three building complexes of Lietuvos bankas consumed a total of 140 l of diesel fuel and generated **0.4 t CO_2e** emissions. Changes in consumption of fuel used in generators in 2017-2023 are shown in Chart 3.

Chart 3. Consumption of fuel used in generators

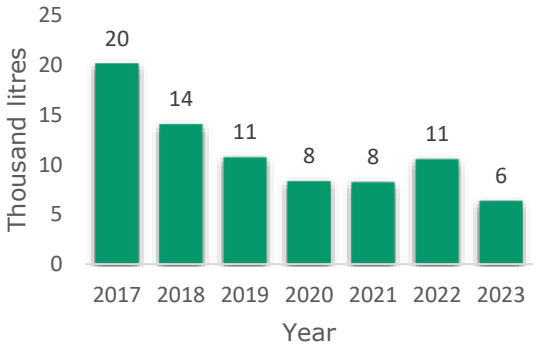


3.1.2. Fuel in vehicles

In 2023, the vehicles owned by Lietuvos bankas consumed a total of 6,255.28 l of gasoline and diesel: these quantities generated **13.9 t CO_2e** emissions. The amount of GHG emissions from mobile sources used for work purposes is calculated based on fuel consumption. Changes in consumption of fuel used in vehicles in 2017-2023 are presented in Chart 4.

In order to reduce fuel consumption, the available vehicle fleet was reviewed in previous years and old, polluting vehicles were sold. Alternative transport services have been offered to employees, and old vehicles have been replaced with electric vehicles. Two electric vehicles are currently in use.

Chart 4. Consumption of fuel used in vehicles



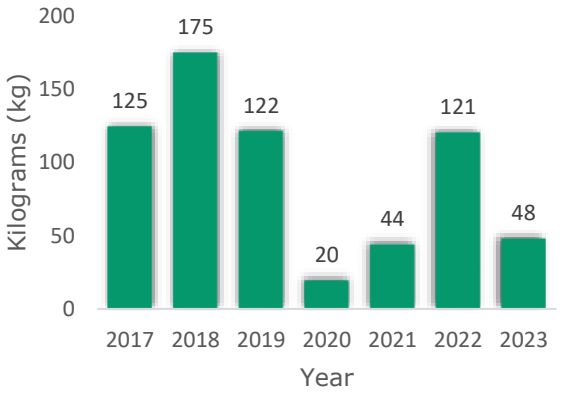
3.1.3. Refrigerant leakages

Refrigerant leakages are the largest part of Scope 1 emissions of Lietuvos bankas, accounting for **87%** of all direct GHG emissions. Only refrigerants used in building air conditioning systems are included in this assessment. When evaluating refrigerant leaks, it is assumed that the amount of refrigerant leaked is equal to the amount refilled. Refrigerant leakages are recorded only in the building complex of the bank.

In 2023, the refrigerant leakages at Lietuvos bankas amounted to 48 kg, which generated **92.4 t CO_2e** emissions. Changes in refrigerant leakages in 2017-2023 are shown in Chart 5.

Lietuvos bankas uses old air conditioning equipment. Its malfunctions increase the release of refrigerants into the environment – the situation will improve after the modernisation of buildings and the replacement of equipment.

Chart 5. Changes in refrigerant leakages



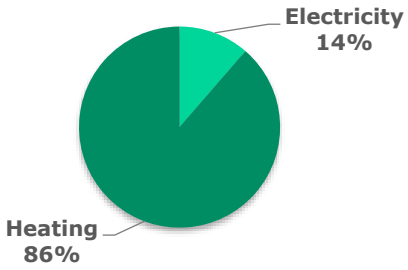
3.2. Assessment of indirect GHG emissions (Scope 2)

Total Scope 2 emissions of Lietuvos bankas in 2023 amounted to **549.7 t CO_2e** (calculating electricity consumed using the market-based method), or **941.0 t CO_2e** (calculating electricity consumed using the market-based method).

Table 4. Scope 2 emissions

Scope 2 indirect emissions	Emissions, t CO_2e
Electricity (market-based method)	76.0
Electricity (location-based method)	467.3
Heating	473.7

Chart 6. Scope 2 emission sources (calculated using the market-based method)



To ensure the operation of the offices, all buildings are provided with electricity and thermal energy purchased from district heating supply networks.

3.2.1. Electricity

According to the GHG Protocol, the amount of GHG emissions of purchased energy consumption must be disclosed based on two calculation methods:

a) **location-based method**: includes the determination of the emission intensity of Lithuanian grid electricity suppliers and the calculation of the organisation's electricity consumption emissions based on the intensity of Lithuanian grid electricity – this allows to determine the impact of its electricity consumption on the environment and include it in the overall calculation of the amount of gas emissions according to the GHG protocol;

b) **market-based method**: shows electricity-related emissions, taking into account the organisation's choices in the electricity market. The market-based method makes it possible to separate the electricity emissions generated by the organisation according to the origin of electricity and take responsibility for the assumed contractual measures (e.g. electricity purchased from remote solar farms or together with green electricity consumption certificates).

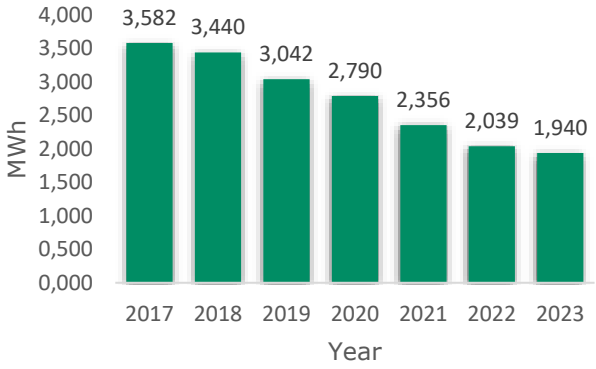
In 2023, in pursuit of greening its operations, Lietuvos bankas conducted public procurement and purchased green electricity. Lietuvos bankas has been using electricity from renewable energy sources since 1 July 2019, thereby minimising the carbon footprint of the electricity consumed.

Emissions from electricity consumption according to the market-based approach comprised 76.0 t CO_2e in 2023. This amount of emissions was due to the public procurement of renewable energy that did not take place in July.

Emissions from electricity consumption according to the location-based method in 2023 comprised 467.3 t CO_2e.

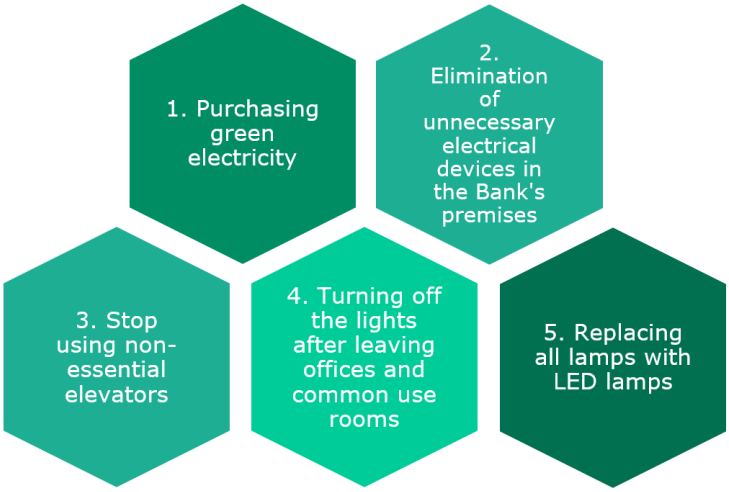
Changes in the electricity consumed by Lietuvos bankas in 2017–2023 are shown in Chart 7.

Chart 7. Changes in electricity consumption



To save electricity, Lietuvos bankas is implementing a **plan of electricity-saving measures** (see Chart 8).

Chart 8. Lietuvos bankas plan of electricity-saving measures



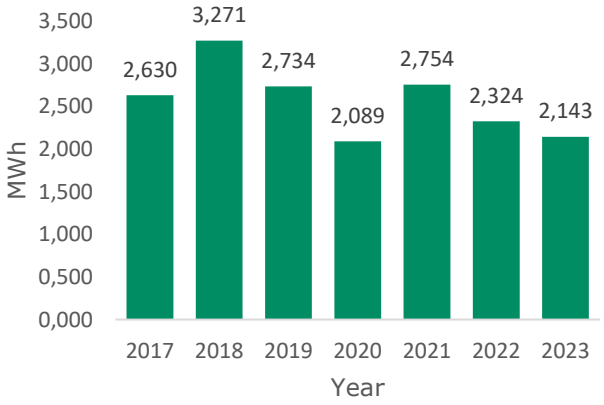
3.2.2. Heating

In 2023, Lietuvos bankas consumed 2,067 MWh of thermal energy for heating premises and preparing hot water from the district heating supply networks in building complexes 1, 2 and 3. Electricity from renewable energy sources is used in the building complex 4 for heating with electricity consumption amounting to 76.4 MWh.

The emissions from consumed thermal energy were 473.7 t CO_2e.

Changes in the heat energy consumed by Lietuvos bankas in 2017–2023 are shown in Chart 9.

Chart 9. Thermal energy consumption



3.3. Other sources of GHG emissions (Scope 3)

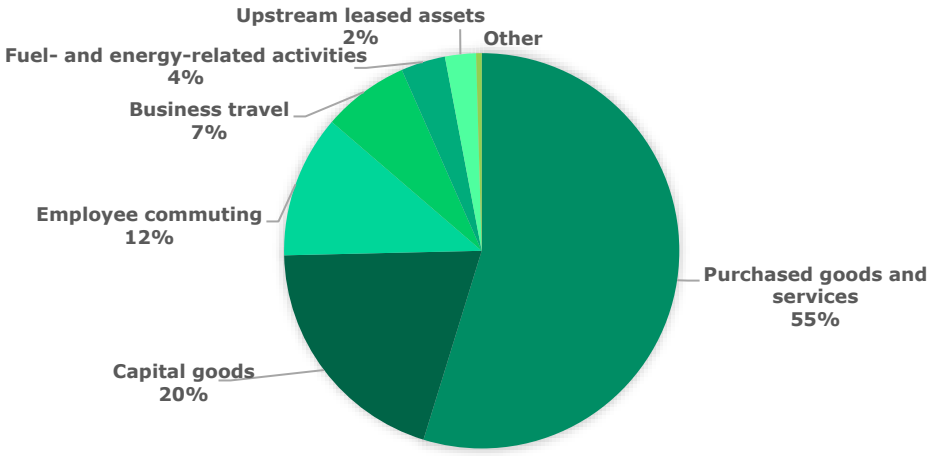
Total Scope 3 emissions generated by Lietuvos bankas amounted to **5,232.1 t CO_2e** in 2023. The assessed Scope 3 categories and their corresponding emissions are shown in Table **Error! Reference source not found.**.

Table 5. Scope 3 emissions

Scope 3 indirect emissions	Emissions, t CO_2e
Purchased goods or services	2,979.6
Capital goods	1,081.4
Fuel- and energy-related activities*	197.6
Upstream transportation and distribution	4.2
Waste generated in operations	3.7
Business travel	385.2
Employee commuting	635.0
Upstream leased assets	137.8
Downstream transportation and distribution	1.0
End-of-life treatment of sold products	1.0
Downstream leased assets	14.8

*Note: these are activities not included in Scopes 1 and 2 of GHG accounting and related to the transfer of energy or fuel to the consumer, i.e. electricity transmission, district heating supply, diesel or gasoline extraction, processing and transportation to distribution points (e.g. Energijos skirstymo operatorius AB (ESO) services).

Chart 10. Scope 3 emission sources



3.3.1. Purchased goods and services

The emissions associated with purchased goods and services amounted to 2,979.6 t CO_2e and accounted for the largest share – 55% – of Scope 3 emissions.

Chart 11. Sources of emissions associated with purchased goods and services

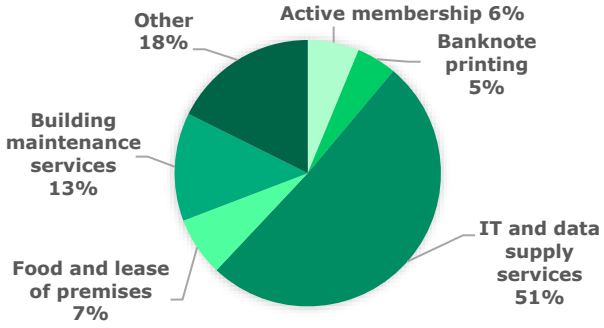
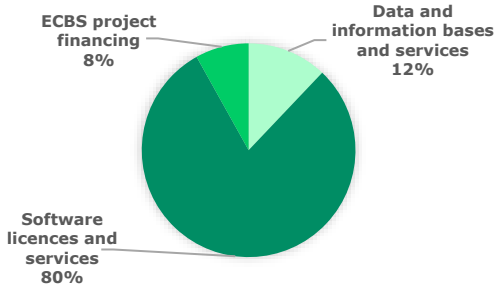


Chart 12. Sources of IT and data service emissions



Within the category of purchased goods and services, IT and data services generated the most emissions – **51%,** i.e. **1,517.0 t CO_2e**. This category includes IT programming, consulting, financing of European System of Central Banks (ESCB) projects, use of data and information databases, software licenses, installation, and other related services.

Building maintenance services constituted the second largest category of purchased goods and services in terms of emissions (**13 %**), followed by food and lease of premises (**7 %**).

Banknote printing and coin production together generated a total of **148.0 t CO_2e emissions.** Additional emissions related to banknotes and coins are calculated in the categories of transportation and distribution from the company and handling of products sold.

3.3.2. Capital goods

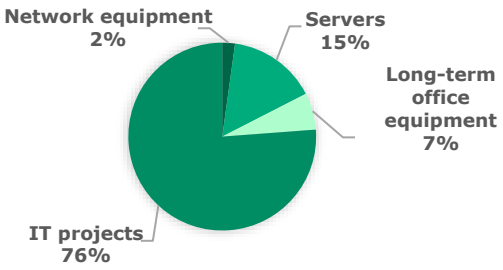
Emissions from capital goods occur due to production factors or processes during which the capital goods of Lietuvos bankas were produced, i.e. capitalised IT projects, purchased network equipment, servers, and long-term office equipment.

In 2023, the emissions from capital goods purchased by Lietuvos bankas amounted to 1,081.4 t CO_2e.

Table 6. Emissions from capital goods

Type of capital goods	Emissions, t CO_2e
Network equipment	23.7
Servers	165.2
Non-current office equipment	68.6
IT projects	823.8

Chart 13. Sources of emissions from capital goods



3.3.3. Waste generated in operations

The waste accumulated during the operation and the measures related to its disposal generated a total of 3,696 t CO_2e emissions.

This is the amount of GHG emissions resulting from the disposal and recycling of waste generated in processes controlled by Lietuvos bankas, as well as the disposal of solid waste and wastewater. Waste management was measured in terms of tonnes, cubic meters of wastewater and waste management costs.

The amount of waste sorted by Lietuvos bankas in 2023 is presented in Table **Error! Reference source not found.**.

Chart 14. Sources of emissions from waste generated in operations

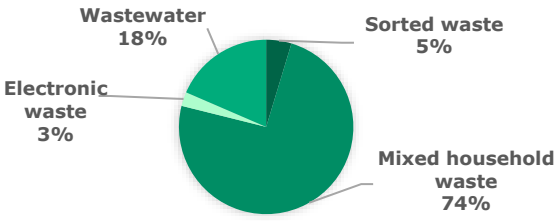


Table 7. Quantities of sorted waste

Type of waste	t
Plastic	2.1
Paper	4.4
Wood	2.3

3.3.4. Business travel

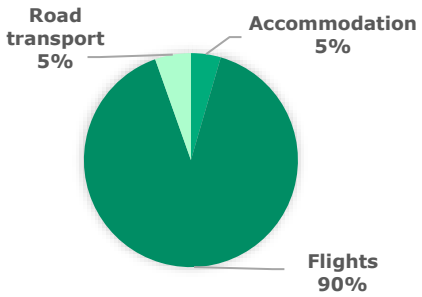
Business travel, including air travel, ground transportation, and accommodation-related emissions, generated a total of 385.2 t CO_2e.

90% of the business travel emissions of Lietuvos bankas employees were generated from air travel (**346.9 t CO_2e**), while ground transport and accommodation-related emissions each accounted for 5%. The emissions generated by different types of business travel are shown in Table **Error! Reference source not found.**.

Table 8. Business travel emissions

Business trip services	Emissions, t CO_2e
Accommodation	17.4
Flights	346.9
Road transport	20.9

Chart 15. Sources of business travel emissions



Emissions arise from the transportation of employees of Lietuvos bankas by means of vehicles owned or used by third parties to carry out work-related activities (i.e. planes, trains, buses, passenger vehicles, ferries, taxis, trams, etc.).

Only GHG emissions of ground and air transport that is generated from the fuel consumed by the vehicle is assessed. Emissions that occur during the life cycle of the vehicle (from the production of the vehicle to its disposal) are not included in the calculation of the carbon footprint of Lietuvos bankas.

The distances travelled by Lietuvos bankas staff on business trips by flight in 2023 are shown in Table **Error! Reference source not found.**.

Table 9. Distances and emissions of business trips by air

	Distance travelled, km	Emissions, t CO_2e
Short-haul flights	1,612,640	294.9
Long-haul flights	259,879	52.0

3.3.5. Employee commuting

Employee commuting generated a total of 635 t CO_2e emissions. This category includes emissions generated by employees' trips to and from the workplace as well as working from home.

The commuting trips of Lietuvos bankas employees accounted for **426 t CO_2e**. In order to calculate the commuting footprint of Lietuvos bankas employees, a survey was carried out asking employees to indicate:

- commuting modes, means of transportation used;
- the distance travelled in kilometres.

The survey revealed that 54% of the respondents travel to work by car, 12% – by public transport, 34% – choose to work remotely.

A total of 289 Lietuvos bankas employees filled out the questionnaire. This number represents less than half (44%) of all bank employees; therefore, this data may not be an accurate estimate of actual travel practices.

The emissions generated by employees commuting are calculated using a distance-based method: *distance travelled (km)* ***x*** *vehicle fuel emission factor.*

Emissions from home working are calculated using the working-hours method: *number of employees* ***x*** *annual working days* ***x*** *8 (working hours per day)* ***x*** *0.52 (percentage of hours worked remotely)* ***x*** *emission factor.*

Employees' telework generated **209 t CO_2e**.

4. Summary of results

In total, Lietuvos bankas activities generated 6,097.7 t CO_2e emissions in 2023 (calculated using the market-based method).

The GHG calculations show that in 2023 the largest share of Lietuvos bankas emissions (**89%**) was generated in Scope 3, followed by **9%** in Scope 2 and **2%** in Scope 1. The total carbon footprint of Lietuvos bankas is presented in Table **Error! Reference source not found.**.

The largest share of emissions (**49%** of the total emissions of Lietuvos bankas) was generated by purchased goods and services.

In 2023, the total carbon footprint per employee covering all three scopes was **9.4 t CO_2e** (652 active employees). Counting only Scope 1 and Scope 2 emissions, the total footprint per employee was **1 t CO_2e.**

Chart 16. Distribution of Lietuvos bankas carbon footprint by assessment scope in 2023

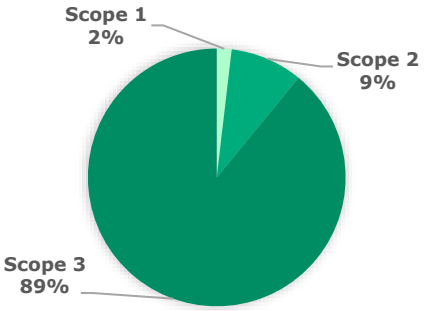


Table 10. Carbon footprint of Lietuvos bankas in 2023

Assessment scope	Emissions, t CO_2e
Scope 1	106.7
Scope 2 (market-based method)	549.7
Scope 2 (location-based method)	941.0
Scope 3	5,441.3
TOTAL (market-based method)	**6,097.7**
TOTAL (location-based method)	6,489.0

Lietuvos bankas will continue to improve the calculation of GHG emissions and aim to reduce the organisation's carbon footprint. Currently, the internal greening measures presented in Chart 17 have already been planned and are scheduled for implementation in the near future.

Chart 17. Implementation plan of the greening measures of Lietuvos bankas

Goods and services

- Elimination of disposable cups in common use areas
- Elimination of garbage bin in offices
- Reduced use of office supplies
- Replacing polluting vehicles with environmentally friendly alternatives
- The Bank's employees and external service providers using environmentally friendly tools and equipment, as well as providing for requirements for carrying out purchasing

Energy consumption

- Replacement of lamps with energy-saving ones
- Installation of refrigerators only in common use kitchens
- Turning off unnecessary lighting in the bank's building complexes
- Replacement of water faucet nozzles with economical ones
- Maintaining a constant temperature
- Electricity purchased only from renewable energy sources

Employee engagement

- Clear and consistent communication about applied greening measures and their changes
- Earth Hour celebration
- Sweater day (day of lower room heating temperature)
- European Mobility Week
- European Waste Reduction Week
- Survey of employee engagement on the topic of environmental protection

Glossary of terms

Carbon dioxide equivalent – the amount of methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulphur hexafluoride (SF_6) gases that have the same effect on climate change as one tonne of carbon dioxide.

Carbon footprint – the total amount of GHG associated with the activities of a person or organisation.

Decarbonisation – the process of reducing GHG emissions.

Emissions – substances that are spontaneously released or emitted into the atmosphere.

Emission factor (EF) – an indicator that is used to convert activity indicators (for example, litres of fuel used, kilometres travelled, the number of animals raised ion a farm or tonnes of production) into the amount of GHG associated with this activity.

Climate change – changes in the climate that result directly or indirectly from human activities that change the composition of the Earth's atmosphere, and that do not fit within the limits of natural climate fluctuations observed at regular intervals.

Fuel- and energy-related activities – these are activities not included in Scopes 1 and 2 of GHG accounting and related to the transfer of energy or fuel to the consumer, i.e. electricity transmission, district heat supply, diesel or gasoline extraction, processing and transportation to distribution points.

Greenhouse effect – the effect of atmospheric gases absorbing the infrared radiation of the Earth's surface (carbon dioxide, methane, nitrogen suboxide, sulphur hexafluoride and halogenated carbon compounds) on the temperature of the Earth's surface.

Greenhouse gases (GHG) – carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulphur hexafluoride (SF_6).

Scope 1 emissions – direct GHG emissions from sources controlled or owned by the organisation.

Scope 2 emissions – indirect GHG emissions related to the purchase of electricity, steam, heat or cooling.

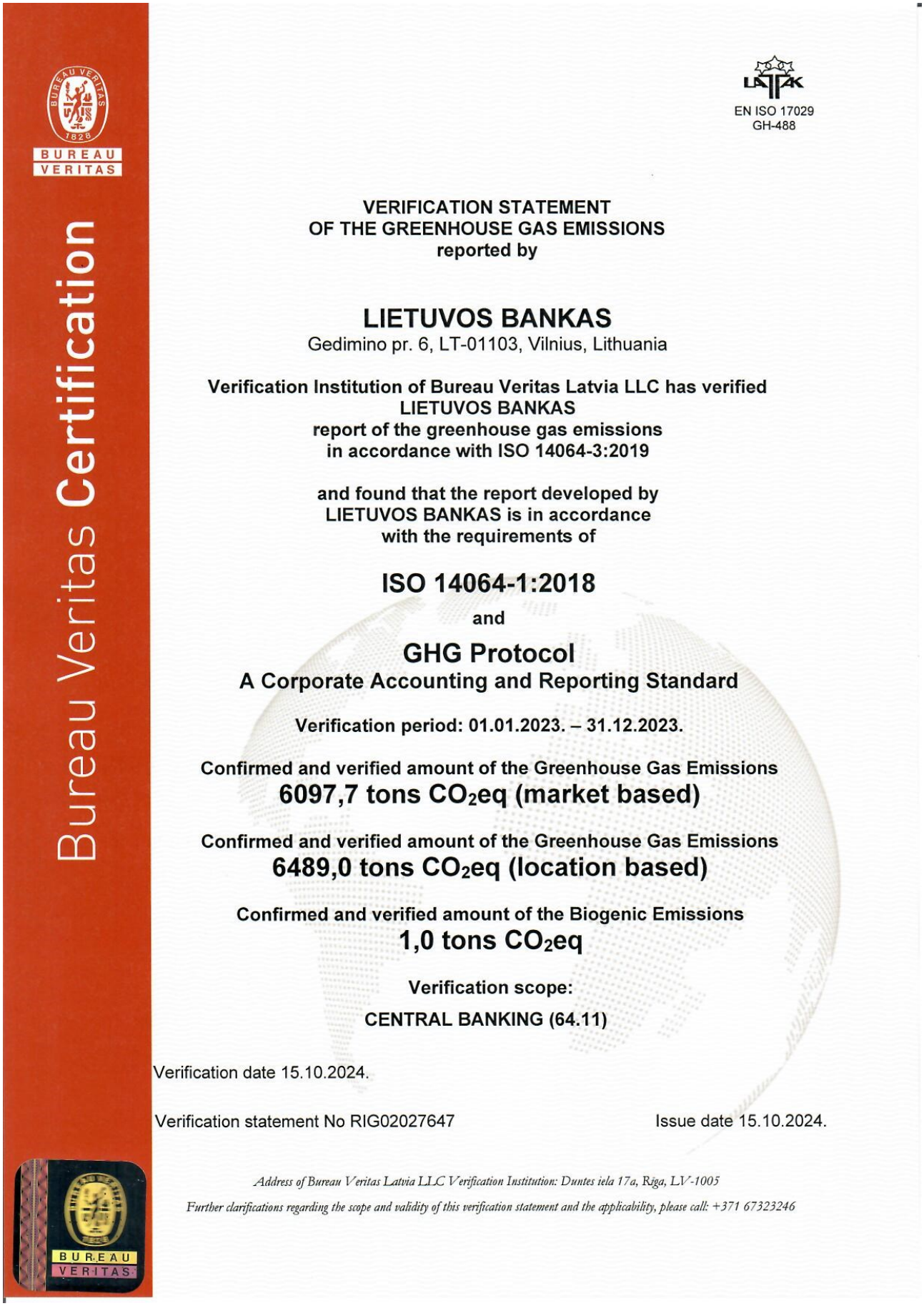
Scope 3 emissions – indirect expenses resulting from activities that are not directly controlled by the organisation.

Annex 1

Table 11. Scope 1 and 2 emissions of Lietuvos bankas by building complexes, t CO_2e.

Sources of emissions	Building complex 1	Building complex 2	Building complex 3	Building complex 4
Scope 1				
Fuel in generators	0.1	0.2	0.1	-
Fuel in vehicles	1.5	7.6	4.8	-
Refrigerants	92.4	-	-	-
Scope 2				
Electricity	25.0	38.4	12.6	-
Heating	179.0	150.7	127.1	16.9
Total:	204.0	189.1	139.7	16.9

Annex 2



EN ISO 17029
GH-488

VERIFICATION STATEMENT
OF THE GREENHOUSE GAS EMISSIONS
reported by

LIETUVOS BANKAS

Gedimino pr. 6, LT-01103, Vilnius, Lithuania

Verification Institution of Bureau Veritas Latvia LLC has verified
LIETUVOS BANKAS
report of the greenhouse gas emissions
in accordance with ISO 14064-3:2019

and found that the report developed by
LIETUVOS BANKAS is in accordance
with the requirements of

ISO 14064-1:2018

and

GHG Protocol

A Corporate Accounting and Reporting Standard

Verification period: 01.01.2023. – 31.12.2023.

Confirmed and verified amount of the Greenhouse Gas Emissions
6097,7 tons CO_2eq (market based)

Confirmed and verified amount of the Greenhouse Gas Emissions
6489,0 tons CO_2eq (location based)

Confirmed and verified amount of the Biogenic Emissions
1,0 tons CO_2eq

Verification scope:

CENTRAL BANKING (64.11)

Verification date 15.10.2024.

Verification statement No RIG02027647 Issue date 15.10.2024.

Address of Bureau Veritas Latvia LLC Verification Institution: Duntes iela 17a, Riga, LV-1005

Further clarifications regarding the scope and validity of this verification statement and the applicability, please call: +371 67323246

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