Inventory of greenhouse gas emissions

ING Bank Śląski S.A. Group
2019-2021

INFORMATION REQUIRED

Have any establishments, operations and/or sources been excluded from the list? If so, they should be indicated.
No
Reporting period to which the list relates
From 01.01.2019 until 31.12.2021

ORGANISATIONAL BOUNDARIES

What method of consolidation has been chosen.		
Share in capital ☐	Financial control ☐	Operational control √

OPERATIONAL LIMITS

Are Scope 3 emissions included in the list?
yes √ no ☐
If yes, what types of activities are included in Scope 3?
For Scope 3 greenhouse gas emissions were analysed in the following categories: • 1 (Purchased Goods and Services): water consumption, paper use • 3 (Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2): WTT emissions for fuels and energy (for energy and purchased cooling transmission losses (T&D) are included, as well as emissions related to the production of fuels used to generate energy if the energy is not from RES (Generation)) • 5 (Waste generated): water treatment and waste generated • 6 (Business travel): business travel by company employees (rail, air, taxi, coach and private cars for business purposes)

INFORMATION ON EMISSIONS

The table below refers to emissions independent of any GHG transactions i.e. sale, purchase, transfer or deposit of allowances.[1]

EMISSIONS	**TOTAL (tCO_2e)**	CO_2 (t)	CH_4 (t)	N_2O (t)	HFCs (t)	PFCs (t)	SF_6 (t)
2019 – before re-calculation							
Scope 1	5,271.27	4,638.55	0.0002	0.00004	0.247	0.00	0.00
Scope 2[2]	6,025.03	6,025.03	0.00	0.00	0.00	0.00	0.00
Scope 2[3]	28,976.20	28,976.20	0.00	0.00	0.00	0.00	0.00
Scope 3	746.72	689.32	0.07	0.21	0.00	0.00	0.00
SUM (1-3)[2]	**12,043.02**	**11,352.90**	**0.07**	**0.21**	**0.25**	**0.00**	**0.00**
SUM (1-3)[3]	**34,994.19**	**34,304.07**	**0.07**	**0.21**	**0.25**	**0.00**	**0.00**
2019 – after re-calculation							
Scope 1	5,218.52	4,571.87	0.17	0.03	0.247	0.00	0.00
Scope 2[2]	6,536.46	6,536.46	0.00	0.00	0.00	0.00	0.00
Scope 2[3]	28,175.83	28,175.83	0.00	0.00	0.00	0.00	0.00
Scope 3	6,529.73	951.60	0.05	0.02	0.00	0.00	0.00
SUM (1-3)[2]	**18,284.70**	**12,059.92**	**0.22**	**0.06**	**0.25**	**0.00**	**0.00**
SUM (1-3)[3]	**39,924.08**	**33,699.30**	**0.22**	**0.06**	**0.25**	**0.00**	**0.00**
Change in value (after re-calculation vs. before re-calculation)							

[1] Due to the design of the emission factors, the value of the emission fraction for scope 1 (refrigerant) and scope 3 (categories 1, 3, 5) has been converted to CO2 equivalent without breaking down the individual greenhouse gases

[2] Calculated according to market-based methodology

[3] Calculated according to location-based methodology

INFORMATION REQUIRED

Scope 1	-1.00%	-1.44%	84,900%	74,900%	0.00%	-	-
Scope 2[2]	8.49%	8.49%	-	-	-	-	-
Scope 2[3]	-2.76%	-2.76%	-	-	-	-	-
Scope 3	774.45%	38.05%	-28.57%	-90.48%	-	-	-
SUM (1-3)[2]	**51.83%**	**6.23%**	**214.29%**	**-71.43%**	**0.00%**	**-**	**-**
SUM (1-3)[3]	**14.09%**	**-1.76%**	**214.29%**	**-71.43%**	**0.00%**	**-**	**-**

EMISSIONS	**TOTAL (tCO_2e)**	CO_2 (t)	CH_4 (t)	N_2O (t)	HFCs (t)	PFCs (t)	SF_6 (t)
2020 – before re-calculation							
Scope 1	3,472.44	3,258.13	0.00013	0.00002	0.112	0.00	0.00
Scope 2[2]	4,943.97	4,943.97	0.00	0.00	0.00	0.00	0.00
Scope 2[3]	24,112.2	24,112.2	0.00	0.00	0.00	0.00	0.00
Scope 3	171.70	170.62	0.01	0.003	0.00	0.00	0.00
SUM (1-3)[2]	**8,588.11**	**8,372.72**	**0.01**	**0.003**	**0.11**	**0.00**	**0.00**
SUM (1-3)[3]	**27,756.34**	**27,540.95**	**0.01**	**0.003**	**0.11**	**0.00**	**0.00**
2020 – after re-calculation							
Scope 1	3,427.41	3,203.63	0.12	0.02	0.112	0.00	0.00
Scope 2[2]	5,692.60	5,692.60	0.00	0.00	0.00	0.00	0.00
Scope 2[3]	23,570.85	23,570.85	0.00	0.00	0.00	0.00	0.00
Scope 3	4,806.63	104.76	0.01	0.00	0.00	0.00	0.00
SUM (1-3)[2]	**13,926.64**	**9,000.99**	**0.12**	**0.03**	**0.11**	**0.00**	**0.00**
SUM (1-3)[3]	**31,804.89**	**26,879.24**	**0.12**	**0.03**	**0.11**	**0.00**	**0.00**
Change in value (after re-calculation vs. before re-calculation)							
Scope 1	-1.30%	-1.67%	92,208%	99,900%	0.00%	-	-
Scope 2[2]	15.14%	15.14%	-	-	-	-	-
Scope 2[3]	-2.25%	-2.25%	-	-	-	-	-
Scope 3	2,699.22%	-38.60%	0.00%	-100.00%	-	-	-
SUM (1-3)[2]	**62.16%**	**7.50%**	**1,100.00%**	**900%**	**0.00%**	**-**	**-**
SUM (1-3)[3]	**14.58%**	**-2.40%**	**1,100.00%**	**900%**	**0.00%**	**-**	**-**

EMISSIONS	**TOTAL (tCO_2e)**	CO_2 (t)	CH_4 (t)	N_2O (t)	HFCs (t)	PFCs (t)	SF_6 (t)
2021 – before re-calculation							
Scope 1	3,283.05	3,207.01	0.00013	0.00002	0.045	0.00	0.00
Scope 2[2]	4,806.39	4,806.39	0.00	0.00	0.00	0.00	0.00
Scope 2[3]	22,310.2	22,310.2	0.00	0.00	0.00	0.00	0.00
Scope 3	153.93	153.37	0.003	0.001	0.00	0.00	0.00
SUM (1-3)[2]	**8,243.37**	**8,166.77**	**0.003**	**0.001**	**0.045**	**0.00**	**0.00**
SUM (1-3)[3]	**25,747.18**	**25,670.58**	**0.003**	**0.001**	**0.045**	**0.00**	**0.00**
2021 – after re-calculation							
Scope 1	3,222.62	3,137.08	0.116	0.022	0.045	0.00	0.00
Scope 2[2]	6,229.09	6,229.09	0.00	0.00	0.00	0.00	0.00
Scope 2[3]	22,559.88	22,559.88	0.00	0.00	0.00	0.00	0.00
Scope 3	6,389.43	40.58	0.003	0.001	0.00	0.00	0.00
SUM (1-3)[2]	**15,841.14**	**9,406.75**	**0.119**	**0.023**	**0.045**	**0.00**	**0.00**
SUM (1-3)[3]	**32,171.93**	**25,737.54**	**0.119**	**0.023**	**0.045**	**0.00**	**0.00**
Change in value (after re-calculation vs. before re-calculation)							
Scope 1	-1.84%	-2.18%	89,131%	109,900%	0.00%	-	-
Scope 2[2]	29.60%	29.60%	-	-	-	-	-
Scope 2[3]	1.12%	1.12%	-	-	-	-	-
Scope 3	4,050.87%	-73.54%	0.00%	0.00%	-	-	-

SUM (1-3)[2]	**92.17%**	**15.18%**	**3,866.67%**	**2,200.00%**	**0.00%**	**-**	**-**
SUM (1-3)[3]	**24.95%**	**0.26%**	**3,866.67%**	**2,200.00%**	**0.00%**	**-**	**-**

Direct CO2 emissions from biogenic combustion (tCO_2) in 2019-2021
0 t CO_2

BASE YEAR

Year chosen as the base year
2019
Explanation of the company's policy for recalculating base year emissions
The publication: The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard Revised Edition[4] (hereinafter: the GHG Protocol) allows for the following situations of base year emissions re-calculation: 1. Structural changes in the reporting organisation that have a significant impact on base year emissions. 2. Changes in calculation methodologies, improvements in the accuracy of emission factors or activity data that have a significant impact on base year emission data. 3. Spotting calculation errors. Due to detected errors in the base year calculation duplicated in 2020 and 2021 and the inclusion of previously unreported areas in the reported data, it was decided to re-calculate the previously reported values for 2019-2021. Details of the re-calculations carried out are presented in the following section "Context of any significant changes in emission that trigger of base year emissions".
Context of any significant changes in emission that trigger recalculations of base year emissions
Referring to the GHG Protocol guidelines for the re-calculation of base year emissions: 1. There have been no structural changes within the ING Bank Śląski S.A. Group that have a significant impact on the base year emissions. 2. There has been a change in the methodology for calculating emissions from water supply and treatment in order to re-estimate missing periods and previously unaccounted for locations. Verification of previously reported data was carried out. The verification resulted in more actual data, which reduced the percentage of estimated data. 3. As a result of the verification of the previously adopted methodology and data sources, errors were identified that affect the previously reported emission values. These include, among others, reclassification of heat sources, failure to update indicator values for estimates, failure to include all data made available in earlier calculations, errors in the calculation of CH_4 and N_2O emissions, errors in unit conversions, deducting electricity demand from PV generation. 4. In view of the fact that the changes mentioned in points 2 and 3 affected the emission calculations in subsequent years, it was decided that the entire range of data had to be re-calculated. The performed re-calculation better presents the level of greenhouse gas emissions by the ING Bank Śląski S.A. Group, taking into account the available actual data and the adopted methods for estimating missing data. 5. Re-calculation of base year and 2020-2021 emissions was carried out for: 5.1. Scope 1: 5.1.1. When re-calculating natural gas, locations were verified for which a gas boiler and a room gas cooker is the heating source. More actual data has been acquired as a result of which the heat consumption rates per m^2 have changed, and those rates were used

[4] https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

to calculate emissions for locations for which actual data could not be acquired. In addition, CH_4 and N_20 emissions were re-calculated.

5.1.2. When re-calculating heating oil locations were verified for which an oil boiler is the heating source. In addition, CH_4 and N_20 emissions were re-calculated.

5.1.3. The re-calculation of petrol fuel took into account emissions from all fuel transactions that were carried out during the reporting period. In addition, CH_4 and N_20 emissions were re-calculated.

5.1.4. CH_4 and N_20 emissions were re-calculated when re-calculating the diesel used to refuel ING Bank Śląski's car fleet.

5.1.5. When re-calculating the diesel used to power the generators, emissions were estimated from a generator previously not included in the emissions calculation. In addition, CH_4 and N_20 emissions were re-calculated.

5.2. Scope 2:

5.2.1. When re-calculating electricity, more actual data was acquired. In consequence the energy consumption rates of electricity per m^2 have changed that were used to calculate emissions for locations for which actual data could not be acquired. In addition, the values of the indicators used to calculate the estimates have been updated to better reflect the electricity demand for the year. In addition, consumptions were estimated for locations for which no values were given in the original calculations. Finally, energy generated by in-house photovoltaic installations was included in the total electricity demand.

5.2.2. In the recalculation of district heating, the locations were verified for which a district heating centre is the heating source. Since more actual data has been acquired, the heat consumption rates per m^2 have changed that were used to calculate emissions for locations for which actual data could not be acquired. In addition, CH_4 and N_20 emissions were re-calculated. In addition, the start and end dates of the location lease for the year were included in the emissions calculation. Finally, it was decided to change the emission factors (instead of the factors published by KOBiZE, it was decided to use the emission factors published for individual provinces by the ERO in order to calculate emissions more precisely taking into account the regional specificity of the heating market in Poland).

5.3. Scope 3:

5.3.1. When re-calculating water supply and treatment, more actual data was acquired. The number of employees for each location was verified. Based on actual water consumption data, average water consumption was calculated for the locations. On that basis, an indicator was calculated, which is the average amount of water used per employee per month. Using the calculated indicator and information on the number of employees, the amount of water used in locations with missing data was estimated for selected months and locations for which the real consumption was not known at all.

5.3.2. CH_4 and N_20 emissions were re-calculated for re-calculation of business travel. In addition, rail journeys that have been cancelled have been excluded and the conversion of distance from kilometres to miles has been corrected. For air travel, all routes were included and the impact of round-trip flights on carbon emissions was taken into account. For taxi trips, all available data was included and the conversion of distance from kilometres to miles was corrected. In addition, the data for 2019 includes business travel by coach by employees of the Subsidiaries (the data was not included in earlier reports).

INFORMATION REQUIRED

6. Given the need to recalculate data for 2019-2021 and in an effort to best determine the impact of ING Bank Śląski S.A. Group's operations on emissions, it was decided to include the following emissions in the calculations:
   6.1. In scope 2:
      6.1.1. on account of the cold purchased.
   6.2. In scope 3:
      6.2.1. from transmission losses (WTT) for the following areas:
         6.2.1.1. Reported in scope 1:
            6.2.1.1.1. natural gas, fuel oil, coal, petrol fuel, diesel used for company cars, diesel used to power generators;
         6.2.1.2. Reported in scope 2:
            6.2.1.2.1. electricity: Transmission losses (T&D) and emissions associated with the production of fuels used for energy generation are included if the energy does not come from RES (Generation) for calculations based on a location-based approach, purchased cold and district heat.
      6.2.2. From municipal waste generated.
      6.2.3. For the use of private cars for business purposes.

   As a result of the conversion of the areas mentioned in point 6, it should be concluded that they have a significant impact on the value of the ING Bank Śląski S.A. Group's emissions. Below is information on the share of newly disclosed emissions in relation to the total emissions of the analysed media in scopes 1-3:
   - In 2019: 36% (calculated using market-based methodology), 17% (calculated using location-based methodology).
   - In 2020: 38% of emissions (calculated using market-based methodology), 17% (calculated using location-based methodology).
   - In 2021: 42% of emissions (calculated using market-based methodology), 21% (calculated using location-based methodology).
7. The results of the ING Bank Śląski S.A. Group's GHG emissions for the base year (2019) and the years 2020-2021 before and after re-calculation are presented in the "EMISSIONS INFORMATION" section.

METHODOLOGIES AND EMISSION FACTORS

Methodologies used to calculate or measure emissions other than those under the GHG Protocol

1. Basic information on the methodology for calculating greenhouse gas emissions and the indicators used

   The calculation of greenhouse gas emissions, which include inter alia carbon dioxide (CO_2), methane (CH4) and nitrous oxide (N2O), is based on the global standard Greenhouse Gas Protocol methodology developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). The calculations of greenhouse gas emissions were based on the consumption of individual energy carriers used by the ING Capital Group, i.e. liquid fuels used by the car fleet (petrol, diesel), electricity, purchased cold, district heating, natural gas, fuel oil and coal consumed for the operation of the buildings. In addition, emissions associated with the loss of refrigerant from refrigeration equipment and diesel used to generate electricity from generators were analysed. For Scope 3 of the GHG emissions, the company's employee business travel (rail, air travel, taxi, private car travel for business purposes), water and paper consumption and waste (recycled and municipal) were analysed. Well-to-Tank (WTT) emissions are also

included, comprising emissions associated with the extraction, production and transportation of fuels consumed by the ING Group, the extraction, production and transportation of fuels consumed for the generation of energy purchased by the company, and the generation of energy consumed to cover transmission and distribution (T&D) losses.

Greenhouse gas emissions were converted to carbon dioxide equivalent according to the GWP value (Global Warming Potential), which measures the potential of individual gases in terms of carbon dioxide equivalent, according to the Intergovernmental Panel on Climate Change (IPCC) report, "Climate Change 2013: IPCC Fifth Assessment Report (AR5)[5].", where the GWP for methane is 25 and for nitrous oxide is 298. Emissions of carbon dioxide, methane and nitrous oxide have been converted into carbon dioxide equivalent emissions according to the formula:

$$W_{eCO_2} = W_{CO_2} + W_{CH_4} \cdot GWP_{CH_4} + W_{N_2O} \cdot GWP_{N_2O}$$

and

$$W_{eCO_2} = W_{HFCs} \cdot GWP_{HFCs}$$

where:
W_{eCO_2}- carbon dioxide equivalent emission factor,
W_{CO_2}- carbon dioxide emission factor,
W_{CH_4}- methane emission factor,
GWP_{CH_4}- GWP (Global Warming Potential) of methane,
W_{N_2O}- nitrous oxide emission factor,
GWP_{N_2O}- GWP (Global Warming Potential) of nitrous oxide.
W_{HFCs} – refrigerant loss value
GWP_{HFCs}- GWP (Global Warming Potential) of refrigerant.

For electricity in scope 2, a market-based and location-based approach was used to calculate emissions.

ESTIMATES USED FOR THE CALCULATIONS

The electricity consumption for the Bank's branches and other locations was known on the basis of meter readings, i.e. on the basis of invoices. In facilities for which the consumption was not known, the electricity consumption rate per area was used to calculate the energy consumption, which was multiplied by the area of the ward. To determine the average electricity consumption rate per area, the actual consumption rates for buildings with a similar function were used, additionally taking into account the use of an electric hot water system and a similar type of lighting. Electricity consumption was not known for small areas occupied in shopping centres with small service points. The energy consumption of the stands was determined on the basis of the electrical appliances used. The electricity consumption for ATMs and night deposit machines owned by ING was determined on the basis of the technical specifics of the equipment. The energy generated by photovoltaic installations installed at in-house locations, which was not transferred to the grid, was added to the total electricity consumption. Consumption was not estimated for locations that do not have media connections, e.g. parking spaces, transformer stations, undeveloped land, advertisements/ billboards.

[5] https://www.epa.gov/system/files/documents/2022-04/ghg_emission_factors_hub.pdf

INFORMATION REQUIRED

District heating consumption was known for the facilities occupied by the company on the basis of meter readings or billing invoices. For these buildings, the average district heating consumption rate per unit area in the company was determined for the office and other buildings. These indicators were used to estimate the consumption of district heating in the remaining facilities, where the heating source is a thermal centre and where the consumption was not known. For the spaces occupied by small service points, zero network heat consumption was assumed, as these spaces are located in common spaces and would be heated in the facilities regardless of whether there is a stall there.

The consumption of purchased cold for air conditioning was known for the facilities occupied by the company on the basis of billing invoices. The cold used was entirely generated from electricity.

Natural gas consumption was known for the facilities occupied by the company on the basis of meter readings or billing invoices. The estimate of natural gas consumption was split between the two heating sources used in the facilities – a gas boiler and a room gas furnace.
For facilities using a gas boiler, an average natural gas consumption rate per unit area in the company was determined. This indicator was used to estimate natural gas consumption in the remaining facilities where the heating source is a gas boiler and where consumption was unknown.
For facilities using room gas cookers, the average natural gas consumption rate per unit area in the company was similarly determined. This indicator was used to estimate natural gas consumption in a facility where the heating source is a room gas cooker, where consumption was unknown.

Fuel oil consumption was known in 2019-2021 for 2 facilities occupied by the company. To estimate the consumption of fuel oil in the remaining 2 facilities, where the heating source is an oil boiler, an indicator equal to 89.43 kWh/m2 was used (calculated according to the existing approach on the basis of the average fuel oil consumption indicator per unit area in the company in 2019).

A coal boiler as a heating source was used in one branch of the company. As coal consumption was not known, it was estimated analogously to previous energy carriers. An average heating energy consumption rate per unit area for all sources was determined. Due to the small share of emissions from the use of coal for heating and the fact that the results are based entirely on estimated values, the previously reported results have not been re-calculated.

In the event of loss of mains power, generators were installed at some of the facilities, for which the amount of electricity generated was known. For four generators in 2019 and for three in 2020-2021, only the operating time was known, without the amount of energy generated. In this case, the amount of energy produced was calculated using the average power load of the gensets for which the energy produced was known and the operating time of the gensets. For 2019-2021, the operating time (the parameter used to calculate the amount of fuel consumed) was unknown for one genset. In this case, the operating time was calculated as the quotient of the amount of energy generated, the average power load of the gensets and the power of the genset according to the technical parameters. To calculate the amount of fuel used to generate a given amount of electricity, the technical characteristics of the individual generators were used. The average fuel consumption (l/h) was read from the technical specifications, and the amount of oil used in the genset was obtained by multiplying this value by the percentage of the genset load and the operating time.

INFORMATION REQUIRED

The amount of energy consumed by motor vehicles was calculated on the basis of the reported fuel consumption statement of the vehicles used in the ING Group.

For the entities in the ING Bank Śląski Capital Group, i.e. ING Bank Śląski and its Subsidiaries, the principles for calculating and estimating data on the consumption of energy carriers and the resulting greenhouse gas emissions were applied in the same way. Where the actual consumption of energy carriers and the resulting greenhouse gas emissions were not known for the subsidiaries, they were estimated on the basis of the companies' share of total area (for natural gas, fuel oil, coal, fuel oil to power generators, electricity, purchased cooling, district heating, transmission losses – WTT) or total FTEs (for water, municipal waste).

Optional information

ORGANISATIONAL BOUNDARIES

List of all legal entities or establishments in which the reporting organisation has an ownership interest or exercises financial or operational control	Share in the capital of the legal entity (%)	Does the reporting organisation have financial control (Yes/No)	Does the reporting organisation have operational control (Yes/No)
ING Bank Śląski S.A.	100% (group parent company)	Yes	Yes
ING Lease (Polska) Sp. z o.o.	100%	Yes	Yes
ING Bank Hipoteczny S.A.	100%	Yes	Yes
Nowe Usługi S.A.	100%	Yes	Yes
ING Commercial Finance Polska S.A.	100%	Yes	Yes
Solver	100%	Yes	Yes
ING Usługi dla Biznesu S.A.	100%	Yes	Yes

If the parent company of the reporting entity does not report emissions, attach an organisation chart that clearly identifies the relationship between the reporting subsidiary and other subsidiaries
N/A

INFORMATION ON EMISSIONS

Emissions by source (in t Co2e) – 2019			
Scope 1: Direct emissions from owned/controlled operations	Before re-calculation	After re-calculation	Change [%]
a. Direct emissions from stationary combustion	740.92	664.91	-10.26%
b. Direct emissions from mobile combustion	3,860.62	3,873.53	0.33%
c. Direct emissions from process sources	37.02	47.37	27.96%
d. Direct emissions from fugitive sources	632.71	632.71	0.00%
e. Direct emissions from agricultural sources	0.00	0.00	0.00%
TOTAL	**5,271.27**	**5,218.52**	**-1.00%**
Scope 2: Indirect emissions from the use of purchased electricity, process steam, heat and cooling			
a. Indirect emissions from purchased/acquired electricity (calculated using a market-based approach)	812.82	672.16	-17.31%
b. Indirect emissions from purchased/acquired process steam	0.00	0.00	0.00%
c. Indirect emissions from purchased/acquired thermal energy	5,212.20	5,034.98	-3.40%
d. Indirect emissions from purchased/acquired cold	0.00	829.32	
TOTAL	**6,025.02**	**6,536.46**	**8.49%**

Emissions by source (in t Co2e) – 2020			
Scope 1: Direct emissions from owned/controlled operations	Before re-calculation	After re-calculation	Change [%]
a. Direct emissions from stationary combustion	678.59	624.47	-7.98%
b. Direct emissions from mobile combustion	2,517.02	2,525.93	0.35%
c. Direct emissions from process sources	62.54	62.72	0.29%
d. Direct emissions from fugitive sources	214.29	214.29	0.00%
e. Direct emissions from agricultural sources	0.00	0.00	0.00%
TOTAL	**3,472.44**	**3,427.41**	**-1.30%**
Scope 2: Indirect emissions from the use of purchased electricity, process steam, heat and cooling			

Optional information

a. Indirect emissions from purchased/acquired electricity (calculated using a market-based approach)	0.00	127.40	-
b. Indirect emissions from purchased/acquired process steam	0.00	0.00	-
c. Indirect emissions from purchased/acquired thermal energy	4,943.91	4,800.52	-2.90%
d. Indirect emissions from purchased/acquired cold	0.00	764.68	-
TOTAL	**4,943.91**	**5,692.6**	**15.14%**

Emissions by source (in t Co2e) – 2021			
Scope 1: Direct emissions from owned/controlled operations	Before re-calculation	After re-calculation	Change [%]
a. Direct emissions from stationary combustion	643.83	564.22	-12.37%
b. Direct emissions from mobile combustion	2,497.32	2,516.13	0.75%
c. Direct emissions from process sources	65.86	66.24	0.58%
d. Direct emissions from fugitive sources	76.03	76.03	0.00%
e. Direct emissions from agricultural sources	0.00	0.00	0.00%
TOTAL	**3,283.04**	**3,222.62**	**-1.84%**
Scope 2: Indirect emissions from the use of purchased electricity, process steam, heat and cooling			
a. Indirect emissions from purchased/acquired electricity (calculated using a market-based approach)	0.00	595.18	-
b. Indirect emissions from purchased/acquired process steam	0.00	0.00	0.00%
c. Indirect emissions from purchased/acquired thermal energy	4,806.39	5,201.74	8.23%
d. Indirect emissions from purchased/acquired cold	0.00	432.17	-
TOTAL	**4,806.39**	**6,229.09**	**29.60%**

Emissions by plant (recommended for individual plants with stationary exhaust emissions above 10,000 tCO_2e)	
Facility	Scope 1 emissions
N/A	N/A

Emissions by country (in $MgCO_2e$)	
Country	Emissions
N/A	N/A

Emissions related to the own generation of electricity, heat or process steam which are sold or transferred to another organisation
N/A

Emissions related to the own generation of electricity, heat or process steam which are purchased for resale to intermediate customers
N/A

Optional information

Emissions from greenhouse gases not included in the Kyoto Protocol (e.g., CFCs, Nox,) – after re-calculation

Pollution	2019	2020	2021
Total dust	9.09	7.96	7.45
PM10 dust	8.94	7.82	7.30
PM2.5 dust	8.68	7.57	7.05
Carbon monoxide (CO)	413.93	394.85	361.71
Nitrogen oxides (NOx/NO_2)	673.74	628.54	567.02
Sulphur oxides (SOx/SO_2)	94.96	52.48	56.53
Benzo(a)pyrene	0.00	0.00	0.00
Non-methane volatile organic compounds (NMVOC)	1.87	1.68	2.01
Ammonia (NH_3)	0.37	0.32	0.38
Lead (Pb)	0.00	0.00	0.00

Information on the reasons for emission changes that did not result in emissions recalculations in the base year (e.g. process changes, efficiency improvements, plant closures).

N/A

GHG emissions data for all years between baseline and reporting year (including details and reasons for recalculations, if any)

GHG emissions were re-calculated for the base year (2019) and the years 2020-2021 described in detail in section “Context of any significant emission changes that trigger recalculations of base year emissions”.

The table below provides information on greenhouse gas emissions between the base year and the years 2020-2021 (final values are presented after re-calculation [tCO2e]):

	2019	2020	2021
Scope I	5,218.52	3,427.41	3,222.62
Scope II – market-based	6,536.46	5,692.60	6,229.09
Scope II – location-based	28,175.83	23,570.85	22,559.88
Scope III	6,529.73	4,806.63	6,389.43
SUM Scopes I-III – market-based	**18,284.70**	**13,926.64**	**15,841.14**
SUM Scopes I-III – location-based	**39,924.08**	**31,804.89**	**32,171.93**

Optional information

ADDITIONAL INFORMATION

Information on inventory quality (e.g. information on the causes and magnitude of uncertainties in emission estimates) and an outline of existing policies to improve inventory quality
As a result of the re-calculations, there have been changes in the value of the data confidence index (understood as the percentage of source-derived data in the total data used in the calculations, consisting of source-derived and estimated data). The data confidence index was[6]: For 2019: • 86.88% before re-calculation, 89.51% after re-calculation – in the case of an energy-based calculation of the assurance rate. The indicator before and after re-calculation is at the "good" level. • 73.68% before re-calculation, 83.04% after re-calculation – in the case of an emission-based calculation of the assurance rate (market-based method). The indicator before and after re-calculation is at the "fair" level. • 93.31% – in the case of an emission-based calculation of the assurance rate (location-based method). The indicator before and after re-calculation is at the "good" level. For 2020: • 84.24% before re-calculation, 84.62% after re-calculation – in the case of an energy-based calculation of the assurance rate. The indicator before and after re-calculation is at the "fair" level. • 68.35% before re-calculation, 72.66% after re-calculation – in the case of an emission-based calculation of the assurance rate (market-based method). The indicator before re-calculation is at the "poor" level. The indicator after re-calculation is at the "fair" level. • 89.80% – in the case of an emission-based calculation of the assurance rate (location-based method). The indicator before and after re-calculation is at the "good" level. For 2021: • 84.26% before re-calculation, 86.66% after re-calculation – in the case of an energy-based calculation of the assurance rate. The indicator before re-calculation is at the "fair" level. The indicator after re-calculation is at the "good" level. • 70.68% before re-calculation, 77.33% after re-calculation – in the case of an emission-based calculation of the assurance rate (market-based method). The indicator before and after re-calculation is at the "fair" level. • 90.87% – in the case of an emission-based calculation of the assurance rate (location-based method). The indicator before and after re-calculation is at the "good" level. The increase in the value of the data confidence indicator after re-calculation is due to the verification of the correctness of the calculations, the revision of the assumptions made for the calculation of GHG emissions and the intensification of efforts to obtain more actual data. In addition, a previously unrecognised emissions from the loss of refrigerant from air-conditioning installations and electricity used for generated cooling (new disclosures) were included in the emissions-based confidence indicator (market-based method).

[6] Calculated in accordance with the GHG Protocol guidance on uncertainty assessment in GHG inventories and calculating statistical parameter uncertainty

Appendix to greenhouse gas emissions report of the ING Bank Śląski S.A. Group for 2019 – 2021

List of tables

Optional information

Table 1. Greenhouse gas emissions in organisational breakdown – after re-calculation [Mg CO2e].

Source	2019			2020			2021		
	ING BSK	Subsidiaries	TOTAL	ING BSK	Subsidiaries	TOTAL	ING BSK	Subsidiaries	TOTAL
Natural gas	580.53	14.17	594.70	576.78	15.57	592.35	513.77	14.31	528.08
Fuel oil	65.14	1.59	66.73	28.03	0.76	28.79	31.89	0.89	32.78
Coal	3.39	0.08	3.47	3.24	0.09	3.32	3.27	0.09	3.36
Petrol fuel	1,576.97	175.81	1,752.78	1,484.26	206.71	1,690.97	1,814.93	284.32	2,099.25
Diesel – car fleet	1,795.77	324.98	2,120.75	736.76	98.21	834.97	371.78	45.11	416.88
Diesel – power generators	46.24	1.13	47.37	61.07	1.65	62.72	64.44	1.79	66.24
Refrigerants	617.63	15.08	632.71	208.66	5.63	214.29	73.97	2.06	76.03
SUM Scope I	**4,685.68**	**532.84**	**5,218.52**	**2,941.55**	**485.86**	**3,427.41**	**2,874.05**	**348.57**	**3,222.62**
Electricity – market based	656.14	16.02	672.16	124.05	3.35	127.40	579.05	16.13	595.18
Electricity – location based	21,779.81	531.73	22,311.53	17,532.42	473.22	18,005.65	16,467.35	458.62	16,925.97
Cold	809.56	19.76	829.32	744.58	20.10	764.68	420.46	11.71	432.17
District heating	4,914.98	119.99	5,034.98	4,725.62	74.90	4,800.52	5,119.03	82.71	5,201.74
SUM Scope II – market-based	**6,380.68**	**155.78**	**6,536.46**	**5,594.25**	**98.35**	**5,692.60**	**6,118.54**	**110.54**	**6,229.09**
SUM Scope II – location-based	**27,504.35**	**671.48**	**28,175.83**	**23,002.63**	**568.22**	**23,570.85**	**22,006.85**	**553.03**	**22,559.88**
Category 1: Paper	184.55	5.17	189.72	131.97	2.03	134.00	119.85	1.88	121.73
Category 1: Water supply	26.46	1.30	27.76	24.40	1.29	25.69	8.72	0.47	9.19
SUM (Category 1)	**211.01**	**6.47**	**217.48**	**156.37**	**3.32**	**159.69**	**128.57**	**2.35**	**130.92**
Category 3: WTT emissions	5,483.08	133.86	5,616.94	4,344.42	68.86	4,413.28	6,029.36	97.42	6,126.78
Category 5: Water treatment	54.47	2.67	57.14	50.22	2.65	52.87	15.92	0.85	16.77
Category 5: Municipal waste	71.03	3.49	74.52	70.58	3.72	74.30	69.78	3.73	73.51
Category 5: Recycled waste	10.88	0.00	10.88	0.43	0.00	0.43	0.39	0.00	0.39
SUM (Category 5)	**136.38**	**6.16**	**142.54**	**121,23**	**6.37**	**127.60**	**86.09**	**4.58**	**90.67**
Category 6: Rail journeys	183.01	13.51	196.52	28.95	2.01	30.96	10.70	1.82	12.52
Category 6: Air travels	193.58	6.51	200.10	26.79	1.34	28.13	2.55	0.04	2.60
Category 6: Coach travel	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00
Category 6: Taxi trips	7.30	0.00	7.30	7.20	0.92	8.12	5.78	1.35	7.13
Category 6: Travels in private cars	148.82	0.00	148.82	38.86	0.00	38.86	18.38	0.45	18.82
SUM (Category 6)	**532.71**	**20.05**	**552.77**	**101.8**	**4.27**	**106.07**	**37.41**	**3.66**	**41.07**
SUM Scope III	**6,363.18**	**166.55**	**6,529.73**	**4,723.81**	**82.82**	**4,806.63**	**6,281.44**	**107.99**	**6,389.43**
SUM Scopes I-III – market-based	**17,429.54**	**855.17**	**18,284.70**	**13,259.61**	**667.03**	**13,926.64**	**15,274.04**	**567.10**	**15,841.14**
SUM Scopes I-III – location-based	**38,553.20**	**1,370.87**	**39,924.08**	**30,667.99**	**1,136.90**	**31,804.89**	**31,162.34**	**1,009.59**	**32,171.93**

Table 2. Fuel consumption by organisational breakdown – after re-calculation [kWh].

Source	2019			2020			2021		
	ING BSK	Subsidiaries	TOTAL	ING BSK	Subsidiaries	TOTAL	ING BSK	Subsidiaries	TOTAL
Natural gas	3,203,190	78,202	3,281,392	3,182,520	85,900	3,268,420	2,834,848	78,951	2,913,799
Fuel oil	248,829	6,075	254,904	107,079	2,890	109,969	121,814	3,393	125,206
Coal	10,138	248	10,386	9,678	261	9,939	9,773	272	10,045
Petrol fuel	6,299,177	702,269	7,001,446	5,928,814	825,706	6,754,521	7,249,665	1,135,709	8,385,374
Diesel – car fleet	6,709,996	1,214,297	7,924,293	2,752,935	366,964	3,119,900	1,389,164	168,538	1,557,702
Diesel – power generators	172,767	4,218	176,984	228,187	6,159	234,346	240,800	6,706	247,507
SUM Scope I	**16,644,098**	**2,005,308**	**18,649,406**	**12,209,214**	**1,287,881**	**13,497,095**	**11,846,064**	**1,393,568**	**13,239,632**
Electricity – location based	32,131,934	784,459	32,916,393	26,931,032	726,903	27,657,936	25,331,448	705,483	26,036,931
Cold	1,194,210	29,155	1,223,365	1,141,938	30,822	1,172,761	644,853	17,959	662,812
District heating	14,249,808	347,890	14,597,698	13,893,464	375,002	14,268,466	15,051,206	419,178	15,470,384
SUM Scope II – location-based	**47,575,951**	**1,161,505**	**48,737,456**	**41,966,435**	**1,132,728**	**43,099,163**	**41,027,507**	**1,142,620**	**42,170,127**
SUM Scopes I-II – location-based	**64,220,049**	**3,166,813**	**67,386,862**	**54,175,649**	**2,420,609**	**56,596,258**	**52,873,571**	**2,536,188**	**55,409,759**

Table 3. Greenhouse gas emissions – percentage of actual and estimated data – after re-calculation [%].

Source	2019		2020		2021	
	Actual data	Estimates	Actual data	Estimates	Actual data	Estimates
Natural gas	35%	65%	30%	70%	36%	64%
Fuel oil	90%	10%	80%	20%	82%	18%
Coal	0%	100%	0%	100%	0%	100%
Petrol fuel	100%	0%	100%	0%	100%	0%
Diesel – car fleet	100%	0%	100%	0%	100%	0%
Diesel – power generators	0%	100%	0%	100%	0%	100%
Refrigerants	100%	0%	100%	0%	100%	0%
SUM Scope I	**92%**	**8%**	**86%**	**14%**	**87%**	**13%**
Electricity – market based	99%	1%	99%	1%	99%	1%
Electricity – location based	99%	1%	99%	1%	99%	1%
Cold	100%	0%	100%	0%	100%	0%
District heating	69%	31%	58%	42%	67%	33%
SUM Scope II – market-based	**76%**	**24%**	**65%**	**35%**	**72%**	**28%**
SUM Scope II – location-based	**94%**	**6%**	**90%**	**10%**	**91%**	**9%**
Paper	100%	0%	100%	0%	100%	0%
WTT – transmission losses	96%	4%	94%	6%	95%	5%
Water supply	70%	30%	36%	64%	2%	98%
Water treatment	70%	30%	36%	64%	2%	98%
Municipal waste	0%	100%	0%	100%	4%	96%
Recycled waste	100%	0%	100%	0%	100%	0%
Rail journeys	100%	0%	100%	0%	100%	0%
Air travels	100%	0%	100%	0%	100%	0%
Coach travel	100%	0%	-	-	-	-
Taxi trips	100%	0%	89%	11%	81%	19%
Travels in private cars	100%	0%	100%	0%	100%	0%
SUM Scope III	**95%**	**5%**	**92%**	**8%**	**94%**	**6%**
SUM Scopes I-III – market-based	**87%**	**13%**	**79%**	**21%**	**84%**	**16%**
SUM Scopes I-III – location-based	**94%**	**6%**	**90%**	**10%**	**91%**	**9%**

Table 4. Fuel consumption emissions – percentage of actual and estimated data – after re-calculation [%].

Source	2019		2020		2021	
	Actual data	Estimates	Actual data	Estimates	Actual data	Estimates
Natural gas	35%	65%	30%	70%	36%	64%
Fuel oil	90%	10%	80%	20%	82%	18%
Coal	0%	100%	0%	100%	0%	100%
Petrol fuel	100%	0%	100%	0%	100%	0%
Diesel – car fleet	100%	0%	100%	0%	100%	0%
Diesel – power generators	0%	100%	0%	100%	0%	100%
Electricity – location based	99%	1%	99%	1%	99%	1%
Cold	100%	0%	100%	0%	100%	0%
District heating	70%	30%	60%	40%	68%	32%

Table 5. Data sources for the indicators used in the calculation of greenhouse gases CO2e, CO2, CH4,N20, HFCs – 2019

Area	Source
Natural gas	https://krajowabaza.kobize.pl/docs/MATERIAL_wskazniki_male_kotly_2020.pdf https://www.epa.gov/sites/default/files/2018-03/documents/emission-factors_mar_2018_0.pdf
Fuel oil	
Coal	
Petrol fuel	
Diesel – car fleet	
Diesel – power generators	https://www.kobize.pl/uploads/materialy/download/WO_i_WE_do_monitorowania-ETS-2020.pdf
Refrigerants	https://www.theclimateregistry.org/wp-content/uploads/2019/02/Draft-PC-Appendix_A_Global-Warming-Potentials.pdf
Electricity	https://www.kobize.pl/uploads/materialy/materialy_do_pobrania/wskazniki_emisyjnosci/Wskazniki_emisyjnosci_grudzien_2020.pdf
Cold	
District heating	https://krajowabaza.kobize.pl/docs/MATERIAL_wskazniki_male_kotly_2020.pdf https://www.ure.gov.pl/pl/cieplo/energetyka-cieplna-w-l/10096,2020.html
Paper	https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019
WTT – transmission losses	
Water supply	
Water treatment	
Municipal waste	
Recycled waste	
Rail journeys	https://www.epa.gov/sites/default/files/2018-03/documents/emission-factors_mar_2018_0.pdf
Air travels	
Coach travel	
Taxi trips	
Travels in private cars	

Table 6. Data sources for the indicators used in the calculation of greenhouse gases CO2e, CO2, CH4,N20, HFCs – 2020

Area	Source
Natural gas	https://krajowabaza.kobize.pl/docs/MATERIAL_wskazniki_male_kotly_2020.pdf https://www.epa.gov/sites/default/files/2021-04/documents/emission-factors_mar2020.pdf
Fuel oil	
Coal	
Petrol fuel	
Diesel – car fleet	
Diesel – car fleet	
Diesel – power generators	https://www.kobize.pl/uploads/materialy/download/WO_i_WE_do_monitorowania-ETS-2020.pdf
Refrigerants	https://www.theclimateregistry.org/wp-content/uploads/2019/02/Draft-PC-Appendix_A_Global-Warming-Potentials.pdf
Electricity	https://www.kobize.pl/uploads/materialy/materialy_do_pobrania/wskazniki_emisyjnosci/Wskazniki_emisyjnosci_grudzien_2020.pdf
Cold	
District heating	https://krajowabaza.kobize.pl/docs/MATERIAL_wskazniki_male_kotly_2020.pdf https://www.ure.gov.pl/pl/cieplo/energetyka-cieplna-w-l/10096,2020.html
Paper	https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020
WTT – transmission losses	
Water supply	
Water treatment	
Municipal waste	
Recycled waste	
Rail journeys	https://www.epa.gov/sites/default/files/2021-04/documents/emission-factors_mar2020.pdf
Air travels	
Coach travel	
Taxi trips	
Travels in private cars	

Table 7. Data sources for the indicators used in the calculation of greenhouse gases CO2e, CO2, CH4,N20, HFCs – 2021

Area	Source
Natural gas	https://krajowabaza.kobize.pl/docs/MATERIAL_wskazniki_male_kotly_2020.pdf https://www.epa.gov/sites/default/files/2021-04/documents/emission-factors_apr2021.pdf
Fuel oil	
Coal	
Petrol fuel	
Diesel – car fleet	
Diesel – power generators	https://www.kobize.pl/uploads/materialy/download/WO_i_WE_do_monitorowania-ETS-2020.pdf
Refrigerants	https://www.theclimateregistry.org/wp-content/uploads/2019/02/Draft-PC-Appendix_A_Global-Warming-Potentials.pdf
Electricity	https://www.kobize.pl/uploads/materialy/materialy_do_pobrania/wskazniki_emisyjnosci/Wskazniki_emisyjnosci_grudzien_2021.pdf
Cold	
District heating	https://krajowabaza.kobize.pl/docs/MATERIAL_wskazniki_male_kotly_2020.pdf https://www.ure.gov.pl/pl/cieplo/energetyka-cieplna-w-l/10096,2020.html
Paper	https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021
WTT – transmission losses	
Water supply	
Water treatment	
Municipal waste	
Recycled waste	
Rail journeys	https://www.epa.gov/sites/default/files/2021-04/documents/emission-factors_apr2021.pdf
Air travels	
Coach travel	
Taxi trips	
Travels in private cars	