Inventory of emissions of greenhouse gases

[PKO Bank Polski Spółka Akcyjna]
[2020]

REQUIRED INFORMATION

Have any establishments, operations and/or sources been excluded from the inventory? If any, please indicate.
No.
The reporting period for the inventory
From 01/01/2020 to 31/12/2020

ORGANISATIONAL BOUNDARIES

Specify the consolidation method (indicate every mode of consolidation, for which the organisation reports emissions). If the organisation reports on the basis of more than one consolidation method, please fill out and attach an additional inventory according to each consolidation method.		
Share in capital. ☐	Financial control ☐	Operating control ✓

OPERATIONAL BOUNDARIES

Are Scope 3 emissions included in the inventory?
Yes ✓ No ☐
If they are, which types of activity were included in Scope 3?
Scope 3 emissions include domestic business trips (airplane, train, taxi, public transport, passenger cars, motorcycle). The distance covered for each mode of transport was specified on the basis of an internal register and routes defined on its basis. No trips by company cars were included, as these emissions are included in full in fuel consumption in Scope 1, and such inclusion would result in doubling of the associated emission values.

EMISSION INFORMATION

The table below refers to emissions independent of any GHG transactions, that is, sale, purchase, transfer or depositing of allowances.

EMISSIONS	**TOTAL**	CO_2	CH_4	N_2O	HFCs	PFCs	SF_6
	($MgCO_2e$)	(Mg)	(Mg)	(Mg)	(Mg)	(Mg)	(Mg)
Scope 1	13,509.48	12,708.37	0.52	0.01	0.00	0.00	0.00
Scope 2[1]	96,628.66	96,628.66	0.00	0.00	0.00	0.00	0.00
Scope 2[2]	64,376.66	64,376.66	0.00	0.00	0.00	0.00	0.00
Scope 3	288.67	288.40	0.0016	0.0009	0.00	0.00	0.00

Direct CO_2 emissions from biogenic combustion ($MgCO_2$)
0 $MgCO_2$

BASE YEAR

Base year
2019[3] for Scope 1 and 2. For Scope 3, the Capital Group of PKO Bank Polski S.A. is reporting emissions for the first time in this report for year 2020. Scope 3 emissions include domestic business trips, and it should be noted that in this regard, year 2020 was not typical - due to the epidemic, business trips were substantially limited.

[1] Calculated in accordance with the location-based method.
[2] Calculated in accordance with the market-based method.
[3] Due to the fact that the authors of this report have found it necessary to recalculate the results of greenhouse gas emissions of the PKO Bank Polski S.A. Capital Group for the base year, all comparisons used in this report pertain to the indicators, fuel consumption and emissions for the base year after the base year recalculation conducted by the authors of the report, unless clearly stated otherwise. A comparison of energy and fuel consumption for the base year before and after the base year recalculation has been presented in table 2.1 section "Non-compulsory information" of this report (page 21).

REQUIRED INFORMATION

Clarification of the base year recalculation policy established by the company

Year 2019 was the first year, for which the calculation was conducted, and a greenhouse gas emission inventory was developed by the PKO Bank Polski S.A. Capital Group.
The emission inventory for year 2019 was assumed to be the base year, taking into account the results after the recalculation. The company activity profile generates no untypical greenhouse gas emission fluctuations in individual years; therefore, one year is sufficiently representative and it is not necessary to determine the average annual emission level for several years.
Due to the necessity to verify the need for potential recalculations of base year emissions, general criteria have been applied as specified in *The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard Revised Edition*[4] (hereinafter: the *GHG Protocol*). For each of the criteria, the authors of this report have proposed a mode of assessment, which specifies the cases, in which recalculation of greenhouse gas emissions for the base year should take place.

The criteria indicating the necessity for recalculation of greenhouse gas emission for the base year:

Criterion 1. Structural changes, which exert substantial impact on emissions in the base year.
Description of the criterion: A structural change is related to transfer of the right of ownership or possibility of exerting control over activity generating emissions. Unlike a single structural change, the accumulated effect of a number of smaller changes may exert substantial impact on emissions in the base year. Structural changes should be understood as: mergers, takeovers, disposals and outsourcing and insourcing of activities causing emissions. Recalculation of base year emissions is not caused by broadening of the scope of services and opening or closing of operating units owned or controlled by the company (the so-called organic growth). Base year emissions will not be recalculated also if the company purchases a facility established after the base year defined by the company.
Criterion 2. Changes in the methodology used to calculate or measure emissions or improvement of data accuracy.
Description of the criterion: Substantial changes in methodology and quality of data are taken into account. Any changes in indicators and actual emission changes (related e.g. to a change in the type of fuel used) do not make it necessary to recalculate the base year.
Criterion 3. Detection of errors in base year calculations.
Description of the criterion: The errors detected must be substantial, or their accumulation must lead to substantial inaccuracies requiring an adjustment.

The authors of the report for year 2020 decided it would be necessary to recalculate emissions of greenhouse gases for the base year of the PKO Bank Polski S.A. Capital Group. The context of the recalculation has been presented in the subsequent clause of the report, entitled: "The context of all substantial emission changes, which make it necessary to recalculate the base year emissions."

The context of all substantial emission changes, which make it necessary to recalculate the base year emissions

I. The Company and its Capital Group, for which this report was prepared, did not undergo structural changes with regard to the nature of emission sources and resources owned on the scale necessary to conduct recalculation on the basis of Criterion 1.

II. The report authors did not resolve to change the methodology used to prepare the greenhouse gas emissions inventory by the PKO Bank Polski S.A. Capital Group. The authors verified data reported by the PKO Bank Polski S.A. Capital Group, as a result of which the company provided more accurate data for the base year for several locations. Due to the fact that for four facilities belonging to the resources of the PKO Bank Polski S.A. Capital Group being analysed, more accurate data was provided and verified, the report authors decided it would be reasonable to recalculate emission values for the base year on the basis of Criterion 2.

III. The report authors conducted an analysis of calculations made to report the base year, as a result of which they detected non-estimation of a part of utilities in natural gas and heat consumption for subsidiaries. Therefore, the report authors decided it would be reasonable to recalculate the emission

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

inventory for the base year on the basis of Criterion 3.

IV. The authors of the report for year 2020 decided to recalculate emissions of greenhouse gases for the base year of the PKO Bank Polski S.A. Capital Group on the basis of Criterion 2 and Criterion 3. In the opinion of the authors of this report, the recalculation conducted provides a reliable description of greenhouse gas emissions by the PKO Bank Polski S.A. Capital Group in the base year, taking into account the data reported and the method used to estimate consumption and emission for facilities not reported on the basis of real data. As a result of the recalculation, the emission total reported in year 2019 changed slightly. However, it was possible to reflect the emission structure in the PKO Bank Polski S.A. Capital Group more accurately.

V. The emission recalculation for the base year was conducted for:

1. Scope 1:
   a. the recalculation took into account emission from fuel used by vehicles of subsidiaries in Ukraine. Scope 1 emission for subsidiaries was underestimated as it failed to include emission from fuels used in vehicles;
   b. the recalculation included adjusted data on energy value of natural gas used by facilities of subsidiaries in Ukraine;
   c. the recalculation included the estimated consumption of natural gas by subsidiaries according to the methodology applied to PKO Bank Polski S.A.
2. Scope 2:
   a. the recalculation included the adjusted unit heat demand indicator, amounting to 101.55 kWh/m^2/year (a decrease by 10.02% was recorded), taking into account district heat consumed by subsidiaries.

VI. The data reported for electricity consumption for Scope 2 remained unchanged, and no necessity to recalculate emission was found here. However, as it is shown by a comparison of emission before and after the base year recalculation, emission in this regard decreased (Table 4.1 - Non-compulsory information). This is due to the fact that for two facilities, for which estimation of heat consumption in the base year was applied, electricity was reported as the source of heating. For these facilities, emissions were calculated in accordance with the methodology applied, taking into account the determined heat demand indicator, and these emissions were included in electricity in Scope 2. As a result of the recalculation, the heat demand indicator changed (clause V.2.a. of "The context of all emission changes"), which resulted in a decrease in the emission value reported in the base year for electricity in Scope 2.

VII. Accordingly with the *GHG Protocol Scope 2 Guidance* [5] indirect emission resulting from electricity consumptions included in Scope 2 can be determined in two ways - using the location-based method and the market-based method. The location-based method makes it possible to determine emissions, for which the organisation is directly responsible, strictly related to the volume of energy consumed, while the market-based method enables inclusion of decisions made by the organisation, such as purchase of electricity generated by low-emission sources.

VIII. No conditions were recorded for the base year, which would make it possible to apply an emission indicator other than published by the National Centre of Emission Balancing and Management; therefore, the emission result for Scope 2 calculated using the market-based method has been identical with the result obtained using the location-based method. The emission indicator, which best meets the Scope 2 quality criteria, is identical in both methods.
In 2020, PKO Bank Polska S.A. obtained guarantees of origin for electricity from a low-emission sources. These guarantees meet the quality criteria for Scope 2, which enables their application to determine emissions for Scope 2 using the market-based method.

[5] https://ghgprotocol.org/scope_2_guidance

REQUIRED INFORMATION

In order to compare emission changes between the base year and the reporting year, it was necessary to complement information on emission determined using the market-based method for the base year, which the report authors did. A comparison of use of the two methods is presented in table 4.2. It was shown that in 2020, the difference in reporting using the location-based method and the market-based method amounted to 32,252.00 MgCO2e.

IX. **The recalculation results.** The table presents the inventory of emissions of greenhouse gases of the PKO Bank Polski S.A. Capital Group for the base year (2019) before and after the recalculation.

EMISSIONS	**TOTAL (MgCO$_2$e)**	CO_2 (Mg)	CH_4 (Mg)	N_2O (Mg)	HFCs (Mg)	PFCs (Mg)	SF_6 (Mg)
2019 - before recalculation							
Scope 1	15,142.80	15,122.13	0.57	0.02	0.00	0.00	0.00
Scope 2	98,908.95	98,908.95	0.00	0.00	0.00	0.00	0.00
Scope 3	-	-	-	-	-	-	-
2019 - after recalculation							
Scope 1	15,487.03	15,466.81	0.56	0.02	0.00	0.00	0.00
Scope 2[6]	99,009.80	99,009.80	0.00	0.00	0.00	0.00	0.00
Scope 2[7]	99,009.80	99,009.80	0.00	0.00	0.00	0.00	0.00
Scope 3	-	-	-	-	-	-	-

[6] Calculated in accordance with the location-based method.
[7] Calculated in accordance with the market-based method.

REQUIRED INFORMATION

EMISSION METHODOLOGIES AND FACTORS

Methods used for calculation or measurement of emissions other than specified in the GHG protocol (provide a reference or link to any calculation tool used, not included in the GHG protocol)

I. Basic information on the greenhouse gas emission calculation methodology and the indicators used.

Greenhouse gas emissions for Scope 1 and 3 were calculated using the *GHG Protocol* methodology and calculation tools[8] made available in the *GHG Protocol.*

Greenhouse gas emissions for Scope 2 were calculated using the *GHG Protocol* and *GHG Protocol Scope 2 Guidance* methodology*.*

The following benchmarks were used to calculate GHG emissions in Scope 2:

- for electricity in Poland:

for the location-based method:

	Benchmark	Additional information
PKO Bank Polski S.A.	792 $kgCO_2$/MWh	The benchmark on the basis of information provided by the NCEBM[9].
subsidiaries	792 $kgCO_2$/MWh	The benchmark on the basis of information provided by the NCEBM[10].

for the market-based method:

	Benchmark	Additional information
PKO Bank Polski S.A.	352 $kgCO_2$/MWh	The benchmark calculated including guarantees of origin of electricity obtained from co-generation sources (in the period from 1.01.2020 - 31.12.2020 in the amount of 73,300 MWh). In the system for support of low-emission sources, the effect of CO_2 emission reduction was achieved, amounting to 32 252 tCO_2[11]. The guarantees were obtained in year 2020; therefore, the calculations must be based on the NCEBM benchmark for electricity generated by fuel combustion installations in Poland for reporting purposes for year 2018 of December of 2019 (792 $kgCO_2$/MWh). Provided below is the method of determination of the benchmark for electricity produced by co-generation sources. $$792\ \frac{\mathrm{kgCO_2}}{\mathrm{MWh}} - \frac{32\,252 \cdot 1000}{73\,300}\ \frac{\mathrm{kgCO_2}}{\mathrm{MWh}} = 352\ \frac{\mathrm{kgCO_2}}{\mathrm{MWh}}$$
	792 $kgCO_2$/MWh	The benchmark on the basis of information provided by the NCEBM[12].
subsidiaries	792 $kgCO_2$/MWh	The benchmark on the basis of information provided by the NCEBM[13].

[8] World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1. and World Resources Institute (2015). GHG Protocol tool for mobile combustion. Version 2.6.

[9] Source: benchmarks for CO_2, SO_2, NO_x, CO and particulate matter for electricity on the basis of information contained in the National database of emissions of greenhouse gases and other substances for year 2018, NCEBM, December 2019, page 4

[10] ibidem

[11] With regard to average benchmark for electricity generated by fuel combustion installations in Poland - data provided by the National Centre of Emission Balancing and Management.

[12] Source: as in footnote 9.

[13] ibidem

- for heat energy in Poland: 347.4 kg CO_2/MWh (96.5 Mg CO_2/TJ)[14]
- for electricity in Ukraine: 420 kg CO_2/MWh[15]
- for heat energy in Ukraine: 260 kg CO_2/MWh[16]

II. Information on source data and estimates

Calculations of fuel and energy consumption pertain to year 2020, where for the period from January until September of 2020, consumption was reported on the basis of data from invoices for purchase of fuels and energy; on the other hand, the period from October until December of 2020 was estimated on the basis of data from invoices for the period from October and December of 2019. For locations with no source data, consumption estimations were made. Consumption was not estimated for locations, which have no utility connections, such as parking lots, transformer stations, undeveloped land. Heat or natural gas consumption was not estimated for ATMs and payment machines.

The indicator allowing for comparison of weather conditions in different periods are degree days, taking into account the average monthly outdoor temperatures. The table below presents a comparison of the number of degree days (for indoor temperature assumed to be T_i = 20°C) for 17 locations, which more or less cover the area of the entire Poland for the period of year 2019, for the period from October to November of year 2020 and for the period of year 2020.

Location	**Number of day degrees [17] for T_i = 20 °C**		
	2019	**from 10.2019 to 09.2020**	**2020**
Szczecin	3,050	3,026	3,042
Gdańsk	3,602	3,533	3,541
Suwałki	3,724	3,625	3,671
Gorzów Wlkp.	3,009	2,987	3,003
Toruń	3,094	3,081	3,125
Białystok	3,454	3,397	3,462
Poznań	2,921	2,867	2,923
Łódź	3,147	3,130	3,201
Warsaw	3,061	3,041	3,121
Siedlce	3,272	3,265	3,339
Zielona Góra	3,012	2,953	3,015
Wrocław	2,934	2,896	2,978
Częstochowa	3,074	3,028	3,151
Lublin	3,252	3,214	3,318
Katowice	3,129	3,099	3,194
Cracow	3,105	3,101	3,208
Rzeszów	3,114	3,071	3,221
Average	**3,174**	**3,136**	**3,207**
Difference compared to 2020	**-1.03%**	**-2.20%**	**—**

[14] Source: Heat energy in numbers - 2019, the Polish Energy Regulatory Office, Warsaw, September 2020, p. 22

[15] Source: Наказ 11.07.2018 № 169 Про затвердження Методики визначення енергетичної ефективності будівель, Міністерство Регіонального Розвитку, Будівництва Та Житлово-Комунального Господарства України, Додаток 10 до Методики визначення енергетичної ефективності будівель (пункт 5 розділу XI), https://zakon2.rada.gov.ua/laws/show/z0822-18 as amended наказу Міністерства розвитку громад та територій України від 27.10.2020 р. № 261)

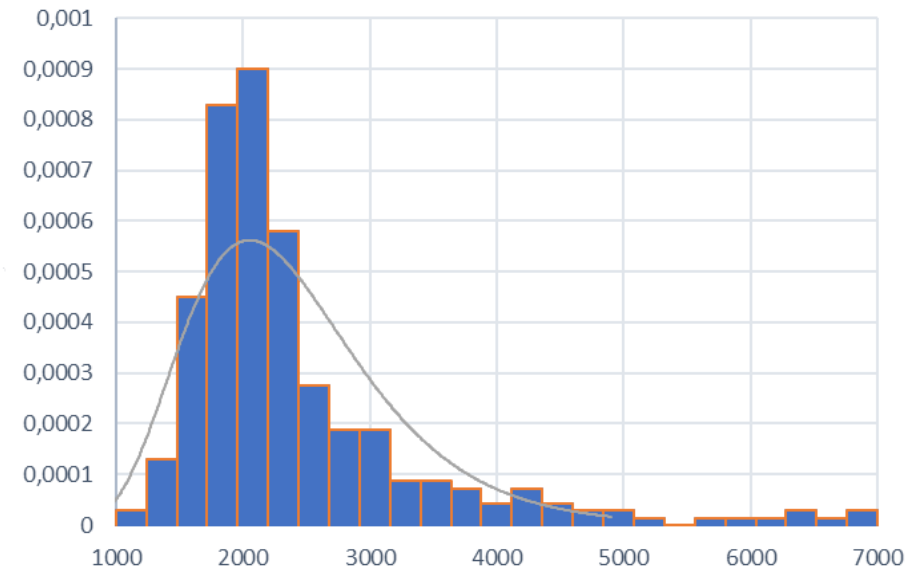
[16] ibidem

[17] The number of heating days on the basis of the *Regulation of the Minister of Infrastructure of 17 March 2009 on a detailed scope and forms of energy audits and parts of renovation audits, audit sheet templates, as well as the algorithm for assessment of cost effectiveness of thermal upgrade projects* (Journal of Laws of 2009 no. 43 item 346 as amended)

As illustrated by the above table, the difference between the period from October 2019 to November 2020 and year 2020 is 2.2%, which has been recognised by the report authors as sufficient accuracy to abstain from additional recalculation of data estimated for the period from October to December of 2020 with regard to heat (district heating and natural gas).
In the case of some of the locations, the premises used by PKO Bank Polski S.A. have changed (that is, the leased area has changed, a facility was opened or closed during the reporting period). In order to take these changes into account, for the purpose of determination of unit energy consumption indicators [kWh/m^2/year] and estimation of energy consumption for locations that required such estimation, the authors used the average weighted areas from the period from October 2019 until September 2020 (for months, in which a given facility was open), where the weights were the numbers of days per month. The number of days, during which a given location was used from October 2019 until September 2020, was also taken into account. It was possible to use this estimation method, as the usable area for specific locations was provided for each month.
Consumption was analysed for locations belonging to PKO Bank Polski S.A., as well as those rented and used by PKO Bank Polski S.A.
Net area was used to determine the energy consumption value in all locations of PKO Bank Polski S.A. Consumption of all energy types was reduced proportionally to the area used directly by PKO Bank Polski S.A. and its sub-lessees, when data on energy consumption by sub-lessees was not available.

III. Electricity (included in Scope 2)

Annual energy consumption was determined on the basis of data from distribution invoices for the period from October 2019 until September 2020, data from the seller for the period from January to September 2020. It was assumed that source data for the subsequent 12 months would reflect the annual consumption of electricity, provided that reflecting of the fourth quarter of year 2020 by electricity consumption in the fourth quarter of 2019 does not take into account the impact of intensified remote work and shorter opening hours of facilities.
In many locations, invoices for electricity consumption are issued for bimonthly periods. In such cases, consumption serving as a basis for settlement was divided into months on the basis of the number of days in a given settlement period. For instance, if the invoice for electricity included the period from September to October, consumption was assigned to individual quarters on the basis of the ratio of days in the two months. This was particularly significant in the case of invoices, which encompassed e.g., one month from the third quarter and one month from the fourth quarter of year 2019 (it was the beginning of the analysed period). This approach was the same as used in the base year.
In locations, for which electricity consumption was unknown, and which failed to meet the criteria allowing for an assumption that they consumed no electricity (the criterion as specified in clause II above) and were not identified as ATMs or payment machines, estimation was conducted on the basis of the indicator determined for a location of PKO Bank Polski S.A., for which the consumption value was known. The indicator for these locations was 93.08 kWh/m^2/year. Facility area decreased by sub-leased area was used for calculation purposes.
A different methodology was applied to ATMs and payment machines. It was assumed that energy consumption by facilities of this kind was not directly proportional to the area assigned to them in the real estate register. Therefore, it was not possible to use the established coefficient for the company to estimate electricity consumption for facilities, for which consumption was unknown or settled on a flat-rate basis. For these facilities, an additional coefficient was introduced, specifying the typical electricity consumption per single device. Facilities were selected, for which electricity consumption was known for the entire year.



A histogram of electricity consumption by ATMs, superimposed with the best-fitting distribution diagram (annual electricity consumption in kWh)

In order to determine the typical electricity consumption value for a single ATM, the best-fitting distribution was determined. For the data set held, approximation was conducted for typical statistical distributions. It was determined that the best-fitting distribution would be the log-normal distribution. The coefficient is equal to the average value for the function determined and to the average for the data set, and it amounts to 6.60 kWh/day per facility.
The final estimation of electricity consumption by facilities of this type was determined as the product of the total number of days in months and the established coefficient.

The source data corresponds with 91.94% of value of electricity consumed, and the estimated data - with 8.06% (for the PKO Bank Polski S.A. Capital Group).

IV. District heating (included in Scope 2)

The annual real district heat consumption was determined on the basis of data from invoices, approximately encompassing the period from October 2019 to September 2020.
On the basis of data on real consumption of heat and natural gas, provided more or less for 12 subsequent months, the average heat consumption indicator was calculated, amounting to 100.00 kWh/m^2/year. It was used to estimate heat consumption in facilities, for which data was unknown.

- In locations, for which no invoices were available for natural gas or district heating, and which failed to meet the criteria enabling the assumption that they consumed no heat (criterion according to clause II above) and the heating type was unknown - the volume of heat estimated on the basis of average weighted area and the time of its use in the period from October 2019 to September 2020 was divided into district heating and natural gas proportionally to the share of these utilities in actual heat consumption (76.77% for district heating and 23.23% for natural gas).
- In locations, for which the type of energy was known (natural gas or district heating) and real data was not available, the volume of heat consumed was estimated on the basis of the average weighed area and time of its use in the period from October 2019 to September 2020 and assigned to the appropriate source of energy.

The source data corresponds with 68.19% of value of district heating consumed, and the estimated data - with 31.81% (for the PKO Bank Polski S.A. Capital Group).

V. Natural gas (included in Scope 1)

The real annual gas consumption was determined on the basis of data from invoices delivered, encompassing approximately the period from October 2019 to November 2020. In order to determine the volume of energy generated from fuel purchased, the heat of combustion values were used amounting to 39.5 MJ/m^3 for methane-rich natural gas and 31.0 MJ/m^3 for high-nitrogen natural gas. Then, due to the

GHG Protocol reporting standard, energy consumption values determined on the basis of the heat of combustion were recalculated according to calorific value assumed on the basis of averaged data published by the Gas Transmission Pipelines Operator GAZ-SYSTEM S.A. for all measurement points reported in Poland for high-nitrogen and methane-rich natural gas.
On the basis of data on real consumption of heat and natural gas, provided more or less for 12 subsequent months, the average heat consumption indicator was calculated, amounting to 100.00 kWh/m^2/year. It was used to estimate heat consumption in facilities, for which data was unknown.

- In locations, for which no invoices were available for natural gas or district heating, and which failed to meet the criteria enabling the assumption that they consumed no heat (criterion according to clause II above) and the heating type was unknown - the volume of heat estimated on the basis of average weighted area and the time of its use in the period from October 2019 to September 2020 was divided into district heating and natural gas proportionally to the share of these utilities in actual heat consumption (76.77% for district heating and 23.23% for natural gas).
- In locations, for which the type of energy was known (natural gas /district heating) and real data was not available, the volume of heat was estimated on the basis of the average weighed area and time of its use in the period from October 2019 to September 2020 and assigned to the appropriate energy consumption.

The source data corresponds with 68.69% of value of gas consumed, and the estimated data - with 31.31% (for the PKO Bank Polski S.A. Capital Group).

VI. Fuels used in vehicles (included in Scope 1)

Greenhouse gas emissions were calculated using the *GHG Protocol* methodology and calculation tools made available in the *GHG Protocol: GHG Emissions from Transport or Mobile Sources. Mobile Combustion GHG Emissions Calculation Tool Version 2.6* [18].
Fuel calorific values were applied on the basis of data provided by the National Centre of Emission Balancing and Management[19].
The diesel fuel parameters were applied on the basis of data made available by the manufacturer[20].
Gasoline parameters were based on manufacturer data[21] (the manufacturer has provided the same density for standard and premium fuel).
The period included in vehicle fuel calculations was from January to December of 2020. The data on fuel consumption volumes was obtained from the dedicated application, developed for PKO Bank Polski S.A.
All data concerning diesel fuel and gasoline comes from source data. No consumption estimates were prepared.

VII. Other fuels - for heating purposes (included in Scope 1)

Greenhouse gas emissions were calculated using the *GHG Protocol* methodology and calculation tools made available in the *GHG Protocol: World Resources Institute (2015). GHG Protocol tool for stationary combustion. Version 4.1* [22].
Heating oil, hard coal and LPG are fuels used for interior heating and production of hot tap water. All data on consumption of these energy sources comes from source data. No consumption estimates were prepared.
Fuel calorific values were applied on the basis of data provided by the National Centre of Emission Balancing and Management[23].

VIII. Refrigerants (included in Scope 1)

Greenhouse gas emissions were calculated using the *GHG Protocol* methodology and calculation tools made available in the *GHG Protocol: World Resources Institute (2015): Calculating HFC and PFC Emissions from*

[18] https://ghgprotocol.org/sites/default/files/Transport_Tool_v2_6.xlsx
[19] https://www.kobize.pl/uploads/materialy/download/WO_i_WE_do_monitorowania-ETS-2020.pdf
[20] https://www.orlen.pl/PL/DlaBiznesu/Paliwa/OlejeNapedowe/Strony/OlejNapedowyEkodieselUltra.aspx
[21] https://www.orlen.pl/PL/DlaBiznesu/Paliwa/Benzyny/Strony/BenzynaBezolowiowa95.aspx
[22] https://ghgprotocol.org/sites/default/files/Stationary_combustion_tool_%28Version4-1%29.xlsx
[23] https://www.kobize.pl/uploads/materialy/download/WO_i_WE_do_monitorowania-ETS-2020.pdf

the Manufacturing, Installation, Operation and Disposal of Refrigeration & Airconditioning Equipment (Version 1.0) [24].

IX. Business trips (included in Scope 3)

Greenhouse gas emissions were calculated using the *GHG Protocol* methodology and calculation tools made available in the *GHG Protocol: World Resources Institute (2015). GHG Protocol tool for mobile combustion. Version 2.6* [25].

In 2020, it was decided that the scope of the inventory of greenhouse gas emissions would be broadened by adding Scope 3 analyses concerning the carbon footprint related to domestic business trips of employees. Analysis and determination of emission was conducted using the same tool as for calculation of emission related to consumption of fuel by the company car fleet (gasoline and diesel oil).

Greenhouse gas emissions were calculated using the distance-based method on the basis of available data. The basic information on domestic business trips (concerning the mode of transport, objective of the business trip, the starting and ending point) were obtained from the dedicated applications developed for PKO Bank Polski S.A. (source data). The business trip length was determined on the basis of the distance between centres of cities, to and from which the indicated fragments of trips took place using a given vehicle type during the business trip, and then summed up for vehicles of the same type. In the case of travel fragments within the same city, the exact starting and ending point addresses were unknown; therefore, it was assumed that the average distance covered in such case would be 5 km.

Business trips, for which a company car was the indicated mode of transport, were removed from the scope of emission calculations based on employee business trips. Otherwise, emissions included in Scope 1 (direct emissions) would be included twice, leading to an ungrounded overestimation of greenhouse gas emissions.

X. Calculation of greenhouse gas emissions by subsidiaries of PKO Bank Polski S.A.

The rules of reporting and estimation of data on consumption of energy were the same for the PKO Bank Polski S.A. Capital Group, that is, for PKO Bank Polski S.A. and for all subsidiaries.

Greenhouse gas emission calculations, data estimation and inventory of emissions of greenhouse gases for the Capital Group of PKO Bank Polski S.A. were conducted by experts of Ellipsis Energy. Authors: Natalia Klauza, Paweł Błaszczyk, Jan Kucowski, Paweł Wultański, Bartosz Dobrowolski, Adam Dominiak, Piotr Gawdzik, Tomasz Świderski.

[24] https://ghgprotocol.org/sites/default/files/hfc-pfc_0.xls

[25] Emissions, calorific values due to combustion of fuels by sources owned by the company - company cars: https://ghgprotocol.org/sites/default/files/Transport_Tool_v2_6.xlsx

NON-COMPULSORY INFORMATION

ORGANISATIONAL BOUNDARIES

The list of all legal entities or establishments, in which the reporting organisation has shares in capital, exercises financial or operating control	The share in capital of the legal entity (%)	Does the reporting organisation exercise financial control? (Yes/No)	Does the reporting organisation exercise operating control? (Yes/No)
PKO Bank Hipoteczny SA	100.00%	Yes	Yes
PKO Towarzystwo Funduszy Inwestycyjnych SA	100.00%	Yes	Yes
PKO BP BANKOWY PTE SA	100.00%	Yes	Yes
PKO Leasing SA	100.00%	Yes	Yes
PKO Agencja Ubezpieczeniowa sp. z o.o.	100.00%	Yes	Yes
PKO Leasing Finanse sp. z o.o.	100.00%	Yes	Yes
PKO Leasing Sverige AB	100.00%	Yes	Yes
Prime Car Management SA	100.00%	Yes	Yes
Futura Leasing SA	100.00%	Yes	Yes
Masterlease sp. z o.o.	100.00%	Yes	Yes
MasterRent24 sp. z o.o.	100.00%	Yes	Yes
ROOF Poland Leasing 2014 DAC[26]	-	Yes	Yes
Polish Lease Prime 1 DAC[27]	-	Yes	Yes
PKO Faktoring SA	100.00%	Yes	Yes
PKO BP Finat sp. z o.o.	100.00%	Yes	Yes
PKO Życie Towarzystwo Ubezpieczeń SA	100.00%	Yes	Yes
Ubezpieczeniowe Usługi Finansowe sp. z o.o.	100.00%	Yes	Yes
PKO Towarzystwo Ubezpieczeń SA	100.00%	Yes	Yes
PKO Finance AB	100.00%	Yes	Yes
KREDOBANK SA	100.00%	Yes	Yes
Finansowa Kompania „Idea Kapitał" sp. z o.o.	100.00%	Yes	Yes
Merkury – Closed-end Investment Fund of Non-Public Assets[28]	100.00%	Yes	Yes
„Zarząd Majątkiem Górczewska" sp. z o.o.	100.00%	Yes	Yes
Molina sp. z o.o.	100.00%	Yes	Yes
Molina spółka z ograniczoną odpowiedzialnością 1 S.K.A.	100.00%	Yes	Yes
Molina spółka z ograniczoną odpowiedzialnością 2 S.K.A.	100.00%	Yes	Yes
Molina spółka z ograniczoną odpowiedzialnością 4 S.K.A.	100.00%	Yes	Yes

[26] In accordance with IFRS 10, PKO Leasing SA (a subsidiary of PKO Bank Polski S.A.) exercises control of the company despite having no capital involvement in the company.

[27] ibidem

[28] PKO Bank Polski S.A. holds investment certificates of the fund; the item "share in capital" presents the share of investment certificates in the fund held.

Molina spółka z ograniczoną odpowiedzialnością 5 S.K.A. in liquidation	100.00%	Yes	Yes
Molina spółka z ograniczoną odpowiedzialnością 6 S.K.A. in liquidation	100.00%	Yes	Yes
NEPTUN – Closed-end Investment Fund of Non-Public Assets[29]	100.00%	Yes	Yes
Bankowe Towarzystwo Kapitałowe SA	100.00%	Yes	Yes
„Inter-Risk Ukraina" spółka z dodatkową odpowiedzialnością	100.00%	Yes	Yes
Finansowa Kompania „Prywatne Inwestycje" sp. z o.o.	100.00%	Yes	Yes
„CENTRUM HAFFNERA" sp. z o.o.	72.98%	Yes	Yes
„Sopot Zdrój" sp. z o.o.	72.98%	Yes	Yes
Qualia sp. z o.o.	100.00%	Yes	Yes
Sarnia Dolina sp. z o.o.	100.00%	Yes	Yes
PKO VC – Closed-end Investment Fund of Non-Public Assets[30]	100.00%	Yes	Yes

If the dominant company of the reporting entity reports no emissions, attach an organisational chart, which specifies clearly the relationship between the reporting subsidiary and other subsidiaries.
Not applicable.

EMISSION INFORMATION

Emission according to source (in $MgCO_2e$)	
Scope 1: Direct emissions from operations held/ controlled	
a. Direct emissions from a stationary combustion source	5,551.14
b. Direct emissions from a mobile combustion source	7,175.36
c. Direct emissions from processing sources	0
d. Direct emissions from fugitive sources	782.98
e. Direct emissions from agricultural sources	0
Scope 2: Indirect emissions from use of purchased electricity, process steam, heating energy and refrigeration	
a. Indirect emissions from electricity purchased/ acquired	38,825.32
b. Indirect emissions from process steam purchased/ acquired	0
c. Indirect emissions from heat energy purchased/ acquired	25,551.33
d. Indirect emissions from refrigeration purchased/ acquired	0

Emissions according to establishment (recommended for individual establishments with stationary exhaust emission above 10.000 $mtCO_2e$)	
Establishment	Emissions in Scope 1

[29] PKO Bank Polski S.A. holds investment certificates of the fund; the item "share in capital" presents the share of investment certificates in the fund held.
[30] ibidem

NON-COMPULSORY INFORMATION

Not applicable.	None of the individual locations generates emissions exceeding 10 thousand $MtCO_2e$

Emission according to country (in $MgCO_2e$)	
Country	Emission (specify the scopes included)
The location-based method	
Poland (Scope 1+2)	107,347.80
Poland (Scope 1+2+3)	107,636.46
Ukraine (Scope 1+2)	2,790.34
The market-based method	
Poland (Scope 1+2)	75,095.80
Poland (Scope 1+2+3)	75,384.46
Ukraine (Scope 1+2)	2,790.34

Emissions related to internal production of electricity, heat or process steam, sold or transferred to another organisation
0 $MgCO_{2\,e}$

Emissions related to internal production of electricity, heat or process steam, purchased to be resold to intermediate recipients
0 $MgCO_{2\,e}$

Greenhouse gas emissions not included in the Kyoto Protocol (e.g., CFCs, NOx,)
Not applicable.

Information on causes of emission changes, which did not make it necessary to recalculate emissions in the base year (e.g., changes in processes, improved effectiveness, closing of establishments).
Changes in emission in 2020 related to change in area due to opening or closing of branches do not result in the necessity to recalculate the greenhouse gas emissions for the base year. In accordance with Criterion 1 specified in the base year emission recalculation policy and the guidelines (the criteria and guidelines specified on the basis of the *GHG Protocol*), the occurrence of changes of this type is treated as normal development of the organisation and does not result in the necessity to recalculate the base year emissions.

NON-COMPULSORY INFORMATION

Data on emission of greenhouse gases for all years between the base year and the reporting year (taking into account the details or reasons for recalculations, if any)

2019 was the first year, for which the greenhouse gas emission inventory was developed by the PKO Bank Polski S.A. Capital Group. In 2020, a recalculation of the base year was conducted as described in the chapter "The context for all significant emission changes".
The table below provides information on greenhouse gas emissions for all years between the base year and the reporting year.

Year	method	Scope 1, $MgCO_2e$	Scope 2, $MgCO_2e$	Scope 1+2, $MgCO_2e$	Scope 3, $MgCO_2e$	Scope 1+2+3, $MgCO_2e$
2019 (base year) - after recalculation	location-based	15,487.03	99,009.80	114,496.83	no calculation	-
2019 (base year) - after recalculation	market-based	15,487.03	99,009.80	114,496.83	no calculation	-
2020	location-based	13,509.48	96,628.66	110,138.14	288.67	110,426.80
2020	market-based	13,509.48	64,376.66	77,886.14	288.67	78,174.80

A summary of the strategy or the emission reduction programmes

In 2020, PKO Bank Polska S.A. obtained guarantees of origin for electricity from a low-emission sources. The guarantees obtained related to electricity produced in a co-generated unit supplied with natural gas. A guarantee of origin of electricity from high-efficiency cogeneration is a document confirming to the end recipient that the volume of electricity specified in the document, fed into the distribution or transmission network, was produced by high-efficiency cogeneration.

ADDITIONAL INFORMATION

Information concerning any contractual provisions concerning risks and commitments related to greenhouse gas emissions.

In year 2020, neither PKO Bank Polski S.A. nor its subsidiaries were parties to agreements related to risks or obligations concerning greenhouse gas emissions.

Information concerning any contractual provisions concerning risks and commitments related to greenhouse gas emissions.

Not applicable.

Information on quality of the records (e.g., information on the causes and scale of uncertainty in emission estimates) and the outline of the existing policies aimed at improving the quality of records

The data on consumption of energy can be divided into two main groups: measured and estimated. Measured data is based on verified billing metres or statements received from energy suppliers. Energy consumption has to be partially estimated as it is not directly measured. This is due to the mode of settlement with suppliers or shared consumption with other entities. For example, this applies to facilities located in shopping centres. They may be settled on the basis of a flat rate (e.g., based on leased area), regardless of their actual consumption. In addition, such facility uses common space, which also consumes energy and is jointly used by other entities.

NON-COMPULSORY INFORMATION

As a result of the calculation and estimation processes conducted (described in the chapter on methodology), the data certainty indicator has been achieved[31], referred to as "good" in the *GHG Protocol* standard methodology.

This indicator for PKO Bank Polski S.A. amounted to:

- in the case of calculation of the data certainty indicator on the basis of emission data using the location-based method: 86.27% for emission in Scopes 1+2 (this indicator amounted to 86.10% for emissions in Scope 1 and 86.29% for emissions in Scope 2).
- in the case of calculation of the data certainty indicator on the basis of energy data: 82.14% for Scopes 1+2 (this indicator amounted to 83.17% in relation to data for Scope 1 and 81.85% in relation to data for Scope 2).

In 2019 (after recalculation), this indicator amounted to 79.63% for emissions in Scopes 1+2 and 78.46% for energy in Scopes 1+2, respectively.

A direct comparison can be conducted for indicators related to energy, as they are based on the quantity of data reported on energy consumption. This is due to the fact that PKO Bank Polski S.A. does not conduct direct measurements of greenhouse gas emissions, and the entire emission inventory is based directly on determination of consumption of individual types of energy.
The data certainty indicator for energy consumption increased from 78.46% in 2019 to 82.14% in 2020, that is, by 4.69%. This is due to increased intensity of data collection by units of PKO Bank Polski S.A. The indicator increase dynamics should be assessed positively.

This indicator for the PKO Bank Polski S.A. Capital Group amounted to:

- in the case of calculation of the data certainty indicator on the basis of emission data using the location-based method: 85.94% for emission in Scopes 1+2 (this indicator amounted to 88.45% for emissions in Scope 1 and 85.59% for emissions in Scope 2).
- in the case of calculation of the data certainty indicator on the basis of energy data: 82.54% for Scopes 1+2 (this indicator amounted to 86.06% in relation to data for Scope 1 and 81.37% in relation to data for Scope 2).

In 2019 (after recalculation), this indicator amounted to 80.84% for emissions in Scopes 1+2 and 79.70% for energy in Scopes 1+2, respectively.

A direct comparison can be conducted for indicators related to energy, as they are based on the quantity of data reported on energy consumption. This is due to the fact that the Capital Group of PKO Bank Polski S.A. does not conduct direct measurements of greenhouse gas emissions, and the entire emission inventory is based directly on determination of consumption of individual types of energy.
The data certainty indicator for energy consumption increased from 79.70% in 2019 to 82.54% in 2020, that is, by 3.56%. This is due to increased intensity of data collection by units of PKO Bank Polski S.A. The indicator increase dynamics should be assessed positively.

Emission removal information
Not applicable.

COMPENSATION INFORMATION

Information on compensations purchased or developed outside the recording limits		
Volume of GHGs ($mtCO_2e$)	Compensation type	Were the compensation measures verified/ certified and/or accepted by

[31] As a percentage share of data obtained from sources in overall data used for calculation purposes, including data obtained from sources and estimated.

		an external greenhouse gas programme (e.g., CDM)

Information on reductions within recording limits, which were sold/ transferred as compensations to a third party		
Volume of GHGs ($mtCO_2e$)	Compensation type	Were the compensation measures verified/ certified and/or accepted by an external greenhouse gas programme (e.g., CDM)

ANNEX No. 1 TO THE REPORT ON EMISSIONS OF GREENHOUSE GASES OF PKO BANK POLSKI S.A. FOR 2020

List of tables

Table 1.1.
Greenhouse gas emissions in 2020 according to organisation - the market-based method [in $MgCO_2e$]

Emissions	TOTAL (MgCO2e)	CO2 (Mg)	CH4 (Mg)	N2O (Mg)	HFCs (Mg)	PFCs (Mg)	SF6 (Mg)
PKO BP							
Scope 1	10,106.08	9,307.38	0.445	0.012	0.00	0.00	0.00
Scope 2	55,594.59	55,594.59	0.000	0.000	0.00	0.00	0.00
Total Scope 1 and 2	65,700.67	64,901.97	0.445	0.012	0.00	0.00	0.00
Scope 3	288.67	288.40	0.002	0.001	0.00	0.00	0.00
Total Scope 1, 2 and 3	65,989.34	65,190.37	0.447	0.013	0.00	0.00	0.00
subsidiaries							
Scope 1	3,403.40	3,400.99	0.071	0.002	0.00	0.00	0.00
Scope 2	8,782.07	8,782.07	0.000	0.000	0.00	0.00	0.00
Total Scope 1 and 2	12,185.47	12,183.06	0.071	0.002	0.00	0.00	0.00
Scope 3[32]	-	-	-	-	-	-	-
Total Scope 1, 2 and 3	12,185.47	12,183.06	0.071	0.002	0.00	0.00	0.00
Total CG							
Scope 1	13,509.48	12,708.37	0.517	0.014	0.00	0.00	0.00
Scope 2	64,376.66	64,376.66	0.000	0.000	0.00	0.00	0.00
Total Scope 1 and 2	77,886.14	77,085.03	0.517	0.014	0.00	0.00	0.00
Scope 3	288.67	288.40	0.002	0.001	0.00	0.00	0.00
Total Scope 1, 2 and 3	78,174.80	77,373.43	0.518	0.015	0.00	0.00	0.00

[32] In 2020, Scope 3 for subsidiaries is not reported.

Table 1.2.
Greenhouse gas emissions according to organisation - difference in emission in year 2020 compared to base year (2019) after recalculation, the market-based method [in $MgCO_2e$]

Emissions	TOTAL (MgCO2e)	CO2 (Mg)	CH4 (Mg)	N2O (Mg)	HFCs (Mg)	PFCs (Mg)	SF6 (Mg)
PKO BP							
Scope 1	-1,709.59	-2,490.06	-0.055	-0.004	0.00	0.00	0.00
Scope 2[33]	-33,311.10	-33,311.10	0.000	0.000	0.00	0.00	0.00
Total Scope 1 and 2	-35,020.69	-35,801.16	-0.055	-0.004	0.00	0.00	0.00
Scope 3[34]	-	-	-	-	-	-	-
Total Scope 1, 2 and 3	-	-	-	-	-	-	-
subsidiaries							
Scope 1	-267.96	-268.37	0.013	0.000	0.00	0.00	0.00
Scope 2	-1,322.05	-1,322.05	0.000	0.000	0.00	0.00	0.00
Total Scope 1 and 2	-1,590.01	-1,590.42	0.013	0.000	0.00	0.00	0.00
Scope 3	-	-	-	-	-	-	-
Total Scope 1, 2 and 3	-	-	-	-	-	-	-
Total CG							
Scope 1	-1,977.55	-2,758.43	-0.042	-0.004	0.00	0.00	0.00
Scope 2	-34,633.15	-34,633.15	0.000	0.000	0.00	0.00	0.00
Total Scope 1 and 2	-36,610.70	-37,391.58	-0.042	-0.004	0.00	0.00	0.00
Scope 3	-	-	-	-	-	-	-
Total Scope 1, 2 and 3	-	-	-	-	-	-	-

[33] High reduction of greenhouse gas emissions in Scope 2 was caused, among other things, by obtaining by PKO Bank Polski S.A. of a guarantee of origin of electricity from a low-emission source (high-efficiency cogeneration). 73.3 Gwh was encompassed by guarantees of origin (in 2020, PKO Bank Polski S.A. consumed more than 81.5 GWh).
[34] No differences were recorded in Scope 3, as in the base year (2019) it was not reported.

Table 2.1.
Fuel consumption: absolute values - comparison of the base year (2019) before and after recalculation[35] [in kWh]

	PKO BP			subsidiaries			CG		
	2019 after recalculation	2019	difference	2019 after recalculation	2019	difference	2019 after recalculation	2019	difference
Fuels used in buildings									
natural gas	20,465,060.09	21,836,392.00	-1 371,331.91[36]	2,939,802.29	2,320,657.01	619,145.28[37]	23,404,862.38	24,157,049.01	-752,186.63
heating oil	3,367,591.00	3,367,591.00	0.00	132,432.55	132,432.55	0.00	3,500,023.55	3,500,023.55	0.00
diesel oil	81,469.00	81,469.00	0.00	16,759.20	16,759.20	0.00	98,228.20	98,228.20	0.00
LPG	0.00	0.00	0.00	5,718.04	5,718.04	0.00	5,718.04	5,718.04	0.00
coal	207,666.67	207,666.67	0.00	0.00	0.00	0.00	207,666.67	207,666.67	0.00
Total fuel used in buildings	24,121,786.76	25,493,118.67	-1,371,331.91	3,094,712.08	2,475,566.80	619,145.28	27,216,498.84	27,968,685.47	-752,186.63
Fuels used in vehicles									
diesel oil	1,211,092.62	1,211,092.62[38]	0.00	4,093,034.42	4,093,034.42	0.00	5,304,127.04	5,304,127.04	0.00
gasoline	27,485,590.87	27,485,590.87	0.00	5,810,136.11	5,810,136.11	0.00	33,295,726.98	33,295,726.98	0.00
Total fuel used in vehicles	28,696,683.49	28,696,683.49	0.00	9,903,170.53	9,903,170.53	0.00	38,599,854.02	38,599,854.02	0.00
Total fuels corresponding with Scope 1 emissions	52,818,470.25	54,189,802.16	-1,371,331.91	12,997,882.61	12,378,737.33	619,145.28	65,816,352.86	66,568,539.49	-752,186.63
Energy purchased									
electricity	84,078,819.15	84,093,771.00	-14,951.85[39]	11,111,845.94	11,111,845.94	0.00	95,190,665.09	95,205,616.94	-14,951.85
heat energy	68,774,176.29	70,578,553.00	-1,804,376.71[40]	8,938,718.85	6,659,159.95	2,279,558.90[41]	77,712,895.14	77,237,712.95	475,182.19
Total energy purchased, corresponding with Scope 2 emissions	152,852,995.44	154,672,324.00	-1,819,328.56	20,050,564.79	17,771,005.89	2,279,558.90	172,903,560.23	172,443,329.89	460,230.34
Total energy corresponding with Scope i 1 emissions	205,671,465.69	208,862,126.16	-3,190,660.47	33,048,447.40	30,149,743.22	2,898,704.18	238,719,913.09	239,011,869.38	-291,956.29

[35] The scope of recalculation conducted is presented in the chapter "The context of all significant emission changes (page 3).
[36] The change is due to recalculation of the heat demand coefficient for heated areas with unknown real energy consumption, a change in the share of district heating and natural gas in estimates for areas with unknown consumption, as clarified in clause II of "The context of all significant emission changes".
[37] The change is due to underestimation of heated area for subsidiaries in the base year calculations and the erroneously assigned energy type as natural gas for consumption in Ukraine (methane-rich gas assigned instead of high-nitrogen gas), as clarified in clause V of "The context of all significant emission changes".
[38] In 2019, consumption of diesel oil and gasoline values were swapped by mistake. This did not influence the consumption and emission values.
[39] The change is due to a change in the value of the heat demand indicator after the base year recalculation, as clarified in clause VI of "The context of all significant emission changes".
[40] The change is due to recalculation of the heat demand coefficient for heated areas with unknown real energy consumption, a change in the share of district heating and natural gas in estimates for areas with unknown consumption, as clarified in clause II of "The context of all significant emission changes".
[41] The change is due to underestimation of the heated area for subsidiaries in the base year calculations, as clarified in clause V of "The context of all significant emission changes".

Table 2.2.
Fuel consumption: absolute values in year 2020 [in kWh]

	PKO BP			subsidiaries			CG		
	data	estimates	total	data	estimates	total	data	estimates	total
Fuels used in buildings									
natural gas	13,930,565.76	6,935,497.94	20,866,063.70	2,964,955.41	766,745.72	3,731,701.14	16,895,521.17	7,702,243.66	24,597,764.84
heating oil	1,672,103.26	0.00	1,672,103.26	94,407.17	0.00	94,407.17	1,766,510.42	0.00	1,766,510.42
diesel oil	93,699.96	0.00	93,699.96	3,818.40	0.00	3,818.40	97,518.36	0.00	97,518.36
LPG	0.00	0.00	0.00	34,371.33	0.00	34,371.33	34,371.33	0.00	34,371.33
coal	171,333.33	0.00	171,333.33	0.00	0.00	0.00	171,333.33	0.00	171,333.33
Total fuel used in buildings	15,867,702.31	6,935,497.94	22,803,200.25	3,097,552.32	766,745.72	3,864,298.04	18,965,254.62	7,702,243.66	26,667,498.28
Fuels used in vehicles									
diesel oil	815,358.36	0.00	815,358.36	4,479,416.65	0.00	4,479,416.65	5,294,775.01	0.00	5,294,775.01
gasoline	17,584,638.10	0.00	17,584,638.10	5,700,617.31	0.00	5,700,617.31	23,285,255.41	0.00	23,285,255.41
Total fuel used in vehicles	18,399,996.47	0.00	18,399,996.47	10,180,033.96	0.00	10,180,033.96	28,580,030.42	0.00	28,580,030.42
Total fuels corresponding with Scope 1 emissions	34,267,698.77	6,935,497.94	41,203,196.71	13,277,586.27	766,745.72	14,044,332.00	47,545,285.05	7,702,243.66	55,247,528.71
Energy purchased									
electricity	75,508,970.70	6,037,758.05	81,546,728.76	8,924,403.20	1,366,379.73	10,290,782.93	84,433,373.90	7,404,137.79	91,837,511.69
heat energy	46,047,211.12	20,911,853.96	66,959,065.08	4,217,871.67	2,533,924.63	6,751,796.29	50,265,082.79	23,445,778.59	73,710,861.38
Total energy purchased, corresponding with Scope 2 emissions	121,556,181.82	26,949,612.01	148,505,793.84	13,142,274.87	3,900,304.36	17,042,579.23	134,698,456.69	30,849,916.37	165,548,373.06
Total energy corresponding with Scope i 1 emissions	155,823,880.60	33,885,109.96	189,708,990.55	26,419,861.14	4,667,050.08	31,086,911.22	182,243,741.74	38,552,160.04	220,795,901.77

Table 2.3.
Fuel consumption: absolute values - year 2020 in comparison with year 2019 after recalculation [in kWh]

	PKO BP			subsidiaries			CG		
	2020	2019 after recalculation	difference	2020	2019 after recalculation	difference	2020	2019 after recalculation	difference
Fuels used in buildings									
natural gas	20,866,063.70	20,465,060.09	401,003.61[42]	3,731,701.14	2,939,802.29	791,898.85[43]	24,597,764.84	23,404,862.38	1,192,902.46
heating oil	1,672,103.26	3,367,591.00	-1,695,487.74[44]	94,407.17	132,432.55	-38,025.38	1,766,510.42	3,500,023.55	-1,733,513.13
diesel oil	93,699.96	81,469.00	12,230.96	3,818.40	16,759.20	-12,940.80	97,518.36	98,228.20	-709.84
LPG	0.00	0.00	0.00	34,371.33	5,718.04	28,653.29	34,371.33	5,718.04	28,653.29
coal	171,333.33	207,666.67	-36,333.34	0.00	0.00	0.00	171,333.33	207,666.67	-36,333.34
Total fuel used in buildings	22,803,200.25	24,121,786.76	-1,318,586.52	3,864,298.04	3,094,712.08	769,585.96	26,667,498.28	27,216,498.84	-549,000.55
Fuels used in vehicles									
diesel oil	815,358.36	1,211,092.62[45]	-395,734.26	4,479,416.65	4,093,034.42	386,382.23	5,294,775.01	5,304,127.04	-9,352.03
gasoline	17,584,638.10	27,485,590.87	-9,900,952.77	5,700,617.31	5,810,136.11	-109,518.80	23,285,255.41	33,295,726.98	-10,010,471.57
Total fuel used in vehicles	18,399,996.47	28,696,683.49	-10,296 687.02[46]	10,180,033.96	9,903,170.53	276,863.43	28,580,030.42	38,599,854.02	-10,019,823.60
Total fuels corresponding with Scope 1 emissions	41,203,196.71	52,818,470.25	-11,615,273.54	14,044,332.00	12,997,882.61	1,046,449.39	55,247,528.71	65,816,352.86	-10,568,824.15
Energy purchased									
electricity	81,546,728.76	84,078,819.15	-2,532,090.40[47]	10,290,782.93	11,111,845.94	-821,063.01[48]	91,837,511.69	95,190,665.09	-3,353,153.40
heat energy	66,959,065.08	68,774,176.29	-1,815,111.20[49]	6,751,796.29	8,938,718.85	-2,186,922.56[50]	73,710,861.38	77,712,895.14	-4,002,033.76
Total energy purchased, corresponding with Scope 2 emissions	148,505,793.84	152,852,995.44	-4,347,201.60	17,042,579.23	20,050,564.79	-3,007,985.57	165,548,373.06	172,903,560.23	-7,355,187.17
Total energy corresponding with Scope i 1 emissions	189,708,990.55	205,671,465.69	-15,962,475.14	31,086,911.22	33,048,447.40	-1,961,536.18	220,795,901.77	238,719,913.09	-17,924,011.32

[42] The change is due to a change in the heat demand indicator and increased consumption estimated due to improvement of availability of information on heat sources.
[43] The change is due to a change in the heat demand indicator and more complete data on direct consumption (in Scope 1).
[44] The change is due to reduced purchases of heating oil in the reporting year and liquidation of four properties heated with oil (located in Katowice, Gubin, Jaworzno and Kazimierza Wielka).
[45] In year 2019, consumption of diesel oil and gasoline values were swapped by mistake. This did not influence the consumption and emission values.
[46]The change is due to reduced use of company cars - applicable to both gasoline and diesel oil.
[47] The change is due to reduction in the used area and shorter work hours of branches and more extensive introduction of remote work.
[48] The change is due to reduction in the used area and shorter work hours of branches and more extensive introduction of remote work.
[49] The change is due to adjustment of the heat demand indicator and reduced heated area.
[50] The change is due to substantially reduced consumption of district heating by one facility, which is statistically significant (around 1.1 million kWh) and increase in the share of district heating in the coefficient for estimated areas.

Table 3.1.
Fuel consumption in year 2019 after recalculation: data and estimate percentages [in %]

	PKO BP		subsidiaries		Total CG	
	data	estimates	data	estimates	data	estimates
Fuels used in buildings						
natural gas	67.67%	32.33%	70.01%	29.99%	67.97%	32.03%
heating oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
LPG	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%
coal	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Total fuel used in buildings	72.57%	27.43%	71.51%	28.49%	72.45%	27.55%
Fuels used in vehicles						
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
gasoline	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total fuel used in vehicles	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total fuels corresponding with Scope 1 emissions	87.47%	12.53%	93.22%	6.78%	88.61%	11.39%
Energy purchased						
electricity	83.35%	16.65%	96.91%	3.09%	84.93%	15.07%
heat energy	65.57%	34.43%	67.19%	32.81%	65.75%	34.25%
Total energy purchased, corresponding with Scope 2 emissions	75.35%	24.65%	83.66%	16.34%	76.31%	23.69%
Total energy corresponding with Scope i 1 emissions	78.46%	21.54%	87.42%	12.58%	79.70%	20.30%

Table 3.2.
Fuel consumption in year 2020: data and estimate percentages [in %]

	PKO BP		subsidiaries		Total CG	
	data	estimates	data	estimates	data	estimates
Fuels used in buildings						
natural gas	66.76%	33.24%	79.45%	20.55%	68.69%	31.31%
heating oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
LPG	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%
coal	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Total fuel used in buildings	69.59%	30.41%	80.16%	19.84%	71.12%	28.88%
Fuels used in vehicles						
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
gasoline	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total fuel used in vehicles	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total fuels corresponding with Scope 1 emissions	83.17%	16.83%	94.54%	5.46%	86.06%	13.94%
Energy purchased						
electricity	92.60%	7.40%	86.72%	13.28%	91.94%	8.06%
heat energy	68.77%	31.23%	62.47%	37.53%	68.19%	31.81%
Total energy purchased, corresponding with Scope 2 emissions	81.85%	18.15%	77.11%	22.89%	81.37%	18.63%
Total energy corresponding with Scope i 1 emissions	82.14%	17.86%	84.99%	15.01%	82.54%	17.46%

Table 4.1.
Base year emissions: a comparison of the base year (2019) before and after the recalculation [in $MgCO_2e$]

	PKO BP			subsidiaries			CG		
	2019 after recalculation	2019	difference	2019 after recalculation	2019	difference	2019 after recalculation	2019	difference
Refrigeration[51]	-	-	-	-	-	-	-	-	-
Emission from fuels used in buildings									
natural gas	4,145.06	4,422.81	-277.75	595.44	470.03	125.41	4,740.50	4,892.84	-152.34
heating oil	943.59	943.59	0.00	37.11	37.11	0.00	980.70	980.70	0.00
diesel oil	21.86	21.86	0.00	4.50	4.50	0.00	26.36	26.36	0.00
LPG	0.00	0.00	0.00	1.30	1.30	0.00	1.30	1.30	0.00
coal	73.99	73.99	0.00	0.00	0.00	0.00	73.99	73.99	0.00
Total emission from fuels used in buildings	5,184.50	5,462.25	-277.75	638.34	512.94	125.40	5,822.84	5,975.19	-152.35
Emission from fuels used in vehicles									
diesel oil	352.37	352.37	0.00	1,155.54	1,101.63	53.91	1,507.92	1,454.00	53.92
gasoline	6,278.80	6,278.80	0.00	1,877.48	1,434.81	442.67	8,156.27	7,713.61	442.66
Total emission from fuels used in vehicles	6,631.17	6,631.17	0.00	3,033.02	2,536.44	496.58[52]	9,664.19	9,167.61	496.58
Total emissions in Scope 1	11,815.67	12,093.42	-277.75	3,671.36	3,049.38	621.98	15,487.03	15,142.80	344.23
Emissions from purchased energy									
electricity	64,320.30	64,331.74	-11.44	7,008.42	7,008.41	0.01	71,328.71	71,340.15	-11.44
heat energy	24,585.39	25,230.42	-645.03	3,095.70	2,338.38	757.32	27,681.09	27,568.80	112.29
Total emissions in Scope 2	88,905.69	89,562.16	-656.47	10,104.11	9,346.79	757.32	99,009.80	98,908.95	100.85
Total emissions in Scope 1 and 2	100,721.36	101,655.58	-934.22	13,775.48	12,396.17	1,379.31	114,496.83	114,051.75	445.08
Emissions from employee business trips									
business trips	-	-	-	-	-	-	-	-	-
Total emissions in Scope 3	-	-	-	-	-	-	-	-	-
Total emissions in Scope 1, 2 and 3	-	-	-	-	-	-	-	-	-

[51] This emission value was not reported in the base year.
[52] By mistake, emission from fuels used in vehicles by subsidiaries in Ukraine was nor reported in the base year prior to recalculation.

Table 4.2.
Emissions in year 2020: a comparison of the market-based method and the location-based method [in $MgCO_2e$]

	PKO BP			subsidiaries			CG		
	market-based	location-based	difference	market-based	location-based	difference	market-based	location-based	difference
Refrigeration	782.98	782.98	0.00	0.00	0.00	0.00	782.98	782.98	0.00
Emission from fuels used in buildings									
natural gas	4,226.28	4,226.28	0.00	755.83	755.83	0.00	4,982.11	4,982.11	0.00
heating oil	448.66	448.66	0.00	25.33	25.33	0.00	473.99	473.99	0.00
diesel oil	25.14	25.14	0.00	1.02	1.02	0.00	26.17	26.17	0.00
LPG	0.00	0.00	0.00	7.83	7.83	0.00	7.83	7.83	0.00
coal	61.04	61.04	0.00	0.00	0.00	0.00	61.04	61.04	0.00
Total emission from fuels used in buildings	4,761.12	4,761.12	0.00	790.01	790.01	0.00	5,551.14	5,551.14	0.00
Emission from fuels used in vehicles									
diesel oil	219.45	219.45	0.00	1,205.62	1,205.62	0.00	1,425.07	1,425.07	0.00
gasoline	4,342.53	4,342.53	0.00	1,407.77	1,407.77	0.00	5,750.29	5,750.29	0.00
Total emission from fuels used in vehicles	4,561.98	4,561.98	0.00	2,613.39	2,613.39	0.00	7,175.36	7,175.36	0.00
Total emissions in Scope 1	10,106.08	10,106.08	0.00	3,403.40	3,403.40	0.00	13,509.48	13,509.48	0.00
Emissions from purchased energy									
electricity	32,333.01	64,585.01	-32,252.00[53]	6,492.31	6,492.31	0.00	38,825.32	71,077.32	-32,252.00
heat energy	23,261.58	23,261.58	0.00	2,289.75	2,289.75	0.00	25,551.33	25,551.33	0.00
Total emissions in Scope 2	55,594.59	87,846.59	**-32,252.00**	8,782.07	8,782.07	0.00	64,376.66	96,628.66	-32,252.00
Total emissions in Scope 1 and 2	65,700.67	97,952.67	**-32,252.00**	12,185.47	12,185.47	0.00	77,886.14	110,138.14	-32,252.00
Emissions from employee business trips									
business trips	288.67	288.67	0.00	0.00	0.00	0.00	288.67	288.67	0.00
Total emissions in Scope 3	288.67	288.67	0.00	0.00	0.00	0.00	288.67	288.67	0.00
Total emissions in Scope 1, 2 and 3	65,989.34	98,241.34	-32,252.00	12,185.47	12,185.47	0.00	78,174.80	110,426.80	-32,252.00

[53] Results from obtaining by PKO Bank Polski S.A. of a guarantee of origin of electricity from a low-emission source. Guarantees of origin were provided for 73.3 GWh

Table 4.3.
Emissions in 2020 according to source: source data and estimates - the market-based method [in $MgCO_2e$]

	PKO BP			subsidiaries			CG		
	data	estimates	total	data	estimates	total	data	estimates	total
Refrigeration	782.98	0.00	782.98	0.00	0.00	0.00	782.98	0.00	782.98
Emission from fuels used in buildings									
natural gas	2,821.54	1,404.74	4,226.28	600.53	155.30	755.83	3,422.07	1,560.04	4,982.11
heating oil	448.66	0.00	448.66	25.33	0.00	25.33	473.99	0.00	473.99
diesel oil	25.14	0.00	25.14	1.02	0.00	1.02	26.17	0.00	26.17
LPG	0.00	0.00	0.00	7.83	0.00	7.83	7.83	0.00	7.83
coal	61.04	0.00	61.04	0.00	0.00	0.00	61.04	0.00	61.04
Total emission from fuels used in buildings	3,356.38	1,404.74	4,761.12	634.72	155.30	790.01	3,991.10	1,560.04	5,551.14
Emission from fuels used in vehicles									
diesel oil	219.45	0.00	219.45	1,205.62	0.00	1,205.62	1,425.07	0.00	1,425.07
gasoline	4,342.53	0.00	4,342.53	1,407.77	0.00	1,407.77	5,750.29	0.00	5,750.29
Total emission from fuels used in vehicles	4,561.98	0.00	4,561.98	2,613.39	0.00	2,613.39	7,175.36	0.00	7,175.36
Total emissions in Scope 1	8,701.34	1,404.74	10,106.08	3,248.10	155.30	3,403.40	11,949.44	1,560.04	13,509.48
Emissions from purchased energy									
electricity	27,555.95	4,777.06	32,333.01	5,455.37	1,036.94	6,492.31	33,011.32	5,814.00	38,825.32
heat energy	15,996.80	7,264.78	23,261.58	1,445.57	844.19	2,289.75	17,442.37	8,108.96	25,551.33
Total emissions in Scope 2	43,552.75	12,041.83	55,594.59	6,900.94	1,881.13	8,782.07	50,453.69	13,922.96	64,376.66
Total emissions in Scope 1 and 2	52,254.09	13,446.57	65,700.67	10,149.04	2,036.43	12,185.47	62,403.14	15,483.00	77,886.14
Emissions from employee business trips									
business trips	288.67	0.00	288.67	0.00	0.00	0.00	288.67	0.00	288.67
Total emissions in Scope 3	288.67	0.00	288.67	0.00	0.00	0.00	288.67	0.00	288.67
Total emissions in Scope 1, 2 and 3	52,542.76	13,446.57	65,989.34	10,149.04	2,036.43	12,185.47	62,691.81	15,483.00	78,174.80

Table 4.4.
Emission according to source: source data and estimates - in year 2020 in comparison with year 2019 after recalculation - the market-based method [in $MgCO_2e$]

	PKO BP			subsidiaries			CG		
	2020	2019 after recalculation	difference	2020	2019 after recalculation	difference	2020	2019 after recalculation	difference
Emission from fuels used in buildings									
natural gas	4,226.28	4,145.06	81.22	755.83	595.44	160.39	4,982.11	4,740.50	241.61
heating oil	448.66	943.59	-494.94	25.33	37.11	-11.78	473.99	980.70	-506.71
diesel oil	25.14	21.86	3.28	1.02	4.50	-3.47	26.17	26.36	-0.19
LPG	0.00	0.00	0.00	7.83	1.30	6.53	7.83	1.30	6.53
coal	61.04	73.99	-12.95	0.00	0.00	0.00	61.04	73.99	-12.95
Total emission from fuels used in buildings	4,761.12	5,184.50	-423.38	790.01	638.34	151.67	5,551.14	5,822.84	-271.71
Emission from fuels used in vehicles									
diesel oil	219.45	352.37	-132.92	1,205.62	1,155.54	50.08	1,425.07	1,507.92	-82.85
gasoline	4,342.53	6,278.80	-1,936.27	1,407.77	1,877.48	-469.71	5,750.29	8,156.27	-2,405.98
Total emission from fuels used in vehicles	4,561.98	6,631.17	-2,069.19	2,613.39	3,033.02	-419.63	7,175.36	9,664.19	-2,488.82
Total emissions in Scope 1	10,106.08	11,815.67	-1,709.59	3,403.40	3,671.36	-267.96	13,509.48	15,487.03	-1,977.55
Emissions from purchased energy									
electricity	32,333.01	64,320.30	-31,987.29	6,492.31	7,008.42	-516.10	38,825.32	71,328.71	-32,503.39
heat energy	23,261.58	24,585.39	-1,323.81	2,289.75	3,095.70	-805.94	25,551.33	27,681.09	-2,129.76
Total emissions in Scope 2	55,594.59	88,905.69	-33,311.10	8,782.07	10,104.11	-1,322.05	64,376.66	99,009.80	-34,633.15
Total emissions in Scope 1 and 2	65,700.67	100,721.36	-35,020.69	12,185.47	13,775.48	-1,590.01	77,886.14	114,496.83	-36,610.70

Table 5.1.
Emissions in year 2019 after recalculation according to source: data and estimate percentages [in %]

	PKO BP		subsidiaries		Total CG	
	data	estimates	data	estimates	data	estimates
Refrigeration[54]	-	-	-	-	-	-
Emission from fuels used in buildings						
natural gas	67.67%	32.33%	70.01%	29.99%	67.97%	32.03%
heating oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
LPG	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%
coal	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Total emission from fuels used in buildings	74.15%	25.85%	72.02%	27.98%	73.92%	26.08%
Emission from fuels used in vehicles						
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
gasoline	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total emission from fuels used in vehicles	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total emissions in Scope 1	88.66%	11.34%	95.14%	4.86%	90.19%	9.81%
Emissions from purchased energy						
electricity	83.35%	16.65%	96.25%	3.75%	84.61%	15.39%
heat energy	65.57%	34.43%	68.33%	31.67%	65.88%	34.12%
Total emissions in Scope 2	78.43%	21.57%	87.70%	12.30%	79.38%	20.62%
Total emissions in Scope 1 and 2	79.63%	20.37%	89.68%	10.32%	80.84%	19.16%
Total emissions in Scope 3[55]	-	-	-	-	-	-
Total emissions in Scope 1, 2 and 3	-	-	-	-	-	-

[54] This emission value was not reported in the base year.
[55] Scope 3 was not reported in the base year.

Table 5.2.
Emissions in year 2020 according to source: data and estimate percentages - the market-based method [in %]

	PKO BP		subsidiaries		Total CG	
	data	estimates	data	estimates	data	estimates
Refrigeration	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Emission from fuels used in buildings						
natural gas	66.76%	33.24%	79.45%	20.55%	68.69%	31.31%
heating oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
LPG	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%
coal	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Total emission from fuels used in buildings	70.50%	29.50%	80.34%	19.66%	71.90%	28.10%
Emission from fuels used in vehicles						
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
gasoline	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total emission from fuels used in vehicles	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total emissions in Scope 1	86.10%	13.90%	95.44%	4.56%	88.45%	11.55%
Emissions from purchased energy						
electricity	85.23%	14.77%	84.03%	15.97%	85.03%	14.97%
heat energy	68.77%	31.23%	63.13%	36.87%	68.26%	31.74%
Total emissions in Scope 2	78.34%	21.66%	78.58%	21.42%	78.37%	21.63%
Total emissions in Scope 1 and 2	79.53%	20.47%	83.29%	16.71%	80.12%	19.88%
Total emissions in Scope 3	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Total emissions in Scope 1, 2 and 3	79.62%	20.38%	83.29%	16.71%	80.19%	19.81%

Table 5.3.
Emissions in year 2020 according to source: data and estimate percentages - the location-based method [in %]

	PKO BP		subsidiaries		Total CG	
	data	estimates	data	estimates	data	estimates
Refrigeration	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Emission from fuels used in buildings						
natural gas	66.76%	33.24%	79.45%	20.55%	68.69%	31.31%
heating oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
LPG	0.00%	0.00%	100.00%	0.00%	100.00%	0.00%
coal	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Total emission from fuels used in buildings	70.50%	29.50%	80.34%	19.66%	71.90%	28.10%
Emission from fuels used in vehicles						
diesel oil	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
gasoline	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total emission from fuels used in vehicles	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
Total emissions in Scope 1	86.10%	13.90%	95.44%	4.56%	88.45%	11.55%
Emissions from purchased energy						
electricity	92.60%	7.40%	84.03%	15.97%	91.81%	8.19%
heat energy	68.77%	31.23%	63.13%	36.87%	68.26%	31.74%
Total emissions in Scope 2	86.29%	13.71%	78.58%	21.42%	85.59%	14.41%
Total emissions in Scope 1 and 2	86.27%	13.73%	83.29%	16.71%	85.94%	14.06%
Total emissions in Scope 3	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%
Total emissions in Scope 1, 2 and 3	86.31%	13.69%	83.29%	16.71%	85.97%	14.03%

NON-COMPULSORY INFORMATION

ANNEX NO. 2 TO REPORT ON EMISSION OF GREENHOUSE GASES OF PKO BANK POLSKI S.A. FOR 2020

Abbreviations used in the report:

- CH_4 – methane;
- CO_2 – carbon dioxide;
- HFCs – hydrofluorocarbons;
- kg – kilogram;
- kWh – kilowatt hour (amount of power used during 1 hour by a device with a capacity of 1 kW);
- MgCO2e – megagram (tonne) of carbon dioxide equivalent;
- MJ – mega joule;
- MWh – megawatt-hour (amount of power used during 1 hour by a device with a capacity of 1 MW, equalling to 1000 kWh);
- N_2O – di-nitrous oxide;
- PFCs – fluorosurfactants;
- SF_6 – sulphur hexafluoride

Definitions:

- carbon dioxide equivalent – amount that defines the concentration of carbon dioxide, the emission of which to the atmosphere has an identical effect as a given concentration of a comparable greenhouse gas;
- greenhouse gases – gaseous components of the atmosphere involved in the greenhouse effect;
- GHG Protocol – *The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard Revised Edition,* guidelines pertaining to reporting the organisation's carbon footprint;
- GHG Protocol Scope 2 Guidance – guidelines concerning Scope 2 that standardise the way in which particular organisations measure emissions from the purchased or acquired electric power, heat and cold;
- location-based method – method of quantitative determination of greenhouse gas emission under Scope 2 on the basis of emission factors for specific locations, taking into account for example national borders;
- market-based method – method of quantitative determination of greenhouse gas emission under Scope 2 on the basis of emitted greenhouse gas emissions by generators, from which under a contract the applicant purchases electric power associated with guarantees of origin of power or separate power origin guarantees;
- recalculation of base year emission – recalculation of base year emission arising from meeting of criteria specified in the policy adopted by the organisation regarding the conversion of emission of base year or in general criteria specified in the GHG Protocol;
- base year – specific year or mean value from several years, in relation to which the organisation compares the reported emissions;
- organisation's carbon footprint – total sum of greenhouse gases emission caused either directly or indirectly by the organisation;
- emission factor – average value of greenhouse gas emission per unit of consumed power;
- Scope 1 – this scope comprises direct emissions generated as a result of fuel combustion in stationary or mobile sources owned by an organisation or supervised by such an organisation, emissions arising from technological processes, as well as caused by the release of cooling agents;
- Scope 2 – this scope comprises indirect emissions generated as a result of consumption of electric power (purchased from other entities), heat and cold;
- Scope 3 – this scope comprises other indirect emissions generated in the entire supply chain, e.g. as a result of generation and transport of raw materials or semi-products, waste management, business trips of staff members, and also the use of products by final users. This scope is an optional one.