Greenhouse Gas Emissions Inventory

[PKO Bank Polski Spółka Akcyjna]
[2019]

REQUIRED INFORMATION

Have any facilities, operations and/or emissions sources been excluded from this inventory? If yes, please specify.
No
Reporting period covered by this inventory
From 01/01/2019 to 31/12/2019

ORGANIZATIONAL BOUNDARIES

Which consolidation approach was chosen (check each consolidation approach for which your company is reporting emissions.) *If your company is reporting according to more than one consolidation approach, please complete and attach an additional completed reporting template that provides your company's emissions data following the other consolidation approach(es).*		
Equity Share	Financial Control	Operational Control
☐	☐	✓

OPERATIONAL BOUNDARIES

Are Scope 3 emissions included in this inventory?
Yes ☐
No ✓
If yes, which types of activities are included in Scope 3 emissions?

INFORMATION ON EMISSIONS

The table below refers to emissions independent of any GHG trades such as sales, purchases, transfers, or banking of allowances

EMISSIONS	**TOTAL ($MgCO_2e$)**	CO_2 (Mg)	CH_4 (Mg)	N_2O (Mg)	HFCs (Mg)	PFCs (Mg)	SF_6 (Mg)
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 (OPTIONAL)							

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

BASE YEAR

Year chosen as base year
2019
Clarification of company-determined policy for making base year emissions recalculations
Not applicable. 2019 was the first year in which calculation of GHGs emissions was conducted in the PKO Bank Polski SA Group.
Context for any significant emissions changes that trigger base year emissions recalculations
Not applicable. 2019 was the first year in which calculation of GHGs emissions was conducted in the PKO Bank Polski SA Group.
Base year emissions

EMISSIONS	**TOTAL ($MgCO_2e$)**	CO_2 (Mg)	CH_4 (Mg)	N_2O (Mg)	HFCs (Mg)	PFCs (Mg)	SF_6 (Mg)
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 (OPTIONAL)							

REQUIRED INFORMATION

METHODOLOGIES AND EMISSION FACTORS

Methodologies used to calculate or measure emissions other than those provided by the GHG Protocol (provide a reference or link to any non-GHG Protocol calculation tools used)

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

Greenhouse gas emissions in Scope 1 were calculated using The Greenhouse Gas Protocol Corporate Accounting and Reporting Standard Revised Edition methodology and calculation tools provided by the GHG Protocol[1]

Greenhouse gas emissions in Scope 2 were calculated using the GHG Protocol methodology. The following emission intensity indicators have been used to calculate greenhouse gas emissions in Scope 2:

- For electricity in Poland: 765 kg CO_2/MWh[2]
- For heating in Poland: 357.48 kg CO_2/MWh (99.3 Mg/TJ)[3]
- For electricity in Ukraine: 420 kg CO_2/MWh[4]
- For heating in Ukraine: 260 kg CO_2/MWh[5]

2. **Information on source data and estimates**

The calculations of the consumption of fuels and energy carriers relate to 2019, while for the period I-IX 2019 consumption measured on fuel and energy purchase invoices was reported, while the period X-XII 2019 was estimated based on data measured on invoices in the period X-XII 2018, with the exception of coal for which data was provided for the entire 2019. While in the case of electricity this is a very accurate assumption, in the case of heat used for heating there is a risk that individual years may differ from each other. Therefore, the table below compares the number of degree-days (for indoor temperature assumed at T_i = 20°C) for 17 locations approximately covering all of Poland in a standard year (based on multi-year data), in 2018, in X 2018 – IX 2019 and in 2019.

Location	Number of degree-days for T_i = 20°C			
	Standard year	2018	X 2018 - IX 2019	2019
Szczecin	3 604	3 330	3 160	3 078
Gdańsk	3 597	3 896	3 682	3 602
Suwałki	4 435	4 058	3 910	3 724
Gorzów Wielkopolski	3 548	3 226	3 052	3 009
Toruń	3 697	3 363	3 170	3 094
Białystok	4 095	3 804	3 632	3 454
Poznań	3 774	3 253	3 112	3 024
Łódź	3 696	3 420	3 275	3 147
Warszawa	3 686	3 369	3 202	3 061
Siedlce	3 972	3 645	3 462	3 272
Zielona Góra	3 724	3 235	3 089	3 012
Wrocław	3 716	3 106	3 026	2 934

[1] 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.

[2] Source: Wskaźniki emisyjności CO_2, SO_2, NO_x, CO i pyłu całkowitego dla energii elektrycznej na podstawie informacji zawartych w Krajowej bazie o emisjach gazów cieplarnianych i innych substancji za 2018 rok, Krajowy Ośrodek Bilansowania I Zarządzania Emisjami, December 2019, p.4

[3] Source: Energetyka cieplna w liczbach – 2018, Urząd Regulacji Energetyki, Warszawa, wrzesień 2019, p.19

[4] 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

[5] ibidem.

Częstochowa	3 729	3 326	3 227	3 074
Lublin	3 761	3 529	3 356	3 191
Katowice	3 743	3 327	3 229	3 129
Kraków	3 748	3 346	3 203	3 105
Rzeszów	3 936	3 413	3 271	3 114
średnia	**3 792**	**3 450**	**3 297**	**3 178**
Difference from 2019	19.3%	8.6%	**3.8%**	-

As the table shows, the difference between the period of X 2018 – IX 2019 and 2019 is about 3.8%, which the authors consider sufficient accuracy not to carry out additional conversion of data estimated for the period X-XII 2019 in the area of heat (network heat and natural gas).

If consumption was estimated for a location that was added/removed from the list of properties in the period X 2018- IX 2019, it was assumed that it operated from the first day of the month in which it was added or until the last day of the month in which it was removed.

In addition to the locations for which data in the form of invoices or summaries were made available, consumption was estimated excluding locations that do not have utility connections or the costs of these utilities are entirely borne by another entity. These are transformer stations, garages, real estate taken over or being part of a larger group of real estate.

Consumption was analyzed in parallel for locations owned by the PKO BP bank and rented by PKO BP and used by the Bank.

In all locations of the PKO BP bank, in which a part of the space is rented, the consumption of all carriers was reduced by measured values (if available) or proportionally to the area used by the Bank and tenants.

The principles of data estimation were applied in a uniform manner for PKO BP and subsidiaries belonging to the PKO BP capital group.

The following sections describe the assumptions for individual energy carriers.

2.1. Electricity

It was assumed that consumption values measured or forecasted on invoices for 12 consecutive months reflect the annual electricity consumption.

In many locations, electricity consumption is invoiced every two months. In such case, the consumption underlying the settlement was divided between individual months based on the number of days in a given settlement period. For example, if the electricity invoice covered the months September and October 2019, then consumption was allocated to September in a ratio of 30/61 to the value indicated on the invoice. This was particularly important for invoices, which included e.g. one month from the third quarter of 2019 and one month from the fourth quarter of 2019 (similarly in 2018).

Consumption of electricity at ATMs in most locations is settled on a flat-rate basis as part of the contract with the lessor. For such locations, consumption was estimated based on data from 113 locations where ATMs have their own PPE.

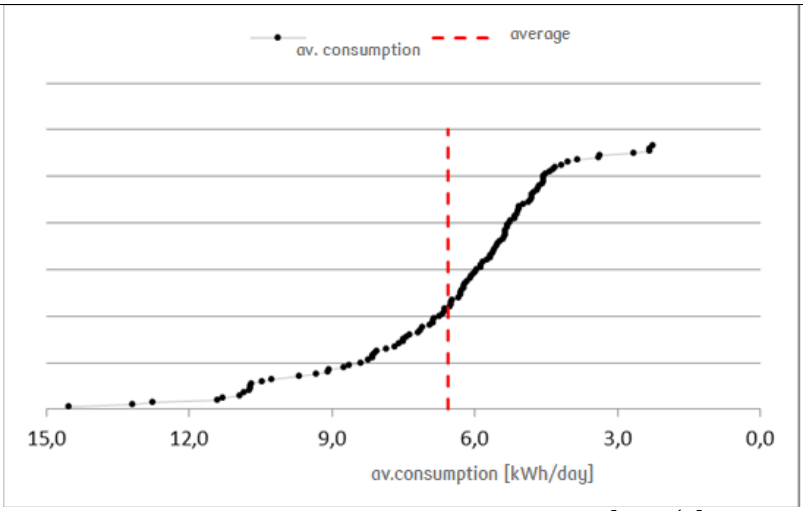

Chart 1. Distribution function of average electricity consumption in an ATM [kWh/d]

Analyzing the graph of the indicator's cumulative distribution function, the authors assessed that its nature is close to the normal distribution function, and therefore one average value of the indicator of 6.6 [kWh/day] satisfactorily reflects consumption in ATMs of all types. The consumption of heat generated in a way other than from electricity (some ATMs have a heater that switches on below a certain temperature) is omitted.

In locations for which the consumption of electricity was unknown and which did not meet the criteria for assuming that they do not consume energy (see point 2 above) and were not described as an ATM, an assessment was carried out based on an indicator determined for locations with known consumption. The indicator is 94.7 [kWh/m^2/year], wherein the premises area less the rented area was used for calculations (in locations for which both data were available).

As a result of calculations carried out on the basis of available source data and estimates, source data account for 85% of electricity, and data estimated for 15% of electricity.

2.2. District heating

Heat consumption from district heating networks was reported for approximately October 1, 2018 - September 30, 2019 (reported consumption included invoices for 12 consecutive months).

In locations for which invoices for natural gas or district heating were not available and which did not meet the criteria for assuming that they do not consume heat (see point 2 above) and the type of heat source was not known, the authors estimated the amount of consumption based on data from all invoices for natural gas and district heating and then distributed them in proportion to the amount of purchased carrier. The heat consumption index was 112.8 [kWh/m^2/year], of which 76.1% was allocated to district heat consumption and 23.9% to natural gas (in proportion to the amount of purchased carrier). The estimation was carried out on the basis of the area of the premises less the rented area (in locations for which both data were available).

As a result of calculations based on available source data and estimates, source data is responsible for 63% of thermal energy, and data estimated for 37% of thermal energy.

2.3. Natural gas

Natural gas consumption was reported for approximately October 1, 2018 - September 30, 2019. The approximation consisted in the fact that the reported consumption covered 12 consecutive months, and invoices are not always issued on the basis of meter readings at the beginning/end of the month, therefore the authors chose readings approximately covering the year. About 5% of invoices covered the period shifted relative to the balance sheet by more than 2 months.

Natural gas was reported according to consumption indicated on the gas invoices. The quantities of purchased fuel were calculated according to the value of the heat of combustion amounting to 39.5 MJ/m^3 for high-methane natural gas, and for nitrogen-rich 31.0 MJ/m^3. Then, due to the Greenhouse Gas Protocol reporting standard, energy consumption determined based on the heat of combustion was calculated according to the calorific value adopted based on the average data provided by Gaz-System for all measurement points reported in Poland simultaneously for nitrogen-rich and high-methane gas.

In locations for which invoices for natural gas or district heating were not available and which did not meet the criteria for assuming that they do not consume heat (listed in point 2) and the type of heat source was unknown, the authors estimated the amount of consumption based on data from all invoices for natural gas and district heating, and then distributed them in proportion to the amount of purchased carrier. The heat consumption index was 112.8 [kWh/m^2/year], of which 23.9% was allocated to natural gas and 76.1% to district heat (in proportion to the amount of purchased carrier). The estimation was carried out on the basis of the area of the premises less the rented area (in locations for which both data were available).

As a result of calculations based on available source data and estimates, source data is responsible for 67% of natural gas, and data estimated for 33% of natural gas.

2.4. Fuels

Calorific values of fuels were adopted on the basis of data published by the National Center for Emissions Management (KOBIZE)[6].

Considering the principles of the Greenhouse Gas Protocol emission reporting standard methodology, the consumption of diesel fuel and "Extra" diesel fuel were added and then analyzed together. Diesel parameters were adopted on the basis of data provided by the manufacturer (the manufacturer gives the same permissible density for standard fuel and "Extra").

Due to the methodology of the Greenhouse Gas Protocol emission reporting standard, the consumption of gasoline and "Extra" gasoline were added and then analyzed together. Motor gasoline parameters were adopted on the basis of manufacturer's data[7] (the manufacturer gives the same permissible density for standard fuel and "Extra").

Heating oil parameters were adopted based on the manufacturer's data[8].

As concerns vehicles' fuel, in connection with the method of reporting consumption (data from VAT invoices received with some delay), the accounting period was adopted as 1.XI.2018 - 31.X.2019 (i.e. 12 consecutive months, but shifted from the generally accepted period).

The number of vehicles used during the balance sheet period was calculated as the average of 12 consecutive monthly averages. This was necessary because the size of the fleet changes dynamically during each month.

All (100%) data on heating oil, diesel, gasoline and hard coal come from source data.

The calculation of greenhouse gas emissions and data estimation was carried out by experts of the National Energy Conservation Agency and MATERIALITY. Authors: Piotr Biernacki, ESG Reporting Partner, MATERIALITY and Tomasz Kułakowski, Energy Analysis Specialist, National Energy Conservation Agency.

[6] Source of calorific values of fuels: https://www.kobize.pl/uploads/materialy/WO_i_WE_do_monitorowania-ETS-2019.pdf
[7] ibidem.
[8] Heating oil parameters: https://www.orlen.pl/PL/DlaBiznesu/Paliwa/OlejeOpalowe/Strony/OlejNapedowyGrzewczyEkoterm.aspx

OPTIONAL INFORMATION

ORGANIZATIONAL BOUNDARIES

List of all legal entities or facilities over which reporting company has equity share, financial control or operational control	% equity share in legal entity	Does reporting company have financial control? (yes/no)	Does reporting company have operational control? (yes/no)
PKO Bank Polski SA	100.00% (parent company of a capital group)	yes	yes
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 Leasing Nieruchomości sp. z o.o.	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 DAC1	100.00%	yes	yes
Polish Lease Prime 1 DAC1	100.00%	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
ZenCard sp. z o.o.	100.00%	yes	yes
Merkury – fiz an	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 3 S.K.A. w likwidacji	100.00%	yes	yes
Molina spółka z ograniczoną odpowiedzialnością 4 S.K.A.	100.00%	yes	yes
Molina spółka z ograniczoną odpowiedzialnością 5 S.K.A.	100.00%	yes	yes

OPTIONAL INFORMATION

Molina spółka z ograniczoną odpowiedzialnością 6 S.K.A.	100.00%	yes	yes
NEPTUN – fizan	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 – fizan	100.00%	yes	yes

If the reporting company's parent company does not report emissions, include an organizational diagram that clearly defines relationship of the reporting subsidiary as well as other subsidiaries
Not applicable

INFORMATION ON EMISSIONS

Emissions disaggregated by source types (in $MgCO_2e$)	
Scope 1: Direct Emissions from Owned/Controlled Operations	
a. Direct Emissions from Stationary Combustion	5 975.19
b. Direct Emissions from Mobile Combustion	9 167.61
c. Direct Emissions from Process Sources	0.00
d. Direct Emissions from Fugitive Sources	0.00
e. Direct Emissions from Agricultural Sources	0.00
Scope 2: Indirect Emissions from the Use of Purchased Electricity, Steam, Heating and Cooling	
a. Indirect Emissions from Purchased/Acquired Electricity	71 340.15
b. Indirect Emissions from Purchased/Acquired Steam	0.00
c. Indirect Emissions from Purchased/Acquired Heating	27 568.80
d. Indirect Emissions from Purchased/Acquired Cooling	0.00

Emissions disaggregated by facility (recommended for individual facilities with stationary combustion emissions over 10,000 $mtCO_2e$)	
Facility	Scope 1 emissions
Not applicable	None of the individual locations generates emissions exceeding 10,000 $mtCO_2e$

Emissions disaggregated by country (in $MgCO_2e$)	
Country	Emissions (specify Scopes included)
Poland (Scope 1+2)	111 404.42
Ukraine (Scope 1+2)	2 647.34

Emissions attributable to own generation of electricity, heat, or stem that is sold or transferred to another organization
0 $MgCO_2e$

Emissions attributable to the generation of electricity, heat or steam that is purchased for re-sale to non-end users
0 $MgCO_2e$

OPTIONAL INFORMATION

Emissions from GHGs not covered by the Kyoto Protocol (e.g., CFCs, NOx,)
Not applicable

Information on the causes of emissions changes that did not trigger a base year emissions recalculation (e.g., process changes, efficiency improvements, plant closures)
Not applicable. 2019 was the first year in which the greenhouse gas emissions in the PKO Bank Polski Group were calculated.

GHG emissions data for all years between the base year and the reporting year (including details of and reasons for recalculations, if appropriate)
Not applicable. 2019 was the first year in which the greenhouse gas emissions in the PKO Bank Polski Group were calculated.

Relevant ratio performance indicators (e.g. emissions per kilowatt-hour generated, sales, etc.)
GHG emissions Scope 1+2 per employee were 4.07 Mg CO_2e /person. GHG emissions Scope 1+2 per client were 10.94 kg CO_2e /client. GHG emissions Scope 1+2 in reference to assets were 327.69 kg CO_2e /PLN1 million of assets. Generation of PLN 1 million of net profit was related with GHG emissions Scope 1+2 of 28.29 Mg CO_2e.

ADDITIONAL INFORMATION

Information on any contractual provisions addressing GHG-related risks and obligations
In 2019 at PKO Bank Polski S.A. neither its subsidiaries were not parties to contracts related to risks or obligations regarding greenhouse gas emissions.

Information on the quality of the inventory (e.g., information on the causes and magnitude of uncertainties in emission estimates) and an outline of policies in place to improve inventory quality
As a result of the calculations and estimation processes (described in the methodology chapter), the data confidence ratio (understood as the percentage share of source data in the total data used for calculations, consisting of data obtained from sources and estimated data) was obtained at the level defined as good in the methodology of the Greenhouse Gas Protocol standard. This indicator was: • When calculating the confidence ratio based on emissions data: 80% for emissions in Scope 1+2 (with the ratio being 89% for emissions in Scope 1 and 79% for emissions in Scope 2). • When calculating the confidence ratio based on energy data: 79% for Scope 1+2 (with a ratio of 88% for Scope 1 and 75% for Scope 2).

Information on any GHG sequestration
Not applicable.

OPTIONAL INFORMATION

INFORMATION ON OFFSETS

Information on offsets that have been purchased or developed *outside* the inventory boundary		
Quantity of GHGs (mtCO2e)	Type of offset project	Were the offsets verified/certified and/or approved by an external GHG program (e.g., CDM)

Information on reductions *inside* the inventory boundary that have been sold/transferred as offsets to a third party.		
Quantity of GHGs (mtCO2e)	Type of offset project	Were the offsets verified/certified and/or approved by an external GHG program (e.g., CDM)

Annex to Greenhouse Gas Emissions Inventory Report of PKO Bank Polski S.A. for 2019

Table 1
Greenhouse gas emissions in organizational division [$MgCO_2e$]

EMISSIONS	**TOTAL ($MgCO_2e$)**	CO_2 (Mg)	CH_4 (Mg)	N_2O (Mg)	HFCs (Mg)	PFCs (Mg)	SF_6 (Mg)
PKO BP							
Scope 1	12 093.42	12 074.38	0.52	0.02	0.00	0.00	0.00
Scope 2	89 562.16	89 562.16	0.00	0.00	0.00	0.00	0.00
Total Scope 1 and 2	101 655.58	101 636.53	0.52	0.02	0.00	0.00	0.00
Subsidiaries							
Scope 1	3 049.38	3 047.75	0.05	0.00	0.00	0.00	0.00
Scope 2	9 346.80	9 346.80	0.00	0.00	0.00	0.00	0.00
Total Scope 1 and 2	12 396.18	12 394.55	0.05	0.00	0.00	0.00	0.00
Total Capital Group							
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
Total Scope 1 and 2	114 051.76	114 031.08	0.57	0.02	0.00	0.00	0.00

OPTIONAL INFORMATION

Table 2
Fuel consumption: absolute values [kWh]

[kWh]	PKO BP			Subsidiaries			Total Capital Group		
	data	estimates	**total**	data	estimates	**total**	data	estimates	**total**
Fuels used in buildings									
Natural gas	13 849 161.00	7 987 231.00	**21 836 392.00**	2 320 657.01	0.00	**2 320 657.01**	16 169 818.01	7 987 231.00	**24 157 049.01**
Heating oil	3 367 591.00	0.00	**3 367 591.00**	132 432.55	0.00	**132 432.55**	3 500 023.55	0.00	**3 500 023.55**
Diesel	81 469.00	0.00	**81 469.00**	16 759.20	0.00	**16 759.20**	98 228.20	0.00	**98 228.20**
LPG	0.00	0.00	**0.00**	5 718.04	0.00	**5 718.04**	5 718.04	0.00	**5 718.04**
Coal	207 666.67	0.00	**207 666.67**	0.00	0.00	**0.00**	207 666.67	0.00	**207 666.67**
Total fuels used in buildings	**17 505 887.67**	**7 987 231.00**	**25 493 118.67**	**2 475 566.79**	**0.00**	**2 475 566.79**	**19 981 454.46**	**7 987 231.00**	**27 968 685.46**
Fuels used in vehicles									
Diesel	27 485 590.87	0.00	**27 485 590.87**	4 093 034.42	0.00	**4 093 034.42**	31 578 625.29	0.00	**31 578 625.29**
Petrol	1 211 092.62	0.00	**1 211 092.62**	5 810 136.11	0.00	**5 810 136.11**	7 021 228.72	0.00	**7 021 228.72**
Total fuels used in vehicles	**28 696 683.49**	**0.00**	**28 696 683.49**	**9 903 170.53**	**0.00**	**9 903 170.53**	**38 599 854.01**	**0.00**	**38 599 854.01**
Total fuels responsible for Scope 1 emissions	**46 091 321.49**	**7 987 231.00**	**54 078 552.49**	**12 378 737.32**	**0.00**	**12 378 737.32**	**58 470 058.81**	**7 987 231.00**	**66 457 289.81**
Energy bought									
Electricity	70 076 953.00	14 016 818.00	**84 093 771.00**	10 768 599.16	343 246.78	**11 111 845.94**	80 845 552.16	14 360 064.78	**95 205 616.94**
Heating	43 211 062.00	27 367 491.00	**70 578 553.00**	5 621 427.59	1 037 732.36	**6 659 159.96**	48 832 489.59	28 405 223.36	**77 237 712.96**
Total energy bought responsible for Scope 2 emissions	**113 288 015.00**	**41 384 309.00**	**154 672 324.00**	**16 390 026.75**	**1 380 979.14**	**17 771 005.89**	**129 678 041.75**	**42 765 288.14**	**172 443 329.89**
Total energy responsible for Scope 1 and 2 emissions	**159 490 586.15**	**49 371 540.00**	**208 862 126.15**	**28 768 764.07**	**1 380 979.14**	**30 149 743.22**	**188 259 350.23**	**50 752 519.14**	**239 011 869.37**

Table 3
Fuel consumption: absolute values [MWh]

[MWh]	PKO BP			Subsidiaries			Total Capital Group		
	data	estimates	**total**	data	estimates	**total**	data	estimates	**total**
Fuels used in buildings									
Natural gas	13 849.16	7 987.23	**21 836.39**	2 320.66	0.00	**2 320.66**	16 169.82	7 987.23	**24 157.05**
Heating oil	3 367.59	0.00	**3 367.59**	132.43	0.00	**132.43**	3 500.02	0.00	**3 500.02**
Diesel	81.47	0.00	**81.47**	16.76	0.00	**16.76**	98.23	0.00	**98.23**
LPG	0.00	0.00	**0.00**	5.72	0.00	**5.72**	5.72	0.00	**5.72**
Coal	207.67	0.00	**207.67**	0.00	0.00	**0.00**	207.67	0.00	**207.67**
Total fuels used in building	**17 505.89**	**7 987.23**	**25 493.12**	**2 475.57**	**0.00**	**2 475.57**	**19 981.45**	**7 987.23**	**27 968.69**
Fuels used in vehicles									
Diesel	27 485.59	0.00	**27 485.59**	4 093.03	0.00	**4 093.03**	31 578.63	0.00	**31 578.63**
Petrol	1 211.09	0.00	**1 211.09**	5 810.14	0.00	**5 810.14**	7 021.23	0.00	**7 021.23**
Total fuels used in vehicles	**28 696.68**	**0.00**	**28 696.68**	**9 903.17**	**0.00**	**9 903.17**	**38 599.85**	**0.00**	**38 599.85**
Total fuels responsible for Scope 1 emissions	**46 202.57**	**7 987.23**	**54 189.80**	**12 378.74**	**0.00**	**12 378.74**	**58 581.31**	**7 987.23**	**66 568.54**
Energy bought									
Electricity	70 076.95	14 016.82	**84 093.77**	10 768.60	343.25	**11 111.85**	80 845.55	14 360.06	**95 205.62**
Heating	43 211.06	27 367.49	**70 578.55**	5 621.43	1 037.73	**6 659.16**	48 832.49	28 405.22	**77 237.71**
Total energy bought responsible for Scope 2 emissions	**113 288.02**	**41 384.31**	**154 672.32**	**16 390.03**	**1 380.98**	**17 771.01**	**129 678.04**	**42 765.29**	**172 443.33**
Total energy responsible for Scope 1 and 2 emissions	**159 490.59**	**49 371.54**	**208 862.13**	**28 768.76**	**1 380.98**	**30 149.74**	**188 259.35**	**50 752.52**	**239 011.87**

Table 4
Fuel consumption: share of data and estimates [%]

[%]	PKO BP		Subsidiaries		Total Capital Group	
	data	estimates	data	estimates	data	estimates
Fuels used in buildings						
Natural gas	63.4%	36.6%	100.0%	0.0%	66.9%	33.1%
Heating oil	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Diesel	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
LPG	nd	nd	100.0%	0.0%	100.0%	0.0%
Coal	100.0%	0.0%	nd	nd	100.0%	0.0%
Total fuels used in building	**68.7%**	**31.3%**	**100.0%**	**0.0%**	**71.4%**	**28.6%**
Fuels used in vehicles						
Diesel	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Petrol	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Total fuels used in vehicles	**100.0%**	**0.0%**	**100.0%**	**0.0%**	**100.0%**	**0.0%**
Total fuels responsible for Scope 1 emissions	**85.3%**	**14.7%**	**100.0%**	**0.0%**	**88.0%**	**12.0%**
Energy bought						
Electricity	83.3%	16.7%	96.9%	3.1%	84.9%	15.1%
Heating	61.2%	38.8%	84.4%	15.6%	63.2%	36.8%
Total energy bought responsible for Scope 2 emissions	**73.2%**	**26.8%**	**92.2%**	**7.8%**	**75.2%**	**24.8%**
Total energy responsible for Scope 1 and 2 emissions	**76.4%**	**23.6%**	**95.4%**	**4.6%**	**78.8%**	**21.2%**

Table 5
Emissions by source: source data and estimates [$MgCO_2e$]

$MgCO_2e$	PKO BP			Subsidiaries			Total Capital Group		
	data	estimates	**total**	data	estimates	**total**	data	estimates	**total**
Emissions from fuels used in buildings									
Natural gas	2 805.05	1 617.76	**4 422.81**	470.03	0.00	**470.03**	3 275.09	1 617.76	**4 892.85**
Heating oil	943.59	0.00	**943.59**	37.11	0.00	**37.11**	980.70	0.00	**980.70**
Diesel	21.86	0.00	**21.86**	4.50	0.00	**4.50**	26.36	0.00	**26.36**
LPG	0.00	0.00	**0.00**	1.30	0.00	**1.30**	1.30	0.00	**1.30**
Coal	73.99	0.00	**73.99**	0.00	0.00	**0.00**	73.99	0.00	**73.99**
Total emissions from fuels used in buildings	**3 844.49**	**1 617.76**	**5 462.25**	**512.94**	**0.00**	**512.94**	**4 357.43**	**1 617.76**	**5 975.19**
Emissions from fuels used in vehicles									
Diesel	352.37	0.00	**352.37**	1 101.63	0.00	**1 101.63**	1 454.00	0.00	**1 454.00**
Petrol	6 278.80	0.00	**6 278.80**	1 434.81	0.00	**1 434.81**	7 713.61	0.00	**7 713.61**
Total emissions from fuels used in vehicles	**6 631.17**	**0.00**	**6 631.17**	**2 536.44**	**0.00**	**2 536.44**	**9 167.61**	**0.00**	**9 167.61**
Total Scope 1 emissions	**10 475.66**	**1 617.76**	**12 093.42**	**3 049.38**	**0.00**	**3 049.38**	**13 525.04**	**1 617.76**	**15 142.80**
Emissions from bought energy									
Electricity	53 608.87	10 722.87	**64 331.73**	6 745.83	262.58	**7 008.42**	60 354.70	10 985.45	**71 340.15**
Heating	15 447.09	9 783.33	**25 230.42**	1 978.85	359.53	**2 338.38**	17 425.94	10 142.86	**27 568.80**
Total Scope 2 emissions	**69 055.96**	**20 506.20**	**89 562.16**	**8 724.69**	**622.11**	**9 346.80**	**77 780.65**	**21 128.31**	**98 908.96**
Total Scope 1 and 2 emissions	**79 531.62**	**22 123.96**	**101 655.58**	**11 774.07**	**622.11**	**12 396.18**	**91 305.69**	**22 746.07**	**114 051.76**

Table 6
Emissions by source: share of data and estimates [%]

[%]	PKO BP		Subsidiaries		Total Capital Group	
	data	estimates	data	estimates	data	estimates
Emissions from fuels used in buildings						
Natural gas	63.4%	36.6%	100.0%	0.0%	66.9%	33.1%
Heating oil	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Diesel	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
LPG	nd	nd	100.0%	0.0%	100.0%	0.0%
Coal	100.0%	0.0%	nd	nd	100.0%	0.0%
Total emissions from fuels used in buildings	**70.4%**	**29.6%**	**100.0%**	**0.0%**	**72.9%**	**27.1%**
Emissions from fuels used in vehicles						
Diesel	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Petrol	100.0%	0.0%	100.0%	0.0%	100.0%	0.0%
Total emissions from fuels used in vehicles	**100.0%**	**0.0%**	**100.0%**	**0.0%**	**100.0%**	**0.0%**
Total Scope 1 emissions	**86.6%**	**13.4%**	**100.0%**	**0.0%**	**89.3%**	**10.7%**
Emissions from bought energy						
Electricity	83.3%	16.7%	96.3%	3.7%	84.6%	15.4%
Heating	61.2%	38.8%	84.6%	15.4%	63.2%	36.8%
Total Scope 2 emissions	**77.1%**	**22.9%**	**93.3%**	**6.7%**	**78.6%**	**21.4%**
Total Scope 1 and 2 emissions	**78.2%**	**21.8%**	**95.0%**	**5.0%**	**80.1%**	**19.9%**