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BANKING CLIMATE RISK MANAGEMENT AND SCENARIO ANALYSIS 2024

BOOK 3

CARBON EMISSION CALCULATION METHODOLOGY

DEPARTMENT OF BANKING REGULATION AND DEVELOPMENT,
INDONESIA FINANCIAL SERVICE AUTHORITY

BANKING CLIMATE RISK MANAGEMENT AND SCENARIO ANALYSIS

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OVERVIEW

CARBON EMISSIONS CALCULATIONS METHODS

Book Three (3) of the Climate Risk Management and Scenario Analysis (CRMS) Guidelines refers to the carbon emission calculation methodology developed by the United Nations Framework Convention on Climate Change (UNFCCC). Measuring the Greenhouse Gas (GHG) footprint is an important step to understand the amount of emissions produced, identify the main sources of these emissions, and to help develop action plans. Companies can decide which scopes to include in the GHG footprint calculation. Furthermore, the company can request that the calculations that have been carried out to be verified by a third party.

This GHG footprint calculator developed by the UNFCCC can help companies estimate emissions based on relevant emission sources. The graph below shows the various levels of validation a company can achieve when estimating the size of its GHG footprint.

As explained in Book Two (2), for Tier 1 there are calculations carried out by the company which is the Bank's debtor. In the event that the disclosure of the debtor's emission value has not been verified by a third party, it is included in the Bronze category. Meanwhile, if the disclosure has been verified by a competent third party, it can be categorized as Silver or Gold, depending on whether it has entered Scope 3 (Gold) or not (Silver).

	Bronze	Silver	Gold
Measure	Self-declared GHG inventory	Third-party verified GHG inventory, with incomplete scope 3	Third-party verified GHG inventory, including full scope 3
Reduce	Target established, with incomplete or no reduction plan	Net zero by 2050 or earlier & reduction plan with intermediate targets	As Silver, with at least 5% reduction year-on-year
Contribute	Partial contribution	Full contribution with partial scope 3	Full scope 3, full contribution

Please note that a participant can achieve different levels in each step

01.

COVER PAGE

EMISSION REPORT

This GHG calculator aims to help companies calculate the emissions emitted by the company. This calculator originated from the UNFCCC and data updates have been made.

There are things that banks must pay attention to:

1. Banks must calculate emissions which include:
   a. Scope 1
   b. Scope 2
   c. Scope 3
2. Examples of emissions reporting that have been carried out by several companies based on sustainability reports uploaded to the public are as follows:
   a. PT ABC (Agriculture, Plantation and Fisheries Sector)
      i. Scope 1: 885.087 tonCO_2e
      ii. Scope 2: 23.583 tonCO_2e
      iii. Scope 3: 686.906 tonCO_2e
3. In the event that the company that is the Bank's debtor has not calculated or published its emissions, it can carry out calculations based on the GHG Protocol standards or use the carbon calculator published by the UNFCCC as contained in this document.

   *GHG Protocol

Banks/Companies are expected to calculate Scope 1, Scope 2 and Scope 3 emissions in the following order:

1. Company Information
2. Fuels
3. Bioenergy
4. Refrigerant and Others
5. Company's vehicle
6. Electricity based on Location
7. Electricity, Heating and District Cooling
8. Well to Tank (WTT) – Fuels
9. Waste Disposal
10. Water Supply
11. Material Use
12. Flight and Accommodation
13. Business Travel: Land and Sea
14. Freighting Goods
15. Employees Commuting
16. Food Consumption
17. Home Office

02.

EMISSION PUBLICATION EXAMPLE

EMISSION PUBLICATION EXAMPLE

The table below contains data on total emissions and emissions for each scope, total assets, and EBITDA or Gross Income for each company. The data below is taken from the Annual Report and Sustainability Report of each company for 2022 which are uploaded on each company's website.

Banks can use the company's emissions to estimate emissions from their debtors by considering the business scale and income.

Sector	Company	Each scope Emissions (tCO_2)			Total Emissions (tCO_2)	Total Asset (Rp million)	EBITDA or Gross Income Rp million)
		1	2	3			
Agriculture, Forestry and Fisheries	PT ABC	144.693,16	2.407,65		147.100,81	4.140.857	609.280
	PT BCD	885.087,00	23.583,00	686.906,00	1.595.576,00	15.357.229	3.018.363
	PT CDE	356.422,00			356.422,00	12.223.568	1.100.000
	PT DEF				13.122,42	3.019.974	1.491.359
	PT EFG	1.346,00	2.225,00		3.571,00	3.589.642	27.297
	PT FGH	224.970,00			224.970,00	5.224.552	1.246.522
	PT GHI				1.459.885,00	14.526.124	3.715.864
	PT HIJ	975.519,00	21.779,00		997.298,00	29.249	3.822
Mining and Excavation	PT IJK	1.280.241,85	263,83		1.280.505,68	165.999.672	77.441.880
	PT JKL	3.038.791,79	26.582,00		3.065.373,79	69.097.971	19.069.956
	PT KLM	710.834,00	118.080,00	1.000,00	829.914,00	45.359.207	15.145.421
	PT LMN	1.547.009,79	64.386,46		1.611.396,25	33.647.270	3.621.340
	PT MNO	219.688,00	551.212,00		770.900,00	59.684.134	4.270.850

02.

EMISSION PUBLICATION EXAMPLE

Sector	Company	Each scope Emissions (tCO_2)			Total Emissions (tCO_2)	Total Asset (Rp million)	EBITDA or Gross Income Rp million)
		1	2	3			
Electricity, Gas, Hot Steam/ Water and Air conditioning	PT NOP	1.029.538,00	3.441,00		1.032.979,00	55.276.447	19.980.723
	PT OPQ	115.531,92	7.267,17		122.799,09	8.836.089	1.146.434
	PT PQR	58.615,55	9.686,28	82,28	68.384,11	110.772.064	18.734.424
	PT QRS	224.265,30	20.407.000,00		20.631.265,30	18.387.905	4.550.965
	PT RST	163.483.000.000,00	9.657.000.000,00	97.198.000.000,00	270.338.000.000,00	1.492.487.745	84.700.000
	PT STU	18.145,53	14.395,54	51.912,28	84.453,35	27.188.000	3.539.000
	PT TUV	27.380.000,00	2.006.510,00	169.630.000,00	199.016.510,00	1.351.938.156	209.277.828
Construction	PT UVW	756.850.614,72	8.228.915,44	50.612,00	765.130.142,16	91.139.000	8.680.000
	PT VWX	1.596,86	2.189,87	1.158,43	4.945,16	2.111.024	-311.947
	PT WXY	2.044.668,38	2.935.347,39	94.861,50	5.074.877,27	4.804.257	355.018
	PT XYZ	869,87	14.820,36		15.690,23	11.153.502	468
	PT AAA	906,00	3.561,00		4.467,00	36.521.300	4.617.100
Transportation and Warehousing	PT BBB	149.199,03			149.199,03	6.893.160	909.000
	PT CCC	85.664,10	8.316,24		93.980,34	17.757.993	7.092.888
	PT DDD	1.282.343,03	6.247,88	40,99	1.288.631,89	95.994.229	7.130.503
	PT EEE	165,39	103,93	5,06	274,38	1.243.695	127.801
	PT FFF	18.785,85	1.075,27	0,00	19.861,12	7.268.437	1.081.950

03.

UNIT AND CONVERSION

UNIT AND CONVERSION TABLE

These tables below are some of the units and conversions that might be used in this calculation.

Krey V., et al (2014) - Intergovernmental Panel on Climate Change (IPCC)

Table 1. Système International (SI) Units

Physical Quantity	Unit	Symbol
Length	meter	m
Mass	kilogram	kg
Time	second	s
Thermodynamic temperature	kelvin	K
Amount of substance	mole	mol

Table 2. Special Names and Symbols for Certain SI Derived Units

Physical Quantity	Unit	Symbol	Definition
Force	Newton	N	kg m s^2
Pressure	Pascal	Pa	kg m^-1 s^-2 (=N m^-2)
Energy	Joule	J	kg m^2 s^-2
Power	Watt	W	kg m^2 s^-3 (=J s^-1)
Frequency	Hertz	Hz	s^-1 (cycles per second)
Ionizing Radiation Dose	sievert	Sv	J kg^-1

Table 3. Non-SI Standard Units

Monetary units	Unit	Symbol
Currency (Market Exchange Rate, MER)	constant US Dollar 2010	USD_{2010}
Currency (Purchasing Power Parity, PPP)	constant international Dollar 2005	$Int\$_{2005}$
Emission-and Climate-related units	**Unit**	**Symbol**
Emissions	Metric tonnes	t
CO_2 Emissions	Metric tonnes CO_2	tCO_2
CO_2-equivalent Emissions	Metric tonnes CO_2-equivalent*	tCO_2eq
Abatement Costs and Emissisons Prices/Taxes	constant USD Dollar 2010 per metric tonne	USD_{2010}/t
CO_2 concentration or Mixing Ratio (mol mol -1)	Parts per million (10^6)	ppm
CH_4 concentration or Mixing Ratio (mol mol -1)	Parts per billion (10^9)	ppb
N_2O concentration or Mixing Ratio (mol mol -1)	Parts per billion (10^9)	ppb
Radiative forcing	Watts per square meter	W/m^2

03.

UNIT AND CONVERSION

Energy-related units	Unit	Symbol
Energy	Joule	J
Energy and Heat generation	Watt Hours	Wh
Power (Peak Capacity)	Watt (Watt thermal, Watt electric)	W (W_{th}, W_e)
Capacity Factor	Percent	%
Technical and Economic Lifetime	Years	yr
Specific Energy Investment Costs	US Dollar 2010 per kW (peak capacity)	USD_{2010}/kW
Energy Costs (e.g. LCOE) and Prices	constant US Dollar 2010 per GJ or US Cents 2010 per kWh	USD_{2010}/GJ and $USct_{2010}$/kWh
Passenger -Distance	passenger-kilometer	p-km
Payload-Distance	tonne-kilometer	t-km
Land-related units	**Unit**	**Symbol**
Area	Hectare	ha

Table 4. Prefixes for Basic Physical Units

Multiple	Prefix	Symbol	Fraction	Prefix	Symbol
1E+21	zeta	Z	1,00E-01	deci	d
1E+18	exa	E	1,00E-02	centi	c
1E+15	peta	P	1,00E-03	mili	m
1E+12	tera	T	1,00E-06	micro	µ
1E+09	giga	G	1,00E-09	nano	n
1E+06	mega	M	1,00E-12	pico	p
1E+03	kilo	k	1,00E-15	femto	f
1E+02	hecto	h	1,00E-18	atto	a
1E+01	deca	da	1,00E-21	zepto	z

03.

UNIT AND CONVERSION

Table 5. Conversion Table for Common Mass Units (IPCC. 2001).

To:		Kg	t	lt	st	lb
From:	**multiply by:**					
kilogram	kg	1	1,00E-03	9,84E-04	1,10E-03	2,20E+00
tonne	t	1,00E+03	1	9,84E-01	1,10E+00	2,20E+03
long ton	lt	1,02E+03	1,02E+00	1	1,12E+00	2,24E+03
short ton	st	9,07E+02	9,07E-01	8,93E-01	1	2,00E+03
Pound	lb	4,54E-01	4,54E-04	4,46E-04	5,00E-04	1

Table 6. Conversion Table for Common Volumetric Units (IPCC. 2001).

To:		gal US	gal UK	bbl	ft^3	l	m^3
From:	**multiply by:**						
US Gallon	gal US	1	8,33E-01	2,38E-02	1,34E-01	3,79E+00	3,80E-03
UK/Imperial Gallon	gal UK	1,20E+00	1	2,86E-02	1,61E-01	4,55E+00	4,50E-03
Barrel	bbl	4,20E+01	3,50E+01	1	5,62E+00	1,59E+02	1,59E-01
Cubic Foot	ft^3	7,48E+00	6,23E+00	1,78E-01	1	2,83E+01	2,83E-02
Liter	l	2,64E-01	2,20E-01	6,30E-03	3,53E-02	1	1,00E-03
Cubic meter	m^3	2,64E+02	2,20E+02	6,29E+00	3,53E+01	1,00E+03	1

Table 7. Conversion Table for Common Energy Units (NAS, 2007; IEA, 2012a).

To:		TJ	Gcal	Mtoe	Mtce	Mbtu	GWh
From:	**multiply by:**						
Tera Joule	TJ	1	2,39E+02	2,39E-05	3,41E-05	9,48E+02	2,78E-01
Giga Calorie	Gcal	4,19E-03	1	1,00E-07	1,43E-07	3,97E+00	1,16E-03
Mega Tonne Oil Equivalent	Mtoe	4,19E+04	1,00E+07	1	1,43E+00	3,97E+07	1,16E+04
Mega Tonne Coal Equivalent	Mtce	2,93E+04	7,00E+06	7,00E-01	1	2,78E+07	8,14E+03
Million British Thermal Units	Mbtu	1,06E-03	2,52E-01	2,52E-08	3,60E-08	1	2,93E-04
Giga Watt Hours	GWh	3,60E+00	8,60E+02	8,60E-05	1,23E-04	3,41E+03	1

04.

DEFINITIONS

DEFINITIONS

These are several definitions that are being used in this document.

Defra (2023). - Department for Environment, Food, and Rural Affairs (Defra) of The United Kingdom

Level 1 Item	Level 2 Item	Level 3 Item	Definition
Fuels/WTT-fuels	Gaseous fuels	CNG	Compressed natural gas - a compressed version of the same natural gas used in homes. Stored in cylinders for use as an alternative transport fuel.
Fuels/WTT-fuels	Gaseous fuels	LNG	Liquefied natural gas- in a liquid state, this is the easiest way to transport gas in tankers (truck or ship). It can be used as an alternative transport fuel.
Fuels/WTT-fuels	Gaseous fuels	LPG	Liquid petroleum gas - used to power cooking stoves or heaters off-grid and fuel some vehicles (such as fork-lift trucks and vans).
Fuels/WTT-fuels	Gaseous fuels	Natural gas	Standard natural gas received through the gas mains grid network in the UK. Note - contains limited biogas content.
Fuels/WTT-fuels	Gaseous fuels	Natural gas (100% mineral blend)	Natural gas (100% mineral blend) factor is natural gas not obtained through the grid and therefore does not contain any biogas content. It can be used for calculating bespoke fuel mixtures.
Fuels/WTT-fuels	Gaseous fuels	Other petroleum gas	Consists mainly of ethane, plus other hydrocarbons, (excludes butane and propane).
Fuels/WTT-fuels	Liquid fuels	Aviation spirit	Fuel for piston-engined aircraft - a high octane petrol (aka AVGAS).
Fuels/WTT-fuels	Liquid fuels	Aviation turbine fuel	Fuel for turbo-prop aircraft and jets (aka jet fuel). Similar to kerosene used as a heating fuel, but refined to a higher quality.
Fuels/WTT-fuels	Liquid fuels	Burning oil	Main purpose is for heating/lighting on a domestic scale (also known as kerosene).
Fuels/WTT-fuels	Liquid fuels	Diesel (average biofuel blend)	Standard diesel bought from any local filling station (across the board forecourt fuel typically contains biofuel content).
Fuels/WTT-fuels	Liquid fuels	Fuel oil	Heavy oil used as fuel in furnaces and boilers of power stations, in industry, for industrial heating and in ships.
Fuels/WTT-fuels	Liquid fuels	Gas oil	Medium oil used in diesel engines and heating systems (also known as red diesel).

04.

DEFINITIONS

Level 1 Item	Level 2 Item	Level 3 Item	Definition
Fuels/WTT-fuels	Liquid fuels	Lubricants	Waste petroleum-based lubricating oils recovered for use as fuels
Fuels/WTT-fuels	Liquid fuels	Naphtha	A product of crude oil refining - often used as a solvent.
Fuels/WTT-fuels	Liquid fuels	Petrol (average biofuel blend)	Standard petrol bought from any local filling station (across the board forecourt fuel typically contains biofuel content).
Fuels/WTT-fuels	Liquid fuels	Petrol (100% mineral petrol)	Petrol that has not been blended with biofuel (non forecourt petrol).
Fuels/WTT-fuels	Liquid fuels	Processed fuel oils - residual oil	Waste oils meeting the 'residual' oil definition contained in the 'Processed Fuel Oil Quality Protocol'.
Fuels/WTT-fuels	Liquid fuels	Processed fuel oils - distillate oil	Waste oils meeting the 'distillate' oil definition contained in the 'Processed Fuel Oil Quality Protocol'.
Fuels/WTT-fuels	Liquid fuels	Refinery miscellaneous	Includes aromatic extracts, defoament solvents and other minor miscellaneous products
Fuels/WTT-fuels	Liquid fuels	Waste oils	Recycled oils outside of the 'Processed Fuel Oil Quality Protocol' definitions.
Fuels/WTT-fuels	Liquid fuels	Marine gas oil	Distillate fuels are commonly called "Marine gas oil". Distillate fuel is composed of petroleum fractions of crude oil that are separated in a refinery by a boiling or "distillation" process.
Fuels/WTT-fuels	Liquid fuels	Marine fuel oil	Residual fuels are called "Marine fuel oil". Residual fuel or "residuum" is the fraction that did not boil, sometimes referred to as "tar" or "petroleum pitch".
Fuels/WTT-fuels	Solid fuels	Coal (industrial)	Coal used in sources other than power stations and domestic use.
Fuels/WTT-fuels	Solid fuels	Coal (electricity generation)	Coal used in power stations to generate electricity.
Fuels/WTT-fuels	Solid fuels	Coal (domestic)	Coal used domestically.
Fuels/WTT-fuels	Solid fuels	Coking coal	Coke may be used as a heating fuel and as a reducing agent in a blast furnace.
Fuels/WTT-fuels	Solid fuels	Petroleum coke	Normally used in cement manufacture and power plants.
Fuels/WTT-fuels	Solid fuels	Coal (electricity generation - home produced coal only)	Coal used in power stations to generate electricity (only for coal produced in the UK).

04.

DEFINITIONS

Level 1 Item	Level 2 Item	Level 3 Item	Definition
Bioenergy	Biofuel	Bioethanol	Renewable fuel derived from common crops (such as sugar cane and sugar beet).
Bioenergy	Biofuel	Biodiesel ME	Renewable fuel almost exclusively derived from common natural oils (for example, vegetable oils).
Bioenergy	Biofuel	Biomethane (compressed)	The methane constituent of biogas. Biogas comes from anaerobic digestion of organic matter.
Bioenergy	Biofuel	Biodiesel ME (from used cooking oil)	Renewable fuel almost exclusively derived from common natural oils (such as vegetable oils).
Bioenergy	Biofuel	Biodiesel ME (from tallow)	Renewable fuel almost exclusively derived from common natural oils (such as vegetable oils).
Bioenergy	Biofuel	Development diesel	Derived from sustainable wastes and residues other than used cooking oil and tallow.
Bioenergy	Biofuel	Development petrol	Derived from sustainable wastes and residues other than used cooking oil and tallow.
Bioenergy	Biofuel	Avtur (renewable)	Sustainable aviation fuel derived wholly from biomass.
Bioenergy	Biomass	Wood pellets	Compressed low quality wood (such as sawdust and shavings) made into pellet form.
Bioenergy	Biogas	Biogas	A naturally occurring gas from the anaerobic digestion of organic materials (such as sewage and food waste), or produced intentionally as a fuel from the anaerobic digestion of biogenic substances (such as energy crops and agricultural residues).
Bioenergy	Biogas	Landfill gas	Gas collected from a landfill site. This may be used for electricity generation, collected and purified for use as a transport fuel, or be flared off
Owned Vehicles/ Business travel- land and sea	Cars (by market segment)	Mini	This is the smallest category of car sometimes referred to as a city car. Examples include: Citroën C1, Fiat/ Alfa Romeo 500 and Panda, Peugeot 107, Volkswagen up!, Renault TWINGO, Toyota AYGO, smart fortwo and Hyundai i 10.
Owned Vehicles/ Business travel- land and sea	Cars (by market segment)	Supermini	This is a car that is larger than a city car, but smaller than a small family car. Examples include: Ford Fiesta, Renault CLIO, Volkswagen Polo, Citroën C2 and C3, Opel Corsa, Peugeot 208, and Toyota Yaris.
Owned Vehicles/ Business travel- land and sea	Cars (by market segment)	Lower medium	This is a small, compact family car. Examples include: Volkswagen Golf, Ford Focus, Opel Astra, Audi A3, BMW 1 Series, Renault Mégane and Toyota Auris.

04.

DEFINITIONS

Level 1 Item	Level 2 Item	Level 3 Item	Definition
Owned Vehicles/ Business travel- land and sea	Cars (by market segment)	Upper medium	This is classed as a large family car. Examples include: BMW 3 Series, ŠKODA Octavia, Volkswagen Passat, Audi A4, Mercedes Benz C Class and Peugeot 508.
Owned Vehicles/ Business travel- land and sea	Cars (by market segment)	Executive	These are large cars. Examples include: BMW 5 Series, Audi A5 and A6, Mercedes Benz E Class and Skoda Superb.
Owned Vehicles/ Business travel- land and sea	Cars (by market segment)	Luxury	This is a luxury car which is niche in the European market. Examples include: Jaguar XF, Mercedes-Benz S-Class, .BMW 7 series, Audi A8, Porsche Panamera and Lexus LS.
Owned Vehicles/ Business travel- land and sea	Cars (by market segment)	Sports	Sport cars are a small, usually two seater with two doors and designed for speed, high acceleration, and manoeuvrability. Examples include: Mercedes-Benz SLK, Audi TT, Porsche 911 and Boxster, and Peugeot RCZ.
Owned Vehicles/ Business travel- land and sea	Cars (by market segment)	Dual purpose 4X4	These are sport utility vehicles (SUVs) which have off-road capabilities and four-wheel drive. Examples include: Suzuki Jimny, Land Rover Discovery and Defender, Toyota Land Cruiser, and Nissan Pathfinder.
Owned Vehicles/ Business travel- land and sea	Cars (by market segment)	MPV	These are multipurpose cars. Examples include: Ford C-Max, Renault Scenic, Volkswagen Touran, Opel Zafira, Ford B-Max, and Citroën C3 Picasso and C4 Picasso.
Owned Vehicles/ Business travel- land and sea	Cars (by size)	Small car	Petrol/LPG/CNG - up to a 1.4-litre engine Diesel - up to a 1.7-litre engine Others - vehicles models of a similar size (i.e. market segment A or B)
Owned Vehicles/ Business travel- land and sea	Cars (by size)	Medium car	Petrol/LPG/CNG - from 1.4-litre to 2.0-litre engine Diesel - from 1.7-litre to 2.0-litre engine Others - vehicles models of a similar size (i.e. generally market segment C)
Owned Vehicles/ Business travel- land and sea	Cars (by size)	Large car	Petrol/LPG/CNG - 2.0-litre engine + Diesel - 2.0-litre engine + Others - vehicles models of a similar size (i.e. generally market segment D and above)
Owned Vehicles/ Business travel- land and sea	Cars (by size)	Average car	Unknown engine size.

04.

DEFINITIONS

Level 1 Item	Level 2 Item	Level 3 Item	Definition
Owned Vehicles/ Business travel- land and sea	Motorbike	Small	Mopeds/scooters up to 125cc.
Owned Vehicles/ Business travel- land and sea	Motorbike	Medium	125cc to 500cc
Owned Vehicles/ Business travel- land and sea	Motorbike	Large	500cc +
Owned Vehicles/ Business travel- land and sea	Motorbike	Average	Unknown engine size
Owned Vehicles/ Freighting goods	Vans		Large goods vehicles (vans up to 3.5 tonnes).
Owned Vehicles/ Freighting goods	HGV (all diesel)		Large goods vehicles with maximum weight exceeding 3.5 tonnes. These factors do not include refrigerated vehicles
Owned Vehicles/ Freighting goods	HGVs refrigerated (all diesel)		Refrigerated road vehicles with maximum weight exceeding 3.5 tonnes.
Electricity,heat, cooling,T&D	Electricity	T&D	Emissions impact of the efficiency losses experienced in getting electricity from the power plant to the end user.
Material use	Construction	Aggregates	Also known as rubble.
Material use	Electrical items	Electrical items - large	Stationary machines for routine housekeeping tasks e.g. cookers / fridges
Material use	Electrical items	Batteries - Li ion	Small power equipment
Material use	Electrical items	Batteries - NiMh	Excludes car batteries
Material use/ Waste Disposal	Plastic	Plastics: HDPE (incl. forming)	An opaque plastic commonly used for milk bottles
Material use/ Waste Disposal	Plastic	Plastics: LDPE and LLDPE (incl. forming)	Packaging material (foils, plastic bags etc.)
Material use/ Waste Disposal	Plastic	Plastics: PET (incl. forming)	For example clear drink bottles/ sandwich wrappers
Material use/ Waste Disposal	Plastic	Plastics: PP (incl. forming)	Mainly used in injection moulding i.e. for cutlery, containers, and automotive parts

04.

DEFINITIONS

Level 1 Item	Level 2 Item	Level 3 Item	Definition
Material use/ Waste Disposal	Plastic	Plastics: PS (incl. forming)	Commonly used for foam based insulation and cheap disposable items i.e. protective packaging and disposable cutlery
Material use/ Waste Disposal	Plastic	Plastics: PVC (incl. forming)	Widespread use in building, transport, packaging, electrical/electronic and healthcare applications
Material use/ Waste Disposal	Paper	Paper and board: board	Average: 78% corrugate and 22% cartonboard
Material use/ Waste Disposal	Paper	Paper and board: mixed	Assumes 25% paper, 75% board
Waste disposal	Refuse	Household residual waste	Domestic waste
Waste disposal	Refuse	Commercial and industrial waste	Waste generated by businesses or industrial operations
Waste disposal	Electrical items	WEEE - large	Stationary machines for routine housekeeping tasks e.g. cookers / fridges
Waste disposal	Electrical items	WEEE - small	Small power equipment
Waste disposal	Electrical items	Batteries	Excludes car batteries

05.

DISCLAIMER

DISCLAIMER

Title: Greenhouse Gas (GHG) Emissions Calculator

Document version: 02.6

Publication date: September 2022

Update date: November 2023 by OJK

The UNFCCC secretariat has prepared this greenhouse gas (GHG) emissions calculator to provide the general public with a free and up-to-date methodology for estimating GHG emissions.

This Spreadsheet aims only to support organizations to estimate their GHG emissions in order to raise awareness and to promote climate action.

However, the UNFCCC secretariat makes no representations as to the accuracy, completeness, suitability or validity of any information on this Spreadsheet and will not be liable for any errors, omissions, or delays in this information or any losses, injuries, or damages arising from its display or use. All information is provided on an "as-is" basis.

All data and information provided on this Spreadsheet are for reference purposes only. The emission factors used on this Spreadsheet are publicly available on third parties' websites and the links are provided in the tab 'Info and sources'. The contents in, and linked to, this spreadsheet do not reflect the policy or position of the UNFCCC nor the UNFCCC secretariat's and do not imply UNFCCC secretariat's endorsement. Under no circumstances shall the UNFCCC be liable for any loss, damage, liability or expense incurred or suffered that is claimed to have resulted from the use of this Spreadsheet, its data or its methodology, or from the conduct of any user. Use of this Spreadsheet and reliance upon the content in or linked to it is solely at the user's own risk.

Furthermore, this Spreadsheet does not replace a formal, tailored GHG inventory development process nor third-party verified GHG inventories and should be not used for certification purposes.

The emission factors used in this spreadsheet are sourced from references that may not be applicable to all geographic locations. The user is encouraged to use more suitable emission factors when they are available.

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UPDATE

Update date: January 2024 by OJK

This spreadsheet is updated by OJK in January 2024 with the latest data cited in the UNFCCC's spreadsheet which are UK's GHG Reporting: Conversion Factors 2023, Cornell's Hotel Sustainability Benchmarking Index 2023, and Kementerian ESDM's Faktor Emisi GRK Sistem Ketenagalistrikan 2019. This spreadsheet's sole intention is only to help Banks or Banks' debtor count their emissions. It is expected that Banks can coordinate directly with Kementerian Lingkungan Hidup dan Kehutanan (Ministry of Environment and Forestry) regarding the proper methodology in accordance with the Kementerian Lingkungan Hidup dan Kehutanan and/or other ministries and institutions. Bank can also use third-party certification if needed.

06.

INFORMATION AND SOURCE

INSTRUCTIONS

1. Fill in the information about your organisation before starting, as some emission factors are country-based

2. Navigate through each of the tabs and fill in only the applicable data for your organisation, in the white fields

3. See the results on the 'Report' tab

In case of questions on this Spreadsheet, please contact the Climate Neutral Now team via email: climateneutralnow@unfccc.int

GENERAL INFORMATION, SOURCES AND ASSUMPTIONS

Scope	Tab	Activity	Source	Assumptions
Scope 1	Fuels	Fuels	UK Government GHG Conversion Factors for Company Reporting	Full set of factors for kg CO_2e from Defra 2023
Scope 1	Bioenergy	Bioenergy	UK Government GHG Conversion Factors for Company Reporting	Full set of factors for kg CO_2e from Defra 2023
Scope 1	Refrigerants	Refrigerants	UK Government GHG Conversion Factors for Company Reporting	Full set of factors for kg CO_2e from Defra 2023
Scope 1 & 2	Owned vehicles	Cars and motorbikes	UK Government GHG Conversion Factors for Company Reporting	Battery Electric cars: Defra Electricity EF for EVs/ GEF UK * Indonesia's Faktor Emisi GRK Sistem Ketenagalistrikan Tahun 2019 Hybrids Plug-in Hybrid Electric cars: Defra Electricity EF for EVs/ GEF UK * Indonesia's Faktor Emisi GRK Sistem Ketenagalistrikan Tahun 2019 (portion of emissions correspondent to fuel is considered in scope 1 and electricity is consired in scope 2) Other vehicles: Full set of factors for kg CO_2e from Defra 2023
Scope 1	Owned vehicles	Vans and HGVs	UK Government GHG Conversion Factors for Company Reporting	Battery Electric cars: Defra Electricity EF for EVs/ GEF UK * Indonesia's Faktor Emisi GRK Sistem Ketenagalistrikan Tahun 2019 Other vehicles: Full set of factors for kg CO_2e from Defra 2023

06.

INFORMATION AND SOURCE

Scope	Tab	Activity	Source	Assumptions
Scope 2	Electricity and Heat	Electricity (not applicable for Indonesia)	IFI 2021 Harmonized Grid Emission factor (GEF) data set	For Palestine: Average EF of Iraq, Jordan, Lebanon, Syrian Arab Republic, Turkey. For Holy See: Italy EF; Western Sahara: Average EF of Algeria, Mali, Mauritania, Morocco, Senegal. For Åland Islands Antarctica, Bonaire, Sint Eustatius and Saba, Bouvet Island, British Indian Ocean Territory, China, Macao Special Administrative Region, Christmas Island, Cocos (Keeling) Islands, French Southern Territories, Guernsey, Heard Island and McDonald Islands, Jersey, Norfolk Island, Pitcairn, Saint Barthélemy, Sark, South Georgia and the South Sandwich Islands, Svalbard and Jan Mayen Islands, Tokelau, United States Minor Outlying Islands, Wallis and Futuna Islands: Average of American Samoa, Antigua and Barbuda, Aruba, Bahamas, Barbados, Bermuda, British Virgin Islands, Cayman Islands, Cook Islands, Falkland Islands (Malvinas), Faroe Islands, Fiji, French Polynesia, Guadeloupe, Guam, Malta, Marshall Islands, Martinique, Mauritius, Northern Mariana Islands, Réunion, Saint Helena, Saint Kitts and Nevis, Saint Martin (French Part), Saint Pierre and Miquelon, Saint Vincent and the Grenadines, Seychelles, Sint Maarten (Dutch part), Solomon Islands, Turks and Caicos Islands, Tuvalu, United States Virgin Islands, Vanuatu,.
Scope 2	Electricity	Electricity	Faktor Emisi GRK Sistem Ketenagalistrikan Tahun 2019	Full set of factors for kg CO_2e from Kementerian ESDM with granulity up to provincial level
Scope 2	Electricity and Heat	Heat and steam	UK Government GHG Conversion Factors for Company Reporting	Full set of factors for kg CO_2e from Defra 2023
Scope 2	Electricity and Heat	District cooling	GSAS SEER TOOL v2.0	Distric cooling maximum average x Indonesia's Faktor Emisi GRK Sistem Ketenagalistrikan Tahun 2019.

06.

INFORMATION AND SOURCE

Scope	Tab	Activity	Source	Assumptions
Scope 3	WTT fuels	Well to tank fuels	UK Government GHG Conversion Factors for Company Reporting	Full set of factors for kg CO_2e from Defra 2023
Scope 3	T&D (Data for UK)	Transmission and distribution losses	UK Government GHG Conversion Factors for Company Reporting	Full set of factors for kg CO_2e from Defra 2023
Scope 3	Water	Water suply and treatment	UK Government GHG Conversion Factors for Company Reporting	Full set of factors for kg CO_2e from Defra 2023
Scope 3	Material use	Primary material production	UK Government GHG Conversion Factors for Company Reporting	Primary material production
Scope 3	Waste	Landfill disposal	UK Government GHG Conversion Factors for Company Reporting	Factors for landfill Defra 2023
Scope 3	Flight and Hotel	Flights	Use of ICAO aviation carbon emissions calculator is recommended	In case you need to calculate many flights, the UNFCCC secretariat may support through the use of proxies. RFI value of 1 is applied.
Scope 3	Flight and Hotel	Hotels	2023 Cornell Hotel Sustainability Benchmarking Index	Hotel Carbon Footprint Per Occupied Room | All hotels upper quartile emission factor value
Scope 3	Business travel land and sea	Sea	UK Government GHG Conversion Factors for Company Reporting	Full set of factors for kg CO_2e from Defra 2023
Scope 3	Business travel land and sea	Land	UK Government GHG Conversion Factors for Company Reporting	Full set of factors for kg CO_2e from Defra 2023
Scope 3	Freighting goods	Vans, HGVs, cargo ship, freight flights, rail and sea tanker	UK Government GHG Conversion Factors for Company Reporting	Freight flights with RFI value of 1. For HGVs, average laden values were used.

06.

INFORMATION AND SOURCE

Scope	Tab	Activity	Source	Assumptions
Scope 3	Employees commuting	Cars, taxis, bus, rail	UK Government GHG Conversion Factors for Company Reporting UNFCCC Harmonized Grid Emission factor data set	Full set of factors for kg CO_2e from Defra 2023
Scope 3	Food	Food	Carbon footprint methodology for the Olympic Games	Emission factors from the International Olympic Committee and value for average vegan meal based on average diet values for Germany from FAO.
Scope 3	Home office	Home office	UK Government GHG Conversion Factors for Company Reporting	Home office energy consumption. 'With heating': workstation, lighting and heating. 'With cooling': workstation, lighting and cooling. 'No heating, no cooling': workstation and lighting. The consumption is multiplied times the Indonesia's Faktor Emisi GRK Sistem Ketenagalistrikan Tahun 2019.

DEFINITIONS

Scope 1 (direct emissions) emissions are those from activities owned or controlled by your organisation. Examples of Scope 1 emissions include emissions from combustion in owned or controlled boilers, furnaces and vehicles; and emissions from chemical production in owned or controlled process equipment. Defra 2020

Scope 2 (energy indirect) emissions are those released into the atmosphere that are associated with your consumption of purchased electricity, heat, steam and cooling. These indirect emissions are a consequence of your organisation's energy use, but occur at sources you do not own or control. Defra 2020

Scope 3 (other indirect) emissions are a consequence of your actions that occur at sources you do not own or control and are not classed as Scope 2 emissions. Examples of Scope 3 emissions are business travel by means not owned or controlled by your organisation, waste disposal, materials or fuels your organisation purchases. Deciding if emissions from a vehicle, office or factory that you use are Scope 1 or Scope 3 may depend on how you define your operational boundaries. Scope 3 emissions can be from activities that are upstream or downstream of your organisation. Defra 2020

07.

TOTAL EMISSION

– GHG EMISSIONS REPORT

Category		Emission source category		t CO_2e
GHG Protocol Standards: Corporate Scope – 1 and 2	Scope 1	Direct emissions arising from owned or controlled stationary sources that use fossil fuels and/or emit fugitive emissions	Fuels	
			Bioenergy	
			Refrigerants	
		Direct emissions from owned or controlled mobile sources	Passenger vehicles	
			Delivery vehicles	
		Total Scope 1		
	Scope 2	Location-based emissions from the generation of purchased electricity, heat, steam or cooling	Electricity	
			Heat and steam	
			Electricity for Evs	
			District cooling	
		Total Scope 2		
Value Chain – Scope 3	Scope 3	Fuel- and energy-related activities	All other fuel- and energy related activities	
			Transmission and distribution losses	
		Waste generated in operations	Waste water	
			Waste	
		Purchased goods	Water supplied	
			Material use	

07.

TOTAL EMISSION

Category		Emission source category		t CO_2e
Value Chain – Scope 3	Scope 3	Business travel	All transportation by air	
			Emissions arising from hotel accommodation associated with business travel	
			All transportation by sea	
			All transportation by land, public transport, rented/ leased vehicle and taxi	
		Upstream transportation and distribution	Freighting goods	
		Employees commuting		
		Food		
		Home office		
		Total Scope 3		
Total Emissions				

08.

COMPANY INFORMATION

YOUR COMPANY

Insert your company/organization data in the white box.

Company / Organization	
Country of Company / Organization	Indonesia
City (Headquarter)	
Period Report (Year)	
Number of Employee	

09.

FUELS

FUELS

Combustion of fuels in owned or controlled stationary equipment such as boilers, furnaces, burners, turbines, heaters, incinerators, engines, flares, etc.

Do NOT include here the combustion of fuels in transportation devices such as automobiles, trucks, buses, trains, airplanes, boats, ships, barges, vessels, etc.

Please enter the amount for each applicable fuels

Type	Fuel	Unit	Amount	$kgCO_2e$
Gaseous fuels	CNG	litres		
Gaseous fuels	LNG	litres		
Gaseous fuels	LPG	litres		
Gaseous fuels	Natural gas	cubic metres		
Gaseous fuels	Natural gas (100% mineral blend)	cubic metres		
Gaseous fuels	Other petroleum gas	litres		
Liquid fuels	Aviation spirit	litres		
Liquid fuels	Aviation turbine fuel	litres		
Liquid fuels	Burning oil	litres		
Liquid fuels	Diesel (average biofuel blend)	litres		
Liquid fuels	Diesel (100% mineral diesel)	litres		
Liquid fuels	Fuel oil	litres		
Liquid fuels	Gas oil	litres		

09.

FUELS

Type	Fuel	Unit	Amount	$kgCO_2e$
Liquid fuels	Lubricants	litres		
Liquid fuels	Naphtha	litres		
Liquid fuels	Petrol (average biofuel blend)	litres		
Liquid fuels	Petrol (100% mineral petrol)	litres		
Liquid fuels	Processed fuel oils - residual oil	litres		
Liquid fuels	Processed fuel oils - distillate oil	litres		
Liquid fuels	Waste oils	litres		
Liquid fuels	Marine gas oil	litres		
Liquid fuels	Marine fuel oil	litres		
Solid fuels	Coal (industrial)	tonnes		
Solid fuels	Coal (electricity generation)	tonnes		
Solid fuels	Coal (domestic)	tonnes		
Solid fuels	Coking coal	tonnes		
Solid fuels	Petroleum coke	tonnes		
Solid fuels	Coal (electricity generation - home produced coal only)	tonnes		

10.

BIOENERGY

BIOENERGY

Combustion of fuels produced from recently living sources (such as trees) at a site or in an asset under the direct control of the reporting organisation. All factors are on a net calorific value basis.

Please enter the amount for each applicable bioenergy source

Type	Fuel	Unit	Amount	$kgCO_2e$
Biofuel	Bioethanol	litres		
Biofuel	Biodiesel ME	litres		
Biofuel	Biodiesel ME (from used cooking oil)	litres		
Biofuel	Biodiesel ME (from tallow)	litres		
Biomass	Wood logs	tonnes		
Biomass	Wood chips	tonnes		
Biomass	Wood pellets	tonnes		
Biomass	Grass/straw	tonnes		
Biogas	Biogas	tonnes		
Biogas	Landfill gas	tonnes		

11.

REFRIGERANT AND OTHERS

REFRIGERANT AND OTHERS

From leakage from air-conditioning and refrigeration units or the release to the atmosphere of other gases that have a global warming potential.

Please enter the amount for each applicable refrigerant

Emission	Unit	Amount (kg)	$kgCO_2e$
Carbon dioxide	kg		
Methane	kg		
Nitrous oxide	kg		
HFC-23	kg		
HFC-32	kg		
HFC-41	kg		
HFC-125	kg		
HFC-134	kg		
HFC-134a	kg		
HFC-143	kg		
HFC-143a	kg		
HFC-152a	kg		
HFC-227ea	kg		
HFC-236fa	kg		
HFC-245fa	kg		
HFC-43-10mee	kg		
Perfluoromethane (PFC-14)	kg		
Perfluoroethane (PFC-116)	kg		
Perfluoropropane (PFC-218)	kg		
Perfluorocyclobutane (PFC-318)	kg		
Perfluorobutane (PFC-3-1-10)	kg		
Perfluoropentane (PFC-4-1-12)	kg		
Perfluorohexane (PFC-5-1-14)	kg		
Sulphur hexafluoride (SF6)	kg		
HFC-152	kg		
HFC-161	kg		

11.

REFRIGERANT AND OTHERS

Emission	Unit	Amount (kg)	$kgCO_2e$
HFC-236cb	kg		
HFC-236ea	kg		
HFC-245ca	kg		
HFC-365mfc	kg		
Nitrogen trifluoride	kg		
PFC-9-1-18	kg		
Perfluorocyclopropane	kg		
R404A	kg		
R407A	kg		
R407C	kg		
R407F	kg		
R408A	kg		
R410A	kg		
R507A	kg		
R508B	kg		
R403A	kg		
R406A	kg		
R409A	kg		
R502	kg		
CFC-11/R11 = trichlorofluoromethane	kg		
CFC-12/R12 = dichlorodifluoromethane	kg		
CFC-13	kg		
CFC-113	kg		
CFC-114	kg		
CFC-115	kg		
Halon-1211	kg		
Halon-1301	kg		
Halon-2402	kg		
Carbon tetrachloride	kg		
Methyl bromide	kg		
Methyl chloroform	kg		

11.

REFRIGERANT AND OTHERS

Emission	Unit	Amount (kg)	$kgCO_2e$
HCFC-22/R22 = chlorodifluoromethane	kg		
HCFC-123	kg		
HCFC-124	kg		
HCFC-141b	kg		
HCFC-142b	kg		
HCFC-225ca	kg		
HCFC-225cb	kg		
HCFC-21	kg		
Trifluoromethyl sulphur pentafluoride	kg		
HFE-125	kg		
HFE-134	kg		
HFE-143a	kg		
HCFE-235da2	kg		
HFE-245cb2	kg		
HFE-245fa2	kg		
HFE-254cb2	kg		
HFE-347mcc3	kg		
HFE-347pcf2	kg		
HFE-356pcc3	kg		
HFE-449sl (HFE-7100)	kg		
HFE-569sf2 (HFE-7200)	kg		
HFE-43-10pccc124 (H-Galden1040x)	kg		
HFE-236ca12 (HG-10)	kg		
HFE-338pcc13 (HG-01)	kg		
PFPMIE	kg		
Dimethylether	kg		
Methylene chloride	kg		
Methyl chloride	kg		
R290 = propane	kg		
R600A = isobutane	kg		

12.

OWN OR CONTROLLED VEHICLES

OWN OR CONTROLLED VEHICLES

Travel in cars and on motorcycles owned or controlled by the reporting organisation. **This does not include vehicles owned by employees that are used for business purposes.**

Please make sure that you filled in **your country on the tab "Your Organisation"**, as some emission factors are country-based.

Care should be taken to avoid double counting with an organisation's general electricity consumption for the Plug-in Hybrid Electric and Battery Electric

Please enter the total distance for each type of vehicle

Level 1	Level 2	Level 3	Fuel	Unit	Distance (km)	Fuel $kgCO_2e$	EV $kgCO_2e$
Passenger vehicles	Cars (by size)	Small car	Plug-in Hybrid Electric Vehicle	km			
Passenger vehicles	Cars (by size)	Small car	Battery Electric Vehicle	km			
Passenger vehicles	Cars (by size)	Medium car	Plug-in Hybrid Electric Vehicle	km			
Passenger vehicles	Cars (by size)	Medium car	Battery Electric Vehicle	km			
Passenger vehicles	Cars (by size)	Large car	Plug-in Hybrid Electric Vehicle	km			
Passenger vehicles	Cars (by size)	Large car	Battery Electric Vehicle	km			
Passenger vehicles	Cars (by size)	Average car	Plug-in Hybrid Electric Vehicle	km			
Passenger vehicles	Cars (by size)	Average car	Battery Electric Vehicle	km			
Passenger vehicles	Cars (by size)	Small car	Diesel	km			
Passenger vehicles	Cars (by size)	Small car	Petrol	km			
Passenger vehicles	Cars (by size)	Small car	Hybrid	km			
Passenger vehicles	Cars (by size)	Small car	Unknown	km			
Passenger vehicles	Cars (by size)	Medium car	Diesel	km			

12.

OWN OR CONTROLLED VEHICLES

Level 1	Level 2	Level 3	Fuel	Unit	Distance (km)	Fuel $kgCO_2e$	EV $kgCO_2e$
Passenger vehicles	Cars (by size)	Medium car	Petrol	km			
Passenger vehicles	Cars (by size)	Medium car	Hybrid	km			
Passenger vehicles	Cars (by size)	Medium car	CNG	km			
Passenger vehicles	Cars (by size)	Medium car	LPG	km			
Passenger vehicles	Cars (by size)	Medium car	Unknown	km			
Passenger vehicles	Cars (by size)	Large car	Diesel	km			
Passenger vehicles	Cars (by size)	Large car	Petrol	km			
Passenger vehicles	Cars (by size)	Large car	Hybrid	km			
Passenger vehicles	Cars (by size)	Large car	CNG	km			
Passenger vehicles	Cars (by size)	Large car	LPG	km			
Passenger vehicles	Cars (by size)	Large car	Unknown	km			
Passenger vehicles	Cars (by size)	Average car	Diesel	km			
Passenger vehicles	Cars (by size)	Average car	Petrol	km			
Passenger vehicles	Cars (by size)	Average car	Hybrid	km			
Passenger vehicles	Cars (by size)	Average car	CNG	km			
Passenger vehicles	Cars (by size)	Average car	LPG	km			
Passenger vehicles	Cars (by size)	Average car	Unknown	km			
Passenger vehicles	Motorbike	Small		km			

12.

OWN OR CONTROLLED VEHICLES

Level 1	Level 2	Level 3	Fuel	Unit	Distance (km)	Fuel $kgCO_2e$	EV $kgCO_2e$
Passenger vehicles	Motorbike	Medium		km			
Passenger vehicles	Motorbike	Large		km			
Passenger vehicles	Motorbike	Average		km			
Delivery vehicles	Vans	Class I (up to 1.305 tonnes)	Battery Electric Vehicle	km			
Delivery vehicles	Vans	Class II (1.305 to 1.74 tonnes)	Battery Electric Vehicle	km			
Delivery vehicles	Vans	Class III (1.74 to 3.5 tonnes)	Battery Electric Vehicle	km			
Delivery vehicles	Vans	Average (up to 3.5 tonnes)	Battery Electric Vehicle	km			
Delivery vehicles	Vans	Class I (up to 1.305 tonnes)	Diesel	km			
Delivery vehicles	Vans	Class I (up to 1.305 tonnes)	Petrol	km			
Delivery vehicles	Vans	Class I (up to 1.305 tonnes)	CNG	km			
Delivery vehicles	Vans	Class I (up to 1.305 tonnes)	LPG	km			
Delivery vehicles	Vans	Class I (up to 1.305 tonnes)	Unknown	km			
Delivery vehicles	Vans	Class II (1.305 to 1.74 tonnes)	Diesel	km			

12.

OWN OR CONTROLLED VEHICLES

Level 1	Level 2	Level 3	Fuel	Unit	Distance (km)	Fuel $kgCO_2e$	EV $kgCO_2e$
Delivery vehicles	Vans	Class II (1.305 to 1.74 tonnes)	Petrol	km			
Delivery vehicles	Vans	Class II (1.305 to 1.74 tonnes)	CNG	km			
Delivery vehicles	Vans	Class II (1.305 to 1.74 tonnes)	LPG	km			
Delivery vehicles	Vans	Class II (1.305 to 1.74 tonnes)	Unknown	km			
Delivery vehicles	Vans	Class III (1.74 to 3.5 tonnes)	Diesel	km			
Delivery vehicles	Vans	Class III (1.74 to 3.5 tonnes)	Petrol	km			
Delivery vehicles	Vans	Class III (1.74 to 3.5 tonnes)	CNG	km			
Delivery vehicles	Vans	Class III (1.74 to 3.5 tonnes)	LPG	km			
Delivery vehicles	Vans	Class III (1.74 to 3.5 tonnes)	Unknown	km			
Delivery vehicles	Vans	Average (up to 3.5 tonnes)	Diesel	km			

12.

OWN OR CONTROLLED VEHICLES

Level 1	Level 2	Level 3	Fuel	Unit	Distance (km)	Fuel $kgCO_2e$	EV $kgCO_2e$
Delivery vehicles	Vans	Average (up to 3.5 tonnes)	Petrol	km			
Delivery vehicles	Vans	Average (up to 3.5 tonnes)	CNG	km			
Delivery vehicles	Vans	Average (up to 3.5 tonnes)	LPG	km			
Delivery vehicles	Vans	Average (up to 3.5 tonnes)	Unknown	km			
Delivery vehicles	HGV (all diesel)	Rigid (>3.5 - 7.5 tonnes)	Average laden	km			
Delivery vehicles	HGV (all diesel)	Rigid (>7.5 tonnes-17 tonnes)	Average laden	km			
Delivery vehicles	HGV (all diesel)	Rigid (>17 tonnes)	Average laden	km			
Delivery vehicles	HGV (all diesel)	All rigids	Average laden	km			
Delivery vehicles	HGV (all diesel)	Articulated (>3.5 - 33t)	Average laden	km			
Delivery vehicles	HGV (all diesel)	Articulated (>33t)	Average laden	km			
Delivery vehicles	HGV (all diesel)	All artics	Average laden	km			
Delivery vehicles	HGV (all diesel)	All HGVs	Average laden	km			
Delivery vehicles	HGVs refrigerated (all diesel)	Rigid (>3.5 - 7.5 tonnes)	Average laden	km			

12.

OWN OR CONTROLLED VEHICLES

Level 1	Level 2	Level 3	Fuel	Unit	Distance (km)	Fuel $kgCO_2e$	EV $kgCO_2e$
Delivery vehicles	HGVs refrigerated (all diesel)	Rigid (>7.5 tonnes-17 tonnes)	Average laden	km			
Delivery vehicles	HGVs refrigerated (all diesel)	Rigid (>17 tonnes)	Average laden	km			
Delivery vehicles	HGVs refrigerated (all diesel)	All rigids	Average laden	km			
Delivery vehicles	HGVs refrigerated (all diesel)	Articulated (>3.5 - 33t)	Average laden	km			
Delivery vehicles	HGVs refrigerated (all diesel)	Articulated (>33t)	Average laden	km			
Delivery vehicles	HGVs refrigerated (all diesel)	All artics	Average laden	km			
Delivery vehicles	HGVs refrigerated (all diesel)	All HGVs	Average laden	km			

13.

ELECTRICITY BASED ON LOCATION

ELECTRICITY BASED ON LOCATION

Electricity used by an organisation at sites owned/ controlled by them based on the location of each respective sites. For renewable energy contracts, the emissions are equal to zero. If there is any site in the same province that have different energy source (renewable and non-renewable), please fill the list as a seperate entry.

GEF Factors in this table is taken from Faktor Emisi GRK Sistem Ketenagalistrikan Tahun (Gatrik Kementerian ESDM) 2019's Combined Margin (CM) Ex-Post. Combined Margin are consisted of Build Margin (BM) and Operating Margin (OM). Several grids of several provinces' CM data are using only the OM data since few of them don't have the BM data. For further information regarding the data, please check from the sources as we cited in the "Info and Source" sheet.

Activity	Province	Unit	Usage of PLTB and/or PLTS	Renewable energy contract (Yes/No)	Amount (kWh)	GEF $kgCO_2e$
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				
Electricity		kWh				

14.

ELECTRICITY, HEATING, COOLING

ELECTRICITY, HEATING, TRANSMISSION AND DISTRIBUTION LOSSES, DISTRICT COOLING

Market-based emissions from the generation of purchased electricity, heat, steam or cooling.

T&D: Emissions associated with grid losses (the energy loss that occurs in getting the electricity from the power plant to your organisation).

Electricity Grid

Electricity used by an organisation at sites owned/controlled by them. For renewable energy contracts, the emissions are equal to zero.

Activity	Country	Unit	Amount (kWh)	GEF $kgCO_2e$	T&D $kgCO_2e$	Renewable energy contract (Yes/No)
Electricity	Indonesia	kWh				

Heat and steam

Emissions within organisations that purchase heat/steam energy for heating purposes or for use in specific industrial processes.*

Activity	Type	Unit	Amount (kWh)	$kgCO_2e$	T&D $kgCO_2e$
Heat and steam	District heat and steam	kWh			

* For heating from other sources, please use the tab 'Fuels'

District cooling

Air conditioning from chilled water within a centralized energy plant and underground pipes distribution.

Activity	Country	Unit	Amount	$kgCO_2e$
District cooling	Indonesia	Ton of refrigeration		

15.

WTT – FUELS

WELL TO TANK (WTT) – FUELS

Emissions associated with extraction, refining,and transportation of the raw fuel sources to an organisation's site (or asset) prior to their combustion

Please enter the emounts for the applicable WTT fuels

Type	Fuel	Unit	Amount	$kgCO_2e$
WTT- gaseous fuels	Butane	litres		
WTT- gaseous fuels	CNG	litres		
WTT- gaseous fuels	LNG	litres		
WTT- gaseous fuels	LPG	litres		
WTT- gaseous fuels	Natural Gas	cubic metres		
WTT- gaseous fuels	Other Petroleum Gas	litres		
WTT- gaseous fuels	Propane	litres		
WTT- liquid fuels	Aviation Spirit	litres		
WTT- liquid fuels	Aviation Turbine Fuel	litres		
WTT- liquid fuels	Burning Oil	litres		
WTT- liquid fuels	Diesel (average biofuel blend)	litres		
WTT- liquid fuels	Diesel (100% mineral diesel)	litres		
WTT- liquid fuels	Fuel Oil	litres		
WTT- liquid fuels	Gas Oil	litres		
WTT- liquid fuels	Lubricants	litres		

15.

WTT – FUELS

Type	Fuel	Unit	Amount	$kgCO_2e$
WTT- liquid fuels	Naphtha	litres		
WTT- liquid fuels	Petrol (average biofuel blend)	litres		
WTT- liquid fuels	Petrol (100% mineral petrol)	litres		
WTT- liquid fuels	Processed fuel oils - residual oil	litres		
WTT- liquid fuels	Processed fuel oils - distillate oil	litres		
WTT- liquid fuels	Refinery Miscellaneous	litres		
WTT- liquid fuels	Waste oils	litres		
WTT- liquid fuels	Marine gas oil	litres		
WTT- liquid fuels	Marine fuel oil	litres		
WTT- gaseous fuels	Natural gas (100% mineral blend)	cubic metres		

16.

WASTE DISPOSAL

WASTE DISPOSAL

All waste disposed in the reporting year.

Please enter the amounts for the applicable waste type

Activity	Waste type	Unit	Amount	$kgCO_2e$
Construction	Aggregates	tonnes		
Construction	Average construction	tonnes		
Construction	Asbestos	tonnes		
Construction	Asphalt	tonnes		
Construction	Bricks	tonnes		
Construction	Concrete	tonnes		
Construction	Insulation	tonnes		
Construction	Metals	tonnes		
Construction	Soils	tonnes		
Construction	Mineral oil	tonnes		
Construction	Plasterboard	tonnes		
Construction	Tyres	tonnes		
Construction	Wood	tonnes		
Other	Books	tonnes		
Other	Glass	tonnes		
Other	Clothing	tonnes		
Refuse	Household residual waste	tonnes		
Refuse	Organic: food and drink waste	tonnes		
Refuse	Organic: garden waste	tonnes		
Refuse	Organic: mixed food and garden waste	tonnes		
Refuse	Commercial and industrial waste	tonnes		

16.

WASTE DISPOSAL

Activity	Waste type	Unit	Amount	$kgCO_2e$
Electrical items	WEEE - fridges and freezers	tonnes		
Electrical items	WEEE - large	tonnes		
Electrical items	WEEE - mixed	tonnes		
Electrical items	WEEE - small	tonnes		
Electrical items	Batteries	tonnes		
Metal	Metal: aluminium cans and foil (excl. forming)	tonnes		
Metal	Metal: mixed cans	tonnes		
Metal	Metal: scrap metal	tonnes		
Metal	Metal: steel cans	tonnes		
Plastic	Plastics: average plastics	tonnes		
Plastic	Plastics: average plastic film	tonnes		
Plastic	Plastics: average plastic rigid	tonnes		
Plastic	Plastics: HDPE (incl. forming)	tonnes		
Plastic	Plastics: LDPE and LLDPE (incl. forming)	tonnes		
Plastic	Plastics: PET (incl. forming)	tonnes		
Plastic	Plastics: PP (incl. forming)	tonnes		
Plastic	Plastics: PS (incl. forming)	tonnes		
Plastic	Plastics: PVC (incl. forming)	tonnes		
Paper	Paper and board: board	tonnes		
Paper	Paper and board: mixed	tonnes		
Paper	Paper and board: paper	tonnes		

17.

WATER SUPPLY

WATER SUPPLY

Water delivered through the mains supply network.

Type	Unit	Amount	kg CO_2e
Water Supply	Cubic metres		

WATER TREATMENT

Water returned into the sewage system through mains drains

Please enter the amount

Type	Unit	Amount	kg CO_2e
Water Treatment	Cubic metres		

18.

MATERIAL USE

MATERIAL USE

All materials consumed in the reporting period.

The emissions cover the extraction, primary processing, manufacturing and transporting materials to the point of sale.

Please enter the amounts in tonnes for each of the material applicable to your organisation.

Activity	Waste type	Unit	Amount (tonnes)	$kgCO_2e$
Construction	Aggregates	tonnes		
Construction	Average construction	tonnes		
Construction	Asbestos	tonnes		
Construction	Asphalt	tonnes		
Construction	Bricks	tonnes		
Construction	Concrete	tonnes		
Construction	Insulation	tonnes		
Construction	Metals	tonnes		
Construction	Mineral oil	tonnes		
Construction	Plasterboard	tonnes		
Construction	Tyres	tonnes		
Construction	Wood	tonnes		
Other	Glass	tonnes		
Other	Clothing	tonnes		
Other	Food and drink	tonnes		
Organic	Compost derived from garden waste	tonnes		
Organic	Compost derived from food and garden waste	tonnes		
Electrical Items	Electrical items - fridges and freezers	tonnes		
Electrical Items	Electrical items - large	tonnes		
Electrical Items	Electrical items - IT	tonnes		
Electrical Items	Electrical items - small	tonnes		

18.

MATERIAL USE

Activity	Waste type	Unit	Amount (tonnes)	$kgCO_2e$
Electrical Items	Batteries - Alkaline	tonnes		
Electrical Items	Batteries - Li ion	tonnes		
Electrical Items	Batteries - NiMh	tonnes		
Metal	Metal: aluminium cans and foil (excl. forming)	tonnes		
Metal	Metal: mixed cans	tonnes		
Metal	Metal: scrap metal	tonnes		
Metal	Metal: steel cans	tonnes		
Plastic	Plastics: average plastics	tonnes		
Plastic	Plastics: average plastic film	tonnes		
Plastic	Plastics: average plastic rigid	tonnes		
Plastic	Plastics: HDPE (incl. forming)	tonnes		
Plastic	Plastics: LDPE and LLDPE (incl. forming)	tonnes		
Plastic	Plastics: PET (incl. forming)	tonnes		
Plastic	Plastics: PP (incl. forming)	tonnes		
Plastic	Plastics: PS (incl. forming)	tonnes		
Plastic	Plastics: PVC (incl. forming)	tonnes		
Paper	Paper and Board: board	tonnes		
Paper	Paper and Board: mixed	tonnes		
Paper	Paper and Board: paper	tonnes		

19.

FLIGHTS AND ACCOMMODATION

FLIGHTS

Individuals flying for work purposes

Please use the ICAO Calculator and add the information below. The pre-filled table only for several cities and Economy Class. For others, please refer to ICAO Calculator and fill the information started from the 122nd row. Example of filling in the ICAO table is shown at the right side of the Hotel Table.

Origin (city or IATA code)	Destination (city or IATA code)	Number of passengers	Class	Single way / return	$kgCO_2e$

19.

FLIGHTS AND ACCOMMODATION

HOTEL

Emissions associated with overnight hotel stays for work purposes

Please choose the country and number of nights per occupied room

Country	Number of occupied rooms	Number of nights per room	$kgCO_2e$

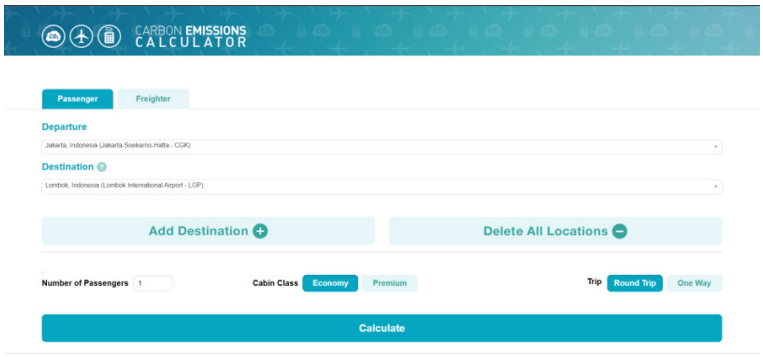
19.

FLIGHTS AND ACCOMMODATION

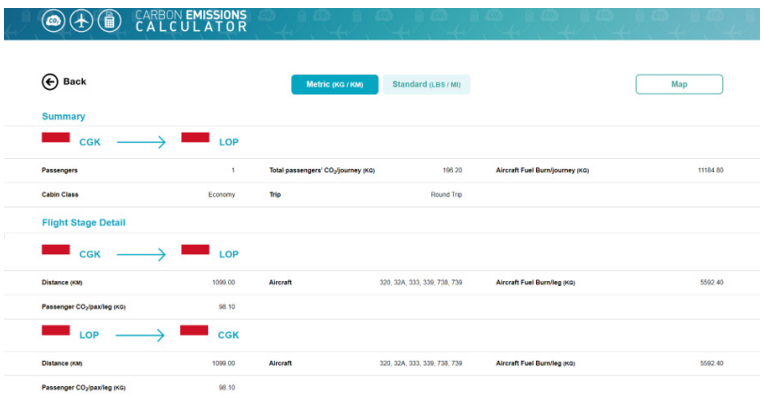
EXAMPLE OF FILLING IN THE ICAO TABLE

1. Acces the website on https://applications.icao.int/icec. The interface is shown as the image below. Then, choose the passenger calculation in this matter.

2. After selecting the passenger calculator, the interface will be shown as the image below. Proceed to type the departure and destination city with details of passenger(s), cabin class, and trip below the departure and destination bar. After that, you can select the "calculate button".



3. Lastly, the result page is as shown below. Company/bank is able to take the emissions value from the result of the ICAO calculator.



20.

BUSINESS TRAVEL – LAND AND SEA

BUSINESS TRAVEL: LAND AND SEA

Travel for business purposes in assets not owned or directly operated by a business. This includes mileage for business purposes in, for example, cars owned by employees, public transport and hire cars.

Business travel: land and sea. Enter the total distance. For passenger.km units, use **(# of passengers * km)**

Vehicle	Type	Fuel	Unit	Total distance	$kgCO_2e$
Cars (by size)	Small car	Battery Electric Vehicle	km		
Cars (by size)	Medium car	Battery Electric Vehicle	km		
Cars (by size)	Large car	Battery Electric Vehicle	km		
Cars (by size)	Average car	Battery Electric Vehicle	km		
Cars (by size)	Small car	CNG	km		
Cars (by size)	Medium car	CNG	km		
Cars (by size)	Large car	CNG	km		
Cars (by size)	Average car	CNG	km		
Cars (by size)	Small car	Diesel	km		
Cars (by size)	Medium car	Diesel	km		
Cars (by size)	Large car	Diesel	km		
Cars (by size)	Average car	Diesel	km		
Cars (by size)	Small car	Hybrid	km		
Cars (by size)	Medium car	Hybrid	km		
Cars (by size)	Large car	Hybrid	km		
Cars (by size)	Average car	Hybrid	km		
Cars (by size)	Small car	LPG	km		
Cars (by size)	Medium car	LPG	km		
Cars (by size)	Large car	LPG	km		
Cars (by size)	Average car	LPG	km		
Cars (by size)	Small car	Petrol	km		
Cars (by size)	Medium car	Petrol	km		

20.

BUSINESS TRAVEL – LAND AND SEA

Vehicle	Type	Fuel	Unit	Total distance	$kgCO_2e$
Cars (by size)	Large car	Petrol	km		
Cars (by size)	Average car	Petrol	km		
Cars (by size)	Small car	Plug-in Hybrid Electric Vehicle	km		
Cars (by size)	Medium car	Plug-in Hybrid Electric Vehicle	km		
Cars (by size)	Large car	Plug-in Hybrid Electric Vehicle	km		
Cars (by size)	Average car	Plug-in Hybrid Electric Vehicle	km		
Cars (by size)	Small car	Unknown	km		
Cars (by size)	Medium car	Unknown	km		
Cars (by size)	Large car	Unknown	km		
Cars (by size)	Average car	Unknown	km		
Ferry	Foot passenger		passenger. km		
Ferry	Car passenger		passenger. km		
Ferry	Average (all passenger)		passenger. km		
Motorbike	Small		km		
Motorbike	Medium		km		
Motorbike	Large		km		
Motorbike	Average		km		
Taxis	Regular taxi		km		
Taxis	Regular taxi		passenger. km		
Taxis	Black cab		km		
Taxis	Black cab		passenger. km		

20.

BUSINESS TRAVEL – LAND AND SEA

Vehicle	Type	Fuel	Unit	Total distance	kgCO_2e
Bus	Local bus (not London)		passenger. km		
Bus	Local London bus		passenger. km		
Bus	Average local bus		passenger. km		
Bus	Coach		passenger. km		
Rail	National rail		passenger. km		
Rail	International rail		passenger. km		
Rail	Light rail and tram		passenger. km		
Rail	London Underground		passenger. km		

21.

FREIGHTING GOODS

FREIGHTING GOODS

Shipment of goods over land, by sea or by air through a third-party company.

Vehicle	Type	Fuel	Unit	Weight (tonnes)	Distance (km)	$kgCO_2e$
Vans	Class I (up to 1.305 tonnes)	Diesel	tonne. km			
Vans	Class I (up to 1.305 tonnes)	Petrol	tonne. km			
Vans	Class I (up to 1.305 tonnes)	CNG	tonne. km			
Vans	Class I (up to 1.305 tonnes)	LPG	tonne. km			
Vans	Class I (up to 1.305 tonnes)	Unknown	tonne. km			
Vans	Class I (up to 1.305 tonnes)	Plug-in Hybrid Electric Vehicle	tonne. km			
Vans	Class I (up to 1.305 tonnes)	Battery Electric Vehicle	tonne. km			
Vans	Class II (1.305 to 1.74 tonnes)	Diesel	tonne. km			
Vans	Class II (1.305 to 1.74 tonnes)	Petrol	tonne. km			
Vans	Class II (1.305 to 1.74 tonnes)	CNG	tonne. km			
Vans	Class II (1.305 to 1.74 tonnes)	LPG	tonne. km			
Vans	Class II (1.305 to 1.74 tonnes)	Unknown	tonne. km			
Vans	Class II (1.305 to 1.74 tonnes)	Plug-in Hybrid Electric Vehicle	tonne. km			
Vans	Class II (1.305 to 1.74 tonnes)	Battery Electric Vehicle	tonne. km			

21.

FREIGHTING GOODS

Vehicle	Type	Fuel	Unit	Weight (tonnes)	Distance (km)	$kgCO_2e$
Vans	Class III (1.74 to 3.5 tonnes)	Diesel	tonne. km			
Vans	Class III (1.74 to 3.5 tonnes)	Petrol	tonne. km			
Vans	Class III (1.74 to 3.5 tonnes)	CNG	tonne. km			
Vans	Class III (1.74 to 3.5 tonnes)	LPG	tonne. km			
Vans	Class III (1.74 to 3.5 tonnes)	Unknown	tonne. km			
Vans	Class III (1.74 to 3.5 tonnes)	Plug-in Hybrid Electric Vehicle	tonne. km			
Vans	Class III (1.74 to 3.5 tonnes)	Battery Electric Vehicle	tonne. km			
Vans	Average (up to 3.5 tonnes)	Diesel	tonne. km			
Vans	Average (up to 3.5 tonnes)	Petrol	tonne. km			
Vans	Average (up to 3.5 tonnes)	CNG	tonne. km			
Vans	Average (up to 3.5 tonnes)	LPG	tonne. km			
Vans	Average (up to 3.5 tonnes)	Unknown	tonne. km			
Vans	Average (up to 3.5 tonnes)	Plug-in Hybrid Electric Vehicle	tonne. km			
Vans	Average (up to 3.5 tonnes)	Battery Electric Vehicle	tonne. km			
HGV (all diesel)	Rigid (>3.5 - 7.5 tonnes)	Average laden	tonne. km			

21.

FREIGHTING GOODS

Vehicle	Type	Fuel	Unit	Weight (tonnes)	Distance (km)	$kgCO_2e$
HGV (all diesel)	Rigid (>7.5 tonnes-17 tonnes)	Average laden	tonne. km			
HGV (all diesel)	Rigid (>17 tonnes)	Average laden	tonne. km			
HGV (all diesel)	All rigids	Average laden	tonne. km			
HGV (all diesel)	Articulated (>3.5 - 33t)	Average laden	tonne. km			
HGV (all diesel)	Articulated (>33t)	Average laden	tonne. km			
HGV (all diesel)	All artics	Average laden	tonne. km			
HGV (all diesel)	All HGVs	Average laden	tonne. km			
HGV refrigerated (all diesel)	Rigid (>3.5 - 7.5 tonnes)	Average laden	tonne. km			
HGV refrigerated (all diesel)	Rigid (>7.5 tonnes-17 tonnes)	Average laden	tonne. km			
HGV refrigerated (all diesel)	Rigid (>17 tonnes)	Average laden	tonne. km			
HGV refrigerated (all diesel)	All rigids	Average laden	tonne. km			
HGV refrigerated (all diesel)	Articulated (>3.5 - 33t)	Average laden	tonne. km			
HGV refrigerated (all diesel)	Articulated (>33t)	Average laden	tonne. km			
HGV refrigerated (all diesel)	All artics	Average laden	tonne. km			
HGV refrigerated (all diesel)	All HGVs	Average laden	tonne. km			

21.

FREIGHTING GOODS

Vehicle	Type	Fuel	Unit	Weight (tonnes)	Distance (km)	$kgCO_2e$
Freight flights	Domestic, to/from UK	With RF	tonne.km			
Freight flights	Domestic, to/from UK	Without RF	tonne.km			
Freight flights	Short-haul, to/from UK	With RF	tonne.km			
Freight flights	Short-haul, to/from UK	Without RF	tonne.km			
Freight flights	Long-haul, to/from UK	With RF	tonne.km			
Freight flights	Long-haul, to/from UK	Without RF	tonne.km			
Freight flights	International, to/from non-UK	With RF	tonne.km			
Freight flights	International, to/from non-UK	Without RF	tonne.km			
Rail	Freight train		tonne.km			
Sea tanker	Crude tanker	200,000+ dwt	tonne.km			
Sea tanker	Crude tanker	120,000–199,999 dwt	tonne.km			
Sea tanker	Crude tanker	80,000–119,999 dwt	tonne.km			
Sea tanker	Crude tanker	60,000–79,999 dwt	tonne.km			
Sea tanker	Crude tanker	10,000–59,999 dwt	tonne.km			
Sea tanker	Crude tanker	0–9999 dwt	tonne.km			
Sea tanker	Crude tanker	Average	tonne.km			

21.

FREIGHTING GOODS

Vehicle	Type	Fuel	Unit	Weight (tonnes)	Distance (km)	$kgCO_2e$
Sea tanker	Products tanker	60,000+ dwt	tonne. km			
Sea tanker	Products tanker	20,000–59,999 dwt	tonne. km			
Sea tanker	Products tanker	10,000–19,999 dwt	tonne. km			
Sea tanker	Products tanker	5000–9999 dwt	tonne. km			
Sea tanker	Products tanker	0–4999 dwt	tonne. km			
Sea tanker	Products tanker	Average	tonne. km			
Sea tanker	Chemical tanker	20,000+ dwt	tonne. km			
Sea tanker	Chemical tanker	10,000–19,999 dwt	tonne. km			
Sea tanker	Chemical tanker	5000–9999 dwt	tonne. km			
Sea tanker	Chemical tanker	0–4999 dwt	tonne. km			
Sea tanker	Chemical tanker	Average	tonne. km			
Sea tanker	LNG tanker	200,000+ m3	tonne. km			
Sea tanker	LNG tanker	0–199,999 m3	tonne. km			
Sea tanker	LNG tanker	Average	tonne. km			
Sea tanker	LPG Tanker	50,000+ m3	tonne. km			
Sea tanker	LPG Tanker	0–49,999 m3	tonne. km			
Sea tanker	LPG Tanker	Average	tonne. km			

21.

FREIGHTING GOODS

Vehicle	Type	Fuel	Unit	Weight (tonnes)	Distance (km)	$kgCO_2e$
Cargo ship	Bulk carrier	200,000+ dwt	tonne. km			-
Cargo ship	Bulk carrier	100,000–199,999 dwt	tonne. km			-
Cargo ship	Bulk carrier	60,000–99,999 dwt	tonne. km			-
Cargo ship	Bulk carrier	35,000–59,999 dwt	tonne. km			-
Cargo ship	Bulk carrier	10,000–34,999 dwt	tonne. km			-
Cargo ship	Bulk carrier	0–9999 dwt	tonne. km			-
Cargo ship	Bulk carrier	Average	tonne. km			-
Cargo ship	General cargo	10,000+ dwt	tonne. km			-
Cargo ship	General cargo	5000–9999 dwt	tonne. km			-
Cargo ship	General cargo	0–4999 dwt	tonne. km			-
Cargo ship	General cargo	10,000+ dwt 100+ TEU	tonne. km			-
Cargo ship	General cargo	5000–9999 dwt 100+ TEU	tonne. km			-
Cargo ship	General cargo	0–4999 dwt 100+ TEU	tonne. km			-
Cargo ship	General cargo	Average	tonne. km			-
Cargo ship	Container ship	8000+ TEU	tonne. km			-

21.

FREIGHTING GOODS

Vehicle	Type	Fuel	Unit	Weight (tonnes)	Distance (km)	$kgCO_2e$
Cargo ship	Container ship	5000–7999 TEU	tonne. km			-
Cargo ship	Container ship	3000–4999 TEU	tonne. km			-
Cargo ship	Container ship	2000–2999 TEU	tonne. km			-
Cargo ship	Container ship	1000–1999 TEU	tonne. km			-
Cargo ship	Container ship	0–999 TEU	tonne. km			-
Cargo ship	Container ship	Average	tonne. km			-
Cargo ship	Vehicle transport	4000+ CEU	tonne. km			-
Cargo ship	Vehicle transport	0–3999 CEU	tonne. km			-
Cargo ship	Vehicle transport	Average	tonne. km			-
Cargo ship	RoRo-Ferry	2000+ LM	tonne. km			-
Cargo ship	RoRo-Ferry	0–1999 LM	tonne. km			-
Cargo ship	RoRo-Ferry	Average	tonne. km			-
Cargo ship	Large RoPax ferry	Average	tonne. km			-
Cargo ship	Refrigerated cargo	All dwt	tonne. km			-

22.

EMPLOYEES COMMUTING

EMPLOYEES COMMUTING

Transportation of employees between their homes and their worksites.

Please enter the total distance **(for passenger.km units, use # of passengers * km)**

Vehicle	Type	Fuel	Unit	Total distance	kg CO_2e
Cars (by size)	Small car	Battery Electric Vehicle	km		
Cars (by size)	Medium car	Battery Electric Vehicle	km		
Cars (by size)	Large car	Battery Electric Vehicle	km		
Cars (by size)	Average car	Battery Electric Vehicle	km		
Cars (by size)	Small car	CNG	km		
Cars (by size)	Medium car	CNG	km		
Cars (by size)	Large car	CNG	km		
Cars (by size)	Average car	CNG	km		
Cars (by size)	Small car	Diesel	km		
Cars (by size)	Medium car	Diesel	km		
Cars (by size)	Large car	Diesel	km		
Cars (by size)	Average car	Diesel	km		
Cars (by size)	Small car	Hybrid	km		
Cars (by size)	Medium car	Hybrid	km		
Cars (by size)	Large car	Hybrid	km		
Cars (by size)	Average car	Hybrid	km		

22.

EMPLOYEES COMMUTING

Vehicle	Type	Fuel	Unit	Total distance	kg CO_2e
Cars (by size)	Small car	LPG	km		
Cars (by size)	Medium car	LPG	km		
Cars (by size)	Large car	LPG	km		
Cars (by size)	Average car	LPG	km		
Cars (by size)	Small car	Petrol	km		
Cars (by size)	Medium car	Petrol	km		
Cars (by size)	Large car	Petrol	km		
Cars (by size)	Average car	Petrol	km		
Cars (by size)	Small car	Plug-in Hybrid Electric Vehicle	km		
Cars (by size)	Medium car	Plug-in Hybrid Electric Vehicle	km		
Cars (by size)	Large car	Plug-in Hybrid Electric Vehicle	km		
Cars (by size)	Average car	Plug-in Hybrid Electric Vehicle	km		
Cars (by size)	Small car	Unknown	km		
Cars (by size)	Medium car	Unknown	km		
Cars (by size)	Large car	Unknown	km		
Cars (by size)	Average car	Unknown	km		
Ferry	Foot passenger		passenger. km		
Ferry	Car passenger		passenger. km		

22.

EMPLOYEES COMMUTING

Vehicle	Type	Fuel	Unit	Total distance	kg CO_2e
Ferry	Average (all passenger)		passenger. km		
Motorbike	Small		km		
Motorbike	Medium		km		
Motorbike	Large		km		
Motorbike	Average		km		
Taxis	Regular taxi		km		
Taxis	Regular taxi		passenger. km		
Taxis	Black cab		km		
Taxis	Black cab		passenger. km		
Bus	Local bus (not London)		passenger. km		
Bus	Local London bus		passenger. km		
Bus	Average local bus		passenger. km		
Bus	Coach		passenger. km		
Rail	National rail		passenger. km		
Rail	International rail		passenger. km		
Rail	Light rail and tram		passenger. km		
Rail	London Underground		passenger. km		

23.

FOOD CONSUMPTION

FOOD CONSUMPTION

Food provided by the organization to be consumed by the employees (e.g. canteens)

Please mind the units for each type of food

Vehicle	Unit	Amount	kg CO_2e
1 standard breakfast	breakfast		
1 gourmet breakfast	breakfast		
1 cold or hot snack	hot snack		
1 average meal	meal		
Non-alcoholic beverage	litre		
Alcoholic beverage	litre		
1 hot snack (burger + frites)	hot snack		
1 sandwich	sandwich		
Meal, vegan	meal		
Meal, vegetarian	meal		
Meal, with beef	meal		
Meal, with chicken	meal		

24.

WORK FROM HOME

HOME OFFICE

The emission factors consider the energy consumption of the workstation, lighting, and cooling or heating
Find further comments on the cell's title

Assumptions:
48 (working weeks) * 5 days per week = 240 working days per year
240 (days/year) * 8 hours = 1,920 working hours per year
1,920 Working Hours / 12 = 160 working hours per month

Type of home office	Province	Unit	Number of employees	Working regime (For full-time: 100%)	% working from home (e.g. 50% from home)	Number of months	kg CO_2e
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					
		kWh					

OTORITAS JASA KEUANGAN

Otoritas Jasa Keuangan

Menara Radius Prawiro,
Kompleks Perkantoran Bank Indonesia
Jl. M. H. Thamrin No. 2 Jakarta 10350