

Carbon Majors Data Dictionary

The Carbon Majors dataset is available for download as CSV files with 3 levels of granularity: low, medium, and high.

Low granularity

column location	column name	description	unit	required	type	column location
emissions_low_granularity.csv	year	The year of the data point	-	yes	integer	emissions_low_granularity.csv
emissions_low_granularity.csv	parent_entity	The entity to whom the emissions are traced to	-	yes	string	emissions_low_granularity.csv
emissions_low_granularity.csv	parent_type	The type of the parent_entity. Can be one of: investor-owned company, state-owned entity, nation state.	-	yes	string	emissions_low_granularity.csv
emissions_low_granularity.csv	total_emissions_MtCO2e	The total emissions traced to the 'parent_entity' in the 'year'	Million tonnes of carbon dioxide equivalent (MtCO2e)	yes	float	emissions_low_granularity.csv

Medium granularity

column location	column name	description	unit	required	type	column location
emissions_medium_granularity.csv	year	The year of the data point	-	yes	integer	emissions_medium_granularity.csv
emissions_medium_granularity.csv	parent_entity	The entity to whom the emissions are traced to	-	yes	string	emissions_medium_granularity.csv
emissions_medium_granularity.csv	parent_type	The type of the parent_entity. Can be one of: investor-owned company, state-owned entity, nation state.	-	yes	string	emissions_medium_granularity.csv
emissions_medium_granularity.csv	commodity	Specifies which commodity the production refers to: Oil & NGL, Natural Gas, Anthracite Coal, Bituminous Coal, Lignite Coal, Metallurgical Coal, Sub-Bituminous Coal, Thermal Coal, or Cement.	-	yes	string	emissions_medium_granularity.csv
emissions_medium_granularity.csv	production_value	The quantity of production	-	yes	float	emissions_medium_granularity.csv
emissions_medium_granularity.csv	production_unit	The unit of production (Oil & NGL - million barrels, Natural Gas - billion cubic feet, Coal - million tonnes, Cement - million tonnes CO2 (see methodology for explanation))	Billion cubic feet per year (Bcf/yr), Million barrels per year (Million bbl/yr), or Million tonnes per year	yes	string	emissions_medium_granularity.csv

			(Million tonnes/yr)			
emissions_medium_granularity.csv	total_emissions_MtCO2e	The total emissions traced to the 'parent_entity' in the 'year'.	Million tonnes of carbon dioxide equivalent (MtCO2e)	yes	float	emissions_medium_granularity.csv

High granularity

column location	column name	description	unit	required	type	column location
emissions_high_granularity.csv	year	The year of the data point	-	yes	integer	emissions_high_granularity.csv
emissions_high_granularity.csv	parent_entity	The entity to whom the emissions are traced to	-	yes	string	emissions_high_granularity.csv
emissions_high_granularity.csv	parent_type	The type of the parent_entity. Can be one of: investor-owned company, state-owned entity, nation state.	-	yes	string	emissions_high_granularity.csv
emissions_high_granularity.csv	reporting_entity	The entity who reports the production. This can be different to the parent_entity if, for example, the parent_entity later acquires the reporting_entity.	-	yes	string	emissions_high_granularity.csv
emissions_high_granularity.csv	commodity	Specifies which commodity the production refers to: Oil & NGL, Natural Gas, Anthracite Coal, Bituminous Coal, Lignite Coal, Metallurgical Coal, Sub-Bituminous Coal, Thermal Coal, or Cement.	-	yes	string	emissions_high_granularity.csv
emissions_high_granularity.csv	production_value	The quantity of production	-	yes	float	emissions_high_granularity.csv
emissions_high_granularity.csv	production_unit	The unit of production (Oil & NGL - million barrels, Natural Gas - billion cubic feet, Coal - million tonnes, Cement - million tonnes CO2 (see methodology for explanation))	Billion cubic feet per year (Bcf/yr), Million barrels per year (Million bbl/yr), or Million tonnes per year (Million tonnes/yr)	yes	string	emissions_high_granularity.csv
emissions_high_granularity.csv	product_emissions_MtCO2	Emissions from the combustion of marketed products. These are Scope 3 emissions, specifically Category 11 'use of sold products'.	Million tonnes of carbon dioxide (MtCO2)	yes	float	emissions_high_granularity.csv
emissions_high_granularity.csv	flaring_emissions_MtCO2	Emissions from the flaring of CO2 at oil and gas facilities, including various upstream and midstream facilities, relevant to oil and gas production. These are Scope 1 emissions.	Million tonnes of carbon dioxide (MtCO2)	yes	float	emissions_high_granularity.csv

emissions_high_granularity.csv	venting_emissions_MtCO2	Emissions from the venting of CO2 from natural gas processing plants, relevant to oil and gas production. These are Scope 1 emissions.	Million tonnes of carbon dioxide (MtCO2)	yes	float	emissions_high_granularity.csv
emissions_high_granularity.csv	own_fuel_use_emissions_MtCO2	CO2 emissions resulting from entity's use of their own fuel, limited to gas production, primarily the difference between total gas produced and "gas available for sale". These are Scope 1 emissions.	Million tonnes of carbon dioxide (MtCO2)	yes	float	emissions_high_granularity.csv
emissions_high_granularity.csv	fugitive_methane_emissions_MtCH4	Fugitive methane emissions from coal mines, oil extraction and storage, and gas production, processing, and transportation systems, applicable to oil, gas, and coal production. These are Scope 1 emissions.	Million tonnes of methane (MtCH4)	yes	float	emissions_high_granularity.csv
emissions_high_granularity.csv	fugitive_methane_emissions_MtCO2e	Fugitive methane emissions from coal mines, oil extraction and storage, and gas production, processing, and transportation systems, applicable to oil, gas, and coal production. These are Scope 1 emissions.	Million tonnes of carbon dioxide equivalent (MtCO2e)	yes	float	emissions_high_granularity.csv
emissions_high_granularity.csv	total_operational_emissions_MtCO2e	This is the sum of the four scope 1 emissions (flaring, venting, own fuel use, fugitive methane. This value is given in units million tonnes of carbon dioxide equivalent.	Million tonnes of carbon dioxide equivalent (MtCO2e)	yes	float	emissions_high_granularity.csv
emissions_high_granularity.csv	total_emissions_MtCO2e	The total emissions traced to the 'parent_entity' in the 'year'. This value is given in units million tonnes of carbon dioxide equivalent.	Million tonnes of carbon dioxide equivalent (MtCO2e)	yes	float	emissions_high_granularity.csv
emissions_high_granularity.csv	source	The source of the data point	-	yes	string	emissions_high_granularity.csv