

CapeOmega

Carbon Accounting Report

2022



Partners Group
REALIZING POTENTIAL IN PRIVATE MARKETS

Carbon Accounting Report 2022

CapeOmega AS

This report provides an overview of the organization's greenhouse gas (GHG) emissions, which is an integrated part of the organization's climate strategy. Carbon accounting is a fundamental tool for identifying tangible measures to reduce GHG emissions. The annual carbon accounting report enables the organization to benchmark performance indicators and evaluate progress over time.

This report comprises the following organizational units: Bergen Office, Stavanger Office, Nyhamna, Receiving Terminals, and LNG Floating Transport.

The input data is based on consumption data from internal and external sources, which are converted into tons of CO₂-equivalents (tCO₂e). The carbon footprint analysis is based on the international standard; *A Corporate Accounting and Reporting Standard*, developed by the Greenhouse Gas Protocol Initiative (GHG Protocol). The GHG Protocol is the most widely used and recognized international standard for measuring greenhouse gas emissions and is the basis for the ISO standard 14064-1.

Reporting Year Energy and GHG Emissions

Emission source	Description	Consumption	Unit	Energy (MWh)	Emissions tCO ₂ e	% share
Electricity total				96.0	2.5	-
Electricity Nordic mix		96,017.2	kWh	96.0	2.5	-
Scope 2 total				96.0	2.5	-
Waste total				-	0.9	-
Residual waste, incinerated		1,686.4	kg	-	0.8	-
Water supply, municipal		164.7	m ³	-	-	-
EE waste, recycled		128.8	kg	-	-	-
Cardboard waste, recycled		444.4	kg	-	-	-
Glass waste, recycled		59.2	kg	-	-	-
Investments total				-	261,655.4	100.0 %
Natural gas	Kårstø 26.32%	201,057.2	tCO ₂ e	-	201,057.2	76.8 %
Natural gas	Kollsnes 26.32%	22,609.3	tCO ₂ e	-	22,609.3	8.6 %
Natural gas	Nyhamna 18.21%	7,028.0	tCO ₂ e	-	7,028.0	2.7 %
Natural gas	Polarled 28.27%	-	tCO ₂ e	-	-	-
Natural gas	Draupner 26.32%	3,596.0	tCO ₂ e	-	3,596.0	1.4 %
Natural gas	LRF Easington 26.32%	6,826.1	tCO ₂ e	-	6,826.1	2.6 %
Natural gas	St.Fergus 26.32%	1,373.6	tCO ₂ e	-	1,373.6	0.5 %
Natural gas	Emden/Dornum 26.32%	18,644.4	tCO ₂ e	-	18,644.4	7.1 %
Natural gas	Dunkerque Terminal DA 17.09%	428.0	tCO ₂ e	-	428.0	0.2 %
Natural gas	Zeepipe Terminal 12.9%	92.8	tCO ₂ e	-	92.8	-
LNG		-	liters	-	-	-
Business travel total				-	25.5	-
Mileage all. car (NO)		6,870.6	km	-	0.5	-
Air travel, continental, incl. RF		62.0	flight trip	-	10.5	-
Air travel, domestic, incl. RF		126.0	flight trip	-	14.3	-
Mileage all. el car EU27		270.9	km	-	-	-
Mileage all. el car Nordic		12,745.8	km	-	0.1	-
Employee commuting total				-	51.2	-
Air travel, domestic, incl. RF		450.0	flight trip	-	51.2	-
Scope 3 total				-	261,733.0	100.0 %
Total				96.0	261,735.4	100.0 %
KJ					345,661,920.0	

Reporting Year Market-Based GHG Emissions

Category	Unit	2022
Electricity Total (Scope 2) with Market-based calculations	tCO ₂ e	25.5
Scope 2 Total with Market-based electricity calculations	tCO ₂ e	25.5
Scope 1+2+3 Total with Market-based electricity calculations	tCO ₂ e	261,758.5

CapeOmega

CapeOmega aims to enable energy transitioning into low carbon-emitting energy solutions at a low-risk infrastructure-like yield. The company is maturing energy transitioning projects such as hydrogen and ammonia production coupled with carbon capture and storage, CO₂ transportation, offshore wind, and offshore power cables, and further increasing the company's exposure to fuel-efficient LNG shipping.

CapeOmega is an active partner, supporting efficient solutions and sound management of resources and infrastructure, supporting the future's carbon reduction ambitions and energy demand, in addition to an energy infrastructure group focusing on infrastructure solutions that enable the energy transition. CapeOmega is the largest private gas infrastructure owner in Norway, which includes 26% in Gassled JV, 28% in Polarled JV, 18% in Nyhamna JV, 12.9% in Zeepipe Terminal, and 17.1% in Dunkerque Terminal DA. This represents the world's largest offshore gas infrastructure system.

Further, the group is engaged in the shipping of energy-transitioning fuel and carbon capture solutions. We currently are invested in ten LNG vessels under construction. The newbuilds are expected to be up to 40% more fuel efficient than traditional LNG tankers and are on long-term charters with energy majors.

The group is backed by Partners Group a leading global infrastructure investor with USD 127 billion in assets under management. The group aims to invest in energy transition infrastructure with ongoing projects in Hydrogen production & transport and Carbon Capture & Storage (CCS).

Carbon Accounting 2022

CapeOmega defines its organizational boundary with the Control Approach for the consolidation of GHG emissions. CapeOmega has neither Financial Control nor Operational Control in Gassled JV, 28% in Polarled JV, and 18% in Nyhamna JV, and therefore the emissions of their investments will be reported in Scope 3, Investments.

In the carbon accounting for 2022, CapeOmega has a total emission of 261 735.4 tons of CO₂-equivalents (tCO₂e). This is an 8.9% decrease in emissions compared to 2021. The main reason for the reduction was a temporary stop in production at Kårstø in December. With the Covid-19 pandemic coming to an end, international travel is back to pre-pandemic levels in most of the world. As a result, CapeOmega has traveled significantly more abroad compared to the two previous years.

The greenhouse gas (GHG) emissions in 2022 were separated into Scope 1, 2, and 3 in the following way:

Scope 1: 0.0 tCO₂e (0%)
Scope 2: 2.5 tCO₂e (<0.001%)
Scope 3: 261 734.6 tCO₂e (<100%)

Scope 1

CapeOmega does not have any Scope 1 emissions to report.

Scope 2

CapeOmega calculates Scope 2 in accordance with the Location-based method¹ (Power-grid Nordic mix) and the marked-based method as recommended in the GHG protocol.

Electricity: Measured use of electricity in company-owned or leased locations. The table shows GHG emissions from electricity are calculated with the location-based emission factor Nordic Mix. The overall emissions from electricity in 2022 is 2.5 tCO₂e, a 0.4 tCO₂e decrease from 2021 despite an increase in electricity consumption as illustrated in the figure on page 6. From 2021 to 2022, the emission factor Nordic Mix has reduced its carbon footprint from 31 kgCO₂e/kWh to 26 kgCO₂e/kWh, a 16% reduction (IEA, 2022). The increase in renewable energy in the Nordic region is the main reason for this reduction of GHG emissions per kWh used.

This report also presents electricity with a market-based emission factor at the top of page 3. CapeOmega did not purchase Guarantees of Origins for their electricity use in 2022. To calculate the marked-based emissions a European Residual mix is applied. In 2022 the emissions from electricity were 25.5 tCO₂e with the marked-based method, a 3.2 tCO₂e increase compared to 2021. The purpose of presenting the emissions from electricity consumption with two different emission factors is further explained under Scope 2 in Method.

Scope 3

Waste: Reported waste in kg divided into different waste fractions, as well as treatment methods (recycled, energy recovered, landfilled). There was a small increase in waste disposal from 2021 to 2022. This is most likely a result of the employees returning to the office after the pandemic and returning to business as usual.

Business travel: Measured in flights and kilometers. Air travel accounted for GHG emissions of 25.5 tCO₂e in 2022. Emissions linked to travel activity have increased significantly after the pandemic.

Employee Commuting: Measured in flights. CapeOmega has 5 employees that commute on average twice a week, 45 weeks a year. Employee commuting accounted for 51.2 tCO₂e in 2022.

Investments: The emissions from CapeOmega's investments come from the operator of the gas fields, Gassco. GHG emissions for 2021 and 2022 are based on a 12-month average. The total emission for 2022 is 261 644.4 tCO₂e, a significant decrease compared to the 287 309.6 tCO₂e of 2021. The reduction was caused by a gas leak in December 2022. CapeOmega has partnered with Knutsen OAS Shipping, a global leader in LNG shipping, to construct and charter four LNG vessels. The vessels are under construction and to be delivered in 2023. This will have a significant impact on CapeOmega's total GHG emissions for 2023.

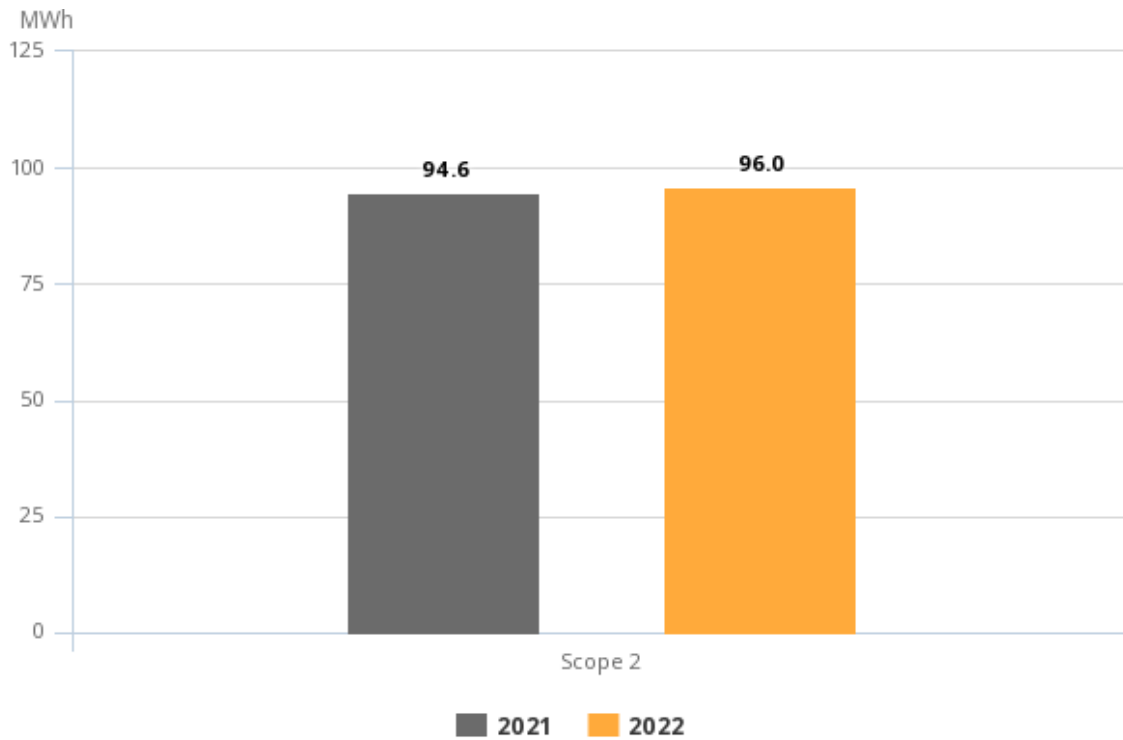
Internal climate goal

Close to 100% of Cape Omega's carbon footprint comes from our Scope 3, Investments. CapeOmega is an infrastructure provider to the oil and gas industry, and the best way to contribute to carbon emissions reduction is to maximize uptime and prevent leaks. The CO₂e kg/t product is trending downwards. In 2022, CapeOmega and their Co-owners overshot their Climate Impact KPI with 2.95 CO₂e kg/t prod, lower than their target, proving that their focus on maintenance and monitoring is paying dividends. CapeOmega seeks to invest in critical infrastructure that supports the energy transition including the transmission of gases to European markets, emission reduction technologies, and CO₂ transportation to offshore permanent storage sites. As previously mentioned, the group aims to invest in ongoing projects in Hydrogen production & transport and Carbon Capture & Storage (CCS).

Annual GHG Emissions

Category	Description	2020	2021	2022	% change from previous year
Electricity total		-	2.9	2.5	-14.9 %
Electricity Norway		-	-	-	-
Electricity Nordic mix		-	2.9	2.5	-14.9 %
Scope 2 total		-	2.9	2.5	-14.9 %
Waste total		-	0.7	0.9	19.8 %
Water supply, municipal		-	-	-	139.4 %
Residual waste, incinerated		-	0.7	0.8	18.5 %
Cardboard waste, recycled		-	-	-	-19.4 %
Organic waste, treated		-	-	-	-100.0 %
Glass waste, recycled		-	-	-	572.7 %
EE waste, recycled		-	-	-	100.0 %
Investments total		-	287,309.6	261,655.4	-8.9 %
Natural gas	Kårstø 26.32%	-	224,599.2	201,057.2	-10.5 %
Natural gas	Nyhamna 18.21%	-	7,597.6	7,028.0	-7.5 %
Natural gas	Polarled 28.27%	-	-	-	-
Natural gas	Kollsnes 26.32%	-	23,066.8	22,609.3	-2.0 %
Natural gas	Draupner 26.32%	-	4,164.0	3,596.0	-13.6 %
Natural gas	LRF Easington 26.32%	-	7,522.0	6,826.1	-9.3 %
Natural gas	St.Fergus 26.32%	-	2,293.6	1,373.6	-40.1 %
Natural gas	Emden/Dornum 26.32%	-	17,285.2	18,644.4	7.9 %
Natural gas	Zeepipe Terminal 12.9%	-	282.4	92.8	-67.1 %
Natural gas	Dunkerque Terminal DA 17.09%	-	498.8	428.0	-14.2 %
LNG		-	-	-	-
Business travel total		-	12.6	25.5	102.1 %
Air travel, domestic, incl. RF		-	6.1	14.3	133.3 %
Air travel, continental, incl. RF		-	6.0	10.5	77.1 %
Mileage all. car (NO)		-	0.4	0.5	18.6 %
Mileage all. el car Nordic		-	0.1	0.1	-9.9 %
Mileage all. el car EU27		-	-	-	100.0 %
Employee commuting total		-	51.2	51.2	-
Air travel, domestic, incl. RF		-	51.2	51.2	-
Scope 3 total		-	287,374.2	261,733.0	-8.9 %
Total		-	287,377.1	261,735.4	-8.9 %
Percentage change		-	100.0 %	-8.9 %	

Annual energy consumption (MWh) Scope 1 & 2



Annual Market-Based GHG Emissions

Category	Unit	2020	2021	2022
Electricity Total (Scope 2) with Market-based calculations	tCO ₂ e	-	22.0	25.5
Scope 2 Total with Market-based electricity calculations	tCO ₂ e	-	22.0	25.5
Scope 1+2+3 Total with Market-based electricity calculations	tCO ₂ e	-	287,396.2	261,758.5
Percentage change		-	100.0 %	-8.9 %

Annual Key Energy and Climate Performance Indicators

Name	Unit	2020	2021	2022	% change from previous year
Scope 1 + 2 emissions (tCO ₂ e)		-	2.9	2.5	-14.9 %
Total emissions (s1+s2+s3) (tCO ₂ e)		-	287,377.1	261,735.4	-8.9 %
Total energy scope 1 +2 (MWh)		-	94.6	96.0	1.5 %
Sum energy per location (MWh)		-	94.6	96.0	1.5 %
Sum square meters (m ²)		781.0	1,042.8	1,042.8	-
Sum locations kWh/m ²		-	90.7	92.1	1.5 %

Methodology

The Greenhouse Gas Protocol Initiative (GHG Protocol) was developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). This analysis is done according to *A Corporate Accounting and Reporting Standard Revised edition*, currently one of four GHG Protocol accounting standards for calculating and reporting GHG emissions. The reporting considers the following greenhouse gases, all converted into CO₂-equivalents: CO₂, CH₄ (methane), N₂O (laughing gas), SF₆, HFCs, PFCs, and NF₃.

For corporate reporting, two distinct approaches can be used to consolidate GHG emissions: the equity share approach and the control approach. The most common consolidation approach is the control approach, which can be defined in either financial or operational terms.

The carbon inventory is divided into three main scopes of direct and indirect emissions.

Scope 1 includes all direct emission sources. This includes all use of fossil fuels for stationary combustion or transportation, is owned and, depending on the consolidation approach selected, leased, or rented assets. It also includes any process emissions, e.g., chemical processes, industrial gases, direct methane emissions, etc.

Scope 2 includes indirect emissions related to purchased energy; electricity and heating/cooling where the organization has operational control. The electricity emission factors used in Cemasys are based on national gross electricity production mixes from the International Energy Agency's statistics (IEA Stat). Emission factors per fuel type are based on assumptions in the IEA methodological framework. Factors for district heating/cooling are either based on actual (local) production mixes or average IEA statistics.

In January 2015, the GHG Protocol published new guidelines for calculating emissions from electricity consumption. Primarily two methods are used to "allocate" the GHG emissions created by electricity generation to the end consumers of a given grid. These are the location-based and the market-based methods. The location-based method reflects the average emission intensity of the grids on which energy consumption occurs, while the market-based method reflects emissions from the electricity that companies have purposefully chosen (or not chosen).

Organizations who report on their GHG emissions will now have to disclose both the location-based emissions from the production of electricity and the market-based emissions related to the potential purchase of Guarantees of Origin (GoOs) and Renewable Energy Certificates (RECs).

The purpose of this amendment in the reporting methodology is on the one hand to show the impact of energy efficiency measures, and on the other hand to display how the acquisition of GoOs or RECs affects GHG emissions. Using both methods in the emission reporting highlights the effect of all measures regarding electricity consumption.

The location-based method: The location-based method is based on statistical emissions information and electricity output aggregated and averaged within a defined geographic boundary and during a defined time period. Within this boundary, the different energy producers utilize a mix of energy resources, where the use of fossil fuels (coal, oil, and gas) results in direct GHG emissions. These emissions are reflected in the

location-based emission factor.

The market-based method: The choice of emission factors when using this method is determined by whether the business acquires GoOs/RECs or not. When selling GoOs or RECs, the supplier certifies that the electricity is produced exclusively by renewable sources, which have an emission factor of 0 grams CO₂e per kWh. However, for electricity without the GoO or REC, the emission factor is based on the remaining electricity production after all GoOs and RECs for renewable energy are sold. This is called a residual mix, which is normally substantially higher than the location-based factor. As an example, the market-based Norwegian residual mix factor is approximately 7 times higher than the location-based Nordic mix factor. The reason for this high factor is due to Norway's large export of GoOs/RECs to foreign consumers. From a market perspective, this implies that Norwegian hydropower is largely substituted with an electricity mix including fossil fuels.

Scope 3 includes indirect emissions resulting from value chain activities. The scope 3 emissions are a result of the company's upstream and downstream activities, which are not controlled by the company, i.e. they are indirect. Examples are business travel, goods transportation, waste handling, consumption of products etc.

In general, carbon accounting should include information that users, both internal and external to the company, need for their decision-making. An important aspect of relevance is the selection of an appropriate inventory boundary that reflects the substance and economic reality of the company's business relationships.

Estimates: For commuting, the total number of flights was estimated due to a lack of data. When using "Flights" as input, the number of flights is multiplied by the average emission for the distance, e.g., average emission for domestic flights, and continental and intercontinental flights.

Sources

[Department for Business, Energy & Industrial Strategy](#) (2022). Government emission conversion factors for greenhouse gas company reporting (DEFRA)

IEA (2022). Emission Factors database, International Energy Agency (IEA), Paris.

IMO (2020). Reduction of GHG emissions from ships - Third IMO GHG Study 2014 (Final report). International Maritime Organisation, <http://www.iadc.org/wp-content/uploads/2014/02/MEPC-67-6-INF3-2014-Final-Report-complete.pdf>

IPCC (2014). IPCC fifth assessment report: Climate change 2013 (AR5 updated version November 2014). <http://www.ipcc.ch/report/ar5/>

AIB, RE-DISS (2020). Reliable disclosure systems for Europe – Phase 2: European residual mixes.

WBCSD/WRI (2004). The greenhouse gas protocol. A corporate accounting and reporting standard (revised edition). World Business Council on Sustainable Development (WBCSD), Geneva, Switzerland /World Resource Institute (WRI), Washington DC, USA, 116 pp.

WBCSD/WRI (2011). Corporate value chain (Scope 3) accounting and reporting standard: Supplement to the GHG Protocol corporate accounting and reporting standard. World Business Council on Sustainable Development (WBCSD), Geneva, Switzerland /World Resource Institute (WRI), Washington DC, USA, 149 pp.

WBCSD/WRI (2015). GHG protocol Scope 2 guidance: An amendment to the GHG protocol corporate standard. World Business Council on Sustainable Development (WBCSD), Geneva, Switzerland /World Resource Institute (WRI), Washington DC, USA, 117 pp.