



Carbon Accounting Report 2024

Wenaas Workwear 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. GHG emissions accounting is a fundamental tool in identifying tangible measures to reduce GHG emissions. The annual GHG emissions accounting report enables the organization to benchmark performance indicators and evaluate progress over time. Consolidation approach used for the GHG emissions accounting: scope 1, 2 and 3 (partial). This report covers emissions across the following organizational scopes:

- Scope 1 includes direct GHG emissions from our company vehicles.
- Scope 2 encompasses indirect GHG emissions of the energy consumption—electricity and heating across all warehouses, retail stores, and office facilities.
- Scope 3, which represents indirect value chain emissions, accounts for approximately 99% of our total emissions footprint.

Areas within Scope 3; Fuel-and-energy-related activities (upstream), Purchased goods and services (7 suppliers on own brand), Upstream transportation and distribution (sea containers, air, and trucks), Downstream transportation and distribution (trucks and rail freight for local, longer distances and European bulk transportation), Waste (organic-, wood-, residual-, mixed-, plastic- and EE waste), Business travel (air travel domestic and continental, additionally to car), End-of-life treatment of products sold (destruction through third party), IT and Communication (IT equipment and Autostore) and Packaging (outbound packaging).

Within Scope 3, upstream transportation and distribution contribute the largest share at 74%, followed by downstream transportation at 21%. Emissions from purchased goods and services currently make up only 4%, though this figure is likely understated. It should be noted that the current share attributed to purchased goods and services is preliminary and expected to increase as supplier data becomes more robust. We are in the initial phase of engaging Tier 1 key suppliers to collect primary data on emissions associated with raw materials and finished goods, additionally to environmental footprint in manufacturing stage.

Reporting Year Energy and GHG Emissions

Emission source	Description	Consumption	Unit	Energy (MWh)	Emissions tCO ₂ e	% share
Transportation total				198.8	52.2	-
Diesel	Company cars - Norway	12,830.5	liters	127.4	34.1	-
Diesel	Company cars - UK	1,581.2	liters	15.7	4.2	-
Petrol	Company car (PHEV) - Netherlands	1,337.7	liters	12.4	3.1	-
Petrol	Company cars - Norway	2,922.1	liters	27.0	6.9	-
Petrol	Company cars (Hybrid) - Sweden	603.0	liters	5.6	1.4	-
Diesel (NO)	Truck - Norway	1,093.7	liters	10.7	2.4	-
Scope 1 total				198.8	52.2	-
Electricity total				754.1	16.5	-
Electricity Norway	Office - HQ	506,379.0	kWh	506.4	3.5	-
Electricity Norway	Office - Oslo, BREEM certificate	45,720.0	kWh	45.7	0.3	-
Electricity Norway	Office - Stavanger & Ålesund	110,121.0	kWh	110.1	0.8	-
Electricity Netherlands	Warehouse with 6 solar panels	28,847.0	kWh	28.8	8.2	-
Electricity Sweden	Office	37,900.0	kWh	37.9	0.4	-
Electricity UK	Warehouse & office	16,398.0	kWh	16.4	3.2	-
Electric car EU27	Company car (PHEV) - Netherlands	2,983.0	kWh	3.0	-	-
Electric car Sweden	Company cars (incl. hybrid)	30,298.0	km	5.8	-	-
District heating location total				82.2	0.9	-
District heating NO/Oslo	Office - Oslo, BREEM certificate	82,178.0	kWh	82.2	0.9	-
Scope 2 total				836.3	18.2	-
Purchased goods and services total				-	10,214.2	4.3 %
Polyester fabric (T1-4)	Polyester composition	4,319.3	kg	-	47.9	-
Polyester fabric (T1-4)	Polyester /modacrylic composition >50%	9,217.8	kg	-	102.2	-
Polyester fabric (T1-4)	Polyester/nylon composition >65%	229,699.4	kg	-	2,547.4	1.1 %
Polyester fabric (T1-4)	Polyester/nylon/spandex material	5,801.8	kg	-	64.3	-
Cotton fabric, conventional (T1-4)	Cotton composition >50%	99,747.5	kg	-	978.5	0.4 %
Cotton fabric, conventional (T1-4)	Cotton composition >74-100%	60,362.4	kg	-	592.2	0.3 %
Cotton fabric, conventional (T1-4)	Cotton composition	2,589.2	kg	-	25.4	-
Viscose/Rayon fabric (T1-4)	FR viscose composition >50%	9,777.5	kg	-	154.6	0.1 %
Lyocell fabric (T1-4)	LenzingFR composition >50-70%	3,678.2	kg	-	50.5	-
Acrylic fabric (T1-4)	Modacrylic composition >35-50%	528.7	kg	-	6.9	-
Cotton fabric, BCI (T1-4)	Cotton composition >70-99%	170,250.2	kg	-	1,532.3	0.6 %
Cotton fabric, BCI (T1-4)	BCI-cotton composition 100%	42,216.4	kg	-	379.9	0.2 %
Polyester fabric, recycled (T1-4)	Recycled (GRS) polyester composition >74-100%	25,847.8	kg	-	217.4	0.1 %
Tencel fabric (T1-4)	LenzingFR composition >65-80%	2,896.8	kg	-	28.8	-
Modal fabric (T1-4)	Modacrylic composition >60%	2,369.9	kg	-	37.5	-
Wool, fine (T1-4)	Wool composition	2.2	kg	-	0.1	-
Latex	Latex material	1,314.1	kg	-	3.6	-
Nitrile gloves (A1-A3)	Nitrile material	5,037.3	kg	-	31.2	-
Polyurethane fabric (T1-4)	HPPE/Glass fiber material	7,623.9	kg	-	113.2	-
Steel, stainless	Steel material (gloves)	829.5	kg	-	3.1	-

Polypropylene fabric (T1-4)	>50% Polyurethane (mixed with nylon and polyester)	20,906.5 kg	-	227.9	0.1 %
Leather, cow (T1-4)	100% Cowhide Split Leather (lining in Para Aramid and polyester)	22,064.7 kg	-	792.1	0.3 %
Leather, goat (T1-4)	100% Goatskin Leather (lining in Para aramid, polyester, and glass)	114,574.9 kg	-	2,261.7	1.0 %
Rubber, TPE	TPR (Thermoplastic rubber) > 50%	5,700.6 kg	-	15.6	-
Fuel-and-energy-related activities total			-	21.2	-
Petrol (WTT)	Company car	3,525.1 liters	-	2.1	-
Petrol (WTT)	Company car (PHEV)	1,337.7 liters	-	0.8	-
Diesel (WTT)	Company car	14,411.7 liters	-	9.0	-
Electricity UK (upstream)	Warehouse	16,398.0 kWh	-	1.0	-
Electricity Netherlands (upstream)	Warehouse	28,847.0 kWh	-	1.8	-
Electricity Netherlands (upstream)	company car	2,983.0 kWh	-	0.2	-
Electricity Sweden (upstream)	Office	37,900.0 kWh	-	0.5	-
Electricity Sweden (upstream)	Company cars (incl. hybrid)	30,298.0 kWh	-	0.4	-
Electricity Norway (upstream)	Office - Stavanger & Ålesund	110,121.0 kWh	-	0.7	-
Electricity Norway (upstream)	Office - Oslo, BREEM certificate	45,720.0 kWh	-	0.3	-
Electricity Norway (upstream)	Warehouse	506,379.0 kWh	-	3.2	-
District heating NO/SE (upstream)	Office - Oslo, BREEM certificate	82,178.0 kWh	-	0.4	-
Diesel (NO) WTT	Truck - Norway	1,093.7 liters	-	0.7	-
Upstream transportation and distribution total			-	175,197.6	74.2 %
Sea Container 5000-7999 TEU	Both FCL & LCL	9,245,180,692.1 tkm	-	155,411.5	65.8 %
Truck with trailer 33t+	European suppliers	45.1 tCO ₂ e	-	45.1	-
Air Intercontinental freight	Due to congestion	30,429,325.2 tkm	-	19,741.0	8.4 %
Waste total			-	27.9	-
Concrete block	Concrete materials with reinforcement - Oslo	1,401.4 kg	-	0.2	-
Organic waste, anaerobic digestion	Aerobic, biological treatment - Oslo	27.0 kg	-	-	-
Organic waste, anaerobic digestion	Aerobic, biological treatment HQ	2,060.0 kg	-	-	-
Residual waste, incinerated	Residual waste - Oslo	4,245.9 kg	-	2.1	-
Residual waste, incinerated	Residual waste HQ	46,790.0 kg	-	22.8	-
Residual waste, incinerated	Residual waste Scotland	742.0 kg	-	0.4	-
Residual waste, incinerated	Residual waste Netherlands	1.5 kg	-	-	-
Residual waste, incinerated	Residual unsorted waste - Stavanger	3,401.0 kg	-	1.7	-
Mixed waste, recycled	Mixed waste HQ	114,816.0 kg	-	0.7	-
Residual waste, landfill	Residual waste HQ	158.0 kg	-	0.1	-
Paper waste, recycled	Paper waste Scotland	1,571.0 kg	-	-	-
Paper waste, recycled	Paper waste Netherlands	359.0 kg	-	-	-
Paper waste, recycled	Cartons & paper waste - Stavanger	3,330.0 kg	-	-	-
Paper waste, recycled	Cartons & paper waste - Oslo	650.2 kg	-	-	-
Plastic PP-folio waste, recycled	Folie plastic Netherlands	71.2 kg	-	-	-
EE waste, recycled	Electrical waste HQ	324.0 kg	-	-	-
Plastic waste, recycled	Foil and mixed plastic waste - Oslo	47.8 kg	-	-	-
Glass waste, recycled	Mixed glass/metal - Oslo	9.8 kg	-	-	-
Business travel total			-	100.1	-
Air travel, domestic	Domestic - Roundtrip (74%)	160,080.0 pkm	-	25.8	-
Air travel, continental	International - Roundtrip (26%)	403,349.0 pkm	-	44.2	-
Car travel	Travel expense basis for car allowance	182,729.7 pkm	-	30.1	-
Downstream transportation and distribution total			-	50,266.6	21.3 %

Truck 3.5-7.5t	Local distribution	8,590,000.0 km	-	4,186.2	1.8 %
Truck with trailer 33t+	Longer distribution distance	50,480,000.0 km	-	46,061.5	19.5 %
Truck with trailer 33t+	European bulk distribution	8.6 tCO ₂ e	-	8.6	-
Rail freight	Train Diesel	4,987.0 tkm	-	0.1	-
Transportation	B2B delivery (UK - 0.6944kgCo ₂ e)	2,661.2 kgCO ₂ e	-	2.7	-
Transportation HVO	B2B delivery (NL - GoGreen Certification)	7,532.7 kgCO ₂ e	-	7.5	-
Rail freight, eI. Nordic	Electric train - downstream distribution	8,198.0 tkm	-	-	-
End-of-life treatment of sold products total				8.6	-
Residual waste, incinerated	Residual waste (destruction on behalf of customers)	17,700.0 kg	-	8.6	-
Scope 3 IT and Communication total				82.3	-
Desktop computer all-in-one	Client incl. network	104.0 Qty	-	43.0	-
Printer, laser, color	Client	8.0 Qty	-	0.5	-
Headphones, Jabra Evolve2 55 (A1-3)	Client	296.0 Qty	-	1.1	-
Smartphone, Samsung Galaxy Z Fold4 (A1-3)	Client	2.0 Qty	-	-	-
Keyboard	Client, incl. barcode readers	41.0 Qty	-	1.2	-
Apple iPhone 15	Client	14.0 Qty	-	0.6	-
Monitor 27"	Client	91.0 Qty	-	35.9	-
Power adapter, laptop	Client, incl. network adapters	3.0 Qty	-	-	-
Power adapter, smartphone	Client	6.0 Qty	-	-	-
Scope 3 - Packaging total				77.4	-
Paper, mixed	Outbound packaging (FSC mix certified)	60,276.7 kg	-	77.3	-
Plastic packaging waste, recycled	Outbound packaging	6,579.0 kg	-	-	-
Scope 3 total				235,995.8	100.0 %
Total*				1,035.1	236,066.3
kj*				3,726,323,859.6	
*The total numbers for MWh and kJ include only Scope 1 + Scope 2					

Reporting Year Market-Based GHG Emissions

Category	Unit	2024
Electricity Total (Scope 2) with Market-based calculations	tCO ₂ e	417.5
Scope 2 Total with Market-based electricity calculations	tCO ₂ e	418.4
Scope 1+2+3 Total with Market-based electricity calculations	tCO ₂ e	236,466.1

The above data provides a comprehensive summary of the GHG emissions accounting of Wenaas Workwear AS for the reporting year. It illustrates the scopes and scope 3 categories included, along with the respective emission sources. The table presents consumption data and its corresponding reporting unit (e.g., kg, liters, kgCO₂e, km), consumption data converted into energy (MWh) and tCO₂e, and the % share each emission source represented in the overall GHG emissions accounting.

Summarized, Wenaas Workwear tCo₂e emissions in total are 236,066.3tCo₂e and per scope for 2024:

- Scope 1: 52.2 tCO₂e
- Scope 2: 18.2 tCO₂e
- Scope 3: 235,995.8 tCO₂e

Comment on Scope 3 Upstream and Downstream Transportation Emissions

In 2024, transportation from Asia to Europe encountered significant challenges due to a combination of external factors affecting both sea and air freight. Key issues include continued disruptions in the Red Sea, rising demand, and limited capacity across logistics networks. The reported increase in air freight vs. sea freight - measured in terms of cost of goods sold (COGS) - reflects broader economic factors rather than just logistical metrics such as ton-kilometers or CO₂ emissions. Notably, air freight rates increased twice as much in 2024, compared to sea freight rates, highlighting a steeper rise in cost for air transport. Despite the higher costs, the use of air freight over sea freight is also increasing for the following reasons:

- Growth - Wenaas is increasing sales, consequently the need for faster access to goods also increases.
- War - sea freight from Asia to Europe has changed its sailing route to around Africa due to conflicts in and around the Red Sea, with longer lead times, thus reducing capacity.
- Politics - in anticipation of a political trade war in the US, American importers expedited and secured goods from Asia in Q2, 3 and 4, which resulted in a shift of capacity from Europe to America, thus further reducing capacity.

Forward, we are looking into the possibility of offering 100% emission-free freight from our main warehouse to customers in all major Norwegian cities. In collaboration with PostNord, by introducing an optional transport product with a "green corridor" using the Rauma Line between the terminals. This opportunity will "cost" in the form of +1 day in transport time. However, we see it as having great potential to reduce external emissions from downstream transportation to B2B customers who would want to participate in such an environmentally scheme.

Scope 3 Emissions summary - Supply Chain Impacts

In conclusion, several projects have been initiated to enhance data granularity and improve supplier reporting capacity, particularly for emissions hot spots across materials and production stages - minimizing water use and reliance on renewable energy. Our supplier engagement program includes emissions data sharing, investigating into lifecycle assessments (LCAs), and integration of sustainability requirements into developments. Additionally, we are prioritizing sustainable certifications and standards across Tier 2 and Tier 3, particularly in the areas of material sourcing, dyeing, and finishing processes. These efforts are designed to strengthen our resilience to regulatory shifts, supply chain disruptions, and changing consumer expectations.

Data Sources and Methodologies for GHG Emissions Estimation

The input in this report is based on consumption data from internal and external sources, which has then been converted into tons CO₂-equivalents (tCO₂e) using generic and/or specific emission factors. GHG emissions accounting 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 on a company level, and is the basis for the ISO standard 14064-1.

Annual GHG Emissions

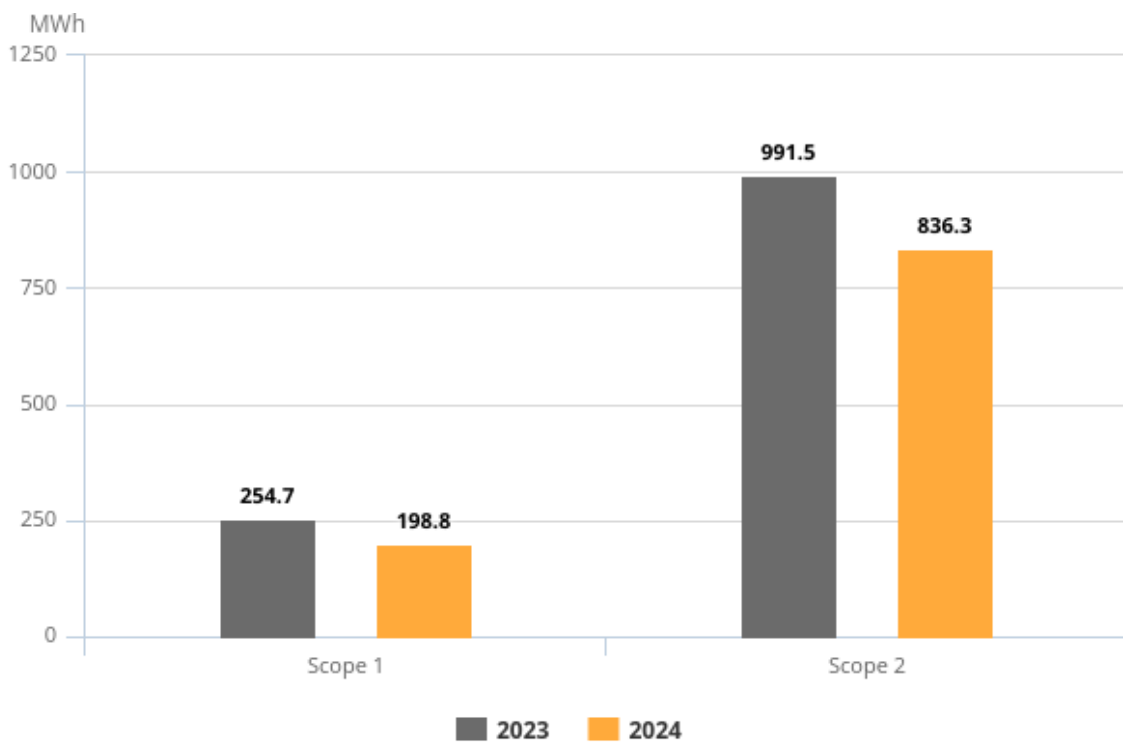
Category	Description	2022	2023	2024	% change from previous year
Transportation total		-	65.3	52.2	-20.1 %
Diesel	Company cars	-	18.2	-	-100.0 %
Diesel	Company cars - Norway	-	-	34.1	100.0 %
Diesel	Company cars - UK	-	-	4.2	100.0 %
Petrol	1 company car (PHEV).	-	3.6	-	-100.0 %
Petrol	Company car (PHEV) - Netherlands	-	-	3.1	100.0 %
Petrol	Company cars	-	38.5	-	-100.0 %
Petrol	Company cars - Norway	-	-	6.9	100.0 %
Petrol	Company cars (Hybrid) - Sweden	-	-	1.4	100.0 %
Diesel (NO)	Truck	-	4.9	-	-100.0 %
Diesel (NO)	Truck - Norway	-	-	2.4	100.0 %
Scope 1 total		-	65.3	52.2	-20.1 %
Electricity location-based total		-	16.7	17.3	3.6 %
Electricity Norway	Consumption electricity office	-	4.9	-	-100.0 %
Electricity Norway	Office - HQ	-	-	3.5	100.0 %
Electricity Norway	Office - Oslo, BREEM certificate	-	-	0.3	100.0 %
Electricity Norway	Office - Stavanger & Ålesund	-	-	0.8	100.0 %
Electricity Norway	Electric train - downstream distribution	-	0.4	-	-100.0 %
Electricity Netherlands	Consumption electricity warehouse with 6 solar panels on the roof.	-	8.0	-	-100.0 %
Electricity Netherlands	Warehouse with 6 solar panels	-	-	8.2	100.0 %
Electricity Netherlands	Consumption electricity PHEV car	-	0.2	-	-100.0 %
Electricity Sweden	Consumption electricity office	-	0.3	-	-100.0 %
Electricity Sweden	Office	-	-	0.4	100.0 %
Electricity UK	Consumption electricity warehouse & office	-	2.8	-	-100.0 %
Electricity UK	Warehouse & office	-	-	3.2	100.0 %
Electric car EU27	Company car (PHEV) - Netherlands	-	-	0.7	100.0 %
Electric car Sweden	Company cars (incl. hybrid)	-	-	0.1	100.0 %
District heating location total		-	0.6	0.9	50.0 %
District heating NO/Oslo	Consumption district heating of office	-	0.6	-	-100.0 %
District heating NO/Oslo	Office - Oslo, BREEM certificate	-	-	0.9	100.0 %
Scope 2 total		-	17.3	18.2	5.2 %
Purchased goods and services total		-	8,647.6	10,214.2	18.1 %
Cotton fabric, conventional (T1-4)	Cotton composition	-	138.2	25.4	-81.6 %
Cotton fabric, conventional (T1-4)	Cotton composition >50%	-	421.9	978.5	131.9 %
Cotton fabric, conventional (T1-4)	Cotton composition >70%	-	898.1	-	-100.0 %
Cotton fabric, conventional (T1-4)	Cotton composition >74%	-	406.6	-	-100.0 %
Cotton fabric, conventional (T1-4)	Cotton composition >74-100%	-	-	592.2	100.0 %
Cotton fabric, conventional (T1-4)	Cotton composition 100% Cotton	-	792.3	-	-100.0 %
Polyester fabric (T1-4)	Polyester composition	-	154.6	47.9	-69.0 %
Polyester fabric (T1-4)	Polyester composition >65%	-	1,472.9	-	-100.0 %
Polyester fabric (T1-4)	Polyester /modacrylic composition >50%	-	-	102.2	100.0 %

Polyester fabric (T1-4)	Polyester/nylon composition >65%	-	-	2,547.4	100.0 %
Polyester fabric (T1-4)	Polyester composition >50%	-	80.8	-	-100.0 %
Polyester fabric (T1-4)	Polyester/nylon/spandex material	-	-	64.3	100.0 %
Viscose/Rayon fabric (T1-4)	FR viscose composition >50%	-	496.4	154.6	-68.9 %
Acrylic fabric (T1-4)	Modacrylic (35-50%)	-	59.8	-	-100.0 %
Acrylic fabric (T1-4)	Modacrylic composition >35-50%	-	-	6.9	100.0 %
Nitrile gloves (A1-A3)	Item 289, 299, 11300	-	159.2	-	-100.0 %
Nitrile gloves (A1-A3)	Nitrile material	-	-	31.2	100.0 %
Tencel fabric (T1-4)	LenzingFR composition >50-65%	-	23.5	-	-100.0 %
Tencel fabric (T1-4)	LenzingFR composition >65-80%	-	-	28.8	100.0 %
Polyester fabric, recycled (T1-4)	Polyester composition >65%	-	60.8	-	-100.0 %
Polyester fabric, recycled (T1-4)	Recycled (GRS) polyester composition >74-100%	-	-	217.4	100.0 %
Leather, goat (T1-4)	100% Goatskin Leather (lining in Para aramid, polyester, and glass)	-	1,326.6	2,261.7	70.5 %
Polyurethane fabric (T1-4)	>50% Polyurethane (mixed with nylon and polyester)	-	411.8	-	-100.0 %
Polyurethane fabric (T1-4)	HPPE/Glass fiber material	-	-	113.2	100.0 %
Lyocell fabric (T1-4)	LenzingFR composition >50-70%	-	11.5	50.5	339.1 %
Cotton fabric, BCI (T1-4)	Cotton composition >70-99%	-	-	1,532.3	100.0 %
Cotton fabric, BCI (T1-4)	BCI-cotton composition 100%	-	-	379.9	100.0 %
Modal fabric (T1-4)	Modacrylic composition >60%	-	-	37.5	100.0 %
Polypropylene fabric (T1-4)	Modacrylic composition >50%	-	700.3	-	-100.0 %
Polypropylene fabric (T1-4)	>50% Polyurethane (mixed with nylon and polyester)	-	-	227.9	100.0 %
Latex	Item 11200	-	5.1	-	-100.0 %
Latex	Latex material	-	-	3.6	100.0 %
Leather, cow (T1-4)	100% Cowhide Split Leather (lining in Para Aramid and polyester)	-	1,024.4	792.1	-22.7 %
Wool, fine (T1-4)	Wool composition	-	2.9	0.1	-96.6 %
Steel, stainless	Steel material (gloves)	-	-	3.1	100.0 %
Rubber, TPE	TPR (Thermoplastic rubber) > 50%	-	-	15.6	100.0 %
Fuel and energy-related activities total		-	-	21.2	-
Petrol (WTT)	Company car	-	-	2.1	100.0 %
Petrol (WTT)	Company car (PHEV)	-	-	0.8	100.0 %
Diesel (WTT)	Company car	-	-	9.0	100.0 %
Electricity UK (upstream)	Warehouse	-	-	1.0	100.0 %
Electricity Netherlands (upstream)	Warehouse	-	-	1.8	100.0 %
Electricity Netherlands (upstream)	company car	-	-	0.2	100.0 %
Electricity Sweden (upstream)	Office	-	-	0.5	100.0 %
Electricity Sweden (upstream)	Company cars (incl. hybrid)	-	-	0.4	100.0 %
Electricity Norway (upstream)	Office - Stavanger & Ålesund	-	-	0.7	100.0 %
Electricity Norway (upstream)	Office - Oslo, BREEM certificate	-	-	0.3	100.0 %
Electricity Norway (upstream)	Warehouse	-	-	3.2	100.0 %
District heating NO/SE (upstream)	Office - Oslo, BREEM certificate	-	-	0.4	100.0 %
Diesel (NO) WTT	Truck - Norway	-	-	0.7	100.0 %
Upstream transportation and distribution total		-	62,745.7	175,197.6	179.2 %
Sea Container 5000-7999 TEU	Both FCL & LCL	-	52,903.5	155,411.5	193.8 %
Truck with trailer 33t+	European suppliers	-	1,006.3	45.1	-95.5 %
Air Intercontinental freight	Due to congestion	-	8,835.8	19,741.0	123.4 %
Waste total		-	25.5	27.9	9.4 %

Concrete block	Concrete materials with reinforcement - Oslo	-	-	0.2	100.0 %
Organic waste, anaerobic digestion	Aerobic, biological treatment - Oslo	-	-	-	-
Organic waste, anaerobic digestion	Aerobic, biological treatment Måndalen	-	-	-	-
Organic waste, anaerobic digestion	Aerobic, biological treatment HQ	-	-	-	-
Wood waste, recycled	Processing wood - Oslo	-	-	-	-
Wood waste, recycled	Wood waste Netherlands	-	-	-	-
Residual waste, incinerated	Residual waste - Oslo	-	0.4	2.1	425.0 %
Residual waste, incinerated	Residual waste Måndalen	-	18.5	-	-100.0 %
Residual waste, incinerated	Residual waste HQ	-	-	22.8	100.0 %
Residual waste, incinerated	Residual waste Scotland	-	0.2	0.4	100.0 %
Residual waste, incinerated	Residual waste Netherlands	-	0.9	-	-100.0 %
Residual waste, incinerated	Residual unsorted waste - Stavanger	-	-	1.7	100.0 %
Mixed waste, recycled	Mixed waste Måndalen	-	2.0	-	-100.0 %
Mixed waste, recycled	Mixed waste HQ	-	-	0.7	100.0 %
Residual waste, landfill	Residual waste Måndalen	-	3.4	-	-100.0 %
Residual waste, landfill	Residual waste HQ	-	-	0.1	100.0 %
Paper waste, recycled	Paper waste Scotland	-	-	-	-
Paper waste, recycled	Paper waste Netherlands	-	-	-	-
Paper waste, recycled	Cartons & paper waste - Stavanger	-	-	-	-
Paper waste, recycled	Office paper - Oslo	-	-	-	-
Paper waste, recycled	Cartons & paper waste - Oslo	-	-	-	-
Wood waste, incinerated	Wood waste Scotland	-	-	-	-
Plastic PP-folio waste, recycled	Folie plastic Netherlands	-	-	-	-
EE waste, recycled	Electrical waste Måndalen	-	-	-	-
EE waste, recycled	Electrical waste HQ	-	-	-	-
Plastic waste, recycled	Foil plastic and mixed plastic packaging - Oslo	-	-	-	-
Plastic waste, recycled	Foil and mixed plastic waste - Oslo	-	-	-	-
Glass waste, recycled	Mixed glass/metal - Oslo	-	-	-	-
Business travel total		-	-	100.1	-
Air travel, domestic	Domestic - Roundtrip (74%)	-	-	25.8	100.0 %
Air travel, continental	International - Roundtrip (26%)	-	-	44.2	100.0 %
Car travel	Travel expense basis for car allowance	-	-	30.1	100.0 %
Downstream transportation and distribution total		-	46,314.6	50,266.6	8.5 %
Truck 3.5-7.5t	Local distribution	-	2,420.4	4,186.2	73.0 %
Truck with trailer 33t+	Longer distribution distance	-	31,472.6	46,061.5	46.4 %
Truck with trailer 33t+	European bulk distribution	-	36.6	8.6	-76.5 %
Rail freight	Train Diesel	-	12,385.0	0.1	-100.0 %
Transportation	B2B delivery (UK - 0.6944kgCo2e)	-	-	2.7	100.0 %
Transportation HVO	B2B delivery (NL - GoGreen Certification)	-	-	7.5	100.0 %
Rail freight, el. Nordic	Electric train - downstream distribution	-	-	-	-
End-of-life treatment of sold products total		-	12.4	8.6	-30.6 %
Residual waste, incinerated	Residual waste (destruction on behalf of customers)	-	12.4	8.6	-30.6 %
Scope 3 IT and Communication total		-	144.5	82.3	-43.0 %
Desktop computer all-in-one	Client incl. network	-	9.5	43.0	352.6 %
Computer mouse, optical	Client	-	0.2	-	-100.0 %

Printer, laser, color	Client	-	2.5	0.5	-80.0 %
Server	Server, storage incl. devices	-	92.3	-	-100.0 %
Lenovo ThinkPad L14 (A1-3)	Client	-	7.7	-	-100.0 %
Smartphone	Client	-	2.0	-	-100.0 %
Headphones, Jabra Evolve2 55 (A1-3)	Client	-	0.1	1.1	1,000.0 %
Smartphone, Samsung Galaxy Z Fold4 (A1-3)	Client	-	-	-	-
Keyboard	Client, incl. barcode readers	-	1.4	1.2	-14.3 %
Apple iPhone 15	Client	-	-	0.6	100.0 %
Monitor 27"	Client	-	28.4	35.9	26.4 %
Power adapter, laptop	Client, incl. network adapters	-	0.4	-	-100.0 %
Power adapter, smartphone	Client	-	-	-	-
Scope 3 - Packaging total		-	21.6	77.4	258.3 %
Paper, mixed	Outbound packaging (FSC mix certified)	-	21.4	77.3	261.2 %
Plastic packaging waste, recycled	Outbound packaging	-	0.1	-	-100.0 %
Scope 3 total		-	117,911.9	235,995.8	100.1 %
Total		-	117,994.4	236,066.3	100.1 %
Percentage change			100.0 %	100.1 %	

Annual energy consumption (MWh) Scope 1 & 2



Annual Market-Based GHG Emissions

Category	Unit	2022	2023	2024
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Electricity Total (Scope 2) with Market-based calculations	tCO ₂ e	-	446.9	417.5
Scope 2 Total with Market-based electricity calculations	tCO ₂ e	-	447.5	418.4
Scope 1+2+3 Total with Market-based electricity calculations	tCO ₂ e	-	118,424.6	236,466.1
Percentage change			100.0 %	99.7 %

Annual Key Energy and Climate Performance Indicators

Name	Unit	2022	2023	2024	% change from previous year
Scope 1 + 2 emissions (tCO ₂ e)		-	82.5	70.5	-14.6 %
Total emissions (s1+s2+s3) (tCO ₂ e)		-	117,994.4	236,066.3	100.1 %
Total energy scope 1 + 2 (MWh)		-	1,246.2	1,035.1	-16.9 %
Sum energy per location (MWh)		-	991.5	836.3	-15.7 %
Sum locations kWh/m ²		-	-	-	-

Methodology and sources

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 on 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 fuels for stationary combustion or transportation, in owned and, depending on the consolidation approach selected, leased, or rented assets. It also includes any process emissions, from e.g. chemical processes, industrial gases, direct methane emissions etc., as well as leakage of refrigerants.

Scope 2 includes indirect emissions related to purchased energy, including electricity and heating/cooling in assets owned/controlled by the organisation.

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 generated by electricity production to the end consumers on a given grid, namely the location-based and the market-based method. 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 electricity that companies have purposefully chosen (or not chosen).

Organisations 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 affect the GHG emissions. Using both methods in the emissions accounting highlights the effect of both of these types of 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) result in direct GHG-emissions. These emissions are reflected in the location-based emission factor. Most location-based electricity emission factors used in CEMAsys are based on national gross electricity production mixes and are published by the International Energy Agency's statistics (IEA Stat). Emission factors per fuel type are in these calculations based on assumptions in the IEA methodological framework. Emission factors for district heating/cooling are either based on actual (local) production mixes, or average national statistics.

The market-based method: The choice of emission factors when using this method is determined by whether the organisation acquires GoOs/RECs or not. When selling GoOs for renewable electricity or RECs, the supplier guarantees that the same amount of electricity has been produced exclusively from renewable sources, which is assumed to have an emission factor of 0 grams CO₂e per kWh. However, for electricity without GoOs or RECs, the emission factor should instead be based on the remaining electricity supply after all GoOs for renewable electricity and/or RECs have been sold and cancelled. This is called the residual mix,

which in most cases is connected to a substantially higher emission factor than the location-based emission factor.

Scope 3 includes indirect emissions resulting from other value chain activities. The scope 3 emissions are a result of the company's upstream and downstream activities, which are not directly controlled by the organisation. Examples include production of purchased goods and services, business travel, goods transportation, waste handling, use of sold products, etc.

In general, the carbon accounting should include information that stakeholders, 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 which reflects the substance and economic reality of the company's business relationships.

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The reference list above is not necessarily complete, but contains the most essential references used in CEMAsys. In addition, several local/national sources may be used, depending on the selection of emission factors.