

Report by **CEMASys** for DNB Bank ASA

# GHG emissions accounting 2025 for own operations

## Purpose of this report

This Greenhouse Gas (GHG) Emissions Accounting Report, prepared by CEMAsys on behalf of DNB Bank ASA (DNB), focuses exclusively on the bank's own operations in 2025. It provides a transparent overview of the company's direct environmental impact, current emission levels, tracks progress on reduction initiatives, and areas for improvement.

For information about emissions generated through DNB's financial services, investments and lending, see DNB's integrated annual report for 2025.

## Accounting principles

Transparency, accuracy, and accountability are fundamental principles in GHG emissions accounting. Ethical considerations include clear disclosure of uncertainties in data collection and the methodologies applied, as well as the use of conservative assumptions to avoid underestimation of emissions. This is aligned with ESRS E1.

## Limitations and challenges

While every effort is made to ensure accuracy, data collection limitations, such as limited access to supplier-specific data, and estimations based on average national statistics, introduce some uncertainty in the validity of the emissions. Estimates for waste rely on average generation rates per full-time equivalent (FTE). These limitations are noted where applicable, and further efforts to refine data collection are ongoing.

## Reporting framework

CEMASys applies GHG accounting principles as reporting methodology, in concurrence with the GHG Protocol Corporate Accounting and Reporting Standard (GHG Protocol), 2004 (Scope 2 guidance was updated in 2015). The Greenhouse Gas Protocol Initiative (GHG Protocol) was developed by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD). In alignment with the GHG Protocol, CEMAsys takes into consideration the seven gases CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, SF<sub>6</sub>, and NF<sub>3</sub> when converting consumption and spend data to tons of CO<sub>2</sub>-equivalents (tCO<sub>2</sub>e).

The Global Warming Potential (GWP) used in the calculation of CO<sub>2</sub>e is based on the fourth, fifth and sixth assessment reports (AR4, AR5 and AR6) over a 100-year period from the Intergovernmental Panel on Climate Change (IPCC). GHG emissions accounting has, as of 2025, no agreed method for calculating emission factors. The 2025 GHG emissions accounting is developed using emission factors calculated based on methodologies recognized by CEMAsys as credible. However, we are conscious other emission factors do exist and there is no consensus on which emission factors should be used. CEMAsys uses emission factors from well-known, internationally recognized sources, including DEFRA, IEA and Ecoinvent. CEMAsys is transparent about the sources and calculation methodology used in the emission factors and strives for consistency throughout the reporting periods. As for circumstances where there is a change in CEMAsys methodology, it will be communicated in the report.

## Consolidation approach

The GHG emissions accounting report covers DNB's own operations, excluded DNB Næringseiendom, UniMicro, parts of DNB Carnegie's office operations and subsidiaries held for sale. Financial control approach has been used for consolidating DNB's GHG emissions, in line with ESRS requirements (*Disclosure Requirement BP-1-5 (b) i.*). By using this method, the scope of consolidation is the same as for the financial statements, providing a clear picture of the environmental impact. DNB consists of 135 offices with all entities included in the reporting, where 21 are international offices and 114 offices are located in Norway.

Under this approach, emissions from owned and leased resources, such as office buildings and leased vehicles are included if DNB has financial control over them. This allows DNB to report its direct and indirect emissions accurately, even across its operations in different countries, each with varying emissions profiles.

## Reporting Year Energy and GHG Emissions 2025

Emission source	Description	Consumption	Unit	Energy	Emissions	% share of total
Scope 1				(MWh)	tCO <sub>2</sub> e	
<b>Transportation total</b>				<b>246.3</b>	<b>57.9</b>	<b>0.8%</b>
Petrol (E10)		1 243.0	liters	11.0	2.6	
Petrol (E10)	Hybrid vehicles Petrol	19 602.0	liters	173.9	41.3	
Diesel (NO)	Hybrid vehicles Diesel	3 472.0	liters	34.0	7.7	
Diesel (NO)		2 790.0	liters	27.3	6.2	
<b>Scope 1 total</b>				<b>246.3</b>	<b>57.9</b>	<b>0.8 %</b>

Emission source	Description	Consumption	Unit	Energy	Emissions	% share of total
Scope 2				(MWh)	(tCO <sub>2</sub> e)	
<b>Electricity total</b>				<b>28 384.7</b>	<b>1 016.9</b>	<b>14.8 %</b>
Electricity Nordic mix		25 200 112.0	kWh	25 200.1	463.7	
Electricity Nordic mix	Electric Vehicles and hybrids	542 279.1	kWh	542.3	10.0	
Electricity Luxembourg		251 532.0	kWh	251.5	15.5	
Electricity Germany		33 000.0	kWh	33.0	11.0	
Electricity Poland		152 216.0	kWh	152.2	83.2	
Electricity Denmark IEA		81 648.0	kWh	81.6	5.1	
Electricity US/NYCW		494 348.0	kWh	494.3	194.1	
Electricity Latvia		822 698.0	kWh	822.7	56.8	
Electricity UK		508 419.0	kWh	508.4	89.9	
Electricity Chile		43 174.0	kWh	43.2	9.6	
Electricity Singapore		151 420.0	kWh	151.4	57.4	
Electricity Finland		33 699.0	kWh	33.7	1.4	
Electricity Australia		5 736.0	kWh	5.7	3.4	
Electricity Brazil		5 736.0	kWh	5.7	0.4	
Electricity China		5 736.0	kWh	5.7	3.4	
Electricity Greece		13 230.0	kWh	13.2	3.9	
Electricity India		8 604.0	kWh	8.6	6.5	
Electricity Spain		8 878.0	kWh	8.9	1.2	
Electricity Switzerland		22 270.0	kWh	22.3	0.5	

<b>District heating location total</b>				<b>11 085.4</b>	<b>147.6</b>	<b>2.1 %</b>
District heating NO/Trondheim		977 756.0 kWh		977.8	30.0	
District cooling NO/Trondheim		310 688.0 kWh		310.7	0.4	
District heating NO/Oslo		4 618 642.0 kWh		4 618.6	50.8	
District heating Poland avg.		67 745.0 kWh		67.7	24.9	
District cooling NO/Sandvika		3 382 747.0 kWh		3 382.7	21.6	
District heating Denmark avg.		116 954.0 kWh		117.0	5.8	
District heating NO/Bergen		1 323 135.0 kWh		1 323.1	2.2	
District cooling DK/Copenhagen		9 280.0 kWh		9.3	0.1	
District heating SE/Stockholm		151 148.0 kWh		151.1	5.4	
District heating SE/Malmo		7 759.0 kWh		7.8	0.8	
District cooling SE/Stockholm		55 945.0 kWh		55.9		
District cooling SE/Malmo		31 41.0 kWh		3.1		
District heating FI/Helsinki		43 255.0 kWh		43.3	5.5	
District cooling FI/Tampere/Tammerfors		17 229.0 kWh		17.2		
<b>District heating general total</b>				<b>1 031.2</b>	-	-
District cooling Seawater		1 031 221.0 kWh		1 031.2	-	-
<b>Heat fuel specific total</b>				<b>263.3</b>	<b>51.7</b>	<b>0.8 %</b>
Heat Natural gas		2 835.0 kWh		2.8	0.6	
Heat Natural gas		15 095.0 m <sup>3</sup>		152.3	31.5	
Heat Natural gas (US)		108 195.0 kWh		108.2	19.6	
<b>Scope 2 total</b>				<b>40 764.7</b>	<b>1 216.2</b>	<b>18 %</b>

Emission source	Description	Consumption	Unit	Energy	Emissions	% share of total
Scope 3				(MWh)	(tCO <sub>2</sub> e)	
<b>Purchased goods and services total</b>					<b>524.1</b>	<b>7.6 %</b>
Water withdrawal. municipal		81 511.0	m <sup>3</sup>		15.6	
Meal average		498.0	tCO <sub>2</sub> e		498.0	
Diesel	Datahall	3 935.0	liters		10.5	
<b>Fuel-and-energy-related activities total</b>					<b>403.3</b>	<b>5.9 %</b>
Electricity Norway (upstream)		22 756 618.1	kWh		147.9	
District heating/cooling NO/SE (upstream)		11 832 746.0	kWh		59.2	
Petrol (E10) (WTT)		20 845.0	liters		12.7	
Diesel (NO) WTT		6 262.0	liters		3.6	
Electricity Sweden (upstream)		321 414.0	kWh		4.6	
Electricity Poland (upstream)		152 216.0	kWh		24.0	
Heat and steam (upstream)		227 954.0	kWh		8.0	
Electricity Latvia (upstream)		822 698.0	kWh		20.4	
Electricity UK (upstream)		508 419.0	kWh		32.3	
Natural gas (WTT)		111 030.0	kWh		3.7	
Natural gas (WTT)		15 095.0	m <sup>3</sup>		5.1	
Electricity USA (upstream)		494 348.0	kWh		43.6	
Electricity Brazil (upstream)		5 736.0	kWh		0.2	
Electricity Singapore (upstream)		151 420.0	kWh		13.9	
Electricity Finland (upstream)		33 699.0	kWh		0.8	

Electricity Denmark (upstream)	81 648.0	kWh	3.0	
Electricity China (upstream)	5 736.0	kWh	0.7	
Electricity Germany (upstream)	33 000.0	kWh	2.8	
Electricity Luxembourg (upstream)	2 515 320.0	kWh	7.6	
Electricity Chile (upstream)	43 174.0	kWh	3.5	
Electricity India (upstream)	8 604.0	kWh	2.3	
Electricity Greece (upstream)	13 230.0	kWh	1.4	
Electricity Spain (upstream)	8 878.0	kWh	0.5	
Electricity Switzerland (upstream)	22 270.0	kWh	0.3	
Electricity Australia (upstream)	5 736.0	kWh	0.8	
District cooling SE/Malmo (upstream)	55 945.0	kWh	0.3	
<b>Waste total</b>			<b>241.0</b>	<b>3.5 %</b>
Mineral wool	80.0	kg	0.1	
Organic waste. treated	349 071.0	kg	1.6	
Residual waste. incinerated	411 163.0	kg	200.0	
Hazardous waste. treated	157.0	kg		
Wood waste. recycled	17 580.0	kg	0.1	
Paper waste. recycled	242 676.0	kg	1.1	
Organic waste. composting	29 760.0	kg	0.3	
Mixed waste. recycled	4 860.0	kg		
Cardboard waste. recycled	65 120.0	kg	0.3	
Glass waste. recycled	18 212.0	kg	0.1	
Plastic packaging waste. recycled	4 960.0	kg		
Oil contaminated waste (H). incinerated	12 730.0	kg	36.2	
Metal waste. recycled	13 059.0	kg	0.1	
Plastic waste. recycled	31 549.0	kg	0.1	
EE waste. recycled	11 773.0	kg	0.1	
Special waste. treated	1 526.0	kg		
Municipal solid waste. landfill (AU)	490.0	kg	0.8	
Textile waste. landfill	65.0	kg		
<b>Business travel total</b>			<b>4 425.7</b>	<b>64.4 %</b>
Air travel. continental	12 887 327.7	pkm	974.3	
Air travel. domestic	12 650 343.0	pkm	1 720.4	
Air travel. intercontinental	16 269 377.6	pkm	1 470.8	
Electric car Nordic	24 169.0	km	0.1	
Mileage all. car (NO)	4 038 261.0	km	260.1	
Train (SE) (WTW)	102 773.0	pkm		
Train International (WTW)	590.0	pkm		
Train (NO)	519.0	pkm		
Scope 3 total			5 594.1	81.5 %
Total (Scope 1, 2 & 3)			6 868.1	100.0 %

## Reporting Year Market-Based GHG Emissions

Category	Unit	2025
Electricity Total (Scope 2) with Market-based calculations	tCO <sub>2</sub> e	192.1
Scope 2 Total with Market-based electricity calculations	tCO <sub>2</sub> e	391.4
Scope 1+2+3 Total with Market-based electricity calculations	tCO <sub>2</sub> e	6 043.4

## Scope 1

Scope 1 includes all direct emission sources. This covers 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.

DNB's scope 1 emissions include fuel consumption from owned and leased company cars in Norway, Luxembourg, Sweden, Denmark and Finland. This also includes usage of fuel from hybrid cars. Fuel consumption (in liters) is estimated based on kilometers driven in 2025. The diesel emission factor is sourced from DEFRA (Department for Environment, Food and Rural Affairs 2025) and the Norwegian Environment Agency (2025), while the petrol emission factor is sourced from DEFRA (2025).

Emissions from this category decreased by 13,7% in 2025 compared to 2024, primarily due to a transition from diesel and petrol cars to more electric vehicles. This aligns with DNB's climate transition plan.

## Scope 2

Scope 2 covers indirect emissions related to purchased energy, including electricity and heating, and cooling in assets owned or controlled by DNB.

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.
- The market-based method reflects emissions from electricity that companies have purposefully chosen (or not chosen).

Organizations are now required to disclose emissions using both methods to illustrate the impact of energy efficiency measures, and to display how the acquisition of guarantees of origin (RECs) affect the GHG emissions. Using both methods in the emissions accounting highlights the effect of both types of measures regarding electricity consumption.

## DNB Scope 2 reporting methodology

This category includes electricity, district heating, district cooling, natural gas, and charging of electric cars. DNB collect premise-specific data for its largest offices, defined as those exceeding 500 square meters. For smaller offices (under 500 square meter) in Norway, DNB estimate consumption based on the average usage at the larger offices. As for the representation offices, national estimates are used for the European offices, while an average of the estimated European offices data is applied to estimate non-European representative offices.

### Location-based method

This 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.

### DNB's location-based emissions performance (2025)

Electricity: For 2025 electricity use from one of the cloud service providers is moved from Scope 3 Purchased goods and services to Scope 2 due to DNB opportunity to influence the level of use. Since DNB pays for Guarantees of Origin (GoOs) for this electricity consumption, this has been reported as renewable energy using the market-based method. Emissions from electricity decreased by 14.2%, totaling 1 016.9 tCO<sub>2</sub>e in 2025. The total electricity consumption increased by 8.1% and is partly explained by the inclusion of the electricity usage from the cloud service.

District heating and cooling: Consumption of district heating and cooling was 12 116.6 MWh in 2025, a 1.75% decline compared to 2024. Emissions in this category was 147.6 tCO<sub>2</sub>e in 2025 and declined by 0.4% compared to 2024. For the first time DNB`s offices in Denmark and Finland registered district cooling. DNB`s Finland office also registered district heating for the first time in 2025.

Natural gas: This category also includes natural gas consumption from DNB's Luxembourg, UK and New York office. It's the first time UK registered natural gas. Emissions from this source have dropped by 11.78% from 43.9 tCO<sub>2</sub>e to 51.7 tCO<sub>2</sub>e.

Total location-based scope 2 emissions: **1 216.2** tCO<sub>2</sub>e, a decline from 1 378.6 in 2024.

### Market-based method

Under the market-based method, the choice of emission factors is determined by whether DNB acquires GoOs/RECs or not. When purchasing 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 CO<sub>2</sub>e 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.

### DNB's market-based emissions performance (2025)

DNB purchases Guarantees of Origin (GoOs) for electricity consumption at all office locations, and for the on-premises data center suppliers. This results in 0 tCO<sub>2</sub>e from electricity consumption at these offices and data center. Moreover, not all data reported in Scope 2 can be covered by GoOs. Market-based emissions from electricity have increased from 2024 by 2%, from 383.9 tCO<sub>2</sub>e to 391.4 tCO<sub>2</sub>e due to increased electricity consumption (not covered by GoOs) from electric vehicles. Additionally, there is not an agreed market-based mechanism in place for district heating and cooling, which has contributed to the total increase in market-based emissions. Total Scope 2 market-based emissions: **391.4** tCO<sub>2</sub>e.

## Scope 3

### Category 1. Purchased goods and services

This category includes emissions from the production of all goods and services that a company purchases. It covers the extraction, processing, and manufacturing of raw materials, components, and services acquired for use in operations, regardless of whether they are for resale or internal use.

DNB reports Scope 1 emissions from data centers, food from the canteen at Bjørvika (HQ) and the office in Bergen - Solheimsviken, as well as water consumption across its offices.

For the year 2025 emissions from cloud services are not included for 2 out of 3 suppliers due to limited data access. The remaining supplier reports diesel and electricity consumption data. The electricity use is reported in Scope 2 due to DNBs possibility to influence the level of use. Since DNB pays for Guarantees of Origin (GoOs) for this electricity consumption, this has been reported as renewable energy using the market-based method. The diesel use from this supplier is reported in Scope 3 category 1 Purchased goods and services, as DNB does not have the same influence on this as they have for electricity usage.

DNB uses the same supplier for canteen services at Bjørvika (HQ) and Solheimsviken (Bergen). The supplier provides emission reports for both locations. Emissions from canteen services decreased by 4.4% from 2024 to 2025.

Water consumption decreased by 1.4%. The emission factor for municipal water withdrawal increased by 25% from 2024 to 2025, leading to a 23.81% rise in emissions from this category.

Total emissions in Scope 3 Category 1 Purchased goods and services were **524.1** tCO<sub>2</sub>e in 2025, a small decrease from 551.1 tCO<sub>2</sub>e in 2024.

## Category 3. Fuels-and-energy-related activities

This category covers emissions from the production, processing, and transportation of fuels and energy purchased by the company that are not already accounted for in Scope 1 (direct emissions) or Scope 2 (purchased electricity). This includes emissions from the extraction, production, and transportation of fuels consumed, and transmission and distribution (T&D) losses. In summary, this category captures upstream emissions—also referred to as Well-to-Tank (WTT) emissions—related to energy use before the fuels or electricity reaches the company. In contrast, Scope 1 and Scope 2 account for use-phase emissions, or Tank-to-Wheel (TTW) emissions.

DNB's emissions in this category have increased by 7.1%, from 376.5 tCO<sub>2</sub>e to **403.3** tCO<sub>2</sub>e primarily due to increased electricity consumption reported under Scope 1 for the Latvia office.

## Category 5. Waste

This category encompasses emissions from the treatment and disposal of waste generated by a company's operations. It covers emissions from waste management processes such as landfilling, incineration, recycling, and composting, even if handled by third parties.

DNB reports on waste for all office locations. For Norwegian facilities, reporting is based on activity data provided directly by waste management suppliers. For international offices, waste emissions are estimated based on the number of full-time employees (FTE) at each location.

Emissions from waste generated at DNB's operations increased by 7% compared to 2024 from 224.5 tCO<sub>2</sub>e to **241** tCO<sub>2</sub>e. This is due to an increase in residual waste which is incinerated which caused high emissions.

## Category 6. Business travel

This category includes emissions from all business-related travel by employees in vehicles not owned or controlled by the company. It accounts for various modes of transportation and can include emissions from accommodations.

DNB's emissions from business travel have decreased by 24.5%, compared to the previous reporting period from 5 862.9 tCO<sub>2</sub>e to 4 425.7 tCO<sub>2</sub>e. Number of kilometers travel has increased by 7.2% from 42 885 828 km in 2024 to 45 973 360 km in 2025. A 21.7% increase in km for continental air travel from 2024 to 2025 is the main reason for the increase in total kilometer travel. In 2025 the air travel emission factors (DEFRA 2025) are adjusted for post covid flights, which includes more people on each flight travel. This is the main reason for the decrease in emissions, even though the kilometers traveled have increased in 2025.

DNB's reporting does not include WTT emissions from employee travel as of 2025 but will be evaluated for the 2026 reporting.

DNB will review the reporting scope for the GHG emissions accounting in 2026.

## Annual GHG Emissions

Category	Description	2022 (base year)	2024	2025	% share from previous year
Scope 1		(tCO2e)	(tCO2e)	(tCO2e)	
<b>Transportation total</b>		<b>185.8</b>	<b>67.1</b>	<b>57.9</b>	<b>-13.7 %</b>
Diesel (NO)		4.2	8.4	6.2	-26.2 %
Diesel (NO)	Hybrid vehicles Diesel		12.2	7.7	-36.9 %
Petrol		5.4			
Diesel (SE)		51.9			
Petrol (SE)		112.2			
Petrol (E10)			4.5	2.6	-42.2 %
Petrol (E10)	Hybrid vehicles Petrol		41.9	41.3	-1.4 %
Diesel (B5)		12.0			
<b>Scope 1 total</b>		<b>185.8</b>	<b>67.1</b>	<b>57.9</b>	<b>-13.7 %</b>

Category	Description	2022 (base year)	2024	2025	% share from previous year
Scope 2		(tCO2e)	(tCO2e)	(tCO2e)	
<b>Electricity location-based total</b>		<b>1 543.0</b>	<b>1 186.4</b>	<b>1 016.9</b>	<b>-14.3 %</b>
Electricity Nordic mix		645.1	634.2	463.7	-26.9 %
Electricity Nordic mix	Electric Vehicles and hybrids		13.7	10.0	-27.0 %
Electricity US/NYCW		190.8	196.4	194.1	-1.2 %
Electricity Denmark IEA		15.2	18.6	5.1	-72.6 %
Electricity Luxembourg		43.0	28.1	15.5	-44.8 %
Electricity Finland		7.0	7.5	1.4	-81.3 %
Electricity Germany		13.5	10.6	11.0	3.8 %
Electricity Poland		413.0	93.9	83.2	-11.4 %
Electricity UK		68.1	61.1	89.9	47.1 %
Electricity Latvia		44.4	31.7	56.8	79.2 %
Electricity Singapore		49.3	52.7	57.4	8.9 %
Electricity Chile		42.3	17.8	9.6	-46.1 %
Electricity China		11.3	4.7	3.4	-27.7 %
Electricity Greece			4.8	3.9	-18.8 %
Electricity US/NWPP					
Electricity Brazil			0.4	0.4	
Electricity India			5.9	6.5	10.2 %

Electricity Spain			0.8	1.2	50.0%
Electricity Australia			3.3	3.4	3.0%
Electricity Switzerland			0.2	0.5	150.0%
<b>District heating location total</b>		<b>122.2</b>	<b>148.2</b>	<b>147.6</b>	<b>-0.4%</b>
District heating NO/Oslo		51.6	54.1	50.8	-6.1%
District cooling NO/Sandvika		28.5	21.2	21.6	1.9%
District heating NO/Bergen		1.6	1.7	2.2	29.4%
District heating NO/Trondheim		31.3	22.6	30.0	32.7%
District cooling NO/Trondheim		0.5	0.4	0.4	
District heating Poland avg.			26.1	24.9	-4.6%
District heating Denmark avg.			13.2	5.8	-56.1%
District heating SE/Stockholm		8.7	9.0	5.4	-40.0%
District cooling DK/Copenhagen				0.1	
District cooling SE/Stockholm					
District heating SE/Malmö				0.8	
District cooling SE/Malmö					
District heating FI/Helsinki				5.5	
District cooling FI/Tampere/Tammerfors					
<b>District heating general total</b>					
District cooling Seawater			-	-	-
<b>Heat fuel specific total</b>			<b>43.9</b>	<b>51.7</b>	<b>17.8%</b>
Heat Natural gas			30.3	32.1	5.9%
Heat Natural gas (US)			13.7	19.6	43.1%
<b>Scope 2 total</b>		<b>1 665.2</b>	<b>1 378.6</b>	<b>1 216.2</b>	<b>-11.8%</b>

Category	Description	2022 (base year)	2024	2025	% share from previous year
Scope 3		(tCO2e)	(tCO2e)	(tCO2e)	
<b>Purchased goods and services total</b>		<b>241.1</b>	<b>551.1</b>	<b>524.1</b>	<b>-4.9%</b>
Water withdrawal, municipal		7.5	12.6	15.6	23.8%
Cloud & facility management services	Datahall	16.5	7.5		
Meal average		217.0	521.0	498.0	-4.4%
Electricity Nordic mix	Datahall				
Electricity, renewable	Datahall				
Diesel	Datahall		10.0	10.5	5.0%
<b>Fuel-and-energy-related activities total</b>		<b>569.6</b>	<b>376.5</b>	<b>403.3</b>	<b>7.1%</b>
Electricity Nordic mix (T&D loss)		31.5			
Electricity Nordic mix (WTT)		150.3			
Diesel (WTT)		1.3			
Diesel (B5) (WTT)		2.9			
Petrol (WTT)		32.0			
LNG (WTT)					
Electricity China (upstream)		3.2	1.0	0.7	-30.0%
Electricity Denmark (upstream)			8.4	3.0	-64.3%
Electricity Finland (upstream)			3.7	0.8	-78.4%
Electricity Germany (upstream)		3.9	2.6	2.8	7.7%
Electricity Greece (upstream)			1.5	1.4	-6.7%
Electricity India (upstream)			2.2	2.3	4.5%

Diesel (SE) (WTT)		14.2			
Electricity Latvia (upstream)		12.5	10.9	20.4	87.2 %
District heating/cooling NO/SE (upstream)		38.7	36.0	59.2	64.4 %
Electricity Poland (upstream)		124.6	25.0	24.0	-4.0%
Electricity UK (upstream)		22.0	18.7	32.3	72.7 %
Electricity Norway (upstream)			150.9	147.9	-2.0%
Electricity Luxembourg (upstream)			10.5	7.6	-27.6 %
Electricity Singapore (upstream)		28.5	12.2	13.9	13.9 %
Electricity USA (upstream)		68.1	40.4	43.6	7.9 %
Heat and steam (upstream)			14.3	8.0	-44.1 %
Electricity Spain (upstream)			0.3	0.5	66.7 %
Petrol (E10) (WTT)			12.6	12.7	0.8 %
Diesel (NO) WTT			5.5	3.6	-34.5 %
Electricity Latin America (upstream)		9.7			
Electricity EU 27 (upstream)		26.2			
Electricity Brazil (upstream)			0.2	0.2	
Electricity Sweden (upstream)			6.0	4.6	-23.3 %
Natural gas (WTT)			7.5	8.8	17.3 %
Electricity Chile (upstream)			5.2	3.5	-32.7 %
Electricity Switzerland (upstream)			0.1	0.3	200.0%
Electricity Australia (upstream)			0.8	0.8	
District cooling SE/Malmo (upstream)				0.3	
<b>Waste total</b>		<b>228.1</b>	<b>224.5</b>	<b>241.0</b>	<b>7.3 %</b>
Mineral wool				0.1	
Wood waste. recycled		0.1		0.1	
Glass waste. recycled		0.5	0.1	0.1	
Organic waste. treated		3.8	1.8	1.6	-11.1 %
Paper waste. recycled		7.7	1.6	1.1	-31.3 %
Metal waste. recycled		0.2	0.1	0.1	
EE waste. recycled		0.3	0.1	0.1	
Plastic waste. recycled		0.6	0.2	0.1	-50.0%
Special waste. treated					
Special waste. treated	Småbatterier og lysstoffør				
Special waste. treated	Småbatterier og lysstoffør tonerkassetter				
Residual waste. incinerated		175.1	178.2	200.0	12.2 %
Hazardous waste. incinerated (Europe)		37.7			
Hazardous waste. recycled		0.1			
Oil filter waste (H). incinerated					
Process water (H). landfill					
Oil contaminated waste (H). incinerated			38.0	36.2	-4.7 %
Corrugated cardboard waste. recycled					
Hazardous waste. treated					
Cardboard waste. recycled			0.3	0.3	
Municipal solid waste. landfill (AU)		0.9		0.8	

Municipal solid waste. landfill (AU)	161801 Keramikk og porselen	0.3			
Municipal solid waste. landfill (AU)	161801 Keramikk og porselen. betong		0.4		
Municipal solid waste. landfill (AU)	Keramikk og porselen	0.7	1.0		
Organic waste. composting			0.3	0.3	
Chemical waste (H). incinerated					
Industrial waste. incinerated			2.5		
Mixed waste. recycled					
Plastic packaging waste. recycled					
Organic waste. anaerobic digestion					
Textile waste. landfill					
<b>Business travel total</b>		<b>3 812.6</b>	<b>5 862.9</b>	<b>4 425.7</b>	<b>-24.5 %</b>
Mileage all. avg. car					
Mileage all. el car Nordic					
Air travel. domestic		1 395.3	2 038.5	1 720.4	-15.6 %
Air travel. continental		720.9	1 161.6	974.3	-16.1 %
Air travel. intercontinental		1 441.1	2 403.2	1 470.8	-38.8 %
Mileage all. car (NO)		255.3	259.5	260.1	0.2 %
Electric car Nordic			0.1	0.1	-
Train (SE) (WTW)					
Train International (WTW)					
Train (NO)					
Scope 3 total		4 851.3	7 015.0	5 594.1	-20.0%
Total		6 702.2	8 460.7	6 868.1	-19.0%

## References

The Greenhouse Gas Protocol Initiative (GHG protocol) is developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). This analysis is according to A Corporate Accounting and Reporting Standard Revised edition, currently one of four GHG Protocol accounting standards explaining how to calculate and report GHG emissions. The reporting considers the following greenhouse gases, all converted into CO<sub>2</sub> equivalents: CO<sub>2</sub>, CH<sub>4</sub> (methane), N<sub>2</sub>O (laughing gas), SF<sub>6</sub>, HFCs and PFCs.

This analysis is based on the operational control aspect that defines what should be included in the carbon inventory, as well as in the different scopes. When using the control approach to consolidate GHG emissions, companies shall choose between either the operational control or financial control criteria. Under the control approach, a company accounts for the GHG emissions from operations over which it has control. It does not account for GHG emissions from operations in which it owns an interest but has no control.

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

**Scope 1** Mandatory reporting includes all direct emission sources where the organisation has operational control. This includes all use of fossil fuels for stationary combustion or transportation, in owned, leased or rented assets. It also includes any process emissions, from e.g. chemical processes, industrial gases, direct methane emissions etc.

**Scope 2** Mandatory reporting includes indirect emissions related to purchased energy; electricity or heating/cooling where the organisation has operational control. The electricity emissions factors used in CEMAsys are based on national gross electricity production mixes on a 3 years rolling average (IEA Stat). The Nordic electricity mix covers the weighted production in Sweden, Norway, Finland and Denmark, which reflects the common Nord Pool market area. 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 stat.

*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* method. The location-based method reflects the average emissions intensity of grids on which energy consumption occurs, while the market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice).

Businesses who report on their GHG emissions will now have to disclose both location-based emissions from the production of electricity and the market-based emissions related to the potential purchase of Guaranties of Origin (GoO).

The purpose of this amendment in the reporting method is on one hand to show the impact of energy efficiency and saving measures, and on the other hand to display how the acquisition of GoOs affect the 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 factor using this method is determined by whether the business acquires GoOs or not. When selling GoOs, the supplier certify that the electricity is produced by only renewable sources, which has an emission factor of 0 grams of CO<sub>2</sub>e per kWh. However, for electricity without the guarantee of origin, the emission factor is based on the remaining electricity production after all GoOs 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 to foreign consumers. In a market perspective, this implies that Norwegian hydropower is largely substituted with an electricity mix including fossil fuels.

**Scope 3** Voluntary reporting of indirect emissions from purchased products or services in the value chain. The scope 3 emissions are a result of the company's different activities, which are not controlled by the company, i.e. they're indirect. Examples are business travel, goods transportation, waste handling, consumption of products etc. In general, the GHG report 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.

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