



Carbon accounting report 2023

Willis Towers Watson

Report prepared by CEMAsys 2024-03-22



Content

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

This report comprises Willis Towers Watson and their operations in Oslo, Bergen, Larvik, and Stavanger. The report includes the direct emissions from transportation, the indirect emissions from purchased energy as well as emissions from flights, hotel accommodations and mileage allowance.

The input data is based on consumption data from internal and external sources, which are converted into tonnes 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 recognised international standard for measuring greenhouse gas emissions and is the basis for the ISO standard 14064-1.

Reporting Year Energy and GHG Emissions

Figure 1. Total GHG emissions (location-based)

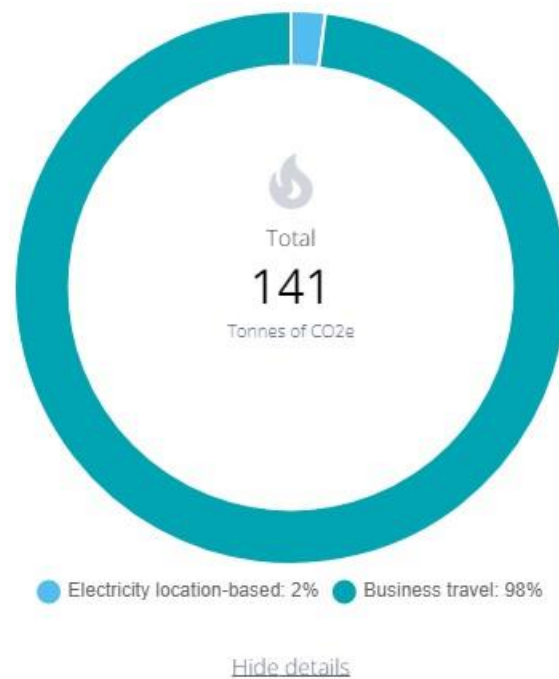


Table 1. Total GHG emissions (location-based)

Emission source	Description	Consumption	Unit	Energy (MWh)	Emissions tCO ₂ e	% share
Electricity total				442.1	2.7	1.90%
Electricity Norway		442,135.00	kWh	442.1	2.7	1.90%
Scope 2 total				442.1	2.7	1.90%
Business travel total				-	138.2	98.10%
Mileage all. car (NO)	44,738.00		km	-	3	2.20%
Mileage all. el car Nordic	19,949.00		km	-	0.1	0.10%
Air travel, domestic, incl. RF	202,642.00		pkm	-	55.2	39.20%

Air travel, intercontinental, incl. RF	136,070.00	pkm	-	35.6	25.20%
Air travel, continental, incl. RF	199,995.00	pkm	-	37.2	26.40%
Hotel nights, world	178	nights	-	7.1	5.00%
Scope 3 total			-	138.2	98.10%
Total			442.1	140.9	100.00%
KJ			1,591,686,000.00		

Reporting Year Market-Based GHG Emissions

Table 2. Market-based emissions 2022

Category	Unit	2023
Electricity Total (Scope 2) with Market-based calculations	tCO ₂ e	26.6
Scope 2 Total with Market-based electricity calculations	tCO ₂ e	26.6
Scope 1+2+3 Total with Market-based electricity calculations	tCO ₂ e	164.8

Carbon accounting

2023 is the fifth year Willis Towers Watson reports on their carbon footprint from electricity use and business travel.

In 2023, total greenhouse gas emissions for Willis Towers Watson were calculated to be 141 tons CO₂- equivalents (tCO₂e) (103.3tCO₂e) with location-based calculations. This corresponds to a total emission increase of 36% since previous year. The emission increase is mainly a result of the increased travelling in 2023 compared to 2022.

The emissions were allocated to the different scopes accordingly:

Scope 1: 0 tCO₂e (0% share)

Scope 2: 3 tCO₂e (2% share)

Scope 3: 138 tCO₂e (98% share)

This report will refer to 2022 numbers in parentheses when not specified differently.

Scope 1

Transportation: There was no consumption of fossil fuels used in company vehicles (owned, rented, leased) as the company cars were phased out in 2020.

Scope 2

Electricity: Electricity consumption in owned or rented premises (buildings). The main body of the table presents location-based emissions calculated by using the emission factor for Nordic electricity mix. In 2023, total electricity consumption amounted to 442 MWh (331 MWh) resulting in 2.7 tCO₂e (2.3 tCO₂e). This is an emission increase of 17% compared to the previous year. Electricity use accounted for 2% of Willis Towers Watson's total emissions in 2023. In 2023, Willis Towers Watson has updated the emission factors for electricity in Scope 2, to country-specific emission factors. In previous years, the emission factor "Nordic mix" has been used. The emission factor has been updated to reflect the actual emission for Norway and is more accurate to use since they are based on the IEA report. To ensure consistency of the report and methodology all emissions factors from 2021 to 2022 have been updated.

In 2023 Willis Towers Watson purchased renewable electricity covered by guarantees of origin for the office in Oslo, Stavanger and Larvik. In 2023, the market-based emissions from electricity consumption amounted to 26.6 tCO₂e (58.9 tCO₂e). This represents a

reduction of 70% with the market-based calculations. The market-based emissions are presented at the bottom of the tables section. The practice of calculating electricity emissions with two different emission factors is further explained under “Scope 2” in the section “Methodology and Sources”.

Scope 3

The emissions from business travel have increased by 37% compared to 2022. This can be derived from an increase in no. flight trips.

Air travel: Measured in number of flight trips per region (domestic, Nordic/continental, intercontinental) and passenger kilometer (pkm). This category amounted to 128 tCO₂e in 2023 (89 tCO₂e in 2022) which corresponds to a 44% increase of emissions compared to last year. In 2023, air travel stood for 93% of Willis Towers Watson’s total emissions and was thereby the most significant source of emissions. Please note that the emissions in 2022 have been corrected, due to incorrect values reported the previous year.

Hotel stays: Measured in number of hotel nights. Willis Towers Watson has reported 178 (198) hotel nights in 2023, corresponding to emissions of 7 tCO₂e (8 tCO₂e). Thus, the emissions from hotel nights have decreased slightly since 2022.

Mileage allowance: Reported number of kilometers driven by employees and paid for by the company. In 2023, mileage allowance was paid for 64687 (75 269 km), resulting in 3 tCO₂e (4.1 tCO₂e). This is based on the average fuel mix for passenger cars in Norway. Furthermore, this year Willis Towers Watson has reported for 19 949 km (21721 km) for electric cars, resulting in 0.1 tCO₂e.

Emission reduction activities and climate compensation

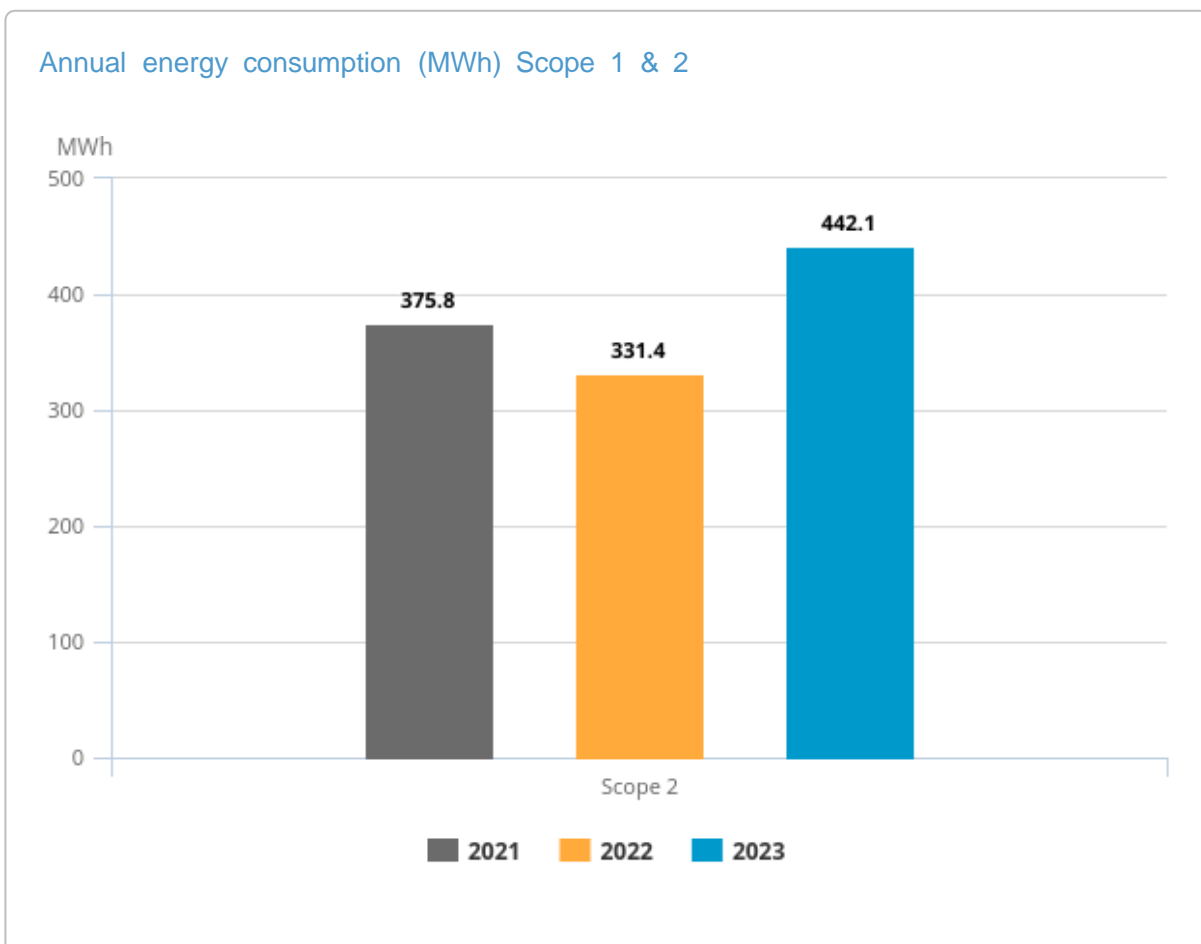
Willis Towers Watson invests in a climate mitigation project that is Gold Standard-certified and aligned with the SDG´s. The project that is currently invested in involve Clean Cookstoves project in Ghana. The primary objective of the project is to significantly reduce wood fuel consumption of low-income Ganesh households by providing them with affordable improved cookstoves in the Ashanti region in Ghana. The improved cookstoves can replace traditional stoves, that expose them to toxic smoke and gas from burning wood while cooking.

The Gold Standard certifies that the impact of the project is measured, verified, and delivers benefits for the local communities.

Furthermore, Willis Towers Watson buys coffee that is climate compensated by the coffee provider, Arvid Nordquist. This is done by investing in tree planting. The emissions related to the coffee are not accounted for in this report.

Annual GHG Emissions (tCO₂e)

Category	Description	2021	2022	2023	% change from previous year
Electricity location-based total		3.8	2.3	2.7	17.4 %
Electricity Norway		3.8	2.3	2.7	17.4 %
Scope 2 total		3.8	2.3	2.7	17.4 %
Business travel total		18.1	101.0	138.2	36.8 %
Mileage all. car (NO)		2.3	4.0	3.0	-25.0 %
Mileage all. el car Nordic		0.1	0.1	0.1	-
Air travel, domestic, incl. RF		12.6	-	55.2	100.0 %
Air travel, domestic, incl. RF	Updated, due to mistake	-	25.5	-	-100.0 %
Air travel, continental, incl. RF		2.2	-	37.2	100.0 %
Air travel, continental, incl. RF	Updated, due to mistake	-	17.2	-	-100.0 %
Hotel nights, Nordic		0.9	-	-	-
Air travel, intercontinental, incl. RF	Updated, due to mistake	-	46.4	-	-100.0 %
Air travel, intercontinental, incl. RF		-	-	35.6	100.0 %
Hotel nights, world		-	7.8	7.1	-9.0 %
Scope 3 total		18.1	101.0	138.2	36.8 %
Total		21.9	103.3	140.9	36.4 %
Percentage change		100.0 %	371.7 %	36.4 %	



Annual Market-Based GHG Emissions

Category	Unit	2021	2022	2023
Electricity Total (Scope 2) with Market-based calculations	tCO _{2e}	151.1	89.7	26.6
Scope 2 Total with Market-based electricity calculations	tCO _{2e}	151.1	89.7	26.6
Scope 1+2+3 Total with Market-based electricity calculations	tCO _{2e}	169.2	190.7	164.8
Percentage change		100.0 %	12.7 %	-13.6 %

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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Geneva, Switzerland /World Resource Institute (WRI), Washington DC, USA, 117 pp.

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.