



Climate account 2023

Scope 1, 2 & 3 NIRAS A/S



Content

1	Executive summary	3
2	Introduction	
2.1	Reporting period	5
2.2	Organizational boundaries and method	
2.3	Improvements and re-calculation	6
3	Results 2022 - 2023	7
3.1	Emissions from energy	9
3.2	Emissions from transport	11
3.3	Emissions from purchased goods and services	12
4	Location based approach	13
5	Key Performance Indicators	
6	Method	
6.1	Location based and market based method	15
6.2	Data	
6.2.1	Energy data and estimates	15
6.2.2	Fuel use in company vehicles	
6.2.3	Business travel by air flight	16
6.2.4	Business travel in employee vehicles	16
6.2.5	Purchase data	
6.2.6	Canteen data	16
Appen	dix 1:Emissions factors	17



1 Executive summary

This climate account reports the Scope 1, 2 and 3 emissions for the Danish consultancy company NIRAS A/S Denmark. NIRAS is an international multidisciplinary consultancy company headquartered in Denmark with activities in countries across the world.

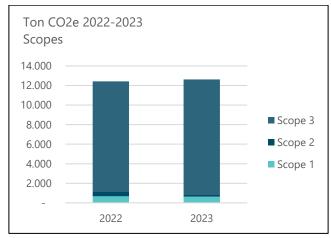
The aim of the climate account is to estimate the greenhouse gas (GHG) emissions caused by NIRAS' activities in Denmark in 2023. NIRAS A/S climate account 2023 is based on the standards and methods of the Greenhouse Gas Protocol¹.

The total scope 1, 2 and 3 emissions from NIRAS' Danish activities in 2023 are 12.620 ton CO_2 equivalents (CO_2 e). The development of emissions in the years 2022-2023 is shown in Table 1.1 and Figure 1-1.

Table 1.1 Total scope 1, 2 and 3 emissions in 2022-2023 (following the market based approach) distributed in scopes and consumption categories.

Ton CO₂e Scopes	2022	2023	% Distribu- tion in 2023	% Develop- ment 2022-2023
Scope 1	673	639	5%	-5%
Scope 2	505	155	1%	-69%
Scope 3	11.244	11.826	94%	5%
Total	12.423	12.620	100%	2%

Ton CO₂e Consumption categories	2022	2023	% Distribu- tion in 2023	% Develop- ment 2022-2023
Energy	972	526	4%	-46%
Transport	4.035	4.160	33%	3%
Purchased goods and services	7.416	7.934	63%	7%
Total	12.423	12.620	100%	2%



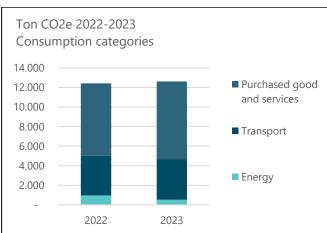


Figure 1-1 Total emissions in 2022-2023 distributed in scopes (left) and consumption categories (right).

Total emissions have increased by 2% from 2022 to 2023.

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¹ ghgprotocol.org/standards



<u>Emissions from scope 1</u> has decreased by 5% from 2022-2023. This is due to a decrease in the use of natural gas for building heating and due to a decrease in fossil fuel use in company owned vehicles.

<u>Emissions from scope 2</u> has decreased by 69% from 2022-2023. This is due to the purchase of green certificates covering a large share of NIRAS' total electricity use in 2023. Emissions from NIRAS' electricity consumption has therefore decreased by 88% in scope 2 (following the market based approach).

Emissions from scope 3 have increased by 5%. This is due to various factors. The main reason is an increase in emissions from purchases which agrees with the fact that the expenses being delt with in 2023 are higher than in 2022 (when taking inflation into account).

Looking across scopes and considering the development from 2022-2023 in <u>consumption categories</u>, we find that emissions from energy has decreased by 46% mainly due to the purchase of certificates for electricity covering more locations in 2023.

Emissions from transport has increased by 3%. This is mainly due to employee commuting increasing 4% due to an increase in employees. Emissions from air travel, business travel in employee cars and use of company cars has all increased between 2-5% each.

Emissions from purchases has increased by 7%. The purchase categories contributing most to the increase are IT (incl. telephones) by 9%, canteen by 21% and insurances by 38%. Operation and maintenance of buildings however, decrease in emissions by 19%.



2 Introduction

This climate account reports the Scope 1, 2 and 3 emissions for the Danish consultancy company NIRAS A/S Denmark. NIRAS is an international multidisciplinary consultancy company headquartered in Denmark with activities in countries across the world.

The aim of the climate account is to estimate the greenhouse gas emissions caused by NIRAS A/S Denmark's activities in 2023. NIRAS A/S climate account 2023 is based on the standards and methods of the Greenhouse Gas Protocol².

2.1 Reporting period

This climate account covers NIRAS' activities in Denmark in the period January 1st to December 31st 2023. The 2022 account is calculated as the base year and results are presented from 2022-2023.

The climate account is reporting annually and currently reported half a year behind the financial reports, due to delays in data from landlords and suppliers.

2.2 Organizational boundaries and method

This climate account includes the Danish part of NIRAS A/S. The operational boundary covers emissions caused by activities executed out of NIRAS' operations in offices located in Denmark. All Danish offices are included in NIRAS' Climate Account 2023. These are:

Allerød	Kolding	Holstebro	Esbjerg
Aalborg	Odense	København	Kalundborg
Aarhus	Holbæk	Næstved	

For this inventory, all internal activities are included. In this context, external activities refer to those conducted on behalf of projects, for which NIRAS act as consultant. As an example, the purchases for external projects, such as material for construction of roads, is excluded from the account. Activities related to NIRAS services on the project are included. As an example the business travel activities for NIRAS employees on projects is included.

This climate account includes all scope 1 and 2 emissions, as well as the majority of 3 emissions, from NIRAS' activities. The following consumption categories within scope 1 and 2 are included:

	Categories included
Scope 1	Natural gas for heating
	Use of company cars
Scope 2	Electricity Electricity use in company cars
	District heating

Within the 15 scope 3 emission categories³, Table 2.1 shows which categories are included and which are excluded. Six categories are included (white) and nine categories excluded (grey) or included in one of the other categories.

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² NIRAS' climate account is reported based on the principles of The Greenhouse Gas Protocol A Corporate Accounting and Reporting Standard, revised edition, GHG Protocol Scope 2 Guidance and the Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

³ Following the Greenhouse Gas Protocol.



Table 2.1 Overview of included and excluded scope 3 categories, following the Greenhouse Gas Protocol.

Scope 3 categories	Comment
1. Purchased goods and services	Included.
2. Capital goods	Included in category 1, and not specified separately.
3. Fuel- and energy-related activities	Included.
4. Upstream transportation and distribution	Included
5. Waste generated in operations	Included in category 1, and not reported separately.
6. Business travel	Included.
7. Employee commuting	Included.
8. Upstream leased assets	No leased assets, besides company cars included under cat 1 and Scope 1 / 2 (for fuel / electricity consumption).
9. Downstream transportation and distribution	Not relevant.
10. Processing of sold products	Not relevant - no sale of physical products.
11. Use of sold products	Not relevant - no sale of physical products.
12. End-of-life treatment of sold products	Not relevant - no sale of physical products.
13. Downstream leased assets	Not relevant - no leased assets.
14. Franchises	Not relevant - no franchises.
15. Investments	Not relevant.

The results of this climate account are presented in both a market based and location based calculation approach. NIRAS has chosen the market based approach as the primary reporting due to the purchase of green certificates for electricity. The difference between the two methods is explained in the Method section 6.1.

2.3 Improvements and re-calculation

NIRAS has conducted their climate account since 2013. 2018 was the first year that the climate account included a full scope 3 inventory, including emissions from purchased goods and services. NIRAS has now chosen 2022 as the new baseline year, thus results from 2018-2021 are not presented.

During the preparation of the 2023 account, updates on scope 3 emission factors for purchases (explained further in section 6.2.5) have been made. This affected the 2022 emissions from scope 3 meaning, that emissions for 2022 in this report are different from the 2022 climate report.

Emissions from employee commuting are estimated based on a questionnaire survey conducted in the largest office, Allerød, regarding how employees commute. Although these emissions were calculated and presented in the 2022 climate account, they were not included in the results. In the 2023 climate account, it was decided to include these emissions as part of the results. Since this category adds a significant share of emissions to the total results, emissions from employee commuting are included in the 2022 results as well. For these estimations, the commuting patterns shown in the 2023 questionnaire survey are used as an approximation. Additionally, the emission factors for trains and electric vehicles are adjusted, resulting in lower emission factor values. This adjustment has led to a significant reduction in the total emissions from employee commuting for 2022, in the 2023 report, compared to the 2022 report.

The emission factor for natural gas in 2022 has been corrected in this 2023 climate account. This means that the emissions from natural gas in 2022 are slightly lower in the 2023 climate account compared to the 2022 climate account report, but it does not change the overall tendency or conclusions of the results.

Regarding emissions from the canteen operation, the payment of salaries was included in the 2022 climate account, but is excluded in the 2023 climate account. The reasoning is that salaries themselves do not lead to GHG emissions. Consequently, the emission level of the canteen operations for the year 2022 is larger in the 2022 report compared to the 2023 report.



3 Results 2022 - 2023

The total emissions from NIRAS A/S' Danish activities in 2023, calculated by the market based method, were <u>12.620</u> <u>Ton CO₂e.</u> Results are listed in scopes and scope categories in Table 3.1 and visualized in Figure 3-1.

Table 3.1 Total emissions 2022-2023 in scope 1, and 2 and scope 3 distributed in relevant scope 3 categories..

Ton CO₂e			2022	2023	% of 2023 emissions	% Development 2022-2023
Scope 1			673	639	5%	-5%
Natural gas for heating			318	298	2%	-6%
Use of company cars			355	341	3%	-4%
Scope 2		505	155	1%	-69%	
Electricity		430	50	0%	-88%	
District heating		52	59	0%	14%	
Electricity in company cars		23	46	0%	95%	
Scope 3			11.244	11.826	94%	5%
Purchased goods and services*		1	7.419	7.934	63%	7%
Upstream fuel- and energy use	Category**	3	265	179	1%	-32%
Upstream transportation and distribution	g	4	14	10	0%	-29%
Business travel 6		1.719	1.777	14%	3%	
Employee commuting		7	1.828	1.893	15%	4%
Total			12.423	12.620	100%	2%

^{*}Includes emissions from categories 2 and 5 that are not reported separately.

^{**}Scope 3 category following the Greenhouse Gas Protocol Scope 3 Guidance.

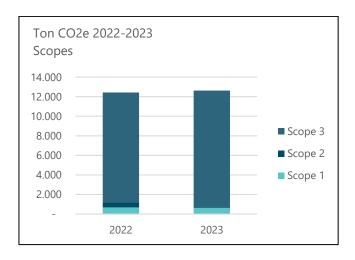


Figure 3-1 Distribution of emissions on scopes for 2022-2023.

In Table 3.2 and Figure 3-2 the total emissions are distributed into energy-, transport- and purchase related emissions.



Table 3.2 Scope 1, 2 and 3 emissions distributed in to energy-, transport- and purchase related emissions from 2022-2023.

Ton CO₂e Consumption categories	2022	2023	% Distribu- tion in 2023	% Develop- ment 2022-2023
Energy	972	526	4%	-46%
Transport	4.035	4.160	33%	3%
Purchased good and services	7.416	7.934	63%	7%
Total	12.423	12.620	100%	2%

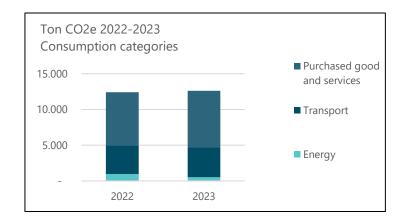


Figure 3-2 Scope 1, 2 and 3 emissions distributed in to energy-, transport- and purchase related emissions from 2022-2023.

<u>Emissions from scope 1</u> has decreased by 5% from 2022-2023. This is due to a decrease in the use of natural gas for building heating and due to a decrease in fossil fuel use in company owned vehicles.

<u>Emissions from scope 2</u> has decreased by 69% from 2022-2023. This is due to the purchase of green certificates covering a large share of NIRAS' total electricity use in 2023. Emissions from NIRAS' electricity consumption has therefore decreased by 88% in scope 2 (following the market based approach).

<u>Emissions from scope 3</u> have increased by 5%. This is due to various factors. The main reason is an increase in emissions from purchases which agrees with the fact that the expenses being delt with in 2023 are higher than in 2022 (when taking inflation into account).

Looking across scopes and considering the development from 2022-2023 in <u>consumption categories</u>, we find that emissions from energy has decreased by 46% mainly due to the purchase of certificates for electricity covering more locations in 2023.

Emissions from transport has increased by 3%. This is mainly due to employee commuting increasing 4% due to an increase in employees. Emissions from air travel, business travel in employee cars and use of company cars has all increased between 2-5% each.

Emissions from purchases has increased by 7%. The purchase categories contributing most to the increase are IT (incl. telephones) by 9%, canteen by 21% and insurances by 38%. Operation and maintenance of buildings however, decrease in emissions by 19%.

In the following section, each of the three categories are further detailed.



3.1 Emissions from energy

Table 3.3 and Figure 3-3 show the distribution of the emissions from NIRAS' energy consumption which constitutes 4% of the total emissions in 2023.

Table 3.4 and

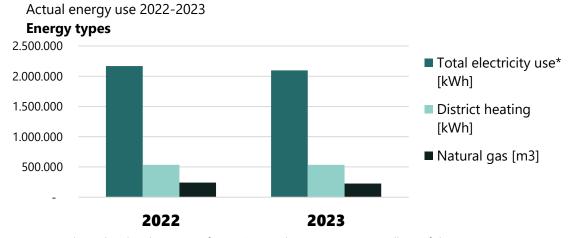


Figure 3-4 show the development of NIRAS' actual energy use, regardless of the emissions per energy use.

% Develop-% of 2023 Ton CO₂e* 2022 2023 ment emissions 2022-2023 Natural gas for heating 386 361 69% -6% Electricity* 522 91 17% -83% District heating 65 74 14% 14% Total 972 526 100% -46%

Table 3.3 Energy related emissions 2022-2023

^{*}Only electricity from energy use in offices, not including electricity use in company cars which is located in transport.

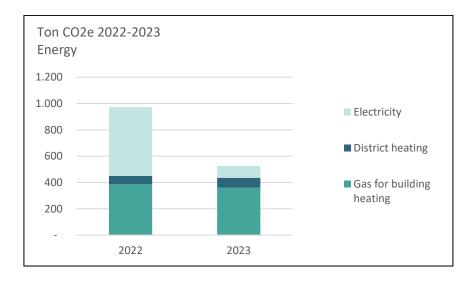


Figure 3-3 Energy related emissions 2022-2023.

^{*}Emissions from scope 1 and 2 and upstream scope 3.



Table 3.4 Actual energy use in 2022-2023.

Actual energy use	2022	2023	% 2022-2023
Total electricity use* [kWh]	2.168.161	2.096.431	-3%
Electricity from the grid [kWh]	1.969.321	1.921.537	-2%
Electricity from own production [kWh]	198.840	174.894	-12%
District heating [kWh]	535.287	536.199	0%
Natural gas [m3]	242.669	227.307	-6%

^{*}Only electricity from energy use in offices, not including electricity use in company cars

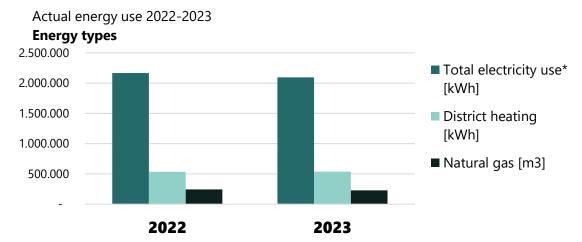


Figure 3-4 Actual energy use 2022-2023.
*Only electricity from energy use in offices, not including electricity use in company cars.

The method used for 2022-2023 results is the market based method which take into account NIRAS' purchase of green certificates for electricity.

Certificates in 2022 only cover some of the electricity consumption at the Allerød office. In 2023 certificates covers the electricity consumption in all of the Allerød office as well as Aarhus, Aalborg, Copenhagen, Odense and Kalundborg. Thus emissions from electricity are reduced by 83% from 2022-2023. The actual electricity consumption (regardless of emissions) from the grid is decreased by 2% and the total electricity consumption is decreased 3% (including consumption from own production from solar panels). The consumption of electricity from NIRAS' own solar panels producing renewable energy has decreased by 12%.

The consumption of district heating has increased less than 1% and emissions increased by 14% compared to 2022.

The consumption and emissions from the use of natural gas has decreased by 6% compared to 2022.



3.2 Emissions from transport

Table 3.5 and Figure 3-5 show the distribution of the emissions from NIRAS' transport activities which constitutes 33% of the total emissions in 2023.

Table 3.5 Transport related emissions 2022-2023.

Transport ton CO2e	2022	2023	% of Total	% 2022- 2023
Employee commuting	1.828	1.893	45%	4%
Business travel by airplane	945	990	24%	5%
Business travel in employee cars	569	586	14%	3%
Fuels in company cars	471	480	12%	2%
Other transport	213	201	5%	-5%
Freight	9	10	0%	4%
Total	4.035	4.160	100%	3%

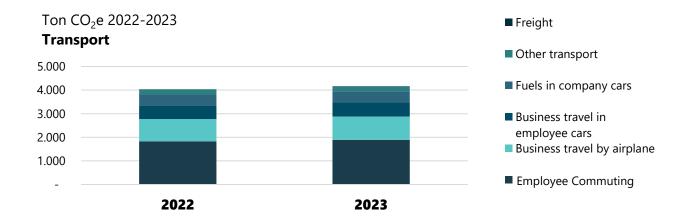


Figure 3-5 Transport related emissions 2022-2023.

Employee commuting (45%) makes up the largest share of emissions from transport and has increased by 4% from 2022-2023 due to an increase in employees.

24% of emissions from transport are from business travel by airplane. Emissions from business travel by airplane have increased by 5% from 2022 to 2023. The emissions from air transport are at about two thirds of the pre-lockdown level in 2019 (results from 2018-2021 are not included in this report).

Business travel in employee cars constitute 14% of the emissions from transport and have increased by 3% compared to 2022.

Emissions from driving NIRAS' company cars constitutes 12% of emissions from transport and have increased from 2022 to 2023 with 2%. The emissions from company electrical vehicles (VEs) was about 5 and 9% of emissions from company cars in 2022 and 2023, respectively. The energy use in fossil based cars has descreased by 4% while energy use in Ves has increased by 50%.

Other transport mainly relates to public transport by employees and constitutes 5% of total emissions from transport and has decreased by 5% since 2022. Freight has increased by 4%.



3.3 Emissions from purchased goods and services

Table 3.6 and Figure 3-6 show the distribution of NIRAS' purchase related emissions which constitutes 63% of the total emissions in 2023.

Table 3.6 Purchase related emissions 2022-2023.

Purchase ton CO2e	2022	2023	% of Total	% 2022- 2023
IT (incl. telephone)	1.958	2.136	27%	9%
Rent of premises	1.231	1.268	16%	3%
Operation and maintenance of buildings	817	658	8%	-19%
Canteen	492	594	7%	21%
Seminars, conferences and education	486	422	5%	-13%
Hotels og restaurants, business travels	191	251	3%	31%
Meetings and catering	248	294	4%	19%
Insurance	275	380	5%	38%
Other consultancy services	380	389	5%	2%
Vehicles	284	353	4%	25%
Subscriptions, memberships, sponsorships, networking	197	199	3%	1%
Various purchases	242	257	3%	6%
Social arrangements	115	135	2%	17%
Office supplies	125	178	2%	42%
Transport and travel activities (parking and bridges tolls)	155	178	2%	15%
PR, communication and print	143	162	2%	13%
Employee benefits	77	79	1%	2%
Total	7.416	7.934	100%	7%

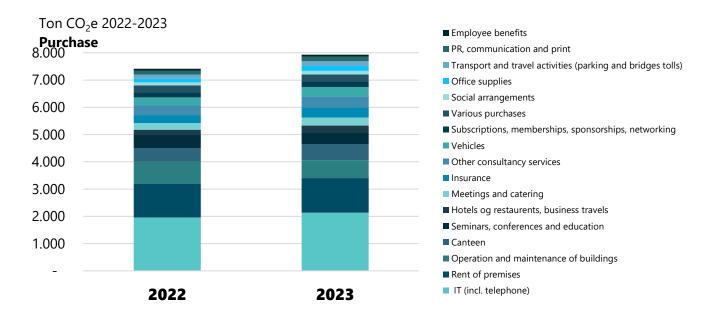


Figure 3-6 Purchase related emissions 2022-2023.



The largest contribution to purchase-related emissions is IT (incl. telephone) contributing with 27% of emissions from purchases in 2023. These emissions have increased by 9% from 2022 to 2023.

The second largest contributor is the rent of premises which contributes to 16% of emissions, as NIRAS leases many office locations. Emissions have increased by 3%.

Emissions from operation and maintenance of buildings contributes to 8% of the total emissions from purchases, and has decreased by 19% from 2022.

The canteens at NIRAS' office locations contributes to 7% of total emissions from purchases and has increased by 21% from 2022. Canteen data is based on both monetary data as well as primary supplier data from the largest office in Allerød.

4 Location based approach

Table 4.1 and Figure 4-1 present the total emissions calculated by a location based approach. The main difference from the market based method, is that the location based approach does not takes into account the purchase and sale of renewable energy based electricity, based on certificates in the market. The approach is further explained in the method section.

From the location based method we do not see the same decrease in total emissions because the purchase of green certificates have no effect using this method.

Table 4.1 Total location based emissions 2022- 2023.

Ton CO₂e	% distri-	% develop-		
Location based	2022	2023	bution in 2023	ment 2022- 2023
Scope 1	673	639	5%	-5%
Scope 2	238	201	2%	-15%
Scope 3	11.313	11.894	93%	5%
Total	12.224	12.735	100%	4%

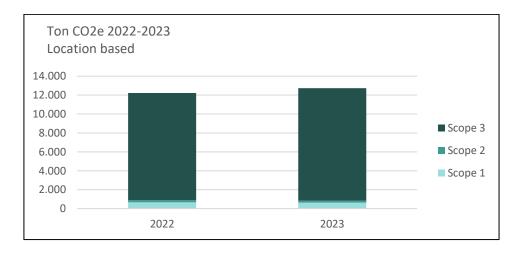


Figure 4-1 Total emission calculated using the location based approach 2022-2023.



5 Key Performance Indicators

The following section provides selected Key Performance Indicators (KPIs) for the energy consumption of NIRAS A/S' Denmark.

Table 5.1 Key Performance Indicators: Total energy consumption and Renewable energy share 2022-2023.

KPI	Unit	2022	2023	% Development 2022-2023
Total energy consumption	GJ	23.787	22.863	-4%
Renewable energy share	%	46,3	46,8	<1% points

The total energy consumption includes all energy sources and transportation, converted to GJ using standard factors for energy units conversion and conversion factors from the Danish Energy Authority.

To calculate **the renewable energy share**, the average renewable energy share of the electric and district heating grids have been used as stated by the Danish Energy Authority in the yearly published Energistatistik for the grid purchased energy, as well as the electricity produced and consumed from solar panels installed at NIRAS offices. For the renewable share of the gas and fuels consumption, the share of biogas in the Danish gas grid and the share of biobased fuels in fuels have been used.

Following the **RE100 technical guidelines** a renewable energy share of the electricity consumed by the company must be calculated separately based on the share of electricity the company has a unique claim on. This includes the electricity produced on and consumed from PV solar cells installed at NIRAS offices and the purchase of renewable electricity via certificates or other market measures.

In 2023 NIRAS consumed 175 kWh of electricity produced on solar cells installed at NIRAS offices, out of a total electricity consumption of 2.178 kWh (including electricity for electrical vehicles). A large share of the electricity use from the grid is in 2023 covered by green certificates. This gives a renewable energy share of the electricity consumption of 92% (rounded) following the RE100 approach.

6 Method

The following section briefly describes the method and data used to establish NIRAS A/S Denmark's 2023 climate account.

NIRAS' climate account follows the Greenhouse Gas Protocol (GHG Protocol), which is an internationally recognized standard for the calculation of climate accounts⁴. The emissions are calculated in CO_2 -equivalents (CO_2 e).

Six greenhouse gases are addressed in the GHG protocol, which are calculated as CO_2e , based on the global warming potential (GWP values) for the individual gases. Greenhouse gases have various effects and lifespan in the atmosphere and thereby affect the climate differently.

⁴ NIRAS' climate account is reported based on the principles of The Greenhouse Gas Protocol A Corporate Accounting and Reporting Standard, revised edition, GHG Protocol Scope 2 Guidance and the Corporate Value Chain (Scope 3) Accounting and Reporting Standard.



This climate account includes emissions from the following greenhouse gases and their GWP value:

Carbon dioxide (CO₂): 1 kgCO₂e/ kg

• Methane (CH₄): 28 kg CO₂e/ kg

• Nitrous oxide (N₂O): 265 kg CO₂e/kg

Additional greenhouse gases (SF₆, HFCs, PFCs) are not included and their contribution is considered neglectable.

The climate account does not include biogenic CO₂-emissions.

6.1 Location based and market based method

When applying the location based method, emissions are calculated using an emission factor corresponding to the average composition of the electricity grid.

When applying the market based method, the trading of renewable energy is taken into account and affects the applied emission factor. As illustrated in Figure 6.1, part of the electricity produced from renewable energy sources is purchased as green certificates on the market (a). These are therefore not considered a part of the residual electricity grid for companies and organization that do not contribute to the trading of green certificate (b) and therefore the emissions factor applied (when not trading) is based on a higher share of non-renewable energy (c). As a consequence, if a company does not purchase green certificates, its electricity consumption is associated with higher emissions under the market based approach than under the location based approach.

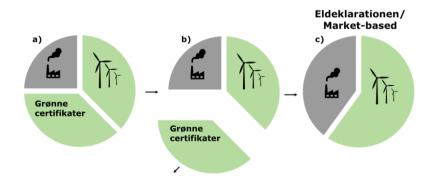


Figure 6.1 Illustration of the market based method.

6.2 Data

6.2.1 Energy data and estimates

The energy consumptions included in the accounts are based on physical data on amounts of consumption of electricity (in kWh), districts heating (in MWh) and natural gas (in nm³). Data is primarily collected from invoices from landlords, as NIRAS leases most of their office spaces. Some data from the Allerød office is measured directly from meters.

In a few cases, consumption of electricity and district heating is based on estimates. These estimates were used when no reliable data was available from landlords. Estimates for district heating are based on the average consumption per m² in the given year, calculated from the locations with actual data. The offices are as a rule smaller offices with a limited energy consumption, compared to the energy consumption in larger offices and the total energy consumption in NIRAS' offices in the given year.



6.2.2 Fuel use in company vehicles

Values for the amount of gasoline and diesel consumed in NIRAS' company vehicle, are based primarily on data collected from the leasing company, reported in liters and divided into gasoline and diesel.

A small amount of NIRAS' fuel use is not purchased with the leasing company's petrol card but from an employee's own expense, and is thereby not included in the data from the leasing company. This data is found in NIRAS' economy management system as purchase data.

Electricity use in company cars is collected directly from the supplier of the charging subscription, in physical amounts.

6.2.3 Business travel by air flight

NIRAS uses a travel agency for booking of air transport, Carlson Wagonlit Travels (CWT). They supply NIRAS with annual reports on calculated emissions which is used directly in the climate account. The emission reports are based on the total Green House Gas (GHG) emissions, reported in carbon dioxide equivalent (CO_2e kg) and includes carbon dioxide plus methane (CH_4) and nitrous oxide (N_2O), converted to carbon dioxide equivalents and based on guidelines produced by DEFRA's GHG Conversion Factors. The emissions are calculated from total distance of a flight, based on origin and destination airports as well as class of flight (economy, premium economy, business, first). Factors used do not include an "uplift" for Radiative Forcing (RF).

NIRAS also purchases flight transportation through other booking sites, which is located in spend data. The emissions from this are calculated by using the emission factor from EXIOBASE for air transport. This top down approach provides less accurately calculated emissions then the button-up approach used by CWT.

6.2.4 Business travel in employee vehicles

The emissions from the amount of km which employees have driven in their own cars for company related business travel is based on data collected from NIRAS' economy management system's "kørselsgodtgørelse". Data is specified in km driven from which emissions are calculated based on average data for liter gasoline/diesel used per km as well as statistics on percentage gasoline and diesel driven vehicles on the Danish roads.

6.2.5 Purchase data

Purchase data is extracted directly from NIRAS' accounting system Maconomy. The data is specified on the detail level of streamlined accounts, used every year, and only for the Danish company numbers in the system. Purchase data is processed on a detailed level down to every spend based input in the system, which results in a high quality of results.

Each spend based input is processed by removing spend on taxes, salary and other spends that do not cause CO₂ emissions. The spend data is then matched with the relevant emission factors from the EXIOBASE database as well as assigned a consumption category in order to group emissions into a tangible amount of categories, which are the same every year, for more streamlined reporting.

6.2.6 Canteen data

Data on the procurement of products and services for the canteens at NIRAS' Danish offices has been collected via a PowerBI dashboard developed for NIRAS' facility department. Relevant staff members from NIRAS' facility department have described each canteen procurement category from the dashboard. Subsequently, the expenditures of each procurement category have been matched with a relevant emission factor from the EXIOBASE database.

Specifically for NIRAS' office in Allerød, the canteen is operated by MEYERS. MEYERS has developed a GHG report, and its results are included as a data point. Consequently, specific procurement categories related to the canteen in Allerød are ignored, as the emissions related to these procurements are covered by MEYERS' GHG report.



Appendix 1:Emission factors

2023

	Unit	Data Source
Petrol (Company cars)	Kg CO₂e/L	Calculated from percentage mix (ENS, 2022), Energistatistik 2022 (Energistyrelsen, 2022), and (DEFRA, 2023).
Diesel (Company cars)	Kg CO₂e/L	Calculated from percentage mix (ENS, 2022), Energistatistik 2022 (Energistyrelsen, 2022), and (DEFRA, 2023).
Diesel (Company cars)	Kg CO₂e/DKK	Calculated from percentage mix (ENS, 2022), Energistatistik 2022 (Energistyrelsen, 2022), and (DEFRA, 2023). Calculated with average price 13,94 DKK/liter diesel in 2023.
Business travel with employee cars	Kg CO ₂ /km	Calculated from DCE (2020), (DST, 2021), and (DEFRA, 2022).
Natural gas	Kg CO₂e/m³	Calculated from Energistatistik 2022 (Energistyrelsen 2022) and upstream emissions from DEFRA 2023.
Electricity - Location based	Kg CO₂e/kWh	Scope 2 Energinet, foreløbig Miljøvaredeklaration 2023 - 125 % method. Scope 3 - 5 % distribution loss (Energinet, 2022) and upstream emissions (DEFRA) 2023.
Electricity - Market based	Kg CO₂e/kWh	Scope 2 - Energinet, Eldeklaration, General declaration 2023. Scope 3 - Upstream emissions (DEFRA 2023).
ARHK Fjernvarme	Kg CO₂e/kWh	Data about district heating supply 2022
ALBK Fjernvarme	Kg CO₂e/kWh	("Varmevirkningsgradsmetoden" with 125%) (Ener-
NAEO Fjernvarme	Kg CO₂e/kWh	gistyrelsen). The 125 % methods relates to the allocation
CPHO Fjernvarme	Kg CO₂e/kWh	of CO2-emissions when coproducing electricity and heat.
ODEK Fjernvarme	Kg CO₂e/kWh	This method has been chosen to align with the methods
ESBK Fjernvarme	Kg CO₂e/kWh	used for calculating the emission factors for electricity.
HOLK Fjernvarme	Kg CO₂e/kWh	
Silkeborg Fjernvarme	Kg CO₂e/kWh	Upstream emissions are calculated as a 20% distribution
Kalundborg Fjernvarme	Kg CO₂e/kWh	loss.
Kolding Fjernvarme	Kg CO₂e/kWh	



Electricity – company cars	Kg CO₂e/DKK	Location based: Energinet, foreløbig Miljøvaredeklaration 2023 and DEFRA, UK conversion factors 2023 Marketbased: Energinet, Eldeklaration, General declaration 2023. Scope 3 - Upstream emissions (DEFRA 2023). Calculated with average price of 1,0758 DKK/kWh in 2023
Driving allowance (kørsels- godtgørelse)	Kg CO₂e/km	KF22, Energistyrrelsen – Emission factors for road transport per km (Emissionsfaktorer for vejtransporten pr km) (ens.dk)
Driving allowance (kørsels- godtgørelse)	Kg CO₂e/DKK	KF22, Energistyrrelsen – Emission factors for road transport per km (Emissionsfaktorer for vejtransporten pr km) (ens.dk) Calculated with rate 2,19 DKK/km cf. state rates 2023.
Public transport (rail)	Kg CO₂e/km	DSB: environmental annual statement (Miljøårsopgørelse)

Emission factors used for calculating emissions from purchase data are from the latest updated version of the data-base EXIOBASE v3.3.16b2 (2011 hybrid), published August the 7th 2020, and adjusted for inflation 2023.