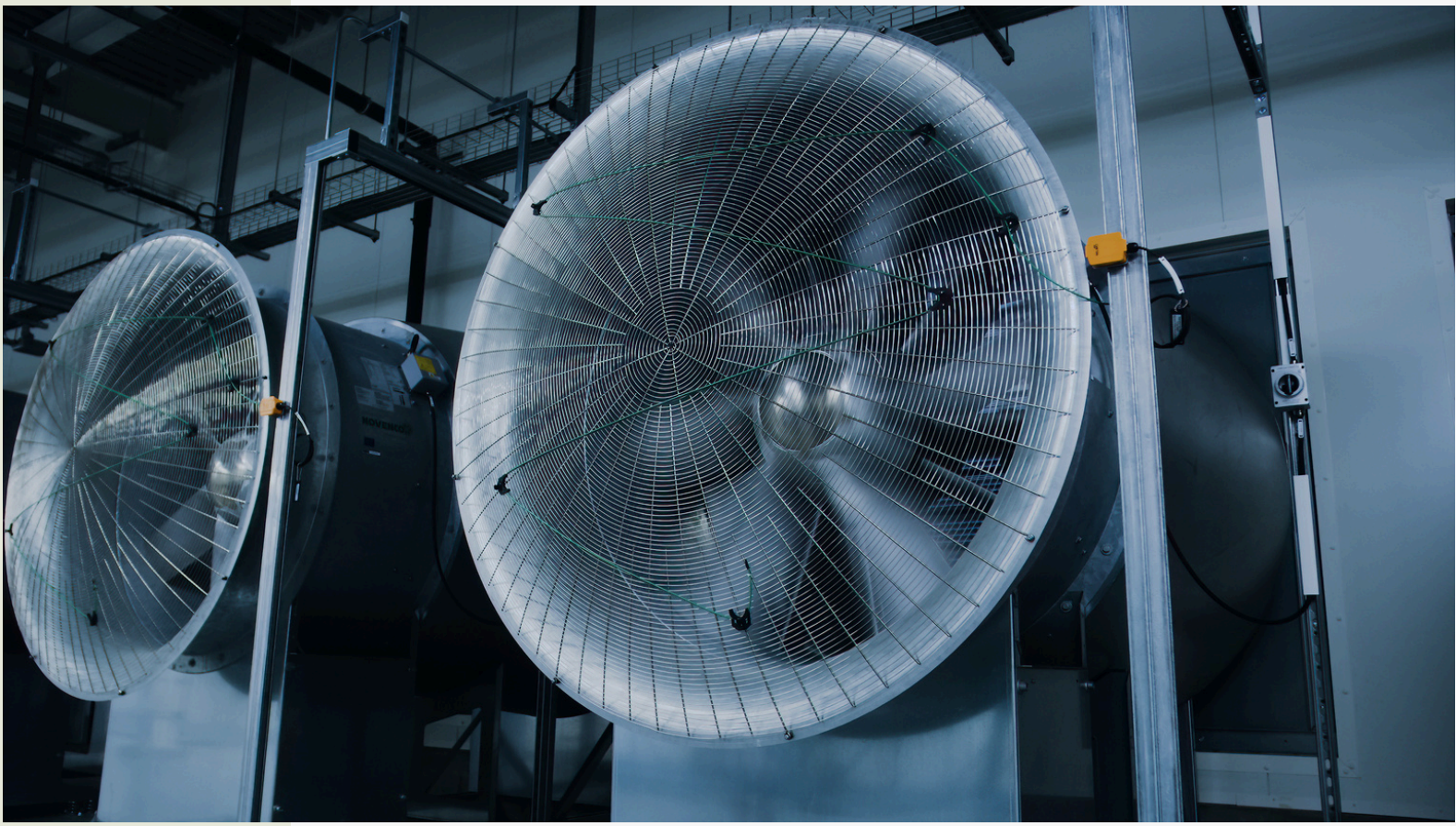
Greenhouse Gas Inventory 2023

NOVENCO BUILDING & INDUSTRY A/S

Building & Industry
NOVENCO
SCHAKO Group



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Summary

This report presents the greenhouse gas (GHG) inventory baseline (scope 1, 2 and 3) for the main entities in Novenco Building & Industry (hereafter NBI), for the baseline year: 2023.

The inventory has been created to meet NBI's commitment to Science Based Target Initiative (SBTi), to reduce their scope 1, 2 and 3 emissions by at least 42 % by 2030 from a 2023 base year. Additionally, to reduce scope 1, 2 and 3 emissions by 90 % by 2050 from a 2023 baseyear, to meet the net zero target. This report will set the future targets to ensure that NBI achieves the targets set in accordance with SBTi and the net zero commitment.

The main entities in NBI represent the organizational boundaries and consists of the mother company in Denmark which covers two production sites (hereafter NBI-DK). NBI also consist of a sales office in Germany (hereafter NBI-DE), a sales office in United Kingdom (here-after NBI-UK), and a sales office in the Netherlands (hereafter NBI-NL).

SCOPE 1, 2 & 3

The inventory was conducted in accordance with the GHG Protocol Corporate Accounting and Reporting Standard, as well as the guidelines from SBTi and IPCC.

The inventory includes emissions from all sources within the organizational boundaries, and report on the categories defined by the GHG protocol under scope 1 and 2.

In accordance with the GHG Protocol, the following scope 3 categories have been selected based on an initial screening of NBI's financial activities for each entity. NBI-DE is reported this year under the mother company NBI-DK, as it is not a legal entity and the data was difficult to separate.

INCLUDED SCOPE 3 CATEGORIES

NBI-DK + NBI-DE:

- Purchased Goods & Services
- Upstream Transportation & Distribution
- Downstream Transportation & Distribution
- Capital Goods
- Waste Generated in Operations
- Employee Commuting
- Business Travels

NBI-NL:

- Purchased Goods & Services
- Upstream Transportation & Distribution
- Downstream Transportation & Distribution
- Upstream Leased Assets

NBI-UK.

- Purchased Goods & Services
- Upstream Transportation & Distribution
- Employee Commuting
- Business Travels

TABLE 1: EMISSIONS BY SCOPE & ENTITY INCLUDING NEAR TERM- & LONG TERM TARGETS

Scope 1	Base year 2023 (tCO_2eq)	Near term target, 2030 (tCO_2eq)	Net Zero target, 2050 (tCO_2eq)
NBI-DK	58.6	34	5.86
NBI-DE	18.1	10	1.81
NBI-NL	102.0	59	10.20
NBI-UK	5.1	3	0.51
Total	**183.7**	**106**	**18.33**
Scope 2	**Base year 2023 (tCO_2eq)**	**Near term target, 2030 (tCO_2eq)**	**Net Zero target, 2050 (tCO_2eq)**
NBI-DK	1,396.2	810	139.6
NBI-DE	7.0	4	0.70
NBI-NL	9.9	6	0.99
NBI-UK	2.8	2	0.28
Total	**1,415.9**	**822**	**141.57**
Scope 3	**Base year 2023 (tCO_2eq)**	**Near term target, 2030 (tCO_2eq)**	**Net Zero target, 2050 (tCO_2eq)**
NBI-DK + NBI-DE	16,410.7	9,518.2	1,641.07
NBI-NL	3778.0	2,191.2	377.80
NBI-UK	920.7	534	92.07
Total	**21,109.4**	**12,243.4**	**5,511.94**

About Green Survey

This climate report has been prepared by the consultancy Green Survey ApS in cooperation with Novenco Building & Industry A/S. Green Survey has been responsible for data processing and the preparation of this report, while Novenco Building & Industry has been responsible for data collection.

Green Survey is an independent consultancy specializing in climate and environmental documentation. Green Survey helps customers and business partners with an effective green transition, built on a well documented foundation.

Green Survey always use the latest knowledge and recognized methods to calculate the climate and environmental footprint.

Green Survey's services include:

- Carbon footprint calculations (scope 1, 2 and 3)
- Environmental product declarations (EPDs)
- Life cycle assessments (LCAs)
- ESG-reporting

The consultancy behind this report

GREEN SURVEY

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The Greenhouse Gas Inventory

The Greenhouse Gas Inventory (GHG-inventory) is a comprehensive analysis, that measures the amount of greenhouse gas emissions (GHG-emissions) that a company or organization is responsible for. It is an essential tool in understanding an organization's carbon footprint and identifying areas, where it can improve its environmental performance. The inventory considers all three scopes of emissions: scope 1, 2, and 3. Each scope will be explained in its own chapter.

CARBON EMISSIONS

'Carbon emissions' refer to the total greenhouse gasses (GHG) emitted, caused directly and indirectly by an individual, organization, event, or a product. These GHGs are atmospheric gases that contribute to the greenhouse effect and global climate change. Since these emissions do not just cover CO_2, the term CO_2-equivalents (CO_2eq) is used to cover total greenhouse gas emissions. It is typically measured in tons of CO_2eq (tCO_2eq). Therefore, all emissions in this climate inventory will be expressed in tCO_2eq.

THE 7 GREENHOUSE GASES

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulphur hexafluoride (SF_6)
- Nitrogen trifluoride (NF_3)

Each GHG has a different global warming potential (GWP) and persists for a different length of time in the atmosphere. While methane and nitrous oxide are more potent GHGs than carbon dioxide, the volume of emitted carbon dioxide means it has the greatest impact on warming.

About Novenco Building & Industry

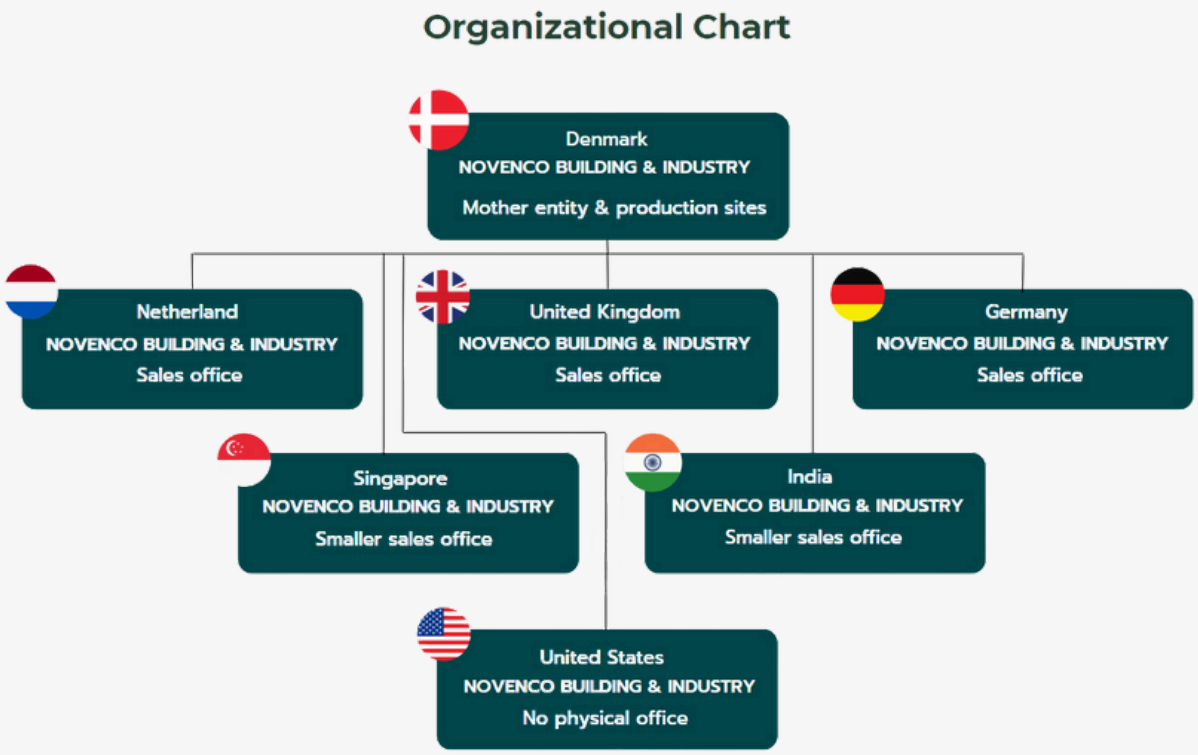


Figure 1: Organizational chart for Novenco Building & Industry

ABOUT THE COMPANY

Novenco Building & Industry (NBI), is a subsidary of SCHAKO Group. SCHAKO Group is a global provider of ventilation, air conditioning, fire safety and smoke extraction solutions. Meanwhile, NBI is the experts of energy efficient ventilation in process industries, data centres, tunnel constructions and car parks.

As a sub-unit of SCHAKO Group, NBI has signed up to Science Based Target Initiative (SBTi) and the net zero target. By doing so, NBI is committed to setting reduction targets that are in line with the Paris Agreement targets towards 2030, as well as setting net zero targets towards 2050.

ORGANIZATIONAL BOUNDARIES

This inventory will cover the main organization for NBI. As seen in figure 1 the mother company is located in Denmark and includes the production sites (NBI-DK). In addition, NBI have sales offices in the in the Netherlands (NBI-NL), United Kingdom (NBI-UK), and in Germany (NBI-DE). NBI-DE is not a legal entity. Therefore, only NBI-DE data will be reported separately under scope 1 and 2, while NBI-DE data will be combined with NBI-DK data under scope 3.

The smaller sales offices in Singapore, India and in the United States will be excluded from this report due to small emissions and a lack of data.

Methodology & Boundaries

With a desire to work actively with the company's climate profile and create insight into activities, processes and targets, NBI has prepared a climate inventory that reports on scope 1, 2 and 3 emissions.

This climate inventory reports on the ***baseline year: 2023.***

METHODOLOGY

The full inventory (scope 1, 2 and 3) are based on well-defined and recognized principles of the Greenhouse Gas Protocol (GHG Protocol), and follow the categorization and systematics described therein. Furthermore, the climate accounts are prepared in accordance with internationally recognized guidelines from the Science Based Target Initiative (SBTi) and the recommendations of the IPCC. For a specific review of the methodological approaches, please refer to appendix 1.

Data collection / scope 1 & 2:
Activity-based data from all four entities has been collected and used for the scope 1 and 2 calculations. Any assumption regarding these calculations can be found in appendix 2.

Data collection / scope 3:
When possible, the data collection has been done in correspondence with the relevant suppliers. The suppliers have responded to detailed questionnaires to collect primary data. This approach has contributed to a higher transparency and allowed accurate allocation of emission data. When direct allocation was not possible, a hybrid approach has been used. This approach ensures that emissions are fairly calculated across all activities.

Databases & data gaps:
To fill out data gaps where primary data has not been available, advanced databases have been used. These databases are all compatible with the GHG protocol and all contain comprehensive environmental data to ensure high quality and accurate calculations. Databases used are e.g.: *DEFRA, EcoInvent 3.10, EXIOBASE* etc. (appendix 1).

Hybrid approach / scope 3:
The scope 3 calculations follows the hybrid approach. This methodology combines both consumer-based and volume-based methodologies. As far as possible, the calculations rely on product specific and supplier specific data such as EPDs.

BOUNDARIES

Scope 1, 2 & 3:
Scope 1, 2 and 3 boundaries follow the categorization and systematics of the GHG Protocol.

Scope 3:
Scope 3 reflects NBI's core business and normal business practices. Smaller acquisitions, that do not reflect the core business, are therefore excluded. The system boundaries for scope 3 have been determined through an initial screening based on NBI's financial activities for each entity.

Here, all included entities of NBI identified areas with a particularly large number of financial activities, thereby locating significant key areas of NBI's business. These results have been used in the selection of relevant scope 3 categories, included in this scope 3 inventory.

Included scope 3 categories are therefore primarily selected on the basis of this screening, combined with knowledge of NBI's core business. Secondly, categories are included or excluded, determined by data availability.

Supplier mapping:
To determine the tier 1 suppliers for all included entities, each entity was responsible for making a supplier mapping, where at least 90% of the expenses for the tier 1 suppliers were included.

This supplier mapping for each entity was used to contact the relevant tier 1 suppliers in relation to the scope 3 data collection.

SCOPE 3 CATEGORIES INCLUDED

NBI-DK + NBI-DE

- Purchased Goods & Services
- Upstream Transportation & Distribution
- Downstream Transportation & Distribution
- Capital Goods
- Waste Generated in Operations
- Employee Commuting
- Business Travels

NBI-UK

- Purchased Goods & Services
- Upstream Transportation & Distribution
- Employee Commuting
- Business Travels

NBI-NL

- Purchased Goods & Services
- Upstream Transportation & Distribution
- Downstream Transportation & Distribution
- Upstream Leased Assets

EXCLUDED CATEGORIES

Excluded categories are excluded based on the initial financial screening and the knowledge about NBI's core business, as well as due to a lack in data availability. To this end, the wish is to improve both data and scope 3 categories in the following years' scope 3 statements.

BASE YEAR AND RECALCULATION POLICY

NBI has chosen 2023 as the baseline year for climate targets. In case of major data changes or identification of error sources, please note that the base year can be recalculated in the future.

GHG inventory analysis - main results

Scope 1	tCO_2eq
NBI-DK	58.6
NBI-DE	18.1
NBI-NL	102.0
NBI-UK	5.1
Total	**183.7**

Scope 2	tCO_2eq
NBI-DK	1,396.2
NBI-DE	7.0
NBI-NL	9.9
NBI-UK	2.8
Total	**1,415.9**

Scope 3	tCO_2eq
NBI-DK + NBI-DE	16,410.7
NBI-NL	3,778.0
NBI-UK	920.7
Total	**21,109.4**

Total emissions across scope 1, 2 and 3 for all entities (tCO_2eq)	**22,709.0**

Table 2: Emissions by scope & entity for the included entities, 2023 (tCO_2eq)

Table 2 shows the total emissions from scope 1, 2 and 3 for each entity. It shows a total emission across scope 1, 2 and 3 for all entities of **22,709 tCO_2eq** in 2023.

Looking at the overall percentage distribution across scope 1, 2 and 3 emissions for all entities, we can see that scope 1 accounts for **183.7 tCO_2eq**, corresponding to **0.8 %** of the total emissions, while scope 2 accounts for **1,415.9 tCO_2eq**, corresponding to **6.2 %** of the total emissions. Scope 3 accounts for **21,109.4 tCO_2eq**, corresponding to **93.0 %** of the total emissions (figure 2).

Figure 2: The percentage distribution of scope 1, 2 & 3 in total, across entities (%)

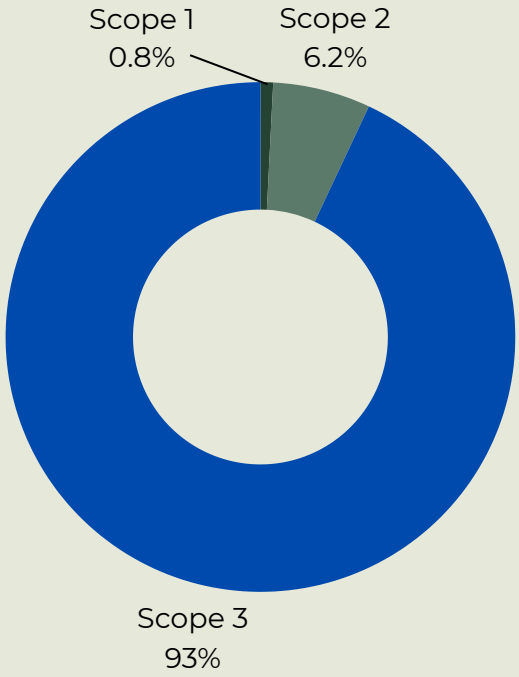


Figure 3: Distribution of scope 1 & 2 emissions by entity (tCO_2eq)

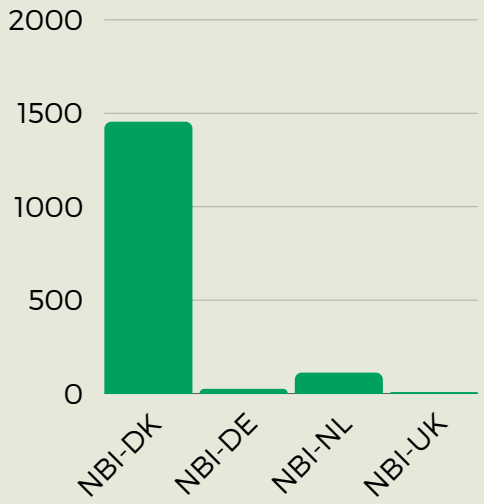


Figure 4: Distribution of scope 3 emissions by entity (tCO_2eq)

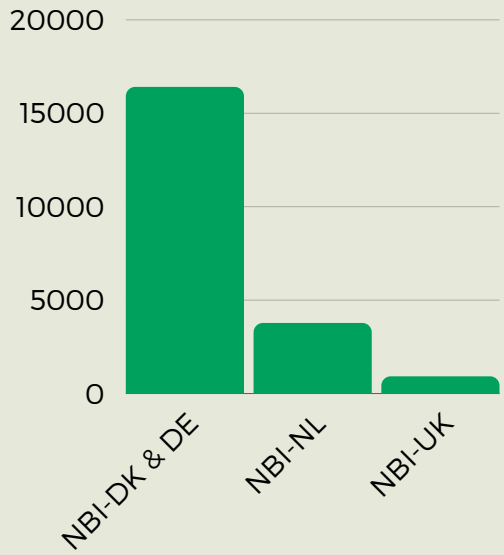


Figure 3 shows that NBI-DK emits 1454.8 tCO_2eq across scope 1 and 2. NBI-DE emits 25.1 tCO_2eq across scope 1 and 2. Meanwhile NBI-NL and NBI-UK emits 111.9 tCO_2eq and 7.9 tCO_2eq respectively across scope 1 and 2 in 2023.

Figure 4 shows that NBI-DE + NBI-DE emits 16,410.7 tCO_2eq under scope 3, meanwhile NBI-NL and NBI-UK emits 3,778 tCO_2eq and 920.7 tCO_2eq respectively under scope 3 in 2023. The following part of the report are structured in three chapters: scope 1, 2 and 3. Each chapter will include a brief introduction to each scope.

Scope 1

A company's scope 1 emissions refer to the direct emissions from sources owned or controlled by the company, including fuel combustion and process emissions. More specifically, scope 1 emissions are divided into three different categories:

- *Stationary combustion*
- *Mobile combustion*
- *Refrigerants*

The category *stationary combustion* describes emissions from stationary incinerators, i.e. different types of machines. The category *mobile combustion* covers emissions from vehicles owned or controlled by the company. The last category, *refrigerants*, contains emissions from refrigerants and coolants.

There is no registered stationary combustion, which is why it accounts for 0% of scope 1. It will therefore be excluded in the rest of the report.

The emissions from NBI thus originate from the categories *mobile combustion* and *refrigerants* across the entities in the organization. Mobile combustion has been registered in the entities in NBI-DK, NBI-DE, NBI-NL and NBI-UK, while only refrigerant-related emissions have been registered for NBI-NL.

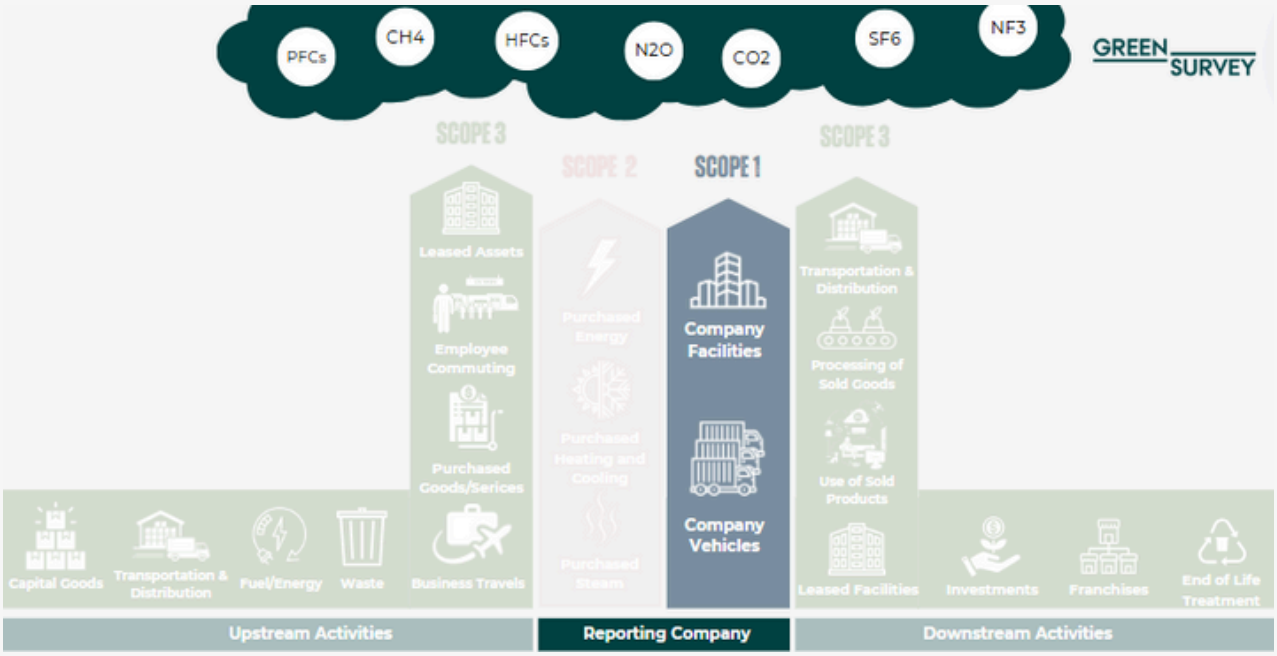


Figure 5: Overview of the GHG Protocol's categorization of scope 1 emissions

The total scope 1 emissions across entites is **183.7 tCO_2eq** in 2023. Table 3 provides an insight into which entities that contribute to scope 1 emissions, and from which scope 1 category the emissions come from.

Entity	Categories	tCO_2eq	Data quality
NBI-DK	Mobile combustion	58.6	Activity-based
NBI-DE	Mobile combustion	18.1	Activity-based
NBI-NL	Mobile combustion	61.1	Activity-based
	Refrigerants	40.8	Activity-based
NBI-UK	Mobile combustion	5.1	Activity-based
Total	**Scope 1**	**183.7**	

Table 3: The distribution of scope 1 emissions by categories & entity in 2023

The emissions are calculated based on activity-based data from each entity. For the category *mobile combustion* kilometers driven and/or fuel consumption have been collected from each entity. In addition NBI-NL have collected the capacity of refrigerants used in 2023 (R410A and R32). The data have been multiplied by emission factors from the database: *UK Government GHG Conversion Factors for Company Reporting (DEFRA).*

The mobile combustion category for NBI-NL was based on estimated activity-based data with an assumption of how much petrol and diesel was consumed by the company cars in total in 2023. As the company cars owned by NBI-NL in 2023 were used for both private driving, commuting and business travels, it has not been possible to come up with a reasonable differentiation of how large a share could also be placed under the scope 3 categories *employee commuting* and *business travels*. Therefore, this is included under NBI-NL's scope 1 and will not be part of scope 3 for NBI-NL.

Figure 6 shows how each entity contributes to the total scope 1 emissions. As shown in figure 6, the entity in the Netherlands (NBI-NL) accounts for **55.5 % of scope 1** emissions, which is the majority of scope 1. Next comes the NBI entity in Denmark (NBI-DK), which accounts for **31.9 % of scope 1** emissions. The third largest scope 1 emission comes from the NBI entity in Germany (NBI-DE), which accounts for **9.8 % of scope 1** emissions. The remaining **2.8 % of scope 1** emissions originate from the NBI entity in the United Kingdom (NBI-UK).

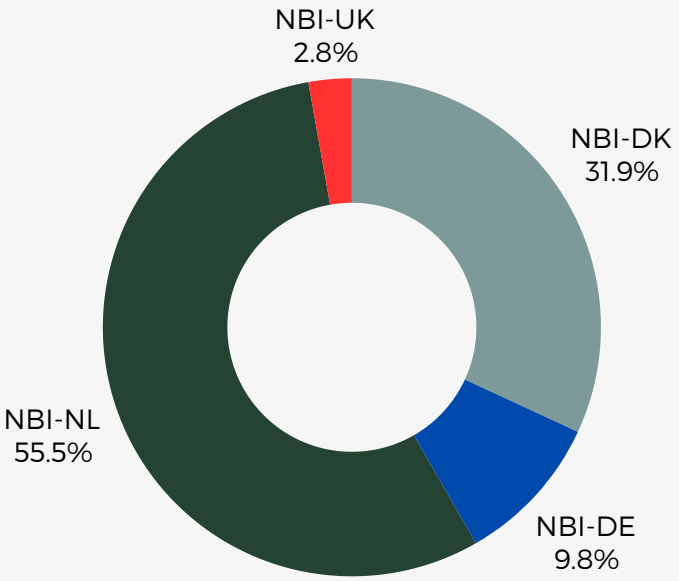


Figure 6: The percentage distribution of scope 1 emissions for each entity of NBI in 2023

The reason why NBI-NL accounts for the majority of emissions is because there are both registered emissions under *mobile combustion* as well as *refrigerants* (table 3). The three other entities have only registered emissions under *mobile combustion*. So even though vehicle emissions for NBI-DK are higher than for NBI-NL, NBI-NL in total accounts for the majority of scope 1 emissions. In addition, it should be kept in mind, that the mobile combustion category for NBI-NL was also based on more uncertain data, as company cars were used for multiple purposes.

Scope 2

Scope 2 emissions are the indirect emissions associated with the company's consumption of purchased electricity, heat or steam. In scope 2 we therefore report on two categories:

- *Electricity*
- *District heating*

The category *electricity* covers the emissions from the company's purchased and consumed electricity. The category *district heating* covers the emissions of the company's purchased and consumed heating.

Electricity consumption is registered in all the included entities under the NBI organization. Emissions associated with district heating have been registered only for NBI-DK and NBI-NL. NBI-DE & NBI-UK are using air conditioning for heating and cooling, which is therefore included in the consumption of kWh under *electricity*.

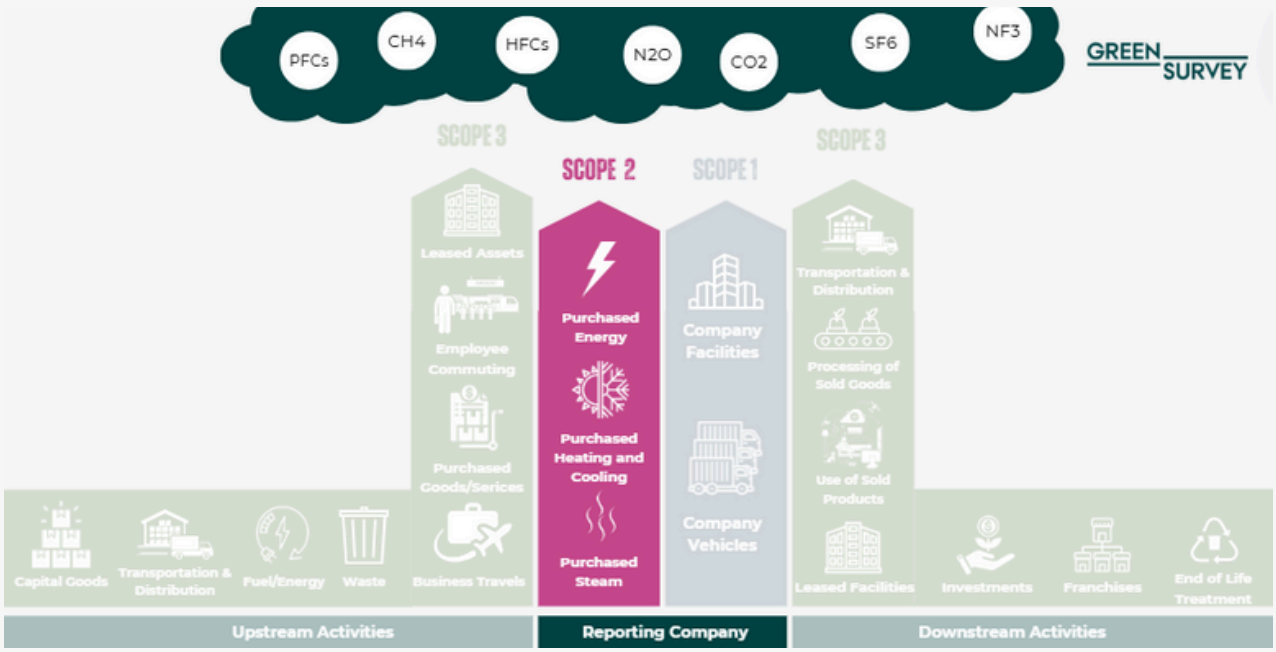


Figure 7: Overview of the GHG Protocol's categorization of scope 2 emissions

The total emissions from scope 2 activities is **1,415.9 tCO_2eq** for the included entities under NBI in 2023. Table 4 provides an insight into which entities that contributes to the scope 2 emissions, and from which category the emissions comes from.

Entity	Categories	tCO_2eq	Data quality
NBI-DK	Electricity	856.2	Activity-based
	Heating	540.0	Activity-based
NBI-DE	Electricity	7.0	Activity-based
NBI-NL	Electricity	3.3	Activity-based
	Heating	6.6	Activity-based
NBI-UK	Electricity	2.8	Activity-based
Total	**Scope 2**	**1,415.9**	

Table 4: The distribution of scope 2 emissions by categories & entity in 2023

It was not possible for NBI-UK to gather primary activity-based data. Therefore assumptions have been applied regarding the electricity used, based on the average consumption for electricity per person in the UK in 2023. The average electricity consumption per person have been multiplied with the amount of employees in the NBI-UK sales office. This amount was then multiplied by the emission factor for UK electricity from the database: *UK Government GHG Conversion Factors for Company Reporting*.

For NBI-DK the emission factor comes from their service provider Norlys´s electricity declaration from 2023. For NBI-NL the emission factor comes from their service provider Eneco´s electricity declaration from 2023. In regards to heating, NBI-DK consumed both district heating and natural gas from the providers Norlys and Næstved Fjernvarme, where the emission factors was found. NBI-NL only consumed natural gas for their heating, where the database *Ecoinvent 3.10* has been used to find the most accurate emission factor.

Figure 8 shows how each included entity contributes to the total scope 2 emissions. As shown in figure 8, NBI-DK accounts for **98.6 % of scope 2** emissions, and is therefore responsible for the largest scope 2 emissions in 2023. A smaller percentage of **0.7 % of scope 2** comes from NBI-NL. The remaining **0.5 %** and **0.2 % of scope 2** comes from NBI-DE and NBI-UK.

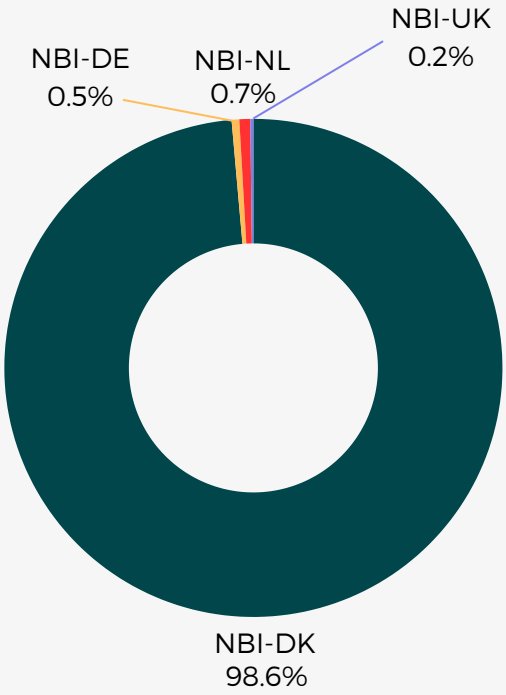


Figure 8: The percentage distribution of scope 2 emissions for each entity of NBI in 2023

NBI-DK´s amount of consumed electricity and heating is large compared to the other entities (table 4). The reason for this is because NBI-DK covers the production sites located in Denmark. Compared to the sales offices in DE, NL and UK, it is no surprise that the production sites in Denmark accounts for most of the emissions under scope 2.

Scope 3

Scope 3 covers the indirect emissions that originate from activities in the supply chain. In other words, scope 3 are emissions, which the company has no direct control over.

Overall, scope 3 is divided into 15 different categories, all of which are areas in a supply chain with potential emissions. These categories are further divided into so-called 'upstream' and 'downstream' activities.

Upstream activities refer to emissions that occur in the supply chain due to activities in the company's production of products. This can for example be emissions associated with the purchase of raw materials, transportation of goods and employees commuting to and from work at the company.

Downstream activities refer to emissions that occur after the product has left production. This can relate to transportation to the customer, as well as waste management of the products, among other factors.

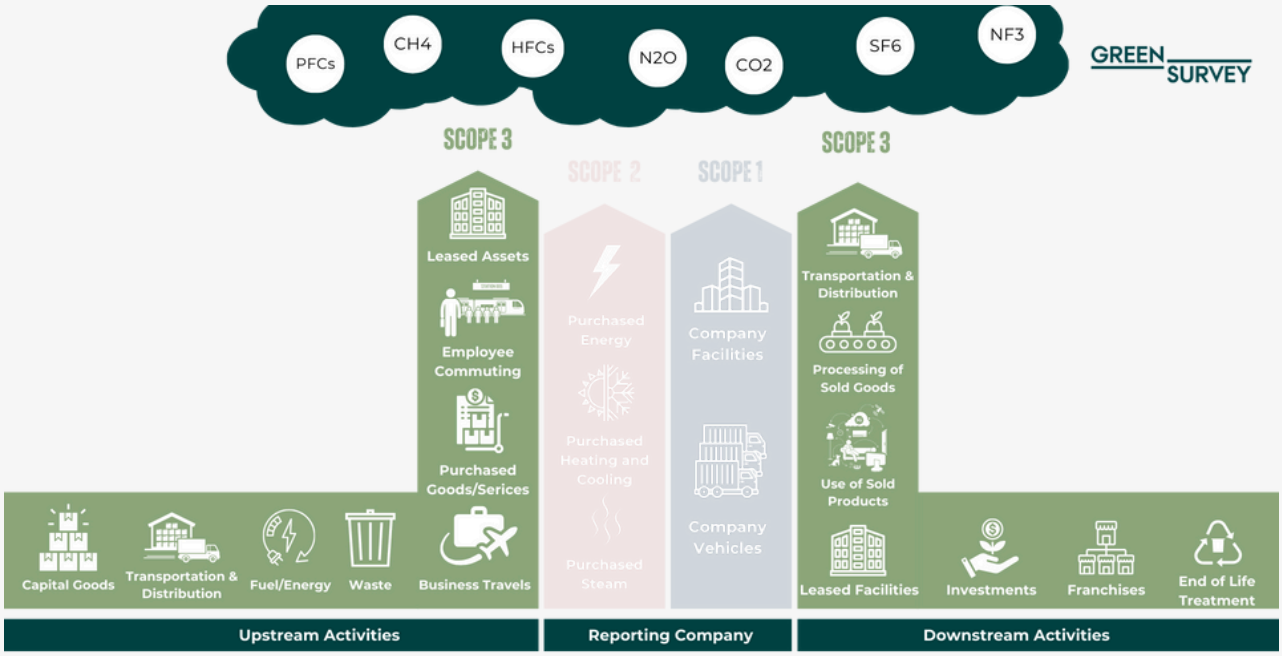


Figure 9: Overview of the GHG Protocol's categorization of scope 3 emissions

The total scope 3 emissions across entites is **21,109.4 tCO_2eq** in 2023. Table 5 provides an insight into which entities that contributes to the scope 3 emissions and from which scope 3 category the emissions comes from.

Entity	Categories	tCO_2eq	Data quality
NBI-DK + NBI-DE	Purchased Goods & Services	13,320.5	hybrid approach
	Upstream Transportation & Distribution	24.4	hybrid approach
	Downstream Transportation & Distribution	1,115.6	hybrid approach
	Capital Goods	1,679.5	spend-based
	Waste Generated in Operations	0.05	supplier specific
	Employee Commuting	2.9	activity-based
	Business Travels	267.7	hybrid approach
NBI-NL	Purchased Goods & Services	3,744.0	hybrid approach
	Upstream Transportation & Distribution	22.9	spend-based
	Downstream Transportation & Distribution	8.5	spend-based
	Upstream Leased Assets	2.6	activity-based
NBI-UK	Purchased Goods & Services	866.2	spend-based
	Upstream Transportation & Distribution	20.3	activity-based
	Employee Commuting	12.1	activity-based
	Business Travels	22.1	hybrid approach
Total	**Scope 3**	**21,109.4**	

Table 5: The distribution of scope 3 emissions by categories & entity in 2023

Figure 10 shows how each included entity contributes to the total scope 3 emissions. As shown NBI-DK + NBI-DE account for **77.7 %** of the total scope 3 emissions. Meanwhile NBI-NL and NBI-UK account for **17.9 %** and **4.4 %** of the total scope 3 emissions in 2023.

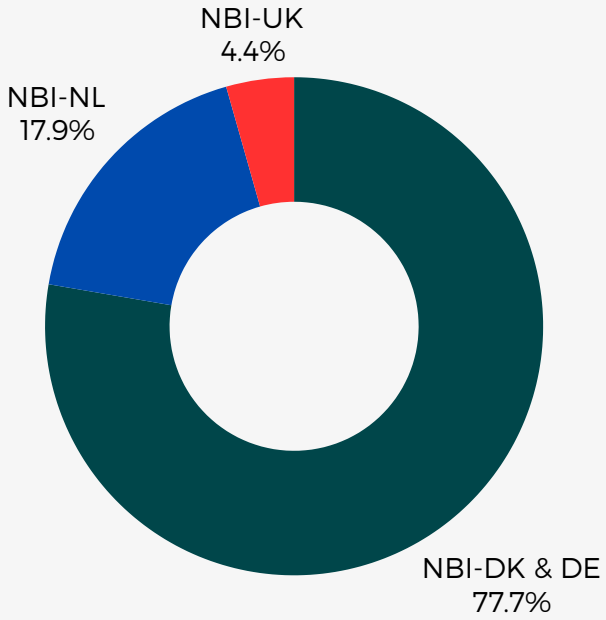


Figure 10: The percentage distribution of scope 3 emissions for each entity in 2023, when NBI-DK & NBI-DE is combined (%)

Overall, the hybrid approach have been used to calculate the scope 3 emissions. Table 5 shows the data quality, but for a thorough explanation of the scope 3 calculations and methods, please refer to appendix 1.

During the scope 3 calculations, assumptions have been made, which have contributed to uncertainties and limitations regarding the calculations. For an in-depth description of this, refer to appendix 2.

The following shows the calculations of the emissions that relate to the water consumption for the four entities in 2023. Subsequently, SBTi and net zero targets are set on the basis of the calculated emissions from scope 1, 2 and 3.

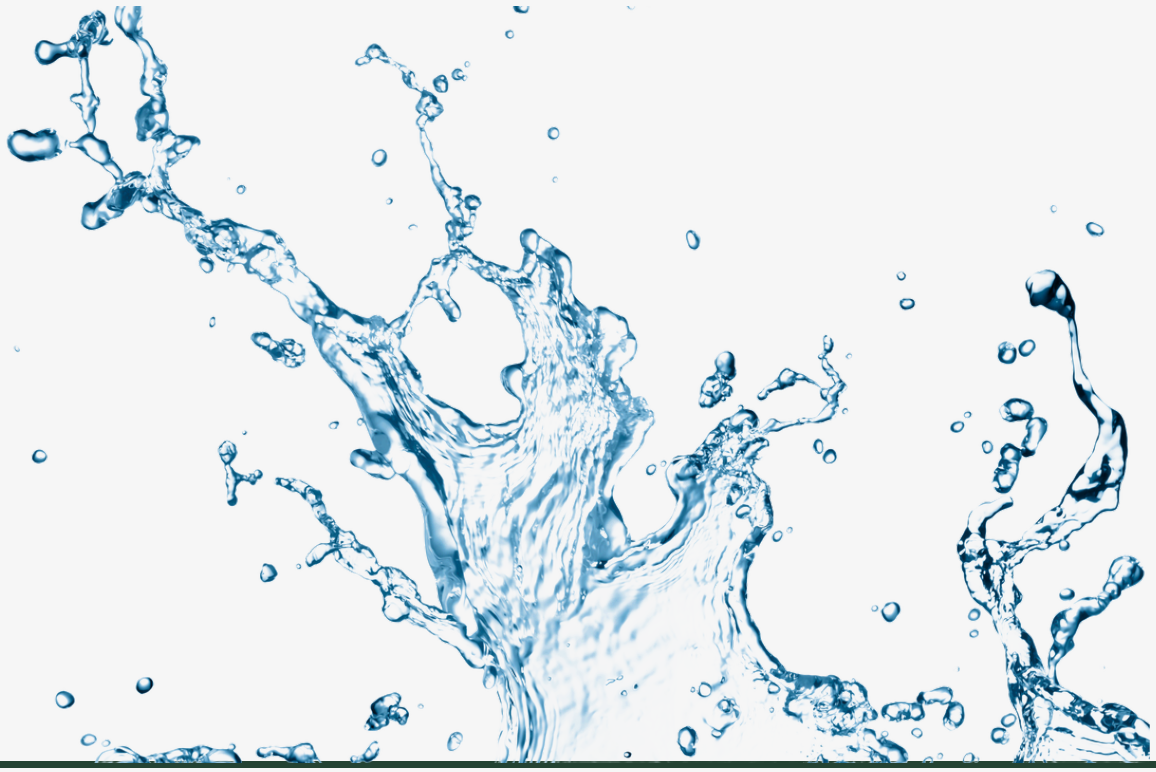
Water consumption

Water consumption has been calculated for all entities. The CO_2eq-emissions are not factored in to the scope 1, 2 or 3 inventory. The calculations are meant to act as a baseline for NBI to monitor water use in the years to come, with the goal to reduce water consumption where it is possible to do so in the future.

Entity	Water consumption (tCO_2eq)	Data quality	Database
NBI-DK	0.58	Activity-based	EcoInvent 3.10
NBI-DE	0.01	Activity-based	EcoInvent 3.10
NBI-NL	0.05	Activity-based	EcoInvent 3.10
NBI-UK	0.002	Activity-based*	EcoInvent 3.10
Total	**0.638**		

Table 6: Water consumption by entity in 2023

**Water consumption for NBI-UK is based on the assumption of how much water an average person uses in an office in the UK.*



SBTi Targets & Net Zero Targets

Near-term targets: Each of the included entities are committed to reduce scope 1, 2 and 3 emissions with at least 42 % by 2030 from a 2023 base year (table 7).

Long-term net zero targets: Each of the included entities are committed to reduce scope 1, 2 and 3 emissions with at least 90 % by 2050 from a 2023 base year (table 8).

TABLE 7: NEAR-TERM TARGETS

Entity	scope	Base year 2023 (tCO_2eq)	Near term target, 2030 (tCO_2eq)	% SBTi reduction
NBI-DK	Scope 1	58.6	**34**	42 %
	Scope 2	1,396.2	**810**	42 %
NBI-DE	Scope 1	18.1	**10**	42 %
	Scope 2	7.0	**4**	42 %
NBI-DK & NBI-DE	Scope 3	16,410.7	**9,518.2**	42 %
NBI-NL	Scope 1	102.0	**59**	42 %
	Scope 2	9.9	**6**	42 %
	Scope 3	3,778.0	**2,191.2**	42 %
NBI-UK	Scope 1	5.1	**3**	42 %
	Scope 2	2.8	**2**	42 %
	Scope 3	920.7	**534**	42 %

TABLE 8: LONG-TERM NET ZERO TARGETS

Entity	scope	Base year 2023 (tCO_2eq)	Net Zero target, 2050 (tCO_2eq)	% SBTi reduction
NBI-DK	Scope 1	58.6	**5.86**	90 %
	Scope 2	1,396.2	**139.62**	90 %
NBI-DE	Scope 1	18.1	**1.81**	90 %
	Scope 2	7.0	**0.70**	90 %
NBI-DK & NBI-DE	Scope 3	16,410.7	**1,641.07**	90 %
NBI-NL	Scope 1	102.0	**10.20**	90 %
	Scope 2	9.9	**0.99**	90 %
	Scope 3	3,778.0	**377.80**	90 %
NBI-UK	Scope 1	5.1	**0.51**	90 %
	Scope 2	2.8	**0.28**	90 %
	Scope 3	920.7	**92.07**	90 %

Conclusion

Scope 1	tCO_2eq
NBI-DK	58.6
NBI-DE	18.1
NBI-NL	102.0
NBI-UK	5.1
Total	**183.7**

Scope 2	tCO_2eq
NBI-DK	1,396.2
NBI-DE	7.0
NBI-NL	9.9
NBI-UK	2.8
Total	**1,415.9**

Scope 3	tCO_2eq
NBI-DK + NBI-DE	16,410.7
NBI-NL	3,778.0
NBI-UK	920.7
Total	**21,109.4**

Total emissions across scope 1, 2 and 3 for all entites (tCO_2eq)	**22,709.0**

Table 9: Emissions by scope & entity for the included entities, 2023 (tCO_2eq) - Main results

Table 9 summarizes the main results from this scope 1, 2 and 3 inventory. The total emissions across scope 1, 2 and 3 for all entities is **22,709 tCO_2eq.** While both scope 1 and 2 are calculated on the basis of activity-based data, scope 3 is calculated based on the hybrid approach..

Each of the entities: NBI-DK, NBI-DE, NBI-NL and NBI-UK are committed to reduce their scope 1, 2 and 3 targets with at least 42 % by 2030 from a 2023 base year to meet SBTi's guidelines for near-term targets. Note that NBI-DK and NBI-DE have a common scope 3 target (see the targets in table 7).

At the same time, each of the mentioned entities commits to reduce their scope 1, 2 and 3 targets with at least 90 % by 2050 from a 2023 base year to meet SBTi's guidelines for long-term net zero targets. Again, NBI-DK and NBI-DE have a common scope 3 target (see the targets in table 8).

Appendix 1 - Calculation methods

Entity	Categories/ activity data	Unit	Emission Factors	Data quality	Methodology	tCO_2eq
Scope 1						
NBI-DK	Mobile combustion	km	DEFRA	Activity-based	Amount X Emission Factor	58.6
NBI-DE	Mobile combustion	km	DEFRA	Activity-based	Amount X Emission Factor	18.1
NBI-NL	Mobile combustion	km	DEFRA	Activity-based	Amount X Emission Factor	61.1
	Refrigerants	Kg	DEFRA	Activity-based	Amount X Emission Factor	40.8
NBI-UK	Mobile combustion	km	DEFRA	Activity-based	Amount X Emission Factor	5.1
Total scope 1 (tCO_2eq) = 183.7						
Scope 2						
NBI-DK	Electricity	kWh	Norlys, 2022	Activity-based	Purchased electricity X Emission Factor	856.2
	District heating	Cubic meter & mWh	Norlys & Næstved Fjernvarme, 2023	Activity-based	District heating X Emission Factor	540.0
NBI-DE	Electricity	kWh	Nowtricity/Germany, 2023	Activity-based	Purchased electricity X Emission Factor	7.0
NBI-NL	Electricity	kWh	Eneco, 2023	Activity-based	Purchased electricity X Emission Factor	3.3
	District heating	Cubic meter	EcoInvent 3.9.1	Activity-based	District heating X Emission Factor	6.6
NBI-UK	Electricity	kWh	DEFRA	Activity-based	Purchased electricity X Emission Factor.	2.8
Total scope 2 (tCO_2eq) = 1,415.9						
Scope 3						
NBI-DK + NBI-DE	Purchased Goods & Services	tCO_2eq kg DKK	Supplier specific, OEKOBAU, EXIOBASE v3.3.16b1 (v. 2020 m. 2011-data), EXIOBASE v3.3.16b2 (v. 2020 m. 2011-data)	hybrid approach	LCA, EPD Scope 1, 2 & (3) kg X Emission Factor DKK X Emission Factor	13,320.5
	Upstream Transportation & Distribution	t*km DKK	DEFRA, EcoInvent 3.10 & EXIOBASE v3.3.16b1 (v. 2020 m. 2011-data)	hybrid approach	t*km X Emission Factor DKK X Emission Factor	24.4

	Downstream Transportation & Distribution	tCO_2eq t*km DKK	Supplier Specific, EcoInvent 3.10, EXIOBASE v3.3.16b1 (v. 2020 m. 2011-data)	hybrid approach	WTW t*km X Emission Factor DKK X Emission Factor	1,115.6
	Capital Goods	DKK	EXIOBASE v3.3.16b2 (v. 2020 m. 2011-data)	Spend-based	DKK X Emission Factor	1,679.5
	Wasted Generated in Operations	$kgCO_2eq$	Stena Recycling A/S	Supplier specific	Supplier specific	0.05
	Employee Commuting	Cars= tCO_2 pr. capita when commuting	Statistical average from: Danmarks statistik, Jato & Vejdirektoratet.	Activity-based	Number of employees X tCO_2 pr. capita when commuting	2.9
	Business Travels	Flights=DKK Care hire= Liters Taxi= passenger.km	EXIOBASE v3.3.16b2 (v. 2020 m. 2011-data), DEFRA, Energistyrelsen (2022), DCE (2020)	hybrid approach	DKK X Emission Factor Liters X Emission Factor km X Emission Factor	267.7
NBI-NL	Purchased Goods & Services	tCO_2eq EUR	Supplier specific, EXIOBASE v3.3.16b1	hybrid approach	Scope 1, 2 & (3) EUR X Emission Factor	3,744.0
	Upstream Transportation & Distribution	EUR	EXIOBASE v3.3.16b1	Spend-based	EUR X Emission Factor	22.9
	Downstream Transportation & Distribution	EUR	EXIOBASE v3.3.16b1	Spend-based	EUR X Emission Factor	8.5
	Upstream Leased Assets	kWh	EcoInvent 3.10	Activity-based	kWh usage for car charging on external charging points X Emission Factor	2.6
NBI-UK	Purchased Goods & Services	GBP converted to DKK	EXIOBASE v3.3.16b2 (v. 2020 m. 2011-data)	Spend-based	Purchases X Emission Factor	866.2
	Upstream Transportation & Distribution	Estimated t*km	EcoInvent 3.10	Activity-based	ton*km X Emission Factor	20.3
	Employee Commuting	Cars=km Train=km Motorbike=km	DEFRA	Activity-based	Kilometres X Emission Factor	12.1
	Business Travels	Flights=DKK Train=DKK Car=km Metro=km Taxi=km Bus=km	Flights + train: Exiobase 3.316b2 Cars + metro + taxi + bus: DEFRA	hybrid approach	Spend X Emission Factor Kilometers X Emission Factor	22.1
Total scope 3 (tCO_2eq) = 21,109.4						

Appendix 2 - Assumptions & limitations

The following section contains an analysis of the assumptions associated with the emission inventory. Uncertainties in the calculations are unavoidable and are a combination of the assumptions in the activity data and the emission factors' calculation practices. The emission factors are only taken from databases that are fully compatible with the GHG protocol.

SCOPE 1

As indicated in appendix 1, the collected data for scope 1 is activity-based. This data derived primary from invoice readings, and therefore the uncertainty in these calculations is very small to non-existent. The exception here is NBI-NL, which has been calculated from estimated activity-based data built on an assumption of how much petrol and diesel was used in total by owned company cars in 2023. As company cars were used for private driving, commuting and business travels, it was not possible to differentiate the emissions from owned company cars into the scope 3 categories *Employee Commuting* and *Business Travels*.

SCOPE 2

The same pattern of activity-based data appears for NBI-DK, NBI-DE and NBI-NL in scope 2. However, scope 2 calculations for NBI-UK are based on an estimated activity-based approach. Here, the kWh used is based on assumptions about the average electricity consumption in the UK per person and based on the office equipment and its power usage. This assumption creates uncertainty in the scope 2 calculation for NBI-UK, but is also considered plausible and based on realistic assumptions. For NBI-DK the emission factor for electricity usage comes from the service provider Norlys´s electricity declaration from 2023,

SCOPE 3

Most assumptions are made during the scope 3 calculations, so assumptions are listed below for clarity. During the scope 3 calculations, any changes in the inflation rate were taken into account, when relevant. All the scope 3 categories that had the greatest financial activity in each entity, and therefore the greatest impact regarding the core business, are included in this inventory. The scope 3 categories that are not included are primarily based on the initial financial screening. Secondarily, the non-included categories are based on the limitations and lack of data that NBI faced in this first scope 3 inventory. In the following years, the aim is to collect better scope 3 data, as well as to be able to include further relevant scope 3 categories.

Entity	Scope 3 category	Assumptions & limitations
NBI-DK + NBI-DE	Purchased Goods & Services	This includes 90 % of NBI-DK and NBI-DE's expenses for goods and services to suppliers in 2023. Where it was possible to obtain product-specific data, this was done. The degree of product-specific data has not been as great as hoped, due to the immaturity of the market. In addition, supplier-specific data was collected (as a minimum for scope 1 and 2), after which this was allocated via the revenue ratio between NBI-DK and the supplier. Activity-based data has also formed the basis for the calculations in this category. To some extent, estimates have been made on e.g. weight of the goods purchased. Where data availability was very low, emissions were also calculated using the spend-based method. Also included here, are the costs of service transportation used for an internal factory relocation.
	Upstream Transportation & Distribution	These emissions were calculated from activity-based data as far as possible. The upstream transportation suppliers are both calculated from the data from goods suppliers plus selected upstream transportation suppliers where the order amount went down to approx. 4000 DKK in 2023. Where it was not possible to obtain activity-specific data, the emissions from these activities are calculated using the spend-based method.
	Downstream Transportation & Distribution	This category includes downstream carriers where the order amount in 2023 went down to approx. 6000 DKK. Where WTW calculations could be obtained, it was done. An attempt was then made to collect activity-based data. Where the above data quality was not possible, the spend-based method was used.
	Capital Goods	This category includes the purchase of larger machines with importance to NBI-DK's core business in 2023. Six suppliers have been included whereby machines have been purchased for a total minimum price of approximately 900,000 DKK in 2023. This primarily includes purchases in NBI-DK.

	Waste Generated in Operations	All waste registered in 2023 has been picked up by a supplier who could provide supplier specific data on all waste picked up for NBI-DK. Specific data from the sales office in Germany is not included here, as this is considered to be of no importance in relation to the amount of waste produced in NBI-DK.
	Employee Commuting	The statistical average of tCO_2eq emissions per capita per working week for commuting was retrieved. The statistical average is based on the average number of commuting days in a Peugeot 208 in different postal codes in Denmark. This was multiplied by the number of employees from NBI-DK distributed by postal code. As a statistical average has been used, there will be some uncertainty in this calculation. NBI-DE is also not included in the calculation, as this is considered to have a minimal impact on emissions.
	Business Travels	**Flights:** air travel is calculated using the spend-based method and paired with an appropriate emission factor from Exiobase v3.3.16b2. This was the best available method due to lack of travel data. **Car rental:** the total diesel consumption was calculated from the total cost, assuming that the average price of one liter of diesel was 13.57 DKK in 2023. The total diesel consumption was then paired with an emission factor from DEFRA. **Taxi**: the average price per km was assumed to be 23 DKK/km and then multiplied by an emission factor for km.person. It was assumed that taxi was used 1 person per taxi.

Entity	Scope 3 category	Assumptions
NBI-NL	Purchased Goods & Services	NBI-NL's purchases in 2023 were primary calculated using the spend-based method, as it has not been possible to obtain usable data from the entity's suppliers. Based on the data availability from suppliers, it was assessed that the spend-based method for NBI-NL shows a sufficient insight into the CO_2eq footprint of NBI-NL's procurement of goods and services in 2023. The cost of the included purchases was paired with an appropriate emission factor from Exiobase v.3.3.16b1. Supplier specific data was used when the supplier could provide their own scope 1 & 2 at least. Then the emissions attributable to NBI-NL was allocated based on the turnover ratio between NBI-NL and the supplier.
	Upstream Transportation & Distribution	It has not been possible to collect activity-based data. Therefore, this category is calculated via the spend-based method. Included are the upstream carriers that could be located based on NBI-NL's supplier mapping, which covers 90% of the annual spend on suppliers in 2023. In addition operational upstream transportation emissions from the good suppliers are assumed to be included in the spend-based calculation.
	Downstream Transportation & Distribution	It has not been possible to collect activity-based data. Therefore, this category is calculated via the spend-based method. Included are the downstream carriers that could be located based on NBI-NL's supplier mapping, which covers 90% of the annual spend on suppliers in 2023.
	Upstream Leased Assets	This category is calculated based on acitivity-based data regarding electricity usage for leased car charging on external charging points.

Entity	Scope 3 category	Assumptions
NBI-UK	Purchased Goods & Services	NBI-UK's purchases in 2023 were calculated using the spend-based method, as it has not been possible to obtain usable data from the entity's suppliers. Based on the data availability from suppliers, it was assessed that the spend-based method for NBI-UK shows a sufficient insight into the CO_2eq footprint of NBI-UK's procurement of goods and services in 2023. The cost of the included purchases was paired with an appropriate emission factor from Exiobase v3.3.16b1.
	Upstream Transportation & Distribution	The weight of the product delivered to NBI-UK in 2023 has been calculated based on an average purchase estimate. The weight of the item purchased was defined based on the assumption = 0.125 kg per GBP spent. Then converted to tons. The number of kilometers has been calculated based on how far each item is transported from the storage facilities to NBI-UK. Then paired with the emission factor for unspecified EURO6 trucks from EcoInvent 3.10.
	Employee Commuting	Activity-based mileage was collected on UK employees' commute to and from work. This was collected internally at NBI-UK based on an average assessment of employee commuting habits in 2023. The frequency of employee commuting was calculated in days, which was then summed up to working days on an annual basis, with the fact that there were an average of 233 working days including vacation days in the UK in 2023 based on the source: *www.gov.uk*. Then the amount was paired with an appropriate emission factor from DEFRA.

	Business Travels	**Flights:** air travel is calculated using the spendbased method and paired with an appropriate emission factor from Exiobase v3.3.16b2. This was the best available method due to lack of travel data. **Train:** train travel is calculated using the spendbased method and paired with an appropriate emission factor from Exiobase v3.3.16b2. This was the best available method due to lack of travel data. **Cars:** based on the assumption that it costs 40 pence to travel 1 mile (40 pence per mile), the number of kilometers driven was calculated based of the cost of the trips. On that assumption, car journeys were calculated from estimated activity-based data and then paired with the appropriate emissions factor from DEFRA. **Metro:** based on the assumption that 1 mile costs 0.7 GBP (0.7 GBP per mile), the number of kilometers traveled by metro was calculated based of the cost of the trips. Based on this assumption, journeys by metro were calculated from estimated activity-based data and then paired with the relevant emission factor from DEFRA. **Taxi:** based on the assumption that the average GBP per. mile is 5,27 mile (5,27 GBP per mile), the number of kilometers traveled by taxi was calculated based of the cost of the trips. The cost per mile is estimated from the source *www.gov.uk/taxi-fares*. Based on this assumption, journeys by taxi were calculated from estimated activity-based data and then paired with the relevant emission factor from DEFRA. **Bus:** based on the assumption that one ticket costing 1,75 GBP allows the passenger to drive 8 miles by bus in London, the number of kilometers traveled by bus was calculated based of the cost of the tickets. The ticket price per mile is estimated from the source *www.gov.uk/modes/buses*. Based on this assumption, journeys by bus were calculated from estimated activity-based data and then paired with the relevant emission factor from DEFRA.

Appendix 3 - Recommendations & Improvements

This section will point out some of the areas, where NBI across the entities emits the most GHG emissions. In addition, the table will contain various points or recommendations where NBI can benefit from looking into other solutions to lower its GHG emissions in the future.

Scope	Recommendations & Improvements
Scope 1	**NBI-NL:** • Be able to separate fuel consumption between scope 1 and the categories Employee Commuting and Business Travels under scope 3**.** • If leaks occur in the future on any of the owned refrigeration equipment, it may be an opportunity to look into other refrigerants that emit fewer GHG's than R410A & R32. **Recommendation for all entities:** • First and foremost, this recommendation applies to NBI-DK, but can be an inspiration for all entities. It is recommended that NBI continuously replaces the car fleet with electric cars, as these, unlike a diesel or gasoline-powered car, will have emissions of 0 tCO_2eq under scope 1. The change must be gradual, occurring when NBI is already acquiring or replacing its company cars.
Scope 2	**NBI-UK**: • Get an easier tracking system where the UK office easily can track electricity consumption + heat consumption in the UK office. **Recommendation for all entities:** • Especially for NBI-DK, which has the highest emissions in relation to electricity consumption due to production, it may be a solution to start looking into green power agreements. If NBI-DK enters into a green electricity agreement with their electricity provider, NBI-DK can reduce their electricity emissions under scope 2.

Scope 3	**NBI-NL:** • Be able to differentiate scope 1 fuel consumption by employee commuting and business travel under scope 3. **Recommendations for all entities:** • Set higher requirements for suppliers to provide either product specific data or data on scope 1, 2 and 3. • Set higher requirements for suppliers regarding data availability and climate data sharing. • If there are suppliers that can't deliver data or won't cooperate about data requests, look into the value chain and assess if any of these suppliers need to be replaced in the future. • Enter into agreements with transportation companies that can deliver either WTT, TTW or WTW calculations. • Improve business systems to track purchased products and quantity data. • Improve scope 3 climate accounting by incorporating more categories and increasing data quality and accessibility.
General	• Be able to gather better data & make systems to collect in.