Van Oord
Marine ingenuity

Carbon Reduction Plan 2024

16 June 2025 | rev. 0

Van Oord UK Ltd

Van Oord
Marine ingenuity

Carbon Reduction Plan 2024

Van Oord UK Ltd

Company	Van Oord UK Ltd		
Date:	16 June 2025	Revision:	0
VO Document number:	VOMS-PR3.11-UK-RP-04		
Prepared by:	Angela Dodd	Approved by:	Paul Hesk

Van Oord
Marine ingenuity

Table of Contents

Van Oord
Marine ingenuity

Supplier Name:	**Van Oord UK Ltd**
Publication Date:	**16 June 2025**

1 Commitment to achieving Net Zero

Sustainability, innovation and collaboration are key to successfully facing today's global challenges. Sustainability is one of the three main strategic pillars of Van Oord, next to the right people and digitalization. The ultimate goal of our sustainability strategy is to have a net-positive impact on people, planet and prosperity.

Van Oord UK Limited (hereafter referred to as VO UK), as part of Van Oord, is committed to achieving Net Zero Carbon emissions by 2050. To provide a clear route to reducing greenhouse gas emissions, we have adopted science-based targets for reducing our greenhouse gas emissions in line with a 1.5°C pathway.

Our sustainability programme, Sustainable Earth Actions (S.E.A.), focuses on four key themes:

- Enhancing the Energy Transition
- Accelerating Climate Action
- Empowering Nature and Communities
- Achieving Net Zero Emissions by 2050

Addressing the climate emergency is at the centre of our sustainability strategy. Our focus for greenhouse gas (GHG) emission reduction is targeting lower energy solutions for our fleet of marine vessels and equipment.

2 Baseline Emission Footprint

Baseline emissions are the reference point against which emissions reduction initatives implemented from 2019 onwards, can be measured.

Baseline Year 2019:

All potential sources of GHG emissions, as outlined in ISO14064-1:2019, have been assessed in establishing the baseline of VO UK's GHG emissions. The scope of our baseline carbon emissions reporting is shown below.

All Scope 1 (direct)[1] and Scope 2 (indirect) sources are quantified. Our baseline emissions footprint has been calculated using the location method and we are expanding our Scope 3 reporting to other Scope 3 Categories, as defined by the GHG Protocol, as emissions data becomes more reliable and available.

Baseline Year Emissions:

Emissions	Total (tCO_2e)
Scope 1	**40,315**
Scope 2	**11**
Scope 3:	**101**
• Upstream transportation and distribution	39
• Waste generated in operations	40
• Business Travel	21
• Employee commuting	1
• Downstream transportation and distribution	Not relevant to VO UK

Emissions of other GHGs covered by the Kyoto Protocol 4 are, where available, presented in Appendix 1.

[1] Note that the majority of our Scope 1 emissions are from fuel, where only the combustion emissions (i.e. Tank to Wake (TTW)) are taken into consideration.

3 Current Emission Reporting

Carbon emission reporting processes conducted by VO UK are undertaken on a calendar basis and in accordance with the requirements of BS EN ISO 14064-1:2019.

Reporting Year 2024:

Emissions	Total (tCO_2e)
Scope 1	**19,422**
Scope 2	**3**
Scope 3:	**945**
• Upstream transportation and distribution	751
• Waste generated in operations	124
• Business Travel	66
• Employee commuting	4
• Downstream transportation and distribution	Not relevant to VO UK

Emissions of other GHGs covered by the Kyoto Protocol 4 are, where available, are presented in Appendix 1.

Carbon emissions associated with works undertaken within UK territorial waters by Van Oord business unit 'Offshore' have also been included as the revenue from these projects is undertaken via the Van Oord UK (part of Van Oord business unit 'Dredging') entity. These projects involve sub-sea rock installation. Carbon emissions associated with the fuel for the Van Oord vessels (scope 1) and rock transportation (Scope 3) has been accounted for.

3.1 Upstream Transportation and Distribution

Shipment of Rock Armour: The majority of the rock that we use for our works is supplied from quarries located in Norway. It has therefore been assumed that all rock is shipped from Norway direct to the project site, unless readily available information suggests otherwise. For Van Oord Offshore works (subsea rock installations), the rock is largely transported by Van Oord vessels direct from the quarry quay to the project site. However in a few cases, part of the load is first transported by a third party to the Netherlands for temporary storage before being loaded onto a Van Oord vessel for onward transfer to the project – in such cases rock transportation Norway to the Netherlands has been accounted for.

Mobilisation of Non Owned Equipment to Site: We have made educated assumptions regarding non Van Oord owned equipment (both marine and land) used for each project (type, size, quantity, source/ location etc.).

In some cases, where it is known or likely that equipment was sourced from outside the UK, we have allowed for sailing/ shipping of equipment from Rotterdam to the port nearest the project site, followed by onward transport via HGV. Where it is assumed that land-based equipment was sourced from the UK, we have assumed transport via HGV to the project site.

All other materials delivered to our project sites are purchased indirectly through our sub-contractors. As such, the carbon emissions associated with their transportation would be included in 'Purchased Goods and Services' rather than 'Upstream Transportations'.

Transportation of fuel: At present our estimation of GHG emissions associated with fuel is limited to the combustion of fuel (scope 1) and therefore does not take into account the transportation of fuel to the site/ equipment bunkering location, which for our marine equipment is often outside of the UK. Whilst Well to Tank (WTT) emissions data is available from the UK Government Conversation factors, this information has not been used as it also includes for extraction and refining of the fuel, which is Scope 3 category 1 emissions that are not required to be reported on at present.

3.2 Waste Generated in Operations

Site Waste Management Plans (SWMP) are produced for projects. The nature of our work is such that very little waste is generated. Example SWMPs have been reviewed for the typical projects we undertake (beach renourishment or rock armour) and the tonnages of identified waste streams generated by these types of projects have been used to estimate the waste generated by other projects. These actual and estimated waste quantities have been combined with the nearest matching UK Government Conversion Factors to estimate the GHG emissions associated with the disposal of the waste.

At this stage we do not track the waste produced by our head office (as there are only 11 people based there and working on a hybrid basis) and therefore this waste (which would be minimal) has not been taken into account.

3.3 Business Travel

Fuel purchases for hire cars/ personal cars are expensed to the company. A download of these purchases has been extracted from our business expenses system. Mileage claims have also been included. Average fuel pricing data at the forecourt has been used to estimate the fuel quantity and we have assumed that 40% of fuel is unleaded petrol and the remaining is diesel.

Business Flights data concerning journeys by air to/ from the UK has been obtained from our 3rd Party Booking Agent and categorised into travel class (business, premium economy or economy) and haul (inter-continental, intra-continental and intra-country), with the travel distance recorded.

This data has been used with the UK Government conversion factors to estimate GHG emissions.

3.4 Employee Commuting

Commuting to a regular place of work using personally owned vehicles and paying for one's own fuel is assumed to be limited to employees whose normal place of work is the Small Dole head office. For 2024 this amounted to 11 employees during the year, although this total includes for leavers and new starters – an adjustment has been made for their term of employment over the year under consideration. Employees were asked for their approximate journey length (km) to the office, their fuel type and approximate number of days in the office per week.

3.5 Downstream Transportation and Distribution

The nature of Van Oord projects is such that there is no onward supply chain for what we build. There are therefore no GHG emissions to be calculated for this category.

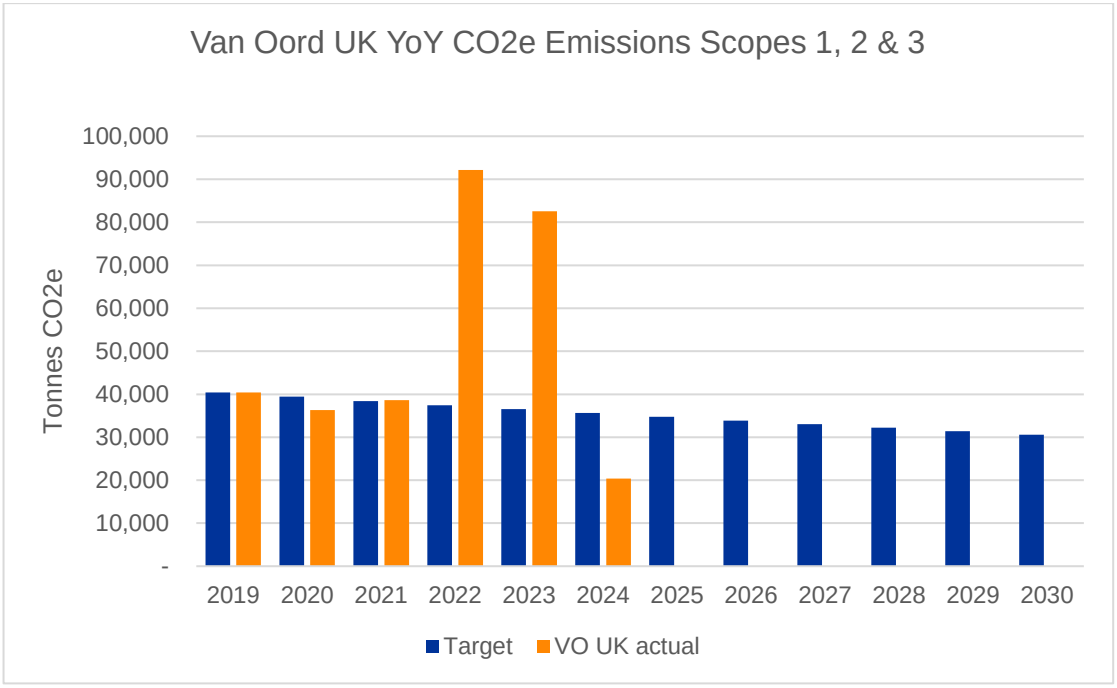
4 Emission Reduction Targets

Van Oord has the ambition to be carbon neutral by 2050 across Scope 1, 2 and 3 emissions in line with the EU Green Deal. We have also set intermediate targets to reduce carbon emissions by 2.5% a year, which is in line with the Paris Agreement and corresponds with what climate scientists believe is needed to limit global warming to below two degrees centigrade.

As another intermediate target, we are aiming to reduce our Scope 1 and 2 carbon emissions by 15% by 2025. Van Oord aims to reach zero sulphur oxides emissions (SOx) and reduce nitrogen oxides emissions (NOx) by at least 80% by 2050 compared to 2019 levels.

The graph illustrated below shows our total emissions since the establishment of our baseline. Key reasons for the variation in emissions are as follows:

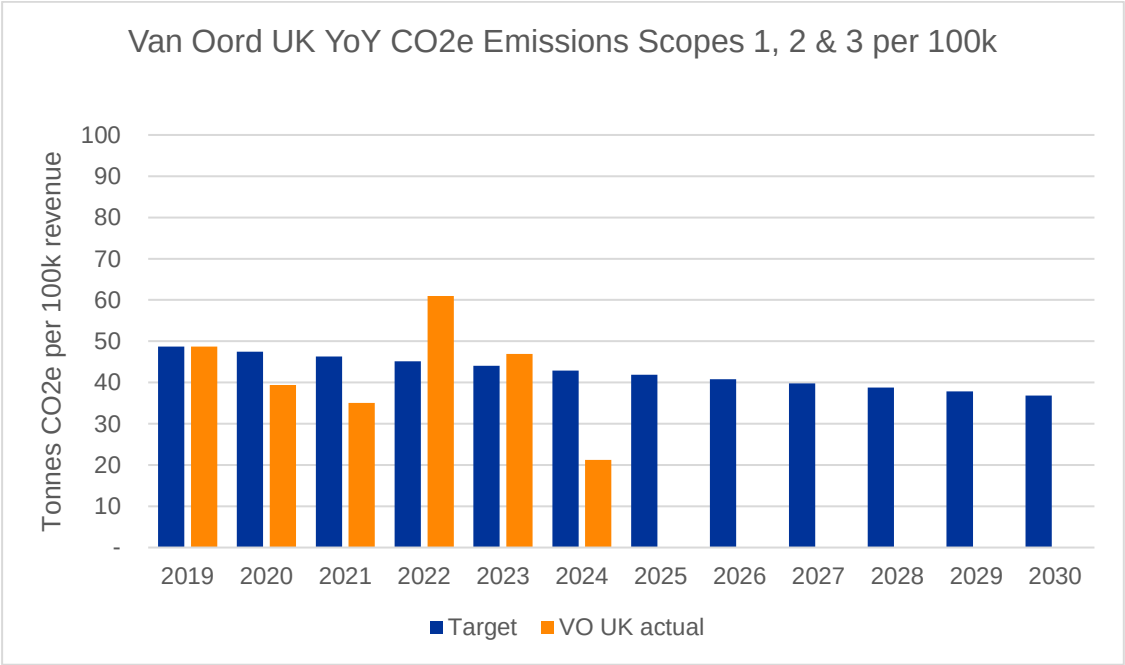
- In 2020 we achieved a significant reduction in carbon emissions against our 2019 baseline through the introduction of a B50 bio-fuel (50% biogenetically sourced fuel rather than fossil fuel) to power a Trailing Suction Hopper Dredger (TSHD) on one of our key projects, ‘Lincshore’.
- In 2021 carbon emission increased, largely due to a large breakwater project (‘Aberdeen’) that involved several pieces of large marine equipment, rock supply & transportation and and utilisation of an extensive fleet of large, land-based plant.
- In 2022 there was a substantial increase in emissions due to the undertaking of the Harwich Channel Deepening project – the largest single project ever undertaken by Van Oord UK. In addition, the inclusion of the BU Offshore subsea rock installation works (which in previous years has been less significant) also impacted upon the total carbon emissions, increasing carbon emissions by nearly 20,000t.
- In 2023 the fuel intensive Harwich project continued until the summer, resulting in a relatively high level of emissions compared to the baseline, but a reduction compared to 2022 due to the shorter duration of the Harwich Project.
- In 2024 a significant reduction in carbon emissions against our 2019 baseline and in particular, our 2022 and 2023 emissions was realised. The key factor leading to the decrease in carbon emissions was the completion of the Harwich Haven Channel Deepening project in 2023 – this was a typical capital dredging project with offshore disposal, which has a high fuel usage. One of our largest projects in 2024 (Millport Coastal Defences) did not involve dredging as it was primarily a rock based project and consequently significantly lower carbon emissions for the equivalent revenue.



Van Oord UK's GHG emissions (scopes 1, 2 and 3) – actual and target (based upon 2.5% reduction year on year)

The above analysis illustrates the sensitivity of the carbon emissions to the workload (quantity and type of work), which is part of a globally operated business.

An 'intensity ratio' of carbon emissions pro-ratered to revenue aims to provide a better reflection of carbon emissions:



Van Oord UK's GHG emissions intensity ratio (scopes 1, 2 and 3) – actual and target (based upon 2.5% reduction year on year)

This shows a level of emissions well below our target level. Again, this highlights the sensitivity of carbon emisisons to the type of work undertaken.

5 Carbon Reduction Projects

5.1 Completed and Current Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2019 baseline.

- Adopted science-based targets for reducing our greenhouse gas emissions in line with a 1.5°C pathway.
- Awarded a Carbon Disclosure Project (CDP) score of A-, which is substantially higher than our market competitors and above average for Construction in Europe and globally.
- In recognition of the majority of our emissions arsing from fuel used in our marine equipment, we have developed short, mid, and long-term initiatives for reduction, summarized as follows:
    - **Short Term (Biofuels)**: We are adopting renewable biofuels, such as FAME and HVO, as drop-in solutions for our existing vessels. We are aware that that there are concerns about traceability and certification of HVO fuels – and will continue to monitor relevant information sources to guide decisions on future fuel usage. In the meantime, these biofuels allow us to reduce emissions without major modifications to our fleet.
    - **Mid Term (Fleet Upgrades)**: We are retrofitting vessels to improve compatibility with renewable fuels and enhance energy efficiency, prioritising upgrades for the highest-emitting vessels to maximise impact.
    - **Long Term (New Builds)**: We are constructing new vessels, such as the Boreas, designed specifically to run on renewable fuels like green methanol. These vessels represent our long-term commitment to a sustainable and future-proof fleet.
- To bridge the financial gap and accelerate our transition to renewable fuels, Van Oord has established a Green Fuel Fund (GFF). The GFF is a dedicated financial mechanism that supports the additional costs associated with purchasing renewable fuels, ensuring we remain on track with our sustainability commitments. Recognising the increasing importance of sustainability for our clients, we've made the Sustainable (i.e. lower carbon) offer our default option. In cases where clients are not ready to fully embrace the Sustainable offer, the GFF allows us to:
    - **Proactively reduce emissions:** We can still invest in renewable fuels for strategic projects, ensuring ongoing progress toward our emission goals.
    - **Demonstrate leadership:** By taking the initiative, we reinforce our position as a leader in sustainable maritime solutions.
- Began executing our 3-year plan with a focus on delivering positive impact across our 4 sustainability themes which are:
    - Enhancing the energy transition,
    - Accelerating climate actions,
    - Empowering nature and communities,
    - Achieving net zero emissions.

  We monitor our performance against our KPIs and transparently report on our progress.
- New additions to our fleet included the WID Rijn and Rhône. These vessels are among the most sustainable water injection dredgers to date and hold the Ultra Low Emission Vessel classification.

- 90% of electricity supplied to our permanent office was sourced from renewable fuels (based on data from our supplier for the period April 2023 to March 2024).
- Electric vehicle charging points installed at our permanent office and regular project sites, alongside a company car policy that favours EV/PHEV car usage, is increasing the adoption of electric or hybrid vehicles.
- Those staff members in possession of a company car are supplied with an 'All Star' fuel card. All Star operate a carbon mitigation programme called 'Eco Point'. Eco Point invests in carbon projects around the world that generate carbon credits, including forest creation, forest protection, renewable energy, carbon capture, industrial process improvement and transportation efficiency.
- Early grid connections have been made on our construction sites to minimise our use of diesel generators. Where early grid connections cannot be made, we have decreased on-site fuel use through the greater use of non-fossil fuel powered plant/ equipment.
- Energy efficient welfare and site office cabins have been used, with LED/solar/hybrid lighting systems.
- An 'Agile Working' policy alongside the continued use of technology such as Microsoft Teams reduces travel.
- Solar Panels installed at our semi-permanent Anderby Site Office provide electricity to the National Grid year round.
- Increasing use of HVO fuel for land based equipment and marine support equipment.
- Use of hybrid D6 dozers for beach management works.
- Appointment of a UK based ESG (Environmental Social Governanance) resource to support information gathering and reporting around carbon reduction and other sustainability initiatives specific to the UK market

5.2 Future Carbon Reduction Initiatives

In the future we hope to implement further measures such as:

- Updating our Corporate Carbon Reduction strategy to reflect our ambitious targets for the reduction of GHG emissions and our S.E.A. programme.
- Consider carbon early-on in projects to enable, where possible, the team to consider low carbon alternatives.
- Continue to develop our Climate Transition Plan, with the focus on greener fuels for our vessels. We are improving our estimating, monitoring and forecasting, with CO_2 as a parameter that informs decision making and helps identify lower carbon options. In undertaking a detailed review of our GHG emissions (in particular scope 3 sources), we have identified areas where data collection and recording can be improved: fuel used by marine and land-based equipment (non-owned) and fuel used in cars for business travel. These will be addressed with the Van Oord Sustainability Team over the forthcoming period.

6 Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard[1] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting[2].

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard[3] .

This Carbon Reduction Plan has been reviewed and approved by the Managing Director of Van Oord UK Limited.

Signed on behalf of Van Oord UK Ltd:

Paul Hesk

Managing Director

16 June 2025

[1] https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting

[2] https://ghgprotocol.org/standards/scope-3-standard

[3] https://ghgprotocol.org/standards/scope-3-standard

Appendix 1 – Baseline Energy Use & Greenhouse Gas Emissions

GHG emissions for the baseline reporting period of 2019 are shown below

SCOPE		ENERGY SOURCE		2019						
				t CO_2e	t CO_2	t CH_4	t N_2O	HFC	PFC	SF6
Scope 1		1.1	Marine VO Owned	33,290	32,828	10	451	-	-	-
		1.2	Other Marine Equipment (fuel purchased by VO)	4,762	4,697	1	64	-	-	-
		1.3	Land Based Equipment	618	610	0	8	-	-	-
		1.4	Equipment Mobilisation (fuel purchased by VO)	1,611	1,590	0	21	-	-	-
		1.5	Company Car Business Travel	34	33	0	0	-	-	-
		Total		**40,315**	**39,759**	**12**	**544**	**-**	**-**	**-**
Scope 2		2.1	Electricity	11	11	0	0	-	-	-
		Total		**11**	**11**	**0**	**0**	**-**	**-**	**-**
Scope 3	**Cat 4 - Upstream transportation & distribution**	3.4.1	Transportation of Rock	-	-	-	-	-	-	-
		3.4.2	Other Equipment mobilisation	39	38	0	1	-	-	-
	Cat 5 - Waste generated in operations	3.5.1	Waste	40	-	-	-	-	-	-
	Cat 6 - Business Travel	3.6.1	Fuel in Hire Cars	20	20	0	0	-	-	-
		3.6.2	Flights	1	1	0	0	-	-	-
	Cat 7 - Employee Commuting	3.7.1	Commuter	1	1	0	0	-	-	-
	Cat 9 - Downstream transportation & distribution	3.9.1	N/A	-	-	-	-	-	-	-
	Total			**101**	**60**	**0**	**1**	**-**	**-**	**-**
TOTAL				**40,427**	**39,830**	**12**	**545**	**-**	**-**	**-**

Appendix 2 – Current Period Energy Use & Greenhouse Gas Emissions

GHG emissions for the reporting period are shown below

				2024						
SCOPE		ENERG	ENERGY SOURCE	t CO_2e	t CO_2	t CH_4	t N_2O	HFC	PFC	SF6
Scope 1		1.1	Marine VO Owned (Dredging)	14,379	14,236	8	135			
		1.2	Marine VO Owned (Offshore)	2,621	2,589	1	31			
		1.3	Other Equipment (fuel purchased by VO)	1,619	1,600	0	19			
		1.4	Equipment Mobilisation (fuel purchased by VO)	787	-	-	-			
		1.5	Company Car Business Travel (fuel cards)	17	16	0	0			
		Total		**19,422**	**18,441**	**9**	**185**			
Scope 2		2.1	Electricity	3	-	-	-			
		Total		**3**	**-**	**-**	**-**			
Scope 3	**Cat 4 - Upstream transportation & distribution**	3.4.1	Upstream Transportation - Rock	724	724	-	-			
		3.4.2	Upstream Transportation - Other Equipment mobilisation	27	27	0	0			
	Cat 5 - Waste generated in operations	3.5.1	Waste	124	-	-	-			
	Cat 6 - Business Travel	3.6.1	Business Travel - Fuel for hire cars purchased on credit cards	5	5	0	0			
		3.6.2	Business Travel - Fuel associated with mileage claims for personnal car use for business	2	2	0	0			
		3.6.3	Business Travel - Flights	60	60	-	-			
	Cat 7 - Employee Commuting	3.7.1	Employee Commuting	4	4	0	0			
	Cat 9 - Downstream transportation & distribution	3.9.1	Downstream Transportation - N/A for VO	-	-	-	-			
	Total			**945**	**820**	**0**	**0**			
TOTAL				**20,370**	**19,261**	**9**	**186**			
TURNOVER				96,000,000.00						
INTENSITY RATIO: NORMALISED CO2e (tonnes of CO2e / £100k turnover)				21.22						

Let’s stay in touch

vanoord.com

magazine.vanoord.com

vimeo.com/vanoord

linkedin.com/company/van-oord