PPN 06/21 Carbon Reduction Plan

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Carbon Reduction Plan

Supplier name: **Boskalis Westminster Limited & Boskalis Marine Services Limited**

Publication date: **January 2025**

1 COMMITMENT TO ACHIEVING NET ZERO

Boskalis is committed to achieving Net Zero Emissions by **2050.**

This Carbon Reduction Plan conforms to the requirements of Procurement Policy Note PPN06/21; 'Taking Account of Carbon Reduction Plans in the procurement of major government contracts', published in June 2021 and the supporting 'Technical standard for the Completion of Carbon Reduction Plans.'

Our pathway to net zero and associated carbon reduction targets and action plans are structured in line with our core business operations and following bidding entities, which operate as a single grouping within the UK:

- Boskalis Westminster Limited (BWL)
- Boskalis Marine Services Limited (BMSL)

We are committed to our target of being climate neutral across our UK operations by 2050. As part of the Boskalis Group, which operates on a global basis, we aim to maintain our position as an industry leader in emissions reduction and drive our competitive advantage through our ability to offer accessible, low-carbon solutions to our clients.

The rate at which we move towards our climate target is a function of the opportunities and technology available to different parts of the wider Boskalis group. Some aspects of the wider Group are already achieving substantial reductions in their emissions, whilst others will take longer to do so since they are dependent on technology and infrastructure that is currently still being developed.

When assessing carbon reductions across the company, it is important to distinguish between those parts where we have direct control and our sphere of influence to prevent or limit emissions is significant, versus parts of our operation where our influence is indirect or where we are dependent upon the progress achieved by third parties and other centralised Boskalis group operations and initiatives.

Those parts of the company that are onshore – our offices, lease car fleet and dry earthmoving equipment – offer the greatest potential for near term emission reductions and we have implemented a number of significant carbon-reduction measures over the last few years.
The largest part of our CO2 footprint is linked to our vessels, an area where substantial reductions in emissions are dictated by the availability of suitable alternatives to fossil fuels and the global infrastructure to support clean sources of energy.

1.1 Offices

We have installed solar panels and electric vehicle charging infrastructure at our Fareham Head Office, as well as installing LED lighting throughout the building and encouraging the elimination of single use plastic.

1.2 Commercial Offerings

Wherever possible, we encourage our clients to adopt sustainable and low-carbon solutions to help reduce emissions.

This is done in two principal ways: through the optimisation of project designs to reduce energy, increase circularity and limit the consumption of materials; and by using low-carbon energy sources such as biofuels or (renewable) electricity to power our vessels and third party owned dry earthmoving equipment used within our coastal protection and reclamation works.

1.3 Our Fleet

The largest contribution to greenhouse gas emissions comes from our vessels, which

account for around 99.6% of our Scope 1 and 2 CO2 footprint – in 2023 this amounted to 15,238 tonnes for the combined Boskalis Westminster and Boskalis Marine Services fleet.

1.4 Near Term Impact

In recent years, our parent - Boskalis - from whom our major plant is internally hired, has initiated a range of operational measures and new technologies to drive down fuel consumption and reduce emissions from our fleet. Boskalis continues to pilot and expand these initiatives in support of further reductions:

Emissions dashboard - The development of onboard and remote emission dashboards improves crews' awareness of operational efficiencies and helps them conserve fuel. For certain conditions, operational and technical efficiencies based on data from the dashboards can lead to a reduction in fuel consumption of more than 5%

Powerpacks – Boskalis is currently in the process of retrofitting numerous offshore vessels through Energy Storage Systems. These power packs will reduce fuel consumption and associated carbon dioxide and nitrogen oxide emissions by an average of up to 20%.

Maintenance – During 2023 Boskalis piloted a maintenance programme with an engine manufacturer to determine the optimum maintenance schedule to reduce fuel consumption. Boskalis will implement the program from early 2024, starting with two trailing suction hopper dredgers.

Selective Catalytic Reduction (SCR) systems - SCRs can reduce the level of nitrogen oxide in exhaust gases by up to 90%. In 2023, the 'Strandway' became the third hopper dredger to be fitted with an SCR.

Drag reduction measures – Various measures are applied to increase fuel efficiency. In 2023 these included the use of alternative hull coatings, frequent hull cleaning, limiting volumes of water ballast in our vessels and / or optimising the trim, and polishing propellers, increase fuel efficiency.

Alternative energy sources are also important at reducing emissions. Boskalis has been successful in applying clean or renewable energy in several ways:

Biofuels – Where possible, Boskalis offers clients the option of using 'light' drop-in biofuel to thereby reduce project carbon emissions.

During a two-week maintenance campaign in the Port of Waterford, our vessel – the 'Causeway' - solely used biofuel, certified from a sustainable source. This saved 100 tonnes of CO2 emissions.

Within our Harwich Channel Deepening capital dredging works multiple campaigns were completed to beneficially reuse dredged material ashore using sustainably sourced biofuel. This mitigated the carbon emissions for these campaigns.

Shore power – In 2023, Boskalis commissioned a large-scale shore power facility at its premises in the Waalhaven, Rotterdam. Moored vessels use green shore power, resulting in an annual reduction of 1,600 tonnes of CO_2 emissions.

Renewable fuels – Boskalis collaborates with industry peers, knowledge institutions, and other partners to develop alternative fuels like methanol, ammonia, and hydrogen. In 2023, a pilot project was conducted to fuel dredging activities with hydrogen.

Following an extensive in-house design process, in October 2023 Boskalis announced the order of a large state-of-the-art trailing suction hopper dredger that will be fully equipped to run on methanol as an alternative fuel.

To help monitor the progress made in decarbonising its fleet, Boskalis has developed a so-called Carbon Intensity Index (CII) for its trailing suction hopper dredger fleet.

The trailer dredger CII is based on the amount of CO2 per unit utilised capacity (ton weeks). Notwithstanding that trailer dredgers perform a range of tasks under sometimes very different conditions, we believe this index provides a reasonable proxy to measure their carbon efficiency.

Since 2011, the CII of the trailer dredger fleet has declined by 25%, reflecting an impressive improvement. Several sector organisations within the dredging industry are also taking part in the search for appropriate emission indicators for dredging equipment. The Boskalis

Group aims to continue our active participation in these initiatives.

1.5 Mid Term Impact

To move towards climate neutrality, new 'clean' fuels are needed for the international maritime industry. To reach this goal, we exert our indirect influence and are, in part, dependent upon factors that lie outside of our control.

Different vessels have different requirements which stand in the way of a single optimal solution. The energy intensity demanded by our vessels and the nature of our operations – often in unpredictable and remote locations around the UK – place stringent requirements on the type of alternative fuels that will be suitable.

These will need to meet both the technical requirements of our operations, as well as practical considerations such as onboard capacity and safety standards.

Whichever alternative fuels are deemed to be most practical will then need to be produced economically, in sufficient quantities and in such a way that their availability can be relied upon across the UK and wider North West Europe area in which we generally mobilise Boskalis Group vessels for UK operations.

More substantial reductions in emissions are dictated by the readiness and global availability of suitable alternatives to fossil fuels. One of the main contenders to become such a fuel is methanol. As a member of a maritime consortium, Boskalis is undertaking a €35 million multi-year research programme to accelerate the use of methanol as an alternative fuel within the shipping industry.

We continue to collaborate with our industry peers, knowledge institutions and other partners to develop the expertise and technology necessary for the sector to reach climate neutrality.

2 BASELINE EMISSIONS FOOTPRINT

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline Year: 2021
Additional Details relating to the Baseline Emissions calculations.
Our baseline data has been drawn from our Boskalis Westminster Ltd. 2021 information, which was independently audited by Carbon Neutral Britain as part of their certification process. Additionally, the Boskalis Marine Services Ltd. baseline data has been added using the same principles. Our baseline emissions were calculated using data taken from our weekly fuel returns completed within our project reporting system, maintained as part of our ISO 14,001:9001 certification, energy and waste invoices and our business travel and commuting distance database. The majority of our 2021 Scope 1 emissions (98.2%) were derived from the vessels operating on our UK projects and consuming MGO (Marine Gas Oil), with the remainder of the Scope 1 emissions being marine plant biofuel consumption (0.3%), land-based equipment (1.2%) and company owned / leased vehicles (0.3%) Scope 2 emissions occurred from weekly consumption from our head office, offset through the generation of electricity from roof mounted solar panels, our site offices and from staff working from home. Scope 3 emissions are based on recorded activities away from our Head Office, such as hotel stays, staff commuting and organisation waste. Our Scope 2 & 3 emissions were offset using the Carbon Neutral Britain Climate Fund.

Baseline Year Emissions: 2021	
EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	BWL: 23,796.1 BMSL: 1,618.2 **Total: 25,414.3**
Scope 2	BWL: 9.0 BMSL: 10.2 **Total: 19.3** (BWL & BMSL emissions fully offset through the Carbon Neutral Britain Climate Fund).
Scope 3	BWL: 441.2 BMSL: 52.1 **Total: 493.4** (BWL & BMSL emissions fully offset through the Carbon Neutral Britain Climate Fund).
Total Emissions	**BWL: 24,246.4** **BMSL: 1,680.6** **Total: 25,927.0 (Excluding Offsetting).**

Current Emissions Reporting

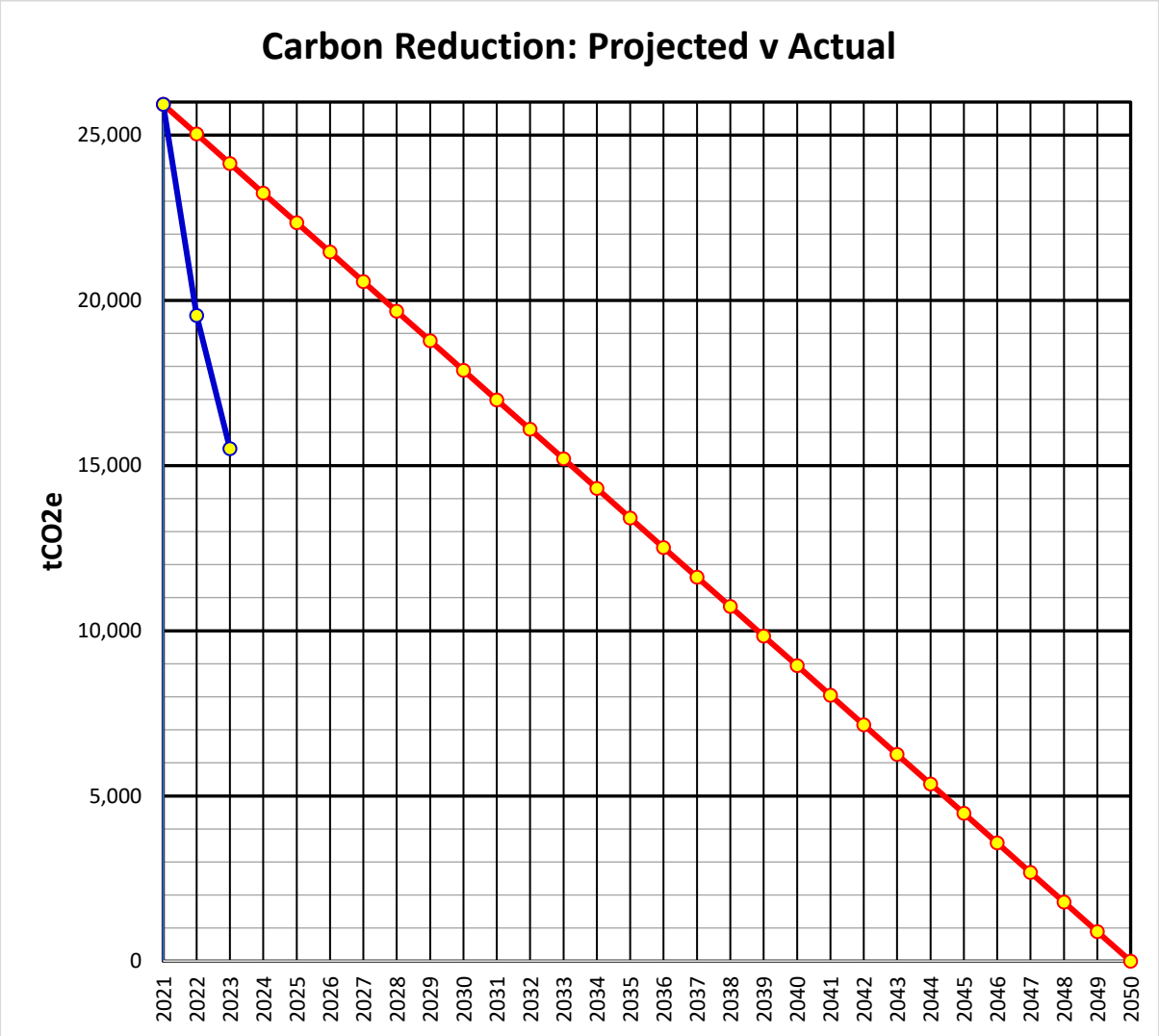
Reporting Year: 2023	
Additional Details relating to the Baseline Emissions calculations.	
Reporting Year: 2023	
EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	BWL: 13,844.89 BMSL: 1,364.18 **Total: 15,209.07**
Scope 2	BWL: 22.38 BMSL: 7.21 **Total: 29.59** (BWL & BMSL emissions to be fully offset through the Carbon Neutral Britain Climate Fund).
Scope 3	BWL: 226.35 BMSL: 44.86 **Total: 271.21** (BWL & BMSL emissions to be fully offset through the Carbon Neutral Britain Climate Fund).
Total Emissions	**BWL: 14,093.62** **BMSL: 1,416.25** **Total: 15,509.86 (Excluding Planned Offsetting).**

3 EMISSIONS REDUCTION TARGETS

In order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets.

We project that carbon emissions will decrease between 2021 - 2026 to **21,457 tCO_2e.** This is a reduction of 17.2%.

Progress against these targets can be seen in the graph below:



As a leading marine contractor, we recognise that our overall emissions will fluctuate on an annual basis, dependent on the volume and type of work undertaken, which may vary considerably. To allow for this and to provide comparable data on a year-by-year basis future reports will also report our emissions versus turnover, or other appropriate measures, to demonstrate we are meeting or exceeding our reduction goals.

Whilst the Boskalis Group is investing in modern plant and removing older vessels with larger carbon footprints this is a planned replacement cycle which will occur as the vessels reach the end of their working lives. We are therefore mindful that this, together with the availability of sustainable fuels suitable for powering our larger seagoing vessels will impact our ability in the short term to realise our net zero aspirations.

We will closely monitor our sector to take opportunities as they occur.

4 CARBON REDUCTION PROJECTS

4.1 Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2021 baseline.

- Maintaining our ISO14001:2015 Environmental Management standard.
- Offsetting our 2022/23 office and staff travel emissions through the Carbon Neutral Britain Climate Fund, which invests in internationally certified carbon offsetting projects.

- Encouraging our clients to consider the use of biofuel. Whilst the use of biofuel is more expensive than traditional fossil fuels which prohibits their use in a competitive tendering environment we encourage our clients to consider their use. The trailer dredgers ‘Sospan Dau’ and ‘Scald’ used biofuel when beneficially reusing material dredged from the deepening of the Harwich Navigation Channel for coastal nourishment works at Mersea and Wallasea Islands during 2021 and 2022.
- Installing solar panels at our Fareham Head Office, along with the installation of electric vehicle charging points and LED lighting. This had led to the building achieving a B rating.
- Offering incentives for company car drivers to select hybrid or electric vehicles.
- Setting up an employee sustainability working group, to promote ideas to the BWL management. This has led initiatives such as the use of company bikes on larger projects and improved waste recycling.
- Working with the Hampshire and Isle of Wight Wildlife Trust to aid the development of their Seagrass restoration programme. Seagrass is a key means of sequestering and storing ‘blue’ carbon from the atmosphere and oceans.
- Reduced staff travel through increased use of video conferencing options.

4.2 Future Carbon Reduction Initiatives

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

- Renewal of our ancillary support vessels with more modern and efficient equipment.
- Increased use of biofuel within our projects.
- Improved technology leading to greater working accuracies, leading to reduced dredged quantities and working durations.
- Continuing to highlight the benefits of beneficially reusing dredged materials, potentially reducing multiple dredging campaigns.
- Potentially investing in a more carbon efficient heating and cooling system within our head office.

5 DECLARATION AND SIGN OFF

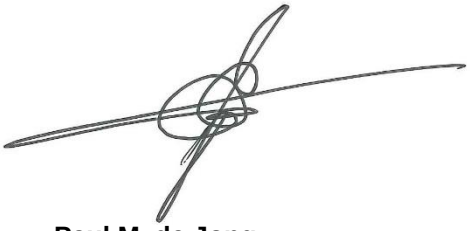
This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

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 signed off by the board of directors (or equivalent management body).

Signed on behalf of the Supplier:



Paul M. de Jong

Managing Director – Boskalis Westminster Limited & Boskalis Marine Services Limited.

Date: 9 January 2025

[1]https://ghgprotocol.org/corporate-standard
[2]https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
[3]https://ghgprotocol.org/standards/scope-3-standard