

# KBS Maritime - Carbon Reduction Plan

Version date: 24<sup>th</sup> April 2024

## Commitment to achieving Net Zero

KBS Maritime is committed to reducing our own emissions and supporting our customer to achieve Net Zero emissions for HMNB Portsmouth by 2040.

## 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. The baseline below predates KBS Maritime, but is based on the Naval Base emissions footprint, allocated by service delivery area. KBS Maritime will therefore use the whole-year splits allocated to its service delivery outputs, locations, etc.

<b>Baseline Year:</b> 2021-22	
<b>Additional Details relating to the Baseline Emissions calculations.</b>	
KBS Maritime was formed and commenced activities on 1 <sup>st</sup> Oct 2021. HMNB Portsmouth emissions are financial year 2021/22 Baseline figures were updated in Feb 2024 using actual data in place of estimates in some sections. The impacts were not significant, but are noted for comparison.	
<b>Baseline year emissions:</b> 2021-22 (Apr-Mar)	
<b>EMISSIONS</b>	<b>TOTAL (tCO<sub>2</sub>e)</b>
<b>Scope 1</b>	Gas (steam boilers) – 339.40 [was 332.51] Gas (CHP) – 1,125.63 [was 1,131.41] Bottled gas (propane, acetylene) – 1.00 Fuel (Non-EV Fleet, 64 vehicles of 112) – 156.33
<b>Scope 2</b>	Electricity (buildings, EV fleet) – 76.99 [was 76.21]
<b>Scope 3</b> (Included Sources)	Diesel (for site generators & mobile plant) – 1,000.44 [was 908.10] Diesel (UHAF generator) – 83.65 F-Gases – 0.50 Commuting – 362.16 [was 362.23]

	Business travel – 54.54 Air travel -24.17 Water supply – 4.00 Water treatment – 4.13 Electrical losses (T&D) – 28.05 Fuel deliveries (to Base) – 8.56 [was 1.86] Fuel deliveries (in Base) – 3.54 [was 3.42] Food - 226.04 Site materials (embedded) (maintenance) – 84.00 Site materials (embedded) (construction) – 12,942.27
<b>Total Emissions</b>	KBS Maritime (16% allocation of Base) - 16,525 tCO <sub>2</sub> e [was 16,424] [HMNB Portsmouth emissions – 103,240 tCO <sub>2</sub> e] [was 102,970]

## Current Emissions Reporting

<b>Reporting Year:</b> 2022-23 (Apr-Mar)	
<b>EMISSIONS</b>	<b>TOTAL (tCO<sub>2</sub>e)</b>
<b>Scope 1</b>	Gas (steam boilers) – 298.80 Gas (CHP) – 982.53 Bottled gas (propane, acetylene) – 1.00 Fuel (Non-EV Fleet, 64 vehicles of 112) – 57.51 [down from 156.33]
<b>Scope 2</b>	Electricity (buildings, EV fleet) – 9.71 [down from 77, largely due to greater site CHP use]
<b>Scope 3</b> (Included Sources)	Diesel (for site generators & mobile plant) – 891.01 [down from 1,000.44 ] Diesel (UHAF generator) – 121.60 [up from 83.65] F-Gases – 0.50 Commuting – 371.17 [up from 362.16, due to more employees] Business travel – 54.54 Air travel -24.17 Water supply – 5.20 Water treatment – 4.81 Electrical losses (T&D) – 24.79

	<p>Fuel deliveries (to Base) – 9.49</p> <p>Fuel deliveries (in Base) – 3.54</p> <p>Food – 239.60</p> <p>Site materials (embedded) (maintenance) – 84.00</p> <p>Site materials (embedded) (construction) – 9,692.73</p>
<b>Total Emissions</b>	<p>KBS Maritime (12% allocation of Base) - 12,877 tCO<sub>2</sub>e</p> <p>The carbon emissions reduction in year equates to 3,649 tCO<sub>2</sub>e, a 22.1% reduction against the 2021/22 baseline.</p> <p>[HMNB Portsmouth emissions – 89,873 tCO<sub>2</sub>e]</p>

In accordance with the Greenhouse Gas Protocol (GHG Protocol) reporting requirements all KBS Maritime’s Scope 1 and 2 emissions relate to activities delivered as part of HMNB Portsmouth and its activities.

None of the buildings are owned by KBS Maritime, all are provided under licence by the MOD to support the output delivery of HMNB Portsmouth.

The KBS Maritime scope 1 and 2 emissions equivalent includes:

- A proportion of the base’s gas and electricity used for buildings we occupy to undertake our services
- Electricity used for our fleet of electric vehicles
- Fuel used in our non-electric fleet of vehicles

KBS Maritime’s scope 3 emissions include :

- A share of estimated base-wide business travel, commuting, food, water services, etc
- Supply chain emissions (embedded in our construction and maintenance activities and products)
- Provision of fuel for hired base-support services, such as generators and plant

Also referenced here are KBS Maritime’s enterprise outputs and contributions to HMNB Portsmouth’s emissions (also measured):

- Strategic programme, consultancy and design support for HMNB Portsmouth buildings and systems infrastructure (Net Zero Naval Base support), including energy infrastructure and operation.

## Emissions reduction targets

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

We project that KBS Maritime’s carbon emissions will increase over the period to a baseline of **18,480 tCO<sub>2</sub>e** by 2029/30 [this is down from the previously projected 64,965, which included DIO projects not under the control of KBS Maritime]. This is predominantly due to a planned increase in construction project activities for the Naval Base.

Our target is a reduction of this projected baseline through active interventions, as described below. Our target is **11,088 tCO<sub>2</sub>e**. This is a reduction of **40%** on the baseline.

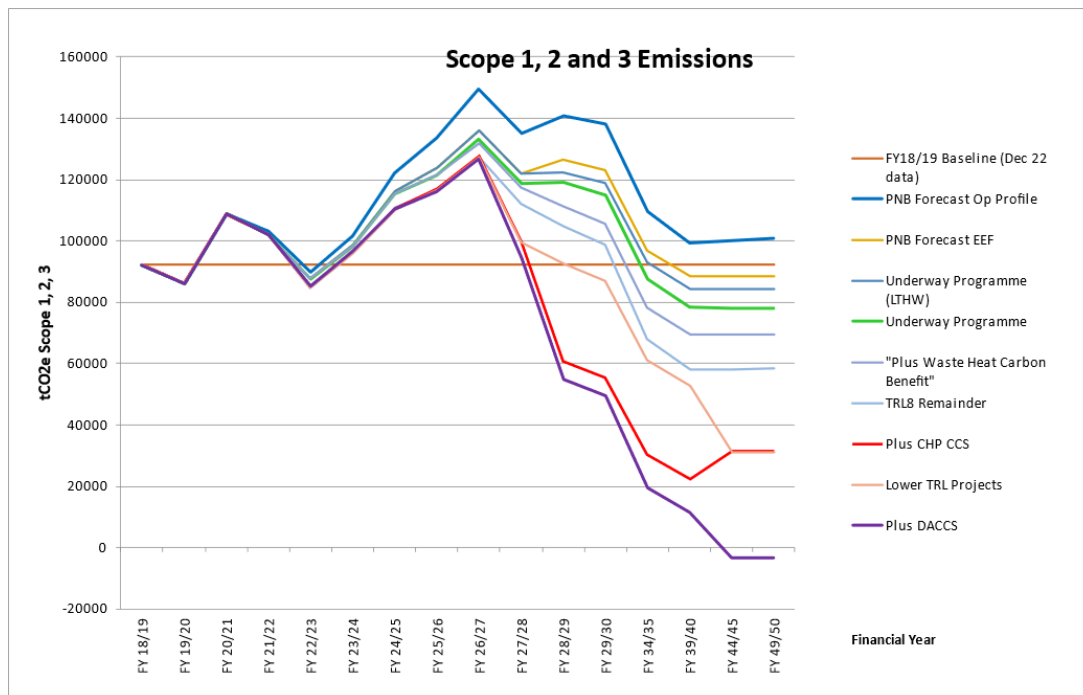
All of these interventions are subject to MOD funding.

- Site energy de-carbonisation [-73%, -820 tCO<sub>2</sub>e, influence on carbon capture plant, building fabric improvements, install of PV, site rationalisation and behaviours]
- Reduction in our vehicle fleet diesel/petrol through fleet reduction and electrification [-100%, -57.5 tCO<sub>2</sub>e, reduction in fuel fleet]
- Low emission fuels - generators and plant [-92%, -820 tCO<sub>2</sub>e, alternative fuels]
- Supply chain materials/services reductions [-35%, -5,395 tCO<sub>2</sub>e, material selections, etc]

KBS Maritime's contributions to HMNB Portsmouth's (scope 1, 2 and 3) Net Zero Plan will enable a site-wide decrease over the period to **55,282 tCO<sub>2</sub>e** by 2029/30 (103,240 - 47,958 tCO<sub>2</sub>e). A reduction of **46%** from year 2021-22, and an 82,848 tCO<sub>2</sub>e or **60%** reduction on the projected baseline figure (138,130 tCO<sub>2</sub>e).

These targets ensure KBS Maritime delivers a **net decrease** in emissions over the period.

Planned HMNB Portsmouth targets can be seen in the graph below:



## Carbon Reduction Projects

### Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2021-22 baseline.

The organisation has:

- Implemented an ISO14001 certified management system
- Communicated KBS Maritime and HMNB Portsmouth's Net Zero Carbon goals

- Reviewed and rationalised the fleet of vehicles used by KBS Maritime to perform their services
- Continued to support the customer with development of the HMNB Portsmouth Estates Management Plan including the Net Zero Carbon infrastructure requirements within the future funding programme, now at version 9.
- Defined a strategic way ahead for Carbon Capture & Storage solutions for the site CHP
- Provided options papers for Low Carbon Heat Network solutions
- Issued a Heat Decarbonisation Plan for all site buildings

The KBS Maritime carbon emissions reduction in year equates to 3,649 tCO<sub>2</sub>e, a 22.1% reduction against the 2021/22 baseline.

The main decrease in the period is a result of change in CHP operations and a reduction in actual building electrical use versus forecast. Updates of historic estimates of fleet fuel use with actual data has also contributed.

The Naval Base's carbon emissions also reduced by 13,367 tCO<sub>2</sub>e, a 12.9% reduction against the 2021/22 baseline.

## Future Carbon Reduction Initiatives

In the future we intend to implement further measures including:

- Providing feasibility studies, options papers and delivery solutions for energy and efficiency infrastructure, in line with continuing the HMNB Portsmouth Net Zero trajectory
- Develop a proposal for further fleet reductions and remaining vehicles to be low carbon emissions
- Work with plant hire providers to electrify or replace plant with alternative fuel versions. A study is currently in progress for this.
- Using existing data and building management systems to reduce energy use in KBS Maritime occupied buildings and provide data to other occupiers. A data improvement strategy is in progress.
- Implement design and build solutions for new construction projects to improve efficiency in design and materials selections (Implementation of JSP850/Building Performance Standards (BPS0.1))
- Metrication and engagement of supply chain to reduce scope 3 emissions
- Continuing to improve the accuracy of the emissions data

## 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<sup>1</sup> and uses the appropriate Government emission conversion factors for greenhouse gas company reporting<sup>2</sup>.

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<sup>3</sup>.

This Carbon Reduction Plan has been reviewed and endorsed by the Managing Director.

Signed on behalf of KBS Maritime:



..... James Davis (Managing Director)

Date: ...24 April 2024.....

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<sup>1</sup><https://ghgprotocol.org/corporate-standard>

<sup>2</sup><https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

<sup>3</sup><https://ghgprotocol.org/standards/scope-3-standard>