SCIENCE BASED TARGET-SETTING IN THE MARITIME TRANSPORT SECTOR

2nd IN-DEPTH TRAINING WEBINAR

31 May 2023
This is a **zoom webinar**. Your camera and microphone are automatically muted.

Participants can **send questions via the Q&A button.**

**Slides from this webinar will be shared after this meeting.**

Please note that this webinar will be **recorded** for the benefit of those who cannot attend.
AGENDA

1. Housekeeping and agenda
2. Introduction to the SBTi Maritime Guidance
3. Modeling maritime transport science-based targets
4. Q&A
5. Closing
TODAY’S WEBINAR TEAM

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SBTi

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Principal Consultant
UMAS

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Technical Director
SFC
INTRODUCTION TO THE SBTi
What is the Science Based Targets initiative?

The Science Based Targets initiative (SBTi) is a global body enabling businesses and financial institutions to set ambitious emissions reductions targets in line with climate science.

Founding Partners

In collaboration with
TECHNICAL GUIDANCE AND TOOL

SCIENCE BASED TARGET SETTING FOR THE MARITIME TRANSPORT SECTOR

Version 1.0
November 2022
THE SBTi MARITIME GUIDANCE
80% of global trade by volume is carried by sea.

3% of global GHG emissions (~1GT of CO$_2$e).

Completely reliant on fossil fuels.

Highly heterogeneous (cargo categories, vessel types, vessel sizes, routes).

Long asset replacement cycles.

THE CHALLENGE
Decarbonizing a critical link of global trade
WHAT DOES MARITIME TRANSPORT GUIDANCE COVER?

All movement of goods and people on shipping vessels

- Ship owners
- Ferry operators
- Commodity traders
- Consumer goods companies

- Cargo owners
- Charterers
- Cruise companies
- Commuters

- Logistics service providers
- Ship operators
- Charter pools
  - Fls portfolios, recreational, fishing not covered

A toolkit to **measure** carbon intensity of activity to **inform** decision-making around short-term **actions** towards a **long-term goal**.
Can the guidance be applied to ship builders?
This guidance focuses on targets associated with providing and, or purchasing marine transportation activity. The guidance does not directly address targets associated with the manufacture of ships.

How does this guidance affect ports? How should ports set a target?
This guidance focuses on transportation activity by vessel, rather than the ports where vessels call. Ports can set targets following the SBTi General Criteria. A port may also use this maritime transportation specific guidance to inform scope 3 targets related to transport activities in its facilities.
### Vessel type

<table>
<thead>
<tr>
<th>Vessel type</th>
<th>SBTi vessel type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregates Carrier</td>
<td>Bulk carrier</td>
</tr>
<tr>
<td>Bulk Carrier</td>
<td>Bulk carrier</td>
</tr>
<tr>
<td>Bulk Carrier (with Vehicle Decks)</td>
<td>Bulk carrier</td>
</tr>
<tr>
<td>General Cargo/Tanker</td>
<td>General Cargo</td>
</tr>
<tr>
<td>Heavy Load Carrier</td>
<td>General Cargo</td>
</tr>
<tr>
<td>Heavy Load Carrier, semi submersible</td>
<td>General Cargo</td>
</tr>
<tr>
<td>Livestock Carrier</td>
<td>General Cargo</td>
</tr>
</tbody>
</table>

Comprehensive list provided in the [Technical Guidance](#) and [Tool](#) based on IMO4 categorization.
Well Below 2°C 15°C

CARBON BUDGET

TRANSPORT WORK DEMAND

CARBON INTENSITY

PATHWAY DESIGN
# CARBON BUDGET ALLOCATION

<table>
<thead>
<tr>
<th><strong>WB2°C</strong></th>
<th><strong>1.5°C</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>● Carbon budget projection from Energy Technology Perspectives 2017 published by the International Energy Agency.</td>
<td>● Establish carbon budget based on IMO4 and IPCC 1.5°C.</td>
</tr>
<tr>
<td>● Well to wake provided at 5 year intervals.</td>
<td>● Translate budget from TtW to WtW budget.</td>
</tr>
<tr>
<td>● Linear interpolation.</td>
<td>● Translate linear assumption to logistics (S-curve).</td>
</tr>
</tbody>
</table>
What is the emission boundary of the SBTi Maritime Transport Pathway?
The emissions pathway cover the full lifecycle of the energy source (i.e., Well-to-Wake) and are expressed as CO2 equivalents, including the full global warming impact of all UNFCCC pollutants on a 100 year timeframe.

What carbon intensity metric is used?
The Energy Efficiency Operational Indicator (EEOI).

Why does the tool still have well below 2°C ambition?
The SBTi minimum ambition level for scope 3 targets is well-below 2°C, so companies subcontracting maritime transport can still use these resources to set intensity targets.
Well-to-Wake Emissions (Upstream + Operational).

- CO₂, N₂O, CH₄ (methane).
- IMO curve adapted to include WTT phase.
Carbon intensity: \( \frac{\text{Total emissions}}{\text{Transport work}} = \frac{\text{total emissions}}{\text{distance sailed x cargo carried}} = \frac{gCO2eq}{T.nm} \)

Freight vessels: carbon intensity = \( \frac{gCO2eq}{T.nm} \)

Passenger vessels: carbon intensity = \( \frac{gCO2eq}{GT.nm} \)
CARBON INTENSITY

- Metric: gCO₂ / transport work.
Comparing apples with apples
MOVING THE NEEDLE IN SHIPPING
Endorsement by nations at the IMO GHG strategy update ISWG 14

Submission
- IMO Initial Strategy
- Republic of Korea
- Austria et al. 2
- Canada, UK, USA
- Japan
- Angola et al. 3
- Marshall Islands, Solomon Islands and Vanuatu
- IPCC derived 1.5°C aligned pathway (SBTi)
- Business as usual (IMO4)

Key
- Ambition from SBTi
- Net zero target
- CO₂ only ambition
- Inclusion of lifecycle emissions unclear

1 Absolute operational emission reduction from 2008 levels. Based on lifecycle GHG unless denoted by ▲.
2 ISWG-GHG 15/3/1 submitted by Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and European Commission
3 Angola, Argentina, Bahrain, Bangladesh, Brazil, Chile, China, Ecuador, Hashemite Kingdom of Jordan, India, Saudi Arabia, South Africa, UAE. "peak [GHG] emissions from international shipping as soon as possible, as well as to aim net zero GHG emissions preferably around mid-century and before the end of this century." A choice of either GHG or CO₂ is offered and a timeline of preferably 2050 but if not then before 2100 is offered.
How do the SBTi targets align with the Poseidon Principles, Poseidon Principles for Marine Insurance, and Sea Cargo Charter?

All these initiatives share the long-term purpose of supporting net-zero transition, however the intended users, mode of operation and implementation is different. Both Poseidon Principles initiatives and Sea Cargo Carter focus on disclosure of climate alignment of shipping portfolios for various types of institutions. Aside from implementation differences with the SBTi the two major differences are:

1. The SBTi considers lifecycle GHG emissions (Well-to-Wake - WtW).
2. The SBTi aims to meet the Paris Agreement’s 1.5°C target 2050.
All targets must cover Well-to-Wake (WTW) emissions (in metric tonnes of CO₂ equivalent (CO₂e))

WTW emissions are emissions generated across the life cycle of a fuel, from both upstream and operational activities.

They include both Well-to-Tank (WTT) emissions, generated in the fuel’s production and distribution, and Tank-to-Wake (TTW) emissions, generated in the combustion of the fuel.
What standards (or set of emission factors) should be utilized when calculating Well-to-Tank and Tank-to-Wake?

Well-to-Wake emission factors for a variety of marine fuels are available in the GLEC Framework. These values will be updated later in 2023 in a new version of the GLEC Framework, which will follow the approach for calculating emission factors set out in Annex J of ISO 14083.

How are carbon removals factored-in?

Carbon removals such as Carbon Capture and Storage (CCS) would be accounted for through the emission factor associated with the fuel in question. Carbon removals through offsets are not accepted by the SBTi.
## TARGET COVERAGE

<table>
<thead>
<tr>
<th>Type of shipping related emissions</th>
<th>WTW base year GHG emissions</th>
<th>Base year activity data*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vessel owners / operators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger</td>
<td>Scope 1</td>
<td>GT nautical mile</td>
</tr>
<tr>
<td></td>
<td>Scope 3</td>
<td></td>
</tr>
<tr>
<td>Freight</td>
<td>Scope 1</td>
<td>tonne-nautical mile</td>
</tr>
<tr>
<td></td>
<td>Scope 3</td>
<td></td>
</tr>
<tr>
<td><strong>Cargo shippers / Logistics Service Providers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passenger</td>
<td>Scope 3 category 6 or 7</td>
<td>GT nautical mile</td>
</tr>
<tr>
<td>Freight</td>
<td>Scope 3 category 4 or 9</td>
<td>tonne-nautical mile</td>
</tr>
</tbody>
</table>

* Except cruises
For all companies, near-term target year must be **no earlier than 2030**.

- Vessel owners or operators must also submit **long-term science-based targets** (net-zero targets) along with their near-term target submission.

- For maritime transport emissions, a long-term science-based target means reducing emissions to a residual level in **line with 1.5°C** scenarios by no later than 2040.

* In addition to the SBTi general and Net-Zero criteria.
LIMITATIONS ON FOSSIL FUEL ACTIVITIES

- The SBTi Fossil Fuel Policy affects the extent to which companies engaging in fossil fuel businesses can commit to climate aligned targets.

- Currently the SBTi is unable to accept commitments or validate targets from companies in the oil and gas or fossil fuels sectors.

- Users of the SBTi Maritime Tool with activities related to transportation or extraction of fossil fuel products are advised to review the current status of this policy as well as the latest version of the SBTi Criteria.
MODELING TARGETS
EXCEL TOOL TO SUPPORT TARGET SETTING FOR THE MARITIME SECTOR

Calculates science-based targets for different vessel types and sizes following the SDA (convergence approach)

One interface for calculating SBTs for all maritime transport categories and one additional (non target setting) feature are included:

SBT tool

Vessel operators can model emission reduction targets for freight and passenger maritime transport activities. Shippers and Logistics Service Providers can also use this tool to model emission reduction targets for scope 3 category 4/9 emissions.

SBT aggregator

Additional feature to help companies combine targets across multiple maritime transport categories into a single metric.
Does the requirement to have a long-term target for vessel owners and operators mean that they must use the net-zero form and cannot use the near-term one?
Both near- and long-term target submission forms need to be prepared and submitted simultaneously.

Can the SBTi Maritime Transport Tool be used for near- and long-term target calculations?
Yes, it can. This is dependent on the target year: 2040 for long-term targets, no earlier than 2030 for near-term targets.

Do companies need to set separate targets for each vessel category/size?
Yes, and users can generate combined targets per vessel category over multiple vessel size categories with the optional SBTi Aggregator Tab of the tool.
CONTAINER SHIPPER: DEFAULT

Section 1. Select type of vessel used for transport activity

- Container
  - Please select vessel type for transport activity
  - Required Input
  - Results

Section 2. Select vessel size category

- Default
  - Please refer to guidance document for details

Section 3. Enter emissions and activity data

- Select a base year: 2021
  - Any base year between 2018 and the current year is eligible
- Select a target year: 2033
  - Near-term targets must cover a maximum of 10 years from the date the target is submitted to the SBTi for validation
- Well-to-Wake (WTW) emissions in base year: 1,750,000 metric tonnes of CO2 equivalent (tCO2e)
- Activity in base year: 276,888,488,121 tonne-nautical mile (t nm)
- Expected activity in target year: 236,457,883,369 tonne-nautical mile (t nm)

Option for use when you don’t know the vessel size

When don’t know breakdown: total emissions across whole portfolio

Based on 40% growth projection over 12 years
TRANSPORT ACTIVITY

- Transport activity: measure of the amount of transport conducted.
  - Calculated by multiplying the amount of goods or number of people by the distance traveled.
- For the purpose of calculating the EEOI, as defined by IMO, this is the actual distance*.
  - This may need to be converted when generating a corporate inventory.
- Amount of goods is quantified in metric tonnes.
- In the SBTi Maritime Tool, distance is quantified in nautical miles.
CALCULATION OF TRANSPORT ACTIVITY

- 20,000 tonnes loaded at Tilbury & transported 1,800 nm to Barcelona.
- 5,000 tonnes unloaded at Barcelona and remaining 15,000 tonnes transported 1,150 nm to Piraeus.
- Total tonne nm = 20,000 x 1,800 + 15,000 x 1,150 = 53,250,000
- Always break each journey down into constituent parts for the most accurate results.
CONTAINER SHIPPER: DEFAULT

Section 4. Review target modelling results

Target modelling results - 1.5C

<table>
<thead>
<tr>
<th></th>
<th>WTW emissions</th>
<th>tCO2e</th>
<th>WTW carbon intensity</th>
<th>gCO2/t nm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container Default</td>
<td>1,750,000</td>
<td>1.0</td>
<td>10.36</td>
<td>2.72</td>
</tr>
<tr>
<td>Container Default</td>
<td>643,348</td>
<td>2.72</td>
<td>73.7%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>2033</td>
<td>% Reduction 2021 - 2033</td>
<td></td>
</tr>
</tbody>
</table>

Total emissions respect company share of total GHG budget

Company S curve less steep than industry average as have a better-than-average starting point
CONTAINER OPERATOR: CATEGORIES

Sectoral Decarbonization Approach - Maritime Transport Tool

Section 1. Select type of vessel used for transport activity

- Container

Section 2. Select vessel size category

- (TEU) 8,000 - 11,999

Section 3. Enter emissions and activity data

- Select a base year: 2021
- Select a target year: 2033
- Well-to-Wake (WTW) emissions in base year: 171,058 metric tonnes of CO2 equivalent (tCO2e)
- Activity in base year: 10,691,144,708 tonne-nautical mile (t nm)
- Expected activity in target year: 14,967,602,591 tonne-nautical mile (t nm)

Vessel operator will probably have a range of vessel sizes and should have the input data for each vessel category.
CONTAINER OPERATOR: CATEGORIES

Sectoral Decarbonization Approach - Maritime Transport Tool

**Section 1. Select type of vessel used for transport activity**

- **Container**

**Section 2. Select vessel size category**

- (TEU) > 20,000

**Section 3. Enter emissions and activity data**

- **Select a base year**: 2021  
  - Any base year between 2018 and the current year is eligible
- **Select a target year**: 2033  
  - Near-term targets must cover a maximum of 10 years from the date the target is submitted to the SBTi for validation
- **Well-to-Wake (WTW) emissions in base year**: 96,209 metric tonnes CO2 equivalent (tCO2e)
- **Activity in base year**: 86,393,088,553 tonne-nautical mile (t.nm)
- **Expected activity in target year**: 120,950,323,974 tonne-nautical mile (t.nm)

Just showing two size categories for the purposes of illustration.
**CONTAINER OPERATOR: CATEGORIES**

**Sectoral Decarbonization Approach - Maritime Transport Tool**

**OPTIONAL - Target aggregation sheet**

Step 1: List the vessel type, size, base year emissions (WTW), activity, and target year activity in columns D, E, G, H and J for each different vessel type or size category for which targets are to be calculated.

Step 2: Calculate the targets for each different vessel type or size category using the “Tool” tab.

Step 3: Input the results calculated in step 2 into columns L through T of the SBTaggregator tab. The aggregated results and prorated reduction target are shown in at the bottom of row of this table. Please note that only intensity targets with the same activity denominators (i.e., unit) can be aggregated.

<table>
<thead>
<tr>
<th>Emissions and activity data (as entered in tool interface)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vessel type</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td>7</td>
</tr>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

**Combined results**

1,750,000  168,899,498,121  10.4  236,457,883,369
CONTAINER OPERATOR: CATEGORIES

Section 4. Review target modelling results

Target modelling results - 1.5C

<table>
<thead>
<tr>
<th>Container (TEU) 8,000 - 11,999</th>
<th>WTW emissions</th>
<th>tCO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>800,000 - 1,199,999</td>
<td>171,058</td>
<td>16.00</td>
</tr>
<tr>
<td>Target year 2033</td>
<td>69,406</td>
<td>4.64</td>
</tr>
<tr>
<td>% Reduction 2021 - 2033</td>
<td>59.4%</td>
<td>71.0%</td>
</tr>
</tbody>
</table>

Company S curve steeper than industry average as have a worse-than-average starting point.
CONTAINER OPERATOR: CATEGORIES

Section 4. Review target modelling results

Target modelling results - 1.5C

<table>
<thead>
<tr>
<th>Container (TEU) &gt;20,000</th>
<th>WTW emissions</th>
<th>tCO2e</th>
<th>Base year 2021</th>
<th>Target year 2033</th>
<th>% Reduction 2021 - 2033</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>760,259</td>
<td>308,470</td>
<td>59.4%</td>
</tr>
<tr>
<td>Container (TEU) &gt;20,000</td>
<td>WTW carbon intensity</td>
<td>gCO2/tnm</td>
<td>8.80</td>
<td>2.55</td>
<td>71.0%</td>
</tr>
</tbody>
</table>

Graphs showing emission and intensity targets for the years 2023 to 2038.
## Optional - Target aggregation sheet

Step 1: List the vessel type, size, base year emissions (WTW), activity, and target year activity in columns D, E, G, H and J for each different vessel type or size category for which targets are to be calculated.

Step 2: Calculate the targets for each different vessel type or size category using the “Tool” tab.

Step 3: Input the results calculated in step 2 into columns L through T of the SBT aggregator tab. The aggregated results and prorated reduction target are shown in at the bottom of row of this table. Please note that only intensity targets with the same activity denominators (i.e., unit) can be aggregated.

### Emissions and activity data (as entered in tool interface)

<table>
<thead>
<tr>
<th>Vessel type</th>
<th>Vessel size</th>
<th>WTW emissions (tCO2e)</th>
<th>Activity (tannum or GTnm)</th>
<th>WTW carbon intensity (gCO2e/tanutm or gCO2e/GTnm)</th>
<th>Activity (tannum or GTnm)</th>
<th>Target year</th>
<th>Target year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
<td>(TEU) &gt;20,000</td>
<td>760,259</td>
<td>86,393,068,553</td>
<td>8.80</td>
<td>120,950,323,974</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Container</td>
<td>(TEU) 14,500 - 19,999</td>
<td>449,028</td>
<td>45,356,371,490</td>
<td>9.90</td>
<td>63,498,920,096</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Container</td>
<td>(TEU) 12,000 - 14,499</td>
<td>369,654</td>
<td>26,457,883,369</td>
<td>13.97</td>
<td>37,041,036,717</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Container</td>
<td>(TEU) 8,000 - 11,999</td>
<td>171,058</td>
<td>10,691,144,708</td>
<td>16.00</td>
<td>14,967,602,592</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Target modelling results - 1.5C

<table>
<thead>
<tr>
<th>Target year</th>
<th>WTW emissions (tCO2e)</th>
<th>% reduction</th>
<th>WTW carbon intensity (gCO2e/tanutm or gCO2e/GTnm)</th>
<th>% reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Container</td>
<td>308,470</td>
<td>59.4%</td>
<td>2.55</td>
<td>71%</td>
</tr>
<tr>
<td>Container</td>
<td>182,190</td>
<td>59.4%</td>
<td>2.87</td>
<td>71%</td>
</tr>
<tr>
<td>Container</td>
<td>149,965</td>
<td>59.4%</td>
<td>4.05</td>
<td>71%</td>
</tr>
<tr>
<td>Container</td>
<td>69,406</td>
<td>59.4%</td>
<td>4.64</td>
<td>71%</td>
</tr>
</tbody>
</table>

**Combined results**  
1,750,000 | 168,898,488,121 | 10.4 | 236,457,883,369 | 710,051 | 59.4% | 3.00 | 71.0%
Section 1. Select type of vessel used for transport activity

Chemical Tanker

Please select vessel type for transport activity

Section 2. Select vessel size category

(DWT) 20,000 - 39,999

Please refer to guidance document for details

Section 3. Enter emissions and activity data

<table>
<thead>
<tr>
<th>Select a base year</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select a target year</td>
<td>2030</td>
</tr>
</tbody>
</table>

Well-to-Wake (WTW) emissions in base year: 200,000 metric tonnes of CO2 equivalent (tCO2e)

Activity in base year: 8,339,308,855 tonne-nautical mile (t nm)

Expected activity in target year: 8,339,308,855 tonne-nautical mile (t nm)

Again, just one vessel size category

Based on no growth over 12 years
### CHEMICAL TANKER

**Section 4. Review target modelling results**

#### Target modelling results - 1.5C

<table>
<thead>
<tr>
<th></th>
<th>Base year 2022</th>
<th>Target year 2030</th>
<th>% Reduction 2022 - 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>WTW emissions (tCO2e)</td>
<td>200,000</td>
<td>112,055</td>
<td>44.0%</td>
</tr>
<tr>
<td>WTW carbon intensity (gCO2e/t nm)</td>
<td>23.15</td>
<td>12.97</td>
<td>44.0%</td>
</tr>
</tbody>
</table>

Lots of work to do to catch up with industry average
CHEMICAL TANKER: HIGH GROWTH

Change to 40% growth example

Section 4. Review target modelling results

Target modelling results - 1.5C

<table>
<thead>
<tr>
<th>Chemical Tanker (DWT) 20,000 - 39,999</th>
<th>WTW emissions</th>
<th>tCO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year 2022</td>
<td>Target year 2030</td>
<td>% Reduction 2022 - 2030</td>
</tr>
<tr>
<td>200,000</td>
<td>137,317</td>
<td>31.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Tanker (DWT) 20,000 - 39,999</th>
<th>WTW carbon intensity</th>
<th>gCO2t.mn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year 2022</td>
<td>Target year 2030</td>
<td>% Reduction 2022 - 2030</td>
</tr>
<tr>
<td>23.15</td>
<td>11.35</td>
<td>51.0%</td>
</tr>
</tbody>
</table>

Becomes harder to catch up with industry average

Fills the company share of GHG budget
## Section 1. Select type of vessel used for transport activity

| Ferry Passenger Only | Please select vessel type for transport activity | Required Input | Results |

## Section 2. Select vessel size category

| (GT) 1,000 - 1,099 | Please refer to guidance document for details |

## Section 3. Enter emissions and activity data

- **Select a base year:** 2022
- **Select a target year:** 2033
- **Well-to-Wake (WTW) emissions in base year:** 100,000 metric tonnes of CO2 equivalent (tCO2e)
- **Activity in base year:** 1,000,000,000 gross tonne nautical miles (GT.nm)
- **Expected activity in target year:** 1,300,000,000

---

Based on 30% growth over 12 years
Section 4. Review target modelling results

**Target modelling results - 1.5C**

<table>
<thead>
<tr>
<th></th>
<th>Base year 2022</th>
<th>Target year 2033</th>
<th>% Reduction 2022 - 2033</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferry Passenger Only (GT) 1,000 - 1,999 WTW emissions tCO2e</td>
<td>100,000</td>
<td>40,519</td>
<td>59.5%</td>
</tr>
<tr>
<td>Ferry Passenger Only (GT) 1,000 - 1,999 WTW carbon intensity gCO2/GT nm</td>
<td>100.00</td>
<td>31.17</td>
<td>68.8%</td>
</tr>
</tbody>
</table>

Company share of GHG budget already constrained
Section 4. Review target modelling results

Target modelling results - 1.5C

<table>
<thead>
<tr>
<th>Ferry Passenger Only (GT) 1,000 - 1,999</th>
<th>WTW emissions</th>
<th>tCO2e</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Base year 2022</td>
<td>Target year 2033</td>
</tr>
<tr>
<td></td>
<td>100,000</td>
<td>40,830</td>
</tr>
<tr>
<td>Ferry Passenger Only (GT) 1,000 - 1,999</td>
<td>WTW carbon intensity</td>
<td>gCO2/TTNnm</td>
</tr>
<tr>
<td></td>
<td>100.00</td>
<td>25.52</td>
</tr>
</tbody>
</table>

Becomes harder to catch up with industry average
TARGET FORMULATION

Targets may be expressed either as absolute emissions (tonnes CO$_2$e) or on an intensity basis (e.g., gCO$_2$e per tonne nautical mile).

**Vessel Operator commits to reduce Well-to-Wake GHG emissions 69% per tonne nautical mile from ferry operations by 2033 from a 2021 base year.**

- SBTi Bioenergy footnote may be applicable.
- Target recalculation is needed in the event of changes to the company structure or its operations. (e.g. mergers & acquisitions, updates to growth projections, base year data/assumptions).
Will carbon insetting programs, such as book and claim, be a viable pathway for cargo owners to meet their targets? What is the SBTi’s stance on mass balancing approaches for emission reductions?

Use of book and claim instruments is a topic that requires further research and clarification from GHG accounting standards.

The SBTi is following up and participating in multiple discussion groups working on this topic.

The SBTi acknowledges that book and claim instruments are still being defined in the market, however, it is beyond the scope of this guidance to endorse or recommend specific frameworks that are not formally recognized by the Greenhouse Gas Protocol (GHGP).
CLOSING
THE TIME TO ACT IS NOW!

- We are urgently calling on all companies to set science-based net-zero targets.
- Join our mailing list to receive updates.
- Should you have any questions, contact us at info@sciencebasedtargets.org.
- The new guidance and materials, as well as the recording of this webinar can be found on the SBTi maritime webpage.
THANK YOU