Heerema Marine Contractors’ greenhouse gas (GHG) emissions footprint

Our approach towards 2030, how we are shaping the changes required between now and 2030.

The following steps outline our approach for acting in a way that is Climate Responsible. We recognize challenges in the approach and the solutions that we identify. Therefore, we seek to transparently document the full details of our approach on an annual basis, including uncertainties. The steps are based on the approach as presented by the NewClimate Institute.

1. Overview GHG Emissions
2. Targets To Reduce
3. Action Plan
4. Pricing Emissions
5. Transparent Communication

We use our Sustainability Roadmap for the long-term strategy and sustainable development planning. It reflects our sustainability journey and is therefore being updated according lessons learned along the way.

Meike Kolthof | General Manager Sustainability
How does Heerema maintain an overview of GHG emissions?

Our first step towards acting in a way that is climate responsible is to maintain an overview of our GHG emissions on an annual basis and continuously strive to improve our understanding of the impact that we have.

**Scope 1**
Direct emissions from owned or controlled sources

For Heerema, scope 1 emissions are related directly to the activities and operations performed offshore with the Sleipnir, Thialf, Balder, Aegir, Kolga and Bylgia. Scope 1 emissions for Heerema include emissions due to combustion of fuel from the Sleipnir, Thialf, Balder, Aegir, Kolga and Bylgia, as well as gas usage of all Heerema offices. Methane slip from Sleipnir is included in these figures.

**Scope 2**
Indirect emissions from the generation of purchased energy

For Heerema, scope 2 emissions are related to the purchase of energy (electricity) in our offices. These locations are Leiden-, Houston-, London- and Singapore office. As can be seen however, scope 2 emissions are close to 1% of Scope 1 emissions and will not significantly influence the baseline of 250,000 [mT]1. Furthermore, it should be noted that Scope 2 emissions are based on ‘location-based’ emissions, even in the case of the Leiden office where green power is used.

**Scope 3**
Indirect emissions that occur in the value chain (upstream/downstream)

Approach:
- Identify and understand risks and opportunities associated with value chain emissions;
- Identify GHG reduction opportunities, set reduction targets and track performance;
- Engage suppliers and other value chain partners in GHG management and sustainability;
- Enhance stakeholder information and corporate reputation through public reporting.

WHERE DO WE GET THE DATA FROM?
We generate our data from multiple sources to ensure we capture the full extent of our impact:

- **Vessels** Daily progress reports show the consumed amount of fuel per day.
- **Offices** General Management reports on energy use.
- **Flights** Crewing Department reports on yearly flights Fleet & Office.

HOW DO WE CALCULATE OUR EMISSIONS?
To calculate our emissions, we apply the following formula: $CO_2$ eq [mT] = fuel consumption [mT] * density fuel * emission factor

The emissions factors are retrieved via a database advised by the Climate Neutral Standard. The emissions factors apply for Well-to-Wheel emissions.

HOW DO WE PREVENT MISCALCULATIONS?
To ensure accuracy in our reporting we have a yearly audit conducted by an external party in line with the Climate Neutral Standard. For the year 2021 the external audit was executed by Ecocert.

How does Heerema target emissions reduction?

We take a climate responsible approach to address our climate footprint in a transparent and constructive way.

To achieve the required 45% reduction in Scope 1, Scope 2, and Scope 3 emissions by 2030 we have yearly reduction and prevention targets as outlined in this Climate Plan.

**SCOPE 1 AND SCOPE 2 EMISSIONS**
Within our Sustainability Ambition ‘Carbon Neutral’ we have set targets for the coming years. These targets take into account the Paris Agreement, however we have decided to be ambitious: the implementation of our certified reduction plan will result in 80% prevention and reduction of our CO2 emissions by the end of 2026 for Scope 1 and Scope 2.

The yearly targets of our reduction plan for Scope 1 and 2 are shown in the graph below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Scope 1</th>
<th>Scope 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>2021</td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>2022</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>2023</td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>2024</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>2025</td>
<td>75%</td>
<td>75%</td>
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</tbody>
</table>

**SCOPE 3 EMISSIONS**
Our scope 3 emissions have a separate reduction plan, since this involves collaboration with our suppliers and subcontractors. To set targets for our Scope 3 emissions, we have inventoried our top 10 suppliers for 2020 and 2021 to collaborate on tracking and reducing emissions by engaging.

The approach of reducing our Scope 3 emissions is based on the Greenhouse Gas Protocol and the Climate Neutral Standard. The Scope 3 emissions are not yet part of our compensated footprint, but will be taken into account once relevant.
REDUCTION PLAN FOR SCOPE 1 AND 2 EMISSIONS
To reach our targets, we apply our Carbon Neutral roadmap linked to our Carbon Neutral Ambition. The roadmap includes zero-emission technologies that either prevent, reduce, or compensate emissions.

Based on the exact planning that shows which technologies will be implemented onboard our vessels at what time, we received a Climate Neutral certificate via an external auditing party.

Prevention measures are classified as those that prevent the combustion of fuel to generate power. Several initiatives are already ongoing, such as Shore Power, improved crane utilization, and an improved power management system for Aegir.

Reduction measures are classified as those that reduce the amount of fuel required, use a cleaner fuel or increase combustion efficiency. Some examples are using synthetic diesel-fuels or biofuels such as GTL and HVO, and potentially even hydrogen.

An important and successful initiative already undertaken by Heerema is the use of LNG for Sleipnir, which significantly reduces local emissions such as NOx, SOx, and Particulate Matter (PM).

Compensation measures are defined as those that offset, capture, or otherwise neutralize our carbon footprint. Alongside taking action in several industry studies, we started investing in certified carbon offsetting projects that align with our mission to create sustainable value(s).

Our third step towards being climate responsible is to reduce our own emissions as much as possible, with a vision of net zero GHG emissions as soon as possible.

REDUCTION PLAN SCOPE 3
The approach of reducing our Scope 3 emissions is based on the Greenhouse Gas Protocol and the Climate Neutral Standard.

- Identify and understand risks and opportunities associated with value chain emissions;
- Identify GHG reduction opportunities, set reduction targets and track performance;
- Overview top 10 suppliers
- Overview top 10 subcontractors
- Engage suppliers and other value chain partners in GHG management and sustainability;
- Request footprint

<table>
<thead>
<tr>
<th>Carbon Neutral</th>
<th>Net Zero GHG Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent</td>
<td>25%</td>
</tr>
<tr>
<td>Hydrogen</td>
<td></td>
</tr>
<tr>
<td>Solar</td>
<td></td>
</tr>
<tr>
<td>Hybridization</td>
<td></td>
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<tr>
<td>Software &amp; System Optimization</td>
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</tr>
<tr>
<td>Reduce</td>
<td>55%</td>
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<tr>
<td>SCR/Scrubbers</td>
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<tr>
<td>Alternative Fuels</td>
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<tr>
<td>Cookstoves</td>
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<td>Solar Lamps</td>
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<tr>
<td>Compensate</td>
<td>20%</td>
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<tr>
<td>Carbon Capture</td>
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<tr>
<td>Renewable Energy Project</td>
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</tbody>
</table>

Identify and understand risks and opportunities associated with value chain emissions

Identify GHG reduction opportunities, set reduction targets and track performance

Engage suppliers and other value chain partners in GHG management and sustainability

Enhance stakeholder information and corporate reputation through public reporting

- Collaborate on reduction plan
- Collaborate on implementation initiatives
- Enhance stakeholder information and corporate reputation through public reporting.
How does Heerema price emissions?

Our fourth step towards being climate responsible is to work with an internal emission pricing based on our compensation targets.

Each year we evaluate and generate a CO₂ price per ton emitted, this means we can integrate a CO₂ price into our decision-making processes.

The price is market-based, this means the prices will vary depending on the offers available. Additionally, we select the projects based on our own requirements together with the Climate Neutral Group. These requirements include adding social value and encouraging innovation.

For the future, our internal emission pricing will also be influenced by the existing Emission Trading System of the European Union. For decisions made in the near future, the current EU ETS prices are already taken into account.

How does Heerema communicate in a transparent way?

Our fifth step towards being climate responsible is to communicate the details of our approach clearly and on a regular basis.

We have committed to open and transparent communication about our impact and we will document the full details of our Climate Responsible approach on an annual basis, including any challenges and uncertainties.

The applicable information will be shared using our:
- Yearly Sustainability Report
- Yearly Impact Report
- Corporate webpage
- Yearly audit results

Additionally, we believe in collaboration and feedback. Therefore, if this Climate Plan inspires you, triggers questions or makes you curious for more – please reach out to Meike Kolthof, General Manager Sustainability to talk about this sustainability journey.