

MAY 2024



Veramaris GHG  
**Emissions Report 2023**

# Veramaris GHG Emissions Report 2023

In August 2022, Veramaris committed to reducing Greenhouse Gas (GHG) emissions by setting a science-based target (SBTi) aimed at urgently limiting global warming to below 1.5 °C. Veramaris committed to achieve a 38% reduction in absolute Scope 1 and Scope 2 emissions by 2030 from a 2021 base year.

In December 2023, Veramaris announced a new target to reduce absolute Scope 3 emissions by 22.5% by 2030, compared to a 2021 baseline, further building on the company's climate commitments.

Overall, these goals mean that Veramaris will reduce absolute annual GHG emissions by a total of 12 thousand tonnes by 2030, baseline 2021.

We have used the CDP Climate Disclosure Framework for Small and Medium-Sized Enterprises (SMEs) to prepare this disclosure of Veramaris' emissions inventory and report progress against our targets.

## Calculation methodology

The emissions have been calculated based on an LCA-approach in accordance with the GHG Protocol and built upon data from GaBi database 10. Biogenic emissions and biogenic removals are omitted.

For electricity, a market-based approach has been used and it therefore has been assumed that none of the emissions occur in Scope 2 as the electricity is generated 100% renewably (the non-renewable share of the electricity mix is covered by RECs).

The emissions associated with the purchased steam have been split up into Scope 2 and Scope 3.3.

This has been done by calculating the proportion of emissions coming from the steam generation and from the fuel supply, respectively. The efficiency of the steam generation was reassessed in 2022 (compared to 2021). The reassessment concluded that the efficiency of the boiler is slightly lower than expected. This efficiency adjustment has been considered in the emission calculation from steam for 2022 onwards.



SCIENCE  
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TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



In 2023, Veramaris participated in the RegenConnect programme of Cargill. The purpose of this programme is to establish sustainable agriculture practices in order to increase soil health and at the same time sequester CO<sub>2</sub> in the soil. Veramaris' involvement in the RegenConnect program contributed to the reduction of its Scope 3 emissions. As of spring 2024, there is no guidance on how to account for soil carbon sequestration as it is practiced within the RegenConnect programme. It is expected that the **GHG Protocol Land Sector and Removals Guidance** which should be published in 2024 (but has not been published as of date of publication of this document) will bring clarity. In the absence of an official guidance, it has been decided to account the Verified Emission Reductions as a reduced Dextrose carbon footprint and thus as a reduction of Scope 3 category 1 emissions. For transparency reasons, we have also included parallel reporting. Once official guidance accounting is available, this will be followed.

## Limitations

We decided to not report Scope 1 and 2 emissions in metric tons CO<sub>2</sub>e, per unit of physical activity or economic output. This is because the company operates with one facility and does not disclose production volumes and revenues at facility level. Instead of this, we share our product footprint data directly with customers via an Environmental Product Declaration (EPD).

## Excluded emissions

Biogenic CO<sub>2</sub> emissions have been excluded. Since the biogenic CO<sub>2</sub> emissions and biogenic CO<sub>2</sub> removals (from the sequestration of CO<sub>2</sub> during plant growth) are expected to compensate for each other, their exclusion is considered of limited significance.

## Emissions data

As expected and communicated in 2022, the absolute emissions in 2023 increased compared to the baseline year 2021; this is due to a significantly increased production volume. However, the specific CO<sub>2</sub> emissions per unit of product were reduced, this is particularly due to:

- Process efficiencies to reduce steam demand
- Process efficiencies to reduce dextrose demand

Accordingly, an updated Environmental Product Declaration (EPD) for Veramaris crude algal oil was published and shared with customers in January 2024, registering a 27% lower carbon footprint per 1kg of Veramaris algal oil compared to the baseline EPD that was originally published in May 2022.

## Measurements

Summary table for energy use and emissions data

	Units	Reporting Year 2023	Baseline Year 2021
Total Energy Consumption (purchased and/or self-generated) <sup>1</sup>	GJ Electric	386,746	377,470
	GJ Thermal	121,481	155,192
RECs (partly from PPAs)	GJ	386,746	377,470
Scope 1	t CO <sub>2</sub> e	0	0
Scope 2	t CO <sub>2</sub> e	7,527	11,079
Scope 3 category 1 (incl. Verified Emission Reductions <sup>2</sup> )	t CO <sub>2</sub> e	36,293	29,673
Scope 3 category 3	t CO <sub>2</sub> e	2,562	5,344
Total emissions	t CO <sub>2</sub> e	47,410	46,096

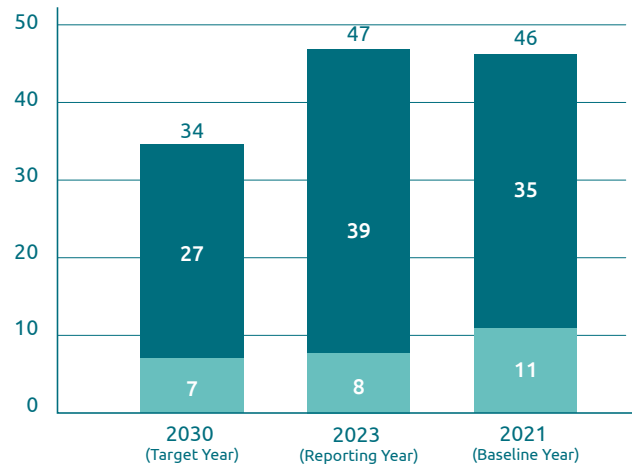
### Notes:

- The electricity Veramaris purchases is 100% renewable. This is achieved via PPAs and RECs topping up the renewable electricity share in the electricity grid mix.
- Scope 3.1 includes insetting of 1,028 tonnes of CO<sub>2</sub>e Verified Emissions Reductions from the RegenConnect program. Without, considering the Verified Emissions Reductions, the scope 3 category 3 emissions would be 37,321 tonnes CO<sub>2</sub>e and the total Scope 3 emissions would be 39,882 tonnes CO<sub>2</sub>e.

In 2023, our absolute GHG emissions increased by less than 3%, whilst our product volume increased by almost 50% compared to baseline year 2021.

## Veramaris Absolute GHG Emissions

kt CO<sub>2</sub>e



● Scope 2 ● Scope 3 (incl. Verified Emission Reductions)

### Notes:

Includes Verified Emissions Reductions from the RegenConnect program.

## Action and impact

### Emission reduction initiatives

Initiative	Start date	Estimated annual emissions savings in 2023	Scope category where the emissions saving occurs
<p><b>Green electricity<sup>1</sup></b></p> <p>Veramaris purchased Renewable Energy Certificates (RECs) partly from Power Purchase Agreements (PPAs) to compensate for the non-renewable share of the electricity mix that is consumed. The renewable electricity is purchased via Renewable Energy Certificates (RECs), with 50% coming from Power Purchase Agreements (PPAs).</p>	2021	Approx. 50,000 t CO <sub>2</sub> e	Mainly Scope 2 but also Scope 3 category 3
<p><b>Process Improvement<sup>2</sup></b></p> <p>Veramaris implemented process improvements that resulted in reduced steam consumption, reduced electricity use, and more efficient use of raw materials, leading to lower GHG emissions.</p>	2021	Approx. 13,000 t CO <sub>2</sub> e	Scope 2 and Scope 3 category 1 and category 3
<p><b>RegenConnect</b></p> <p>In 2023, Veramaris participated in the RegenConnect programme of Cargill. The purpose of this programme is to establish sustainable agriculture practices in order to increase soil health and at the same time sequester CO<sub>2</sub> in the soil. In the absence of an official guidance, it has been decided to account the Verified Emission Reductions as a reduced Dextrose carbon footprint and thus as a reduction of Scope 3 category 1 emissions.</p>	2023	1,028 t CO <sub>2</sub> e	Scope 3 category 1

1 Calculated based on: Difference between (a) GHG emissions from electricity used from local grid mix; and (b) adjusted emissions including RECs purchased to compensate for non-renewable share of local grid mix.

2 Calculated based on: Emissions reduction due to reduced specific steam and sugar demand in 2023 compared to 2021 (applying the respective emission factors from 2023)

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