



# 2024 GHG Inventory Methodology and Restatements

After publicly committing to set targets in alignment with SBTi's Net-Zero Standard in 2023, VHB continued to prepare for target validation in 2024 by reviewing and revamping our GHG inventory management plan, methodology, emission factors, and data sources. As a result, we reestablished 2023 as our baseline and will restate our 2023 emissions accordingly (see below).

## Methodology

Emissions have been calculated by the GHG Protocol's Corporate Accounting and Reporting Standard, Scope 2 Guidance, and Corporate Value Chain (Scope 3) Accounting and Reporting Standard. VHB leases all of its office space. Therefore, it does not have control over any potential sources of fugitive emissions. For this reason, these emissions are considered beyond VHB's organizational boundary and have been excluded from our Scope 1 reporting.

In 2024, we revised our inventory process for Scope 2 to include both market- and location-based emissions estimates at the office level.

Scope 3 emissions have been calculated primarily using the spend-based method, which utilizes our internal financial data and multiplies our spending in each category by industry-accepted emission factors to estimate emissions.

The following upstream and downstream Scope 3 categories are not considered material and have been excluded from VHB's inventory due to the nature of our business and operations: transportation and distribution, waste generated in operations, downstream leased assets, processing of sold products, use of sold products, end-of-life treatment of sold products, franchises, and investments.

### **Additional tools and data sources used to develop VHB's GHG emissions inventory include:**

- » [EPA Emission Factors for Greenhouse Gas Inventories](#)
- » [EPA Simplified GHG Emissions Calculator \(SGEC\)](#)
- » [2018 Commercial Building Energy Consumption Survey \(CBECS\)](#)
- » [Edison Electric Institute \(EEI\) Electric Company Carbon Emissions and Electricity Mix Reporting Database](#)
- » [Consumer Price Index \(CPI\) Inflation Calculator](#)
- » [US Environmentally-Extended Input-Output \(USEEIO\) Supply Chain GHG Emissions Factors](#)
- » [UK Government GHG Conversion Factors for Company Reporting](#)
- » [International Energy Agency \(IEA\) Life Cycle Upstream Emissions Factors](#)
- » [Alternative Fuels Data Center \(AFDC\) Average Fuel Economy](#)

## Restatements of Information

In 2024, VHB implemented the following changes to the methodology for calculating our GHG emissions.







- » Updated base year used for performance measurement from 2019 to 2023 to account for post-COVID operational changes.
- » Updated the approach and criteria used for assessing our boundary based on operational control, resulting in a shift of emissions from Scopes 1 and 2 into Scope 3.
- » Category 8: Upstream Leased Assets.
- » Transitioned to industry-standard EPA models (USEEIO) and emission factors, and updated

our expense categorization to improve the accuracy of spend-based calculations, with a particular impact on Scope 3 Categories 1: Purchased Goods and Services, 6: Business Travel, and 7: Employee Commuting.

- » Reviewed relevance and materiality of all Scope 3 categories, resulting in the addition of Scope 3 Category 2: Capital Goods to VHB's GHG inventory.
- » Updated calculation methodology for Scope 3 Category 3: Fuel- and Energy-Related Activities.

The revised methodology resulted in the following changes to our 2023 GHG footprint:

### 2023 Scope 3 Emissions (MTCO<sub>2</sub>e)

SCOPE 3 CATEGORY	2023 METHODOLOGY & EMISSIONS FACTORS	2024 METHODOLOGY & EMISSIONS FACTORS	ABSOLUTE CHANGE	PERCENT CHANGE
 <b>Category 1: Purchased Goods and Services</b>	13,242	9,195	-4047	-31%
 <b>Category 2: Capital Goods</b>	--	116	116	N/A
 <b>Category 3: Fuel and Energy not included in Scopes 1 &amp; 2</b>	666	556	-110	-17%
 <b>Category 6: Business Travel</b>	4,408	1,968	-2440	-55%
 <b>Category 7: Employee Commuting</b>	2,925	3,106	181	6%
 <b>Category 8: Upstream Leased Assets</b>	--	199	199	N/A
<b>TOTAL</b>	<b>21,241</b>	<b>15,140</b>	<b>-6101</b>	<b>-29%</b>