

Climate Metrics: Measuring Our Impact

We use performance metrics to measure our progress, recognize trends and identify opportunities for improvement. Our climate-related metrics help to inform the action steps needed for us to achieve our net zero GHG emissions (Scope 1 and 2) goal by 2035.

Defining Our Metrics

- **Scope 1 emissions:** Direct GHG emissions that occur from Chesapeake's operations; most often these sources are from flared hydrocarbons, other combustion, process emissions, fugitive emissions and other vented emissions
- **Scope 2 emissions:** Indirect GHG emissions associated with the purchase of electricity to support our operations
- **Scope 3 emissions:** Indirect GHG emissions from the combustion and use of the oil and natural gas we produce
- **Methane intensity:** The ratio of direct methane emissions to gross natural gas produced
- **GHG intensity:** The ratio of direct GHG emissions released to gross annual production
- **Routine flaring volume:** The amount of natural gas flared from the primary separator; flaring is the regulated and controlled combustion of natural gas
- **Routine flaring intensity:** The percentage of natural gas flared from the primary separator

Our Performance

All data is for calendar year 2021 unless otherwise stated and includes Powder River Basin due to our ownership in 2021 and our Vine assets per our acquisition completion date of Nov. 1, 2021.

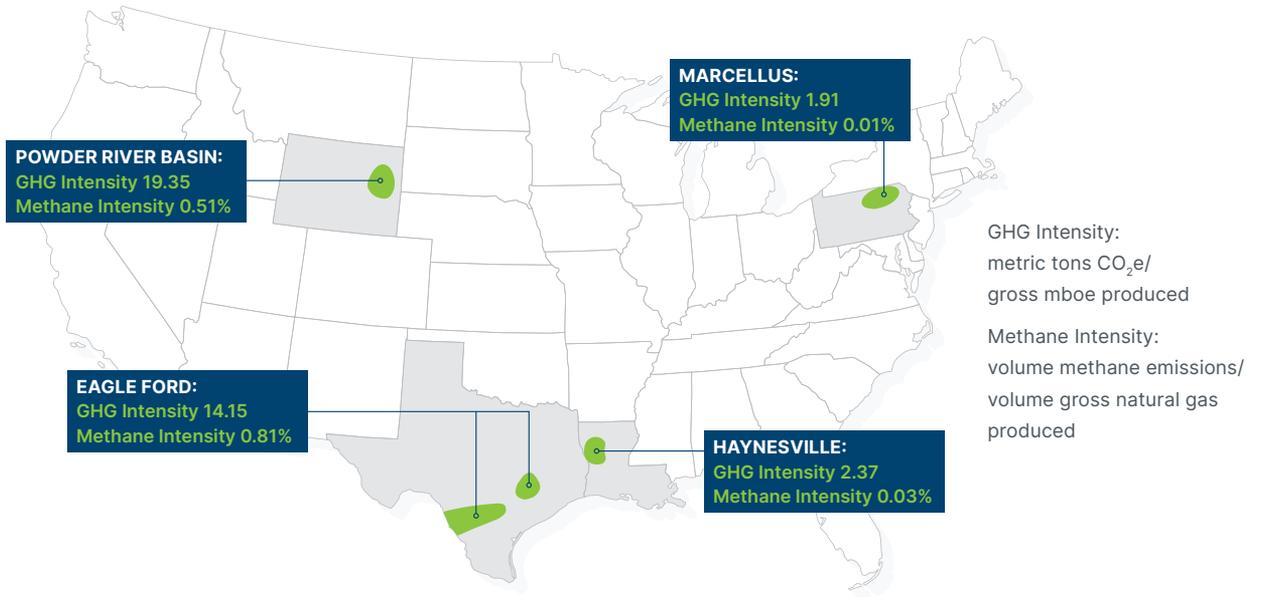
The EPA regulates all of our operations, including emissions, and we report Scope 1 emissions to the EPA's GHG Reporting Program as required by law. The reporting of certain other emissions, such as Scope 2 and Scope 3 emissions, is not required, but we voluntarily report them in this analysis. We consult with a third-party organization to review and verify our GHG emissions, GHG intensity and methane intensity to help ensure reporting accuracy.

Scope 1 GHG Emissions

As reported under the EPA's GHG Reporting Program

	2021	2020	2019	2018	2017
Scope 1 GHG emissions (gross) (million metric tons CO ₂ e)	1.83	1.86	2.81	2.55	3.22
GHG intensity (metric tons CO ₂ e/gross mboe produced)	4.5	6.0	8.2	7.2	9.1
Methane intensity (volume methane emissions/volume gross natural gas produced)	0.07%	0.13%	0.17%	0.16%	0.19%

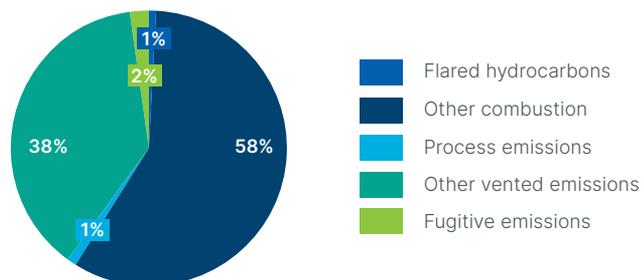
2021 Scope 1 GHG and Methane Intensity by Operating Area



Given the dynamic and complex nature of our business, it's understood that GHG emissions occur from several different sources. The Sustainability Accounting Standards Board, in its standard disclosures for our industry, identified five distinct pathways to the atmosphere that are incorporated into Chesapeake's corporate sustainability performance data.

In addition to providing added transparency to our stakeholders, disclosing source types helps us to identify the technologies and design solutions that best mitigate these.

2021 Scope 1 GHG Emissions Sources



Routine Flaring

Metric	2021
Gross annual volume of flared gas (mcf)	293,595
Flaring intensity – gross annual volume of flared gas (mcf)/gross annual production (mcf)	0.01%
Flaring intensity – gross annual volume of flared gas (mcf)/gross annual production (boe)	0.001

Scope 2 GHG Emissions

Metric	2021	2020
Scope 2 emissions (gross) (million metric tons CO ₂ e)	0.057	0.063

Scope 3 GHG Emissions

As an independent, upstream company, Chesapeake has limited control over the final use and consumption of our oil and natural gas production. For enhanced transparency, we've reported our estimated indirect Scope 3 emissions on an equity basis using Category 11 of the *Estimating petroleum industry value chain (Scope 3) greenhouse gas emissions* reporting guidance by IPIECA/API (2016). The calculation methodology applies the EPA's emission factors for listed fuel types. The estimated emissions reported represent the indirect end use GHG emissions of the products created from our crude oil and natural gas, Chesapeake's most material Scope 3 emissions category.

Chesapeake recognizes that stakeholder demand for reporting Scope 3 indirect emissions is rapidly evolving; however, it's important to note that emissions-estimation methodologies are uncertain and subject to double counting along our value chain. Double counting may occur if entities report certain emissions as Scope 1 or Scope 2 for their organizations and then we include them in our Scope 3 total.

Metric	2021	2020
Scope 3 emissions (million metric tons CO ₂ e)	59	57