

Targets: Driving Progress, Improving Performance

In 2021, we committed to achieve net zero GHG emissions (Scope 1 and 2) by 2035 to make meaningful change in support of global climate goals.



Setting high standards for our climate performance is just one of the ways we are answering the call for affordable, reliable lower carbon energy.

Pathway to Net Direct GHG Emissions (Scope 1 & 2 Emissions)

0

Eliminate routine flaring on wells completed from 2021 forward

(enterprise-wide by 2025)

0.09%

Reduce Scope 1 methane intensity by 2025 — **achieved in 2021**

(volume methane emissions/volume gross gas produced)

5.5

Reduce Scope 1 GHG intensity by 2025 — **achieved in 2021**

(tCO₂e/gross mboe produced)

Achieving Our Emissions Reduction Goals

Through a layered toolkit of technologies and best-management practices, we'll better detect and mitigate emissions in support of our short-term GHG reduction goals. Our emissions-reduction approach is holistic, recognizing the opportunities for improvement across our operations and operational lifecycle.

Mitigation Category	Action Step	Impact
Research Analysis	Conduct a basin-by-basin analysis of both proven and emerging technologies	Identification and implementation of a targeted blend of technologies specific to each asset for greatest efficacy
Operational Emissions Reductions	Improve facility design for efficiency	Reduced venting and flaring
	Reduce or capture pneumatic device emissions and emissions from pressure regulators	Reduced venting
	Capture associated gas	Reduced venting and flaring
	Minimize compression emissions	Greater efficiency and reduced combustion emissions
	Reduce well venting from liquids unloading using enhanced work practices and technologies	Reduced venting and flaring
	Utilize electricity to power drilling and completions fleets	Reduced diesel fuel use and associated emissions
	Evaluate the use of geothermal or renewable microgrid technology powered by solar/wind to provide baseload power	Reduced Scope 2 emissions through carbon-neutral power sources (increased efficiency)
	Incorporating site flyovers (aerial methane detection), at least biannually for all sites	Enhanced leak detection
RSG	Track and integrate data from continuous methane emissions monitoring technology	Enhanced leak detection and repair; reduced venting
	Partner with a third-party to verify emissions data	Greater accuracy for trend analysis and operational study
Sequestration	Explore sequestration opportunities including enhanced oil recovery (EOR), carbon capture, utilization and storage (CCUS) and storage (CCS)	Reduced emissions with increased production
Collaborative Partnerships	Engage in partnerships with peers, nonprofits and academic institutions working to enhance methane detection technologies	Improved reporting and data quality through collective efforts; opportunity to develop, test and optimize emerging technologies through a shared capital risk

Chesapeake committed to spend more than \$30 million on ESG-related initiatives by year end 2022. Most of this investment is dedicated to retrofitting more than 19,000 pneumatic devices, which are expected to reduce our reported GHG emissions by approximately 40% and methane emissions by approximately 80%.

Reducing Emissions in South Texas

After acquiring our Brazos Valley asset, we identified that a significant portion of the facilities were not designed and equipped to Chesapeake's rigorous standards.

We embarked on a two-year effort to bring these sites into compliance with support from the Texas Commission of Environmental Quality's audit program. The joint-audit program included calculating emissions for more than 600 facilities and developing a targeted emissions reduction program for the asset.

Efforts in our Brazos Valley acreage included:

- Updating tank control equipment such as flares, combustors and tank hatches to assure proper emissions controls
- Conducting engineering analysis of the closed vent systems of more than 270 facilities
- Testing more than 120 engines for compliance with federal and state requirements
- Enhancing leak detection and repair programs, including AVO inspections
- Retrofitting pneumatic devices and/or installing vent capture to eliminate emissions
- Upgrading flare monitoring systems to remotely evaluate efficient combustion
- Mitigating venting or flaring on certain wells by adding pipeline connections and/or using on-site gas for generator fuel

As a result of Chesapeake's acquisition and subsequent emissions reduction efforts, our Brazos Valley asset's environmental footprint was significantly improved. In 2020 and 2021, we reduced GHG emissions by almost 400,000 metric tons CO₂e.

Exploring Emerging Technologies, Partnering for Progress

We recognize that supporting these programs requires significant research and development capital, which involves a certain degree of risk. We're committed to spending capital to deliver improved performance in this area, and we're also exploring pooling resources with other companies for more efficient technology analysis and development. Part of our partnership strategy is centered on looking beyond Chesapeake's core upstream business and exploring opportunities with our midstream and downstream providers and the end users of our fuel.

In support of this commitment, we established our New Energy Ventures team. This dedicated, cross-functional group explores emerging technologies and commercial solutions to support our net zero goal, helping us capitalize on a lower carbon future. These possible investments including geothermal, CCUS, CCS and additional energy sources derived from natural gas (including blue hydrogen and blue ammonia), offer new ways for Chesapeake to enhance our strategies and diversify our portfolio.

Additionally, we're exploring opportunities to engage partners outside the traditional oil and natural gas value chain, including agricultural solutions for carbon renewal or sequestration. Our analyses focus on the effectiveness of each prospective technology from a technical, operational and economic standpoint.