



Leading a Responsible Energy Future

2020 ESG REPORT

CHESAPEAKE
ENERGY

Forward-Looking Statements

Certain information within this report contains “forward-looking” statements related to Chesapeake Energy Corporation (the “Company”) within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and Section 27A of the Securities Act of 1933 and include statements based on management’s current assumptions and expectations, including statements regarding the Company’s [sustainability vision, sustainability performance, strategies, targets, goals, commitments and programs]. Forward-looking statements reflect the Company’s current expectations and projections about future events at the time, and thus involve uncertainty and risk. The words “believe,” “expect,” “anticipate,” “will,” “could,” “would,” “should,” “may,” “plan,” “estimate,” “intend,” “predict,” “potential,” “continue,” and the negatives of these words and other similar expressions generally identify forward-looking statements.

It is possible that the Company’s future performance may differ from expectations due to a variety of factors including, but not limited to the following: the Company’s ability to achieve the strategic plans, goals, targets and commitments set forth in this Website and unexpected delays, difficulties, and expenses in executing against such plans, goals, targets and commitments, the Company’s ability to consummate its proposed merger (the “Merger”) with Vine Energy Inc. (“Vine”), including the ability to obtain the approval of the Merger by Vine’s stockholders; the risk that the Company or Vine may be unable to obtain governmental and regulatory approvals required for the Merger, or required governmental and regulatory approvals may delay the Merger or result in the imposition of conditions that could cause the parties to abandon the Merger; the risk that an event, change or other circumstances could give rise to the termination of the Merger Agreement; the risk that a condition to closing of the transactions contemplated by the Merger Agreement may not be satisfied; the timing to consummate the proposed transactions contemplated by the Merger Agreement; the risk that the assets and the businesses will not be integrated successfully; the risk that the cost savings and any other synergies from the proposed transactions contemplated by the Merger Agreement may not be fully realized or may take longer to realize than expected; the risk that any announcement relating to the proposed Merger could have adverse effects on the market price of the Company’s common stock or Vine’s common stock; the risk of litigation related to the proposed Merger; the risk of any unexpected costs or expenses resulting from the proposed transactions contemplated by the Merger Agreement; disruption from the proposed transactions making it more difficult to maintain relationships with customers, employees or suppliers; the diversion of management time from ongoing business operations due to transaction-related issues; the volatility in commodity prices for crude oil and natural gas, the presence or recoverability of estimated reserves, particularly during extended periods of low prices for crude oil and natural gas during the COVID-19 pandemic; the ability to replace reserves; environmental risks, drilling and operating risks, including the potential liability for remedial actions or assessments under existing or future

Non-GAAP Financial Measures

Certain financial information included herein, including Adjusted EBITDA and Adjusted EBITDAX, are not presentations made in accordance with U.S. GAAP, and use of such terms varies from others in the same industry. Non-GAAP financial measures should not be considered as alternatives to net income (loss), total operating expenses or any other

environmental regulations and litigation; exploration and development risks; competition, government regulation or other actions; the ability of management to execute its plans to meet its goals and other risks inherent in the Company’s and Vine’s businesses; public health crises, such as pandemics (including COVID-19) and epidemics, and any related government policies and actions; the potential disruption or interruption of the Company’s or Vine’s operations due to war, accidents, political events, civil unrest, severe weather, cyber threats, terrorist acts, or other natural or human causes beyond the Company’s or Vine’s control; the risk that the announcement or consummation of the Merger, or any other intervening event results in a requirement under certain of Vine’s indebtedness to make a change of control offer with respect to some or all of such debt; and the Company’s ability to identify and mitigate the risks and hazards inherent in operating in the global energy industry, and the other risk factors discussed in the Company’s Annual Report on Form 10-K for the year ended December 31, 2020 and any subsequently filed Annual Report on Form 10-K, Quarterly Reports on Form 10-Q or the Company’s other filings with the Securities and Exchange Commission.

It is not possible to foresee or identify all such factors. Any forward-looking statements in this Website are based on certain assumptions and analyses made by the Company in light of its experience and perception of historical trends, current conditions, expected future developments, and other factors it believes are appropriate in the circumstances. Forward-looking statements are not a guarantee of future performance and actual results or developments may differ materially from expectations. While the Company continually reviews trends and uncertainties affecting the Company’s results or operations and financial condition, the Company does not assume any obligation to update or supplement any particular forward-looking statements contained in this Website. Furthermore, while future events discussed in this Website may be significant, any significance should not be read as necessarily rising to the level of materiality of certain disclosures included in our SEC filings.

In addition, many of the disclosures and performance metrics used and referred to in the plans, goals, targets and commitments set forth in this Website continue to evolve and are based on management expectations and assumptions believed to be reasonable at the time of preparation but should not be considered guarantees. The standards and performance metrics used, and the expectations and assumptions they are based on, have not unless otherwise expressly specified, been verified by any third party. In addition, while we seek to align these disclosures with the recommendations of various third-party frameworks, such as the Task Force on Climate-Related Financial Disclosures (“TCFD”), we cannot guarantee strict adherence to these framework recommendations. Additionally, our disclosures based on these frameworks may change due to revisions in framework requirements, availability of information, changes in our business or applicable governmental policy, or other factors, some of which may be beyond our control.

performance measures derived in accordance with U.S. GAAP as measures of operating performance or cash flows as measures of liquidity. Non-GAAP financial measures have important limitations as analytical tools, and you should not consider them in isolation or as substitutes for results as reported under U.S. GAAP.

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A Message from Our CEO

Dear Stakeholders,

We boldly enter a new chapter as a company, a chapter focused on our sustainable future. We're working to lead our industry, creating the optimal upstream onshore development company that delivers superior results to our shareholders, employees, royalty and working interest owners and the communities in which we operate.



We're shifting away from growth as a primary value driver, focusing instead on driving the results that matter most to our stakeholders:

- Free cash flow and returning it to shareholders
- A strong balance sheet and disciplined reinvestment strategy
- Environmental, social and governance (ESG) excellence across all facets of the enterprise
- A reduced environmental footprint with emphasis on climate impact

Chesapeake is embracing a lower carbon future, which we view as an opportunity to do the right thing and boost our competitive advantage. Being part of the climate change solution, and supportive of the Paris Agreement, is authentic to our culture and a commitment shared by our employees.

Our confidence in the future stems from where we sit as a company today. No longer saddled with crippling legacy debt and obligations, Chesapeake benefits from one of the strongest balance sheets in our industry. We firmly understand that we must remain disciplined in our approach to investing capital, which is why we've committed to maintaining a reinvestment rate below 70% of our annual EBITDAX. Our balance sheet and financial discipline, along with our diverse portfolio, position Chesapeake to deliver more than \$6 billion in free cash over the next five years.⁽¹⁾

While we're encouraged by our financial outlook, we recognize that a sustainable business is built upon more than financial success. With leadership comes responsibility, and we hold ourselves accountable to the highest standards of ESG excellence. Leading a responsible energy future starts by transparently measuring our current performance and then setting meaningful, quantifiable goals — tied to our compensation programs — for continued improvement.

Most notably, measured goal setting and accountability are the backdrop to the environmental pledges we announced in early 2021. Following a path of aggressive, short-term greenhouse gas (GHG) and methane intensity reduction goals, we're working vigorously to achieve net zero direct (Scope 1) GHG emissions by 2035. We believe responsible production from unconventional resources in the U.S. has a critical role to play in helping meet global climate goals while supporting the world's energy needs.

Pathway to Net Zero Direct GHG Emissions

0

Routine flaring on wells completed in 2021 and beyond, enterprise-wide by 2025

5.5

GHG intensity by 2025
(tCO₂e/gross mboe produced)

0.09%

Methane intensity by 2025
(volume methane emissions/volume gross gas produced)

Meeting our net zero goal will require ingenuity, technology and further investment in environmental and operational programs. Our strong financial outlook positions us well to attack this challenge head-on. While we anticipate returning more than 50% of our free cash flow to shareholders through our fixed and variable dividend program, we project having more than \$2 billion of additional free cash flow to invest in our business.⁽¹⁾

In fact, we have already committed more than \$30 million toward ESG-related and emissions reduction programs by year-end 2022. These resources provide the company with critical capital to pursue emissions-limiting technology and partnerships, aggressively improving our environmental performance with a two-track approach:

Track One: Reduce GHG and methane intensity from our core production business by retrofitting pneumatic devices; pursue the electrification of our fields; deploy continuous methane emission sensors; and identify other technology to lower our emissions profile.

Track Two: Identify investment and partnership opportunities in adjacent businesses and technologies that support the lower carbon transition such as carbon capture, utilization and storage (CCUS), geothermal and blue hydrogen.

We're also dedicated to expanding our industry-leading responsibly sourced gas (RSG) certifications — programs that independently certify our natural gas as produced according to stringent environmental, safety and community standards. We were the first company to announce our intention of certifying production as RSG across two major basins and once complete, we will be positioned to deliver approximately 3 bcf per day of RSG to users around the globe.

We produce RSG, not to put a certificate on our wall, but because the process' information-gathering through the ongoing monitoring of our producing assets further improves our environmental footprint. It also offers us a competitive advantage and the opportunity to produce a differentiated product that's increasing in market demand.

Paving a new path forward is challenging, requiring leadership and a commitment to do better each day. That's why we commit to you — our stakeholders — regular engagement and honest and transparent reporting on our journey to net zero. We'll celebrate our progress and success and share our shortcomings and plans for improvement along the way.

Thank you for being our partner as we lead a responsible energy future.



Domenic J. Dell'Osso, Jr.
President and Chief Executive Officer
December 2021

Chesapeake Today: A Fundamentally Different Company

Strong balance sheet with low leverage	Built to generate sustainable free cash flow	Disciplined capital reinvestment strategy	World-class natural gas assets with oil optionality	Committed to ESG and safety excellence
Maintain a balance sheet strength lower than 1x long term leverage (net debt to EBITDAX)	Cumulative five-year free cash flow outlook is approximately \$6 billion; returning cash to shareholders through fixed and variable dividend ⁽¹⁾	Targeting a disciplined capital reinvestment rate of 60% to 70% of projected EBITDAX	Acquiring Vine Energy in August 2021, making CHK the largest natural gas producer in the Haynesville Shale	Achieve net zero direct GHG emissions by 2035 and continue to improve our ESG performance by accomplishing measured goals

(1) Assumes company guidance as of Aug. 11, 2021; free cash flow (FCF) is a non-GAAP financial measure and is defined as net cash flow from all activities excluding financing transactions and restructuring costs. Estimated based on 1/22/2021 strip pricing from 2021 to 2025.

Our Approach to Responsible Reporting

Headquartered in Oklahoma City, Chesapeake Energy Corp. (NASDAQ: CHK) focuses on discovering and responsibly developing our large and geographically diverse resource base of unconventional oil and natural gas assets onshore in the U.S.

5,200

Wells operated

445

Mboe net average
daily production

802

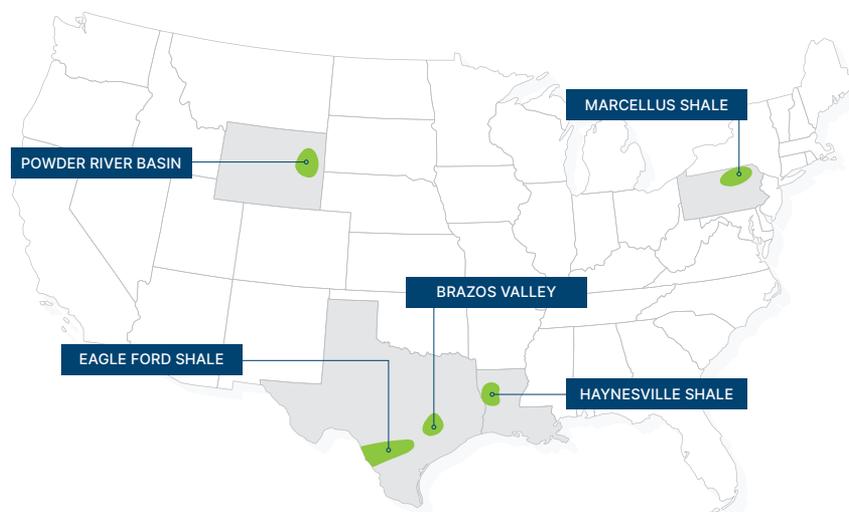
Mmboe proved reserves

1,532

Employees

As of Dec. 31, 2020

Operating Areas



About Our Disclosures

To best respond to the interests of our stakeholders, we reference several reporting guidelines when preparing our report content. These guidelines offer third-party recommendations of the most transparent and relevant content and allow for greater comparison among peer companies.

Our sustainability report content and performance data align with:

- [Global Reporting Initiative \(GRI\) Sustainability Reporting Standards](#)
- [IPIECA's Oil and Gas Industry Guidance on Voluntary Sustainability Reporting](#)
- [Value Reporting Foundation / SASB Standards: Oil & Gas – Exploration & Production](#)
- [AXPC's ESG Metrics and Framework](#)

An index that maps content to disclosures is [available here](#).

Climate-Risk Reporting

As climate-risk concerns grow among stakeholders, we continue to increase our transparency around Chesapeake's role in a lower carbon future. For this reason, we publish our [Climate-Risk Analysis](#) — guidance about the company's projected performance based on a number of future energy scenarios. Our analysis also highlights the company's goals and actions to manage and reduce emissions that impact climate change.

Our climate reporting follows the [Task Force on Climate-related Financial Disclosures](#) (TCFD) framework, which offers a consistent model to improve the reporting of climate-related financial information across all industries.

Determining Our Content Focus Areas

In addition to performing a disclosure gap analysis each year, we engage with our stakeholders to ensure our reporting topics are timely and material. By identifying the topics that matter most, we can enhance content placement and determine if certain topics need to be expanded for greater transparency.

We gather and analyze a combination of internal and external factors by conducting a four-step topic focus process. This process is modeled after GRI's materiality guidance.

Topic Focus Process

STEP 1: Identify Topics of Interest to Stakeholders	STEP 2: Validate Stakeholder Representation	STEP 3: Prioritize Key Issues	STEP 4: Determine Content Placement
Through a variety of inputs, including stakeholder engagement, peer benchmarking and a review of scorecards and reporting guidelines, we identify topics most relevant to our stakeholders.	After collecting the data, we confirm the inclusion and fair representation of our primary stakeholder groups .	We analyze our research, weighing each topic to determine those of greatest relevance and comparing them against our core values, business strategies and company priorities.	In this final stage, we review each key topic and determine whether it should be included in our highlights document or in our web-based report.

2020 Key Topics of Interest

Our 2020 topic focus identified what we believe to be the six most relevant topics:

Key Topic	Enhanced Reporting Transparency
Governance	Updated our dedicated Governance section, highlighting governance reforms the company has instituted since emerging from its restructuring
Climate Change	Updated our Climate-Related Risk Analysis according to new IEA scenarios and included new emissions reduction strategies, metrics and targets; created a dedicated Climate website section
Operational Integrity	Enhanced our disclosures on various safety, spill and water management topics
Risk Management and Cybersecurity	Enhanced our reporting on risk within both our Governance and Climate sections and expanded our cybersecurity content
Diversity, Equity and Inclusion (DEI)	Created a new webpage that better details our commitment to DEI ; includes forward-looking initiatives to prioritize diversity within our restructured culture and supply chain
COVID-19	Created a dedicated webpage detailing our COVID-19 response, including employee health and business continuity updates

Performance Metrics and Targets

Our [performance data table](#) reflects our operations at year-end 2020 and includes year-over-year comparison providing a more thorough performance evaluation. Data included in this report were subject to review by our Internal Audit team and is believed to be correct at the time of reporting. For certain reporting elements, later changes in categorization could affect data and will be updated for accuracy on our website.

Our 2020 GHG emissions, GHG intensity, methane intensity, Total Recordable Incident Rate (TRIR) and net spill intensity data were reviewed and validated by a [third-party organization](#). Also, responsibly sourced gas (RSG) offers an added layer of data assurance as part of the independent certification process.

Regarding our performance targets, Chesapeake is committed to lowering the carbon intensity of our products and meeting the near- and long-term pledges adopted by our Board of Directors in February 2021. We recognize the dynamic nature of the E&P sector and will enhance our pledges, if relevant, corresponding with any change in our asset mix, emergence of new emissions monitoring and quantification technology, and stakeholder priorities. Chesapeake is focused on emissions reductions, data efficacy, facility compliance and operational integrity while continuing to meet federally mandated reporting requirements.

Archived Reports

A number of our past reports are available through the [Media](#) section on chk.com, along with other archived company publications.

A Clear Path to a Sustainable Future

Our history has shaped us into the committed, strong and responsible organization we are today. We're rebuilding upon the milestones of our past to grow our sustainability commitments and performance.

As we transition into a new era, we're a leaner, more competitive company focused on what matters most: responsible operations, maximizing shareholder value, consistent returns and a sustainable future.

Our History of Sustainability Performance



1995

Launched company mentoring program in Oklahoma City

2006

Developed Aqua Renew for our Barnett Shale operations; this water-recycling program became the basis for our water-recycling efforts and was adopted across all operations

Incorporated alternative fueling sources at our drilling and production sites for the first time

2009

Utilized diesel and natural gas dual-fuel technology to power drilling rigs while reducing equipment emissions

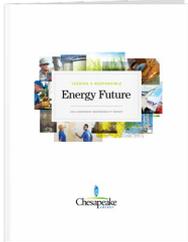
1999

Launched employee volunteer program, the H.E.L.P. Initiative; employees still receive 4 hours of company time to volunteer each year

2008

Founded our GreenFrac® Initiative to evaluate chemical additives for necessity and environmental sensitivity; one of the industry's first chemical assessment and reduction programs that's now industry standard





2012

Published our first corporate responsibility report reflecting 2011 performance

Created an air dashboard tool to monitor air emissions according to regulatory requirements; this tool would become foundational to future monitoring dashboards

2014

Declassified Board of Directors and removed supermajority voting requirements

Established a pay-for-performance executive compensation plan

Opened our IT Computing Center and developed an IT recovery plan — forward-looking plans for cybersecurity protection

Introduced the Supplier Code of Conduct; trained nearly 3,000 business partners on this code in its first year

Launched comprehensive contractor management system

2016

Adopted our first Diversity Council to take a leadership role in promoting inclusion practices



2011

Reported 100% of our well completions to FracFocus, a web-based registry of the additives, chemicals and water used in the hydraulic fracturing process; we maintain this 100% rate each year

Eliminated diesel, a common fuel and carrier solvent known to contain BTEX, from our hydraulic fracturing chemistries

2013

Company core values established

Linked employee compensation to environmental and safety performance metrics

Launched the HSER Excellence Awards program recognizing outstanding HSER performance; this awards program continues today

Began remote drilling monitoring of active rigs through our Operations Support Center; enabled remote monitoring and shutdown capabilities for production sites in 2014



2015

Implemented a more robust site assessment standard for environmental protection

2017

Launched a workplace culture-shaping process to strengthen internal communications and collaboration

Created a risk-based supplier classification program that encourages more frequent recertification for suppliers with higher-risk profiles

Mandated all field employees to wear a personal gas monitor linked to vehicle monitoring systems for remote worker safety

Joined The Environmental Partnership to improve our industry's environmental performance through peer knowledge-sharing and collaboration



2018

Launched the WellTender mobile app that provides relevant well performance data to any lease operator while on any site; also collects data for trend analysis to identify potential risk factors

Released our first Climate-Related Risk Analysis according to the TCFD framework

2020

Voluntarily filed for Chapter 11 protection

2019

Created ESG advisory board and council bringing together subject matter experts from across the company

Joined the CEO Action for Diversity & Inclusion™ pledge — the largest CEO-driven business commitment to advance diversity and inclusion in the workplace

2021

Emergenced successfully from financial restructuring

Appointed a new Board of Directors and established the Board ESG Committee

Announced [ESG goals](#)

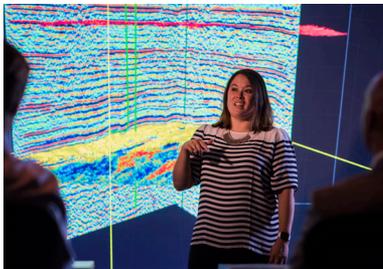
First company to announce intention to certify production as RSG across two major basins



Our Culture: One Team. Rooted in Core Values and Doing What's Right.

Working as One CHK defines Chesapeake's culture and unites our team to achieve shared goals for the benefit of our stakeholders. It's a culture of accountability where innovation, collaboration and calculated risk-taking help us achieve sustainable operational success.

One CHK is a competitive advantage encouraging us to perform at our best as a team every day. And it's our core values in action, recognizing the unique opinions and contributions of our employees.



One CHK:

- Is a committed team that puts company performance first, above personal gain
- Engages the power of our people
- Works for our stakeholders
- Encourages accountability and ownership
- Embraces the future, recognizing new opportunities
- Is nimble and innovative, ready to adopt new ideas and technologies
- Is a competitive advantage
- Encourages us to perform at our best, as a team, every day



Living Our Core Values

While we operate in a dynamic industry that is always evolving, our core values do not change. They're the lens through which we evaluate every decision and are foundational to our success. Employee, executive management and Board commitment to these values builds a stronger Chesapeake for all our stakeholders.

- Integrity & Trust
- Respect
- Transparency & Open Communication
- Commercial Focus
- Change Leadership



ESG Commitment: Committed to ESG Excellence

Energy is critical to modern life, and readily available energy is a luxury many of us take for granted in the U.S. Around the world, global energy demand continues to grow, expected to increase by 4.6% in 2021 according to the International Energy Agency. Nearly 70% of this growth will occur in emerging markets and developing economies, where energy poverty — the lack of access to reliable, modern energy — remains a significant concern.

Chesapeake is proud to be part of the solution addressing the global energy poverty gap. By producing safe, affordable and available natural gas and oil, we support the most vulnerable populations with life-changing fuel. However, we must balance this energy production with the recognition that our operations have environmental impact.

We must do our part to reduce our operational and environmental footprint. Following our financial restructuring in early 2021, Chesapeake emerged a fundamentally stronger and more competitive company with a renewed commitment to be the safest and most responsible operator.



Leading a responsible energy future is the purpose that unites our employees, drives our operations and guides our planning, processes and projects.

Our culture and values demand continuous improvement of our ESG performance across all facets of our company. Backed by our talented team and focused leadership, we'll continue to identify opportunities for ESG growth and progress.

Our ESG Culture

- Employee-driven and enterprise-wide
- Intentional and transparent reporting aligned with leading standards
- Optimized focus on data governance
- Emissions-disciplined facility design
- Adoption of emerging technology to support our ESG performance
- Enhanced community and rater/ranker engagement
- Thoughtful, strategic deployment of capital and technology to reduce operational emissions

While words signal our intention, to truly demonstrate our commitment to ESG excellence we must transparently chart our path forward. Using key markers and measurements, we enable our stakeholders to judge our progress and hold us accountable. This starts with the adoption of our [climate-related pledges](#) and the connection of our environmental performance to our compensation program.

As we embrace a lower carbon future, we'll be at the forefront of thinking differently. This means mitigating risks, but also identifying opportunities to strengthen our ESG performance for the benefit of all our stakeholders.



Responsibly Sourced Gas: Certifying Production for ESG Excellence

Chesapeake’s multi-basin portfolio and our employees’ technical expertise primes the company to play a leadership role in delivering certified volumes of responsibly sourced gas (RSG) to users around the world.

RSG is natural gas produced by companies that meet independently assessed and verified ESG standards, including air emissions monitoring and reduction requirements.

In 2021, we announced several partnerships to certify our natural gas as responsibly produced according to strict standards and independent verification, showcasing our commitment to ESG excellence. These voluntary certifications also emphasize our pursuit of stringent, continuous operational improvement that reduces social impacts and further propels our methane and GHG intensity reductions across all our natural gas assets.

Chesapeake was the first producer to announce our intention of certifying production as RSG across two major basins.

With RSG as part of our portfolio, Chesapeake can also attract fuel purchasers interested in adding certified natural gas in their requests for proposal. While a positive RSG rating may allow gas suppliers to charge a premium, that’s not the primary driver for Chesapeake. Instead, the company believes RSG is an important step to minimizing our environmental footprint in communities where we operate and further reducing emissions as we work to meet our goal of achieving net zero direct GHG emissions by 2035.

RSG Certification Programs

	IES TrustWell™ Certification (Project Canary)	MiQ	Equitable Origin’s EO100™ Standard
<i>Description</i>	A brand mark for the RSG market, comparable to a LEED™ rating for a building; captures and stores environmental data in real-time providing RSG buyers with validation of emissions performance	A certification based on methane emissions performance	A set of rigorous performance standards to measure energy development
<i>Certification Criteria</i>	Water, air, land and community considerations	Methane intensity, company practices, methane detection and monitoring	46 criteria across 5 impact areas (corporate governance and ethics; social impacts, human rights and community engagement; Indigenous Peoples’ rights; occupational health and safety and fair labor standards; and environmental impacts, biodiversity and climate change)

Through Chesapeake's partnership with MiQ and Equitable Origin, we'll be the first to certify production across two major shale basins. As another benefit, MiQ certification will provide a verified approach to tracking Chesapeake's commitment to reduce methane intensity across our natural gas assets and will support the company's net zero GHG emissions goal by 2035. The certifications rely on supplied company data and policies, which we assure through a third-party organization.

“Chesapeake is committed to protecting the country's natural resources and reducing its environmental footprint. We look forward to working with them and MiQ to help them bring that commitment to life through independent certification.”

– Soledad Mills, Equitable Origin CEO

RSG Certification Progress to Date

	Marcellus Shale	Haynesville Shale
<i>Asset Breakdown</i>	100% natural gas	100% natural gas
<i>Methane Monitoring Technology</i>	Continuous monitoring technology installed on greater than 50% of production locations, representing more than 50% of our production	Continuous monitoring technology installed on greater than 50% of production locations, representing more than 50% of our production
<i>TrustWell™ Certification</i>	Pilot program (2 pad locations)	Pilot program (2 pad locations)
<i>MiQ</i>	Certifying entire asset by the end of 2Q 2022	Certifying entire asset by YE 2021
<i>EO100™ Standard</i>	Certifying entire asset by the end of 2Q 2022	Certifying entire asset by YE 2021

As of November 30, 2021

To be most effective and efficient in adopting RSG certification, we're beginning with our natural gas assets. In the future, it's our intention to apply RSG-related key learnings and technology to our oil assets for continuous improvement across our portfolio.



Operating with Integrity

Rooted in our core values and industry-best management practices, our strong governance programs provide clear guidelines to define ethical behavior at every level.

Core Values

Uphold a culture of responsibility

Code of Conduct & Policies

Define expectations

Accountability Checks

Measure assurance

Setting Clear Expectations

Each Chesapeake director, officer and employee, regardless of position, must abide by Chesapeake’s [Code of Business Conduct](#) (the “Code”), which is structured around our five [core values](#). To help employees understand expectations around the Code, we regularly host training sessions, and all new employees learn about the Code during their onboarding process. Senior management also communicates with employees about the Code and related policies during company meetings.



Beyond enterprise-wide Code training, Chesapeake organizes specialized compliance training sessions tailored to certain employees’ job functions and work types. These sessions offer targeted guidance on important topics such as conflicts of interest, business gifts and entertainment, and anti-corruption and fair competition.

Each year all employees must sign a Code certification confirming they have reviewed the Code and related policies, understand the high standards expected of them and will report actual or potential ethics concerns or Code violations.

Our Code references a number of policies that further guide employee behavior on more in-depth issues. These documents are available on our intranet, providing employees with a central, easily accessible location for reviewing current policies.

ESG-Related Policies

- Anti-Corruption Policy
- Antitrust Policy and Compliance Manual
- Conflicts of Interest Policy
- Drug and Alcohol Policy
- Equal Employment Opportunity Policy
- Gifts and Entertainment Policy
- Human Rights Policy
- Information Security Policy
- Insider Trading Policy
- Non-Retaliation Policy
- Protection of Chesapeake Assets Policy
- Social Media and External Communication Policy
- Supplier Code of Conduct
- Vehicle Use Policy
- Zero Tolerance Anti-Harassment, Anti-Discrimination and No Violence in the Workplace Policy

Ethics Helpline

We encourage and expect employees to report conduct that may be unethical, illegal or in violation of the Code. Accordingly, we expect managers to create an environment where employees feel comfortable reporting concerns.

We also offer the [Chesapeake Ethics and Integrity Helpline](#), an anonymous, third-party confidential hotline and secure website. True to our culture, Chesapeake does not tolerate retaliation against anyone who raises issues in good faith.

All reports of unethical business conduct are investigated and reported to appropriate levels of management and, as appropriate, the Board's [Audit Committee](#). Corrective actions are taken when necessary.



Our People: One Team. One Chesapeake.

Our employees are Chesapeake’s greatest asset, and their energy, passion and skill are the driving force behind any success the company enjoys.

Our Workforce At-a-Glance

1,532

Employees

68%

Corporate

32%

Field

29%

Women in the workforce

21%

Ethnic minorities in workforce

8

Average years of service

40

Years old, median age

7%

Voluntary turnover

As of Dec. 31, 2020



With such a talented team, collaboration is key to our company’s strength. Our One CHK culture breaks down silos and encourages teamwork in reaching our performance goals. It also values every voice by respecting and celebrating differences and the diverse perspectives that fuel innovation.

We dedicate resources to intentionally shaping and sustaining our One CHK culture. From leadership engagement and employee training to goal setting, we invest in our culture to achieve peak company performance.

We also encourage honest, timely dialogue among our employees and are responsive to their concerns. For example, as a result of direct employee feedback, Chesapeake employees are now afforded additional flexibility in determining their work location to optimize efficiencies and their effectiveness.

People Focused. Performance Driven.

The company's compensation program is designed to attract, retain and competitively compensate top talent while aligning compensation with company performance.

Our performance management program makes each employee responsible for Chesapeake's success as employees set individual annual goals that support the company's business objectives. Those employees who meet or exceed their goals receive a higher bonus payout.

Environmental and safety metrics have always played a prominent role in determining employee compensation. For 2021, we increased that commitment by adjusting our annual incentive plan to require the company to meet certain ESG metrics before employees are eligible for "above target" payouts, regardless of performance in other areas of the business.

This pay-for-performance program, coupled with an industry-defined salary structure, creates greater transparency among employees about how their performance impacts their total compensation. Not only does this instill a sense of fairness across the organization, we're also able to accurately reward our top performers.

In addition to compensation, we support our employees with a [competitive benefits package](#).

Benefits Program

- 401(k) employer match
- Comprehensive health insurance as well as mental health support programs
- Tuition reimbursement
- 11 company-paid holidays each year
- Abundant paid time off, including parental leave for mothers and fathers
- Adoption assistance and parental leave
- Flexible work schedule with remote working options

Talent Management

We view talent management as an investment in our employees. From our training programs to our career advisory initiatives, our goal is to help Chesapeake employees reach their full potential while driving company success.

Supporting our employees' personal growth begins by equipping the leaders who manage them. Managing and cultivating employee growth is a skill in and of itself, and we offer extensive trainings to help our leaders learn actionable coaching and feedback skills. We view this effort as foundational for all people leaders, which is why we require leaders to include specific actions around developing talent and building strong teams as part of their annual personal goals.



Professional Development Program

Specific to our individual employees, we offer a number of professional development opportunities for team members to pursue additional education or enhance their expertise.

- 100% reimbursement for professional certification tests
- Tuition reimbursement up to the IRS maximum of \$5,250 per year, per employee
- Professional development training for all employees emphasizing teamwork, leadership and career growth
- Petro-technical training supporting specialized courses across the engineering, geology and land disciplines
- eLearning platform with access to more than 1,000 web-based electives designed to build business acumen and technical skills
- Technical courses for non-technical employees designed to breakdown silos and increase industry knowledge

In 2020, we invested more than \$261,000 in 66 employees' continued college or graduate school education.



Engaging Our Stakeholders

Leading a responsible energy future starts with respect and the recognition that our performance impacts many stakeholders. Our stakeholders trust us with significant responsibility that we honor through consistent engagement, transparency and two-way communication.

Regular interaction with those who both impact and are impacted by our business allows us to listen, educate and deepen those relationships that matter most to our operational conduct.

Stakeholder Engagement Goals

Communication

Listening

Respect & Transparency

Accessibility

Risk Management

Long-Term Relationships

Accountability

Mutual Benefits

Stakeholder Type	Engagement	Frequency	2020 Topics of Interest
Academic	Outreach to universities in our operating areas	Regular, ongoing	Emissions-reducing technology research, recruiting
Business Partners	Certifications	Regular, ongoing	Emissions-reducing technology, responsibly sourced gas, e-frac
Contractors and Suppliers	Safety and Code of Conduct education, employee engagement, ethics helpline, dedicated chk.com section and portal	Regular and ongoing, ethics helpline 24/7	COVID-19 response and safety, contract renegotiations, operational and financial performance, company emergence strategy
Community	Owner Relations team interactions, employee engagement, donation request process, emergency responder trainings	Regular employee engagement, donation reviews three times per year, emergency responder meetings or trainings	Financial restructuring, future company investments, ongoing operations, COVID-19 response
Employees	Town hall and other leadership meetings, HR business partner interactions, trainings, performance management and professional development opportunities, intranet and email communications, ethics helpline	Regular and ongoing, intranet and ethics helpline 24/7	COVID-19 response and safety, business continuity, financial performance

Stakeholder Type	Engagement	Frequency	2020 Topics of Interest
Government and Regulatory	Meetings, agency interactions, Political Action Committee (PAC) activities, lobbying activities	Regular, ongoing	Climate and emissions, compliance, COVID-19 response, business continuity, company emergence strategy
Industry Peers	Industry forums, trade association meetings and events	Regular, ongoing	COVID-19 response, community engagement, financial performance, climate and air emissions, environmental impact, safety
Investors	Annual meeting of shareholders, conferences and road shows, financial reports, Board and Investor Relations team contact, earnings statements and calls, dedicated chk.com section	Regular and ongoing, regular meeting and conference participation, annual meeting of shareholders in May and quarterly earnings communications, website 24/7	Financial performance, emergence strategy, GHG emissions, water management, community engagement strategy
Media	Press releases, social media, self-published materials, leadership interviews and phone calls, Media team contact	Regular, ongoing	Financial performance, company emergence strategy, employee impact, COVID-19 response
Owners	Owner Relations team interactions, employee engagement, ethics helpline, dedicated chk.com section and portal	Regular and ongoing, ethics helpline and websites available 24/7	Royalty check questions, impact from bankruptcy, maintenance and reclamation repairs, operational schedule
Special Interest Groups	Memberships and meetings, employee engagement, phone calls and other subject matter expert interactions, ratings and reviews	Regular, ongoing	Climate and environmental disclosures, governance and risk, diversity, human rights

Responding to the Pandemic

Chesapeake closely monitored COVID-19 as it reached pandemic status and continues to analyze the virus' impact today. As it became clear that the virus would threaten our employees' health, the company's operations and the communities where we operate, we initiated our business continuity pandemic response plan.



COVID-19 Response Plan

- Remote working for employees
- Safe return-to-work procedures
- Promotion of the vaccine through internal communications
- Vaccination clinics on our corporate campus
- Contact tracing
- Mental health support

From March to May 2020, the company closed our corporate headquarters and field offices and moved most employees to remote-work locations, leveraging business continuity plans. During that period, because of the dedicated work and determination of our employees and our previously implemented technology, the company was able to operate seamlessly without disruptions normally associated with running a company of our size and scale remotely.

As employees returned to normal-work environments, we managed office re-openings with phased-in approaches and increased office safety procedures, including enhanced cleaning, mandatory masks and limited in-person meetings.

Also, as vaccines became available, we promoted vaccine opportunities through internal communications and sponsored on-campus vaccination clinics for staff, families and the community. Additionally, recognizing the impact the pandemic can have on employees' mental health, the company hosted a series of web-based trainings for leaders and individual contributors on managing stress and psychological duress during these challenging times.

Our Health, Safety and Risk teams continue to partner to monitor COVID-19 and its variants. We feel confident in the plans and procedures we currently have in place but continue to follow guidance from local, state and national health organizations to best protect our employees and neighbors.

Accountability & Compensation: Driving Accountability at All Levels

Our commitment to leading a responsible energy future includes a rigorous corporate governance system that drives accountability at all levels. We encourage this accountability through systems designed to uphold high standards of conduct.

Following the successful completion of our financial restructuring in February 2021, our long-term, value-focused equity holders nominated a new [Board of Directors](#).

In selecting a new Board, our shareholders focused on:

- Diverse experience and backgrounds
- Industry and business acumen (special emphasis on risk management, corporate strategy and ESG)
- Previous leadership experience and ability to advise senior management
- A shared commitment to drive excellence in all aspects of Chesapeake's performance

Board of Directors Experience

	Wichterich	Dell'Osso	Duncan	Duster	Emerson	Gallagher	Steck
Operational / Management Leadership	X	X	X	X	X	X	X
Current and/or Former Public Company CEO	X	X	X	X		X	
Exploration and Production Industry	X	X	X	X	X	X	X
International	X		X	X	X		X
Engineering and Geoscience			X	X		X	X
Financial Oversight and Accounting	X	X	X	X		X	X
Government / Legal				X	X		
Strategic Planning and Risk Management	X	X	X	X	X	X	X
Environment, Sustainability and Safety Management		X	X		X	X	

Enhancing Board-Level Oversight

Given the increasing importance of ESG excellence to Chesapeake’s future success, our new Board established an Environment and Social Governance Committee dedicated to sustainability strategy and oversight. The committee provides leadership and strategic counsel on all aspects of the company’s ESG-related performance, including environmental and climate-related matters, employee and supplier diversity and effective engagement with key stakeholders.

As ESG management is multidisciplinary, all Board committees take an active role in the direction and implementation of ESG strategy and initiatives.

Board Committees

The Board has four standing committees. Committee charters were re-established in March 2021 to better articulate their respective purposes, responsibilities and obligations to stakeholders.

Audit

Compensation

Environment and
Social Governance

Nominating and
Corporate Governance

It’s the ESG committee’s responsibility to advise the Board-at-large on emerging ESG-related matters. The Board-at-large regularly considers critical ESG topics such as employee health and safety, social governance, climate-related risks and opportunities, and environmental performance.

Employee-Led ESG Committees

To support the Board’s ESG strategy, Chesapeake established two employee committees responsible for the execution of ESG programs and procedures.

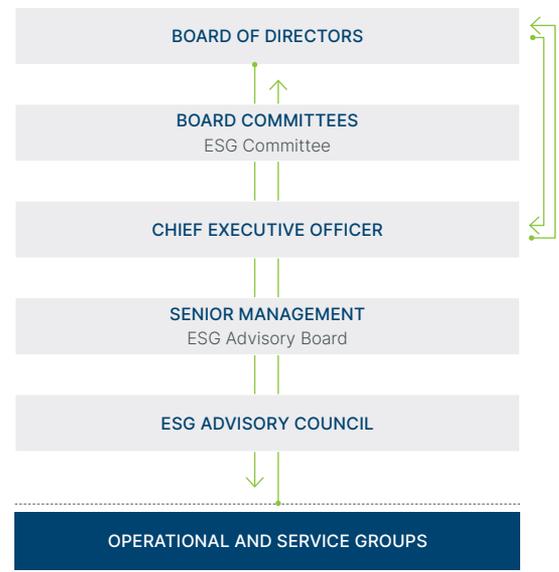
ESG Advisory Board

The ESG Advisory Board is made up of senior leaders across a diverse spectrum of the company who provide management-level leadership and oversight of the company’s ESG performance and validate the company’s ESG disclosures. To help ensure active engagement and collaboration, the Advisory Board meets at least quarterly.

ESG Advisory Council

Composed of subject matter experts across multiple disciplines, the ESG Council implements the company’s ESG strategy while serving as stewards and champions of ESG-related initiatives and programs. The Council meets weekly and regularly updates the Advisory Board of the progress and challenges associated with our ESG efforts

Accountability at All Levels



Engaging with Our Board

The Board invites institutional investors to meet periodically with our independent directors. This complements our management team's investor outreach program and allows directors to directly solicit and receive investors' views on Chesapeake's strategy and performance.

The Board takes the feedback of our stakeholders seriously, as evidenced by our [Climate-Related Risk Analysis](#), which we first published in 2018 as a result of stakeholder feedback. We continue to enhance this disclosure for greater shareholder transparency.

Our Director Access Line (866-291-3401) allows our shareholders and other interested parties to leave messages for individual directors or our entire Board. Shareholders may also [email](#) or send written communications. All forms of contact are promptly reviewed and forwarded to the appropriate contact at the Board level or within the company.

Executive Compensation

Executive compensation is a foundational component to our commitment to leading a responsible energy future, which is why in October 2021, we announced comprehensive changes to refocus our [compensation program](#) on performance metrics that are most crucial for our shareholders. Highlights include:

- Long Term Incentive Program (LTIP) will be paid entirely in equity; 75% of the award value is linked to total shareholder returns.
- Annual Incentive Plan (AIP) aligns payout with the value drivers and discipline our shareholders value including environmental and safety excellence, delivering free cash flow, lowering per unit operating costs, enhancing capital efficiency and improving base production.
- Commitment to Environmental and Safety Performance means that the failure to meet environmental and safety performance thresholds caps the AIP payout at target for all other metrics regardless of results.

The changes in this program are designed to deliver what we believe the market has long wanted from our industry — namely, a compensation program that not only attracts and retains top talent but is uncompromising in its performance demands that directly drive shareholder value. The program further demonstrates Chesapeake's commitment to delivering ESG excellence by directly limiting payout, regardless of performance in other areas, should the company fail to meet critical environmental and safety metrics, including total recordable incident rate, net spill intensity rate and GHG intensity.

Assessing, Understanding and Managing Our Risks

Strong ESG performance requires a strong risk-identification and mitigation process. Through our comprehensive Enterprise Risk Management (ERM) program, Chesapeake takes an orderly approach to identifying, assessing and managing ESG-related risks.



We use the Three Lines of Defense as our framework for risk management, helping to ensure all employees play a role in risk identification and mitigation.

The Three Lines of Defense Model

Business Plans and Strategy

1st Line of Defense
Operational and Service Groups

2nd Line of Defense
Internal Controls Group

3rd Line of Defense
Internal Audit, reports to the Board's Audit Committee

- The **first line of defense** begins at the department and business unit level to identify and control risks at the front lines of the organization. Internal risk owners — senior managers and subject matter experts from across the company — regularly review and assess the company's risks as part of our ERM process. We also host an annual risk survey during which we ask employees throughout the organization to review existing risk drivers and identify emerging risks.
- The **second line of defense**, our Internal Controls group, provides impartial enterprise risk and compliance analyses.
- The **third line of defense** is our Internal Audit Department, an independent and objective assurance group that reports directly to the Board's Audit Committee. The department uses a standardized, objective process to identify risk-based audits of department and business unit controls and processes.

On a quarterly basis, members of our Internal Audit and Internal Controls teams and risk owners review all identified enterprise-level risks according to our four risk-measurement characteristics.

Risk-Measurement Characteristics

When identifying enterprise-wide risks, we measure risk severity based on a set of characteristics:

- **Impact:** The expected effects of a risk on an organization
- **Likelihood:** The potential for a risk to occur in various scenarios
- **Velocity:** The speed at which a risk could impact an organization
- **Response Maturity:** An evaluation of the controls and response plans already in place to mitigate a risk

Enterprise risks are also regularly evaluated by our executive team and Board. We provide quarterly ERM updates to our Board Audit Committee and ESG-related risks are shared with the Board's ESG Committee. This comprehensive reporting allows Board committees to analyze the company's material risks and direct business strategies accordingly.

Risk Mitigation

If it's determined that a risk requires mitigation, management develops and executes specific plans to reduce the risk to an acceptable level. Mitigation options include adopting or enhancing corporate policies and procedures, contingency plans, insurance policies, technologies or hedging strategies.

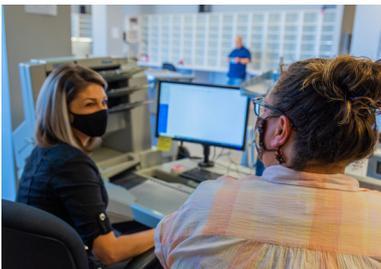


Business Continuity: Protecting Critical Business Processes

Our business continuity and disaster recovery programs are examples of Chesapeake's enterprise-level, risk-mitigation controls. Through these programs, a cross-functional task force assesses the business impacts of certain risks and develops response and recovery plans to reduce potential interruptions.

The objective of our business continuity program is to protect employees and maintain operations during sustained incidents such as natural disasters, pandemics and other disruptive events. Our current business continuity strategies cover 43 critical business processes.

We have standing, multidisciplinary Business Continuity and Emergency Response teams, which regularly conduct drills and exercises to assess material risks and our response capability. Additionally, Continuity of Operations plans have been implemented for all field operations. We also work with emergency responders, governmental agencies and other key stakeholders to ensure our preparedness, tailoring plans to each of our operating areas.



Our pre-established Pandemic Continuity Plan and Pandemic Monitoring team were instrumental in maintaining operations during COVID-19, specifically aiding our transition to and from remote working environments.

Supply Chain Management: Fostering Strong Supplier Relations

High-quality suppliers are critical partners as we work to lead a responsible energy future. Chesapeake is dedicated to maintaining our ethical, safe and high-performing supply base.

Supply Chain Snapshot

2,953

Suppliers provided goods or services
(direct and indirect)

260

Suppliers evaluated through
our qualification process

99.3%

U.S.-based suppliers

1,590

Master or commercial
agreements executed

53%

Amount of total spend with U.S.-based small
businesses (750 employees or fewer)

As of Dec. 31, 2020

Our Supply Chain department, in conjunction with our Operations and Health, Safety, Environmental and Regulatory (HSER) teams, protects the company by managing the inherent risks associated with supplier relationships. Through robust supplier qualification, sourcing, contracting and performance-management processes, we help to ensure that our suppliers are delivering safe, efficient and high-quality service to our stakeholders.

Before entering a relationship with a supplier, we evaluate the company's safety and environmental record and financial performance. Further, the prospective supplier must agree to abide by Chesapeake's [Supplier Code of Conduct](#) and to execute appropriate contracts to govern its relationship with Chesapeake.

Supplier Qualification Process

Step 1 Supplier Request Form	Supplier must be sponsored by a Chesapeake representative.
Step 2 Registration & Screening	Suppliers register and complete the supplier profile questionnaire. The Supplier Code of Conduct is introduced.
Step 3 Performance Evaluation	The Chesapeake Supply Chain team conducts a supplier performance evaluation reviewing categories such as health, safety and environment, and financial.
Step 4 Contracting & Enablement	A contract is signed, Supplier Code of Conduct compliance is confirmed and insurance is verified.
Step 5 Approval	Supplier is approved to begin work with Chesapeake.

Upholding Our Supplier Code of Conduct

Our Supplier Code of Conduct mandates that all suppliers share Chesapeake's commitment to providing a safe and ethical workplace and to conducting operations in an environmentally and socially responsible manner. It also identifies methods for reporting concerns and ethical issues and requires that suppliers abide by our commitment to human rights.

Suppliers agree to our Supplier Code during their qualification process and Chesapeake's Security team monitors on-site for compliance.

Our Supply Chain team monitors the performance of active suppliers using a risk-based approach. Suppliers with higher risk profiles are re-evaluated more frequently, allowing for a faster Response should a supplier violate our Supplier Code or otherwise not meet performance standards.

Performance Management

Certain suppliers also participate in Chesapeake's Supplier Performance Management Program, a scorecard system evaluating each company's operational, financial and HSER performance. Through this program, suppliers are encouraged to provide feedback to Chesapeake during business review meetings to collaborate and improve our collective performance.

Enterprise Procurement and Contract Policies

Our Enterprise Procurement and Contracts policies help to ensure that all goods and services are contracted through our Supply Chain department. Following these policies enables proper legal review and management approval, while encouraging systematic invoice price validation to prevent overbilling. In 2020, we continued training employees about proper procurement channels to help ensure appropriate contracts are utilized when goods and services are needed from outside parties.

Throughout our financial restructuring, supply assurance risk mitigation strategies and our long-standing relationships with key suppliers helped to minimize supply chain disruptions.

Supplier Diversity Pilot Program

In 2021, we launched our Supplier Diversity Program to increase the number of diverse suppliers hired by Chesapeake and to encourage the availability of a healthy and diverse supplier base to support our business. Aligned with our core values, this effort supports our diversity, equity and inclusion (DEI) commitment by providing opportunities for historically disadvantaged businesses to compete and secure opportunities with Chesapeake.

Political and Trade Participation

Chesapeake's participation in government affairs and the political process reflects strict adherence to high ethical standards and the company's core values of respect, integrity and trust. All activities comply with applicable laws and regulations, promote Chesapeake's business strategies and are made without regard for the personal political preferences of employees, officers and directors.

Our Government Affairs team actively engages on matters of public policy to help advance the company's business goals and interests. The team reports directly to our Executive Vice President – General Counsel & Corporate Secretary, who reports to the company's Chief Executive Officer. The Nominating and Corporate Governance Committee of the Board has ultimate responsibility for overseeing Chesapeake's political activity.

Chesapeake will never require, pressure or coerce any employee or business partner to make personal political contributions, including to a company-sponsored Political Action Committee (PAC). We also will never take retaliatory action against or compensate anyone, directly or indirectly, for making any political contributions. Chesapeake property, facilities, time and funds may not be used for personal political activities.

We comply with federal, state and local laws that require disclosure of political contributions and lobbying activities. We file reports of receipts and contributions for our PAC as required by the Federal Election Commission and applicable states.

Political Action Committee Activity

Chesapeake sponsors a PAC that allows employees to voluntarily contribute their resources to promote candidates for public office who support our industry. Chesapeake, as the sponsor of this PAC, is committed to educating, energizing and empowering our participating employees to become informed voters who actively participate in our political system at all levels of government.

Contributing to our PAC is strictly voluntary and restricted only to eligible employees as outlined by the Federal Election Commission. All PAC expenditures receive prior approval from the Director – Government & Regulatory Affairs.

PAC expenditures totaled \$63,430 for the calendar year ending Dec. 31, 2021.

PAC contributions and expenditures are disclosed in filings as required by law and can be accessed via the following websites:

- [Federal Election Commission](#)
- [Oklahoma Ethics Commission](#)
- [Texas Ethics Commission](#)
- [The Department of State \(Pennsylvania\)](#)
- [The Department of State \(Wyoming\)](#)
- [Louisiana Ethics Administration](#)

In 2020, Chesapeake did not make any corporate contributions to candidates, political campaign committees or Super PACs.

Trade and Advocacy Group Participation

Chesapeake is a member of and actively participates in a variety of federal, state and local trade associations, chambers of commerce and advocacy groups. Some of these groups participate in the political process through educational initiatives and engage in lobbying on important legislative and regulatory decisions that impact Chesapeake.

These groups, which advocate on our behalf, help Chesapeake to operate in the best public policy environment possible, although their interests may not always align with Chesapeake's positions.

2021 Trade and Advocacy Group Contributions

American Petroleum Institute	\$ 1,000,000
National and state trade associations and chambers* (contributions more than \$15,000)	\$ 820,882
Other state and local trade associations and chambers	\$ 40,238

*American Exploration and Production Council (AXPC), American Petroleum Institute (API), Bossier Chamber, DeSoto Parish Chamber, Greater Oklahoma City Chamber, Greater Shreveport Chamber, Independent Petroleum Association of America (IPAA), Louisiana Association of Business and Industry (LABI), Louisiana Mid-Continent Oil and Gas Association (LMOGA), Louisiana Oil and Gas Association (LOGA), Marcellus Shale Coalition (MSC), National Association of Manufacturers (NAM), PAR of Louisiana, The Petroleum Alliance of Oklahoma, Pennsylvania Chamber of Business and Industry, Petroleum Association of Wyoming (PAW), State Chamber of Oklahoma, Texas Oil and Gas Association (TXOGA), Texas Taxpayers & Research Association (TTARA), Texas Independent Producers and Royalty Owners Association (TIPRO), Western Energy Alliance (WEA), Women's Energy Network Oklahoma, Wyoming Business Alliance, Wyoming County Commissioners Association.

We don't belong to or financially support non-energy focused tax-exempt organizations such as the American Legislative Exchange Council (ALEC) and the National Conference of State Legislatures (NCSL) that routinely write and endorse model legislation for use in various state legislatures.

Lobbying Activities

Chesapeake strictly adheres to all federal and state lobbying disclosure laws. As required by the U.S. Lobbying Disclosure Act, Chesapeake files quarterly reports that describe issues lobbied and the amount spent on lobbying activity. These reports are publicly available and can be found at lobbyingdisclosure.house.gov.

\$78,000
Federal lobbying expenses

\$406,000
State lobbying expenses

As of Dec. 31, 2021



Cybersecurity: Protecting Our Data, Securing Our Operations

Oil and natural gas companies like Chesapeake use sophisticated technology to power many of the functions central to our industry. While advanced technology provides immeasurable value to our operations, it can also create risk. Specifically, as our business has become more dependent on digital technologies, those same digital capabilities generate opportunities for cyberattacks, exploiting internal or third-party vulnerabilities.

To counteract these threats, we've developed a comprehensive defense approach. Recognizing that no single defense technology alone will be effective in mitigating all cyber risk, our Cybersecurity team utilizes an extensive framework of controls that detect, identify and protect against or mitigate potential cyberattacks.

Cybersecurity Protection Layers

Network and Application Security	Data Protection	Risk and Compliance
Protecting company networks and applications from attack and inappropriate access	Preventing data breaches through a number of security layers	Managed as an enterprise risk, accountable to top company leadership
Identity	Incident Response and Business Recovery	Cybersecurity Awareness
Protecting the attributes of individual digital identities	Cohesive planning to respond quickly and minimize impact	Training for employees and contractors to prevent unintentional cyber risk

The Cybersecurity team also develops response and recovery plans should an incident occur. This program closely aligns with the National Institute of Standards and Technology (NIST) Cybersecurity Framework to best protect the data and programs critical to our business. We audit a portion of our information security program every year, using a third-party organization to review our cybersecurity posture from an external perspective.

Increasing Cybersecurity Awareness

As we continue to study and plan for evolving cyber risks, Chesapeake equips our first line of defense — Chesapeake employees — with up-to-date trainings and information. Through targeted communications, annual trainings and cyber exercises, we work to raise cybersecurity awareness among our employees and partners, reminding them of the critical role they play in protecting our digital assets.

We had no major cybersecurity breach or system compromise during 2020.

While employees are often at the front lines of our defense, cybersecurity accountability reaches to the very top of our organization. Our Cybersecurity team provides regular updates to Chesapeake's senior leadership and our Board's Audit Committee about cyber threats, potential vulnerabilities and the proactive security programs in place to protect our operations.

Even with comprehensive protection measures in place, we must continue to strengthen our digital defenses. Information technology is a rapidly evolving field with constantly changing threats — a reality that pushes us every day to prevent, protect and be proactive for the security of our assets and the welfare of our employees.

The Future is Natural Gas

Energy is one of the most fundamental drivers of modern society. Yet in 2019, 770 million people worldwide had no access to electricity, according to the International Energy Agency.

To adequately power our planet in the years ahead, we'll need to significantly increase energy supply, while also responding to the growing risks of climate change. Concerns about GHG emissions and abiding by the framework of the Paris Agreement — which seeks to keep the increase in global temperatures below 2 degrees Celsius above pre-industrial levels — will continue to encourage global energy change.

Chesapeake supports the ambitions of the Paris Agreement, recognizing that we have an important role to play in addressing climate change risks, while providing affordable, reliable energy to all.

Natural gas' readiness to meet global energy needs and its record as the cleanest-burning fossil fuel make it a key part of the solution for projected energy growth in a lower carbon future. Also, the U.S. natural gas industry's environmental performance continues to improve — primarily due to voluntary emissions reductions programs, a strict regulatory environment and active stakeholder involvement — further promoting the global adoption of this fuel.

In the last 30 years in the U.S.⁽¹⁾

96%

Increase in natural gas production

17%

Decrease in U.S. methane emissions

Replacing coal with natural gas for power generation has been a significant driver in this success, leading to a 30% decrease of GHG emissions since 2005.⁽²⁾

Shifting from coal to natural gas resulted in the U.S. reaching its 2025 emissions reduction target (the EPA's response to the Paris Agreement under the Obama administration) eight years faster than projected.⁽³⁾

The U.S. is a catalyst for this type of success. Although global demand for natural gas declined in 2020 by 1.9% from 2019 levels, a rebound is expected due to fast-growing liquefied natural gas (LNG) markets in Asia and other European countries. U.S.-produced natural gas is expected to help meet demand because of its lower cash costs, availability and transportation infrastructure.⁽⁴⁾

With a production mix weighted toward natural gas, Chesapeake is proud to be a leader in meeting global demand and addressing energy poverty, while helping to reduce global GHG emissions.

“We firmly embrace a lower carbon future and believe our portfolio is uniquely positioned to help responsibly supply the energy that is needed across the globe today.” – CEO Nick Dell’Osso

(1) Jacobs, Nicole. “EPA: Oil and Natural Gas Methane Emissions Fall Despite Record Production.” *Energy In Depth*, April 19, 2021.

(2) “U.S. Power Sector Sees Impressive Carbon Emission Reductions Amid Natural Gas Growth.” *Energy In Depth*, accessed September 23, 2021.

(3) “Power Sector Carbon Index.” *Carnegie Mellon University*, accessed September 23, 2021.

(4) “Global Energy Review 2021: Natural Gas.” *IEA*, accessed September 23, 2021.



Dedicated Leadership, Strong Governance

Our comprehensive climate governance includes accountability and ownership at every level, from our Board of Directors to the employees that impact our operations every day.

Board of Directors Oversight

Chesapeake's Board of Directors has ultimate oversight of our strategy, planning and engagement around climate change and its related impacts.

Our Board's Environmental and Social Governance (ESG) Committee takes active ownership in engaging with our executive team and organizational leaders to manage and mitigate climate risks. This committee meets at least quarterly to discuss climate risks and opportunities, among other ESG topics. Relevant findings, progress and issues are raised to the Board-at-large or shared with other Board committees as needed.

Board-level Climate Discussions

- Climate-risk management and mitigation
- Emissions reduction practices
- Business continuity
- Climate change regulatory positions and trade association alignment
- Goal-setting and progress made
- Executive compensation tied to climate-related goals
- Market sensitivity analysis

Although the Board's ESG Committee takes the lead on climate oversight, each of our Board committees has climate performance as part of its responsibilities.

Audit Committee

Reviews climate-related risk as part of the enterprise risk management (ERM) process

Nominating and Corporate Governance Committee

Considers climate and other ESG-related experience when considering new Board directors

Compensation Committee

Incorporates climate-related goals as part of our executive and employee compensation programs

ESG Committee

Has complete oversight of our climate performance, from managing and mitigating climate risk to confirming progress toward our ESG goals

In 2021, our Board-at-large approved ambitious ESG goals, ultimately directing our company to reach net zero direct (Scope 1) GHG emissions by 2035.

Executive Management and Employee Leadership

Our CEO and executive leadership team (ELT) lead our climate performance, providing strategic direction and accountability to our business units. They also direct our climate-related planning process to address climate risks and opportunities.

Although our CEO and ELT work together to champion our climate-related efforts, their individual responsibilities help to ensure comprehensive coverage and planning related to this important issue.

CEO	ELT
Reviews forecasting and market sensitivity analysis	Oversees the ERM process assessing climate-related risk and mitigation plans
Directs long-term, strategic planning and ensures climate is factored when considering acquisition and divestiture opportunities	Confirms compliance related to emissions-reduction efforts and reporting
Confirms progress toward ESG goals	Advises on public policy engagement and trade association membership/advocacy
Manages the Environmental team; the Vice President of HSER reports directly to the CEO	Manages Internal Controls and Internal Audit teams, as well as the Director of Government & Regulatory Affairs
Reviews and approves our annual sustainability report, including our TCFD disclosures	Reviews and approves our annual sustainability report, including our TCFD disclosures

Pay-for-Performance

Emissions reduction goals and other ESG targets are central to our executive compensation program. In fact, we limit payout if critical ESG metrics, including GHG intensity reductions, are not met.

We include climate-related targets as part of our employee incentive plan as well. New for 2021, the company must meet certain ESG metrics before employees are eligible for “above” target bonus payouts, regardless of performance in other areas of the business.

Beyond our ELT, Chesapeake employees care deeply about improving our climate performance. At our business unit level, we have several departments with dedicated climate-related job responsibilities, including our Environmental, Government & Regulatory Affairs, and Compliance teams.

Core to our culture of collaboration, we also have two internal committees focused on ESG strategy and improving our climate performance.

ESG Advisory Board

Made up of cross-disciplinary senior leaders and chaired by our Vice President of HSER, the ESG Advisory Board provides management-level leadership and oversight of the company's ESG performance.

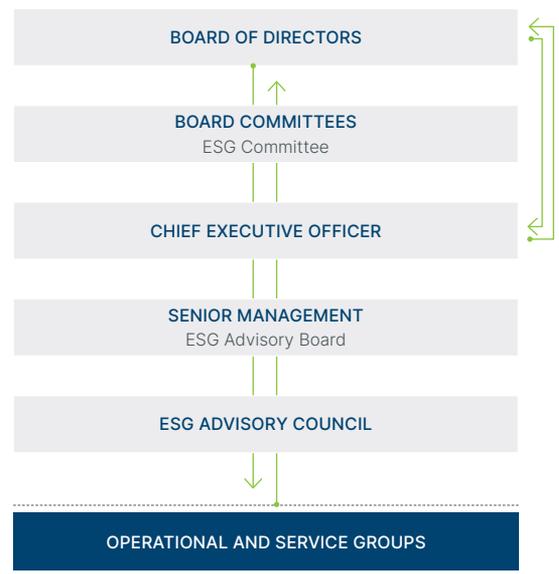
Specific to climate, this board establishes and implements climate policy strategy, aids in decision-making regarding emissions management and adopting energy efficiency solutions, approves emission reduction projects and helps to communicate with stakeholders.

The group meets regularly to ensure ongoing attention to monitoring, managing and reporting major ESG issues and validates the company's ESG disclosures.

ESG Advisory Council

Subject matter experts from multiple disciplines make up our ESG Council. Many of these experts are on the front lines of our ESG efforts, putting into practice the company's strategy and championing ESG initiatives and programs, including our emissions reduction efforts. The council meets weekly for consistent accountability and company integration.

Accountability at All Levels





Managing Climate-Related Risk

Guided by our long-standing ERM program, Chesapeake takes a methodical approach to identifying, assessing and managing ESG risks, including climate-related risks. Risk identification is the responsibility of all Chesapeake team members according to our Three Lines of Defense model, with several teams specifically tasked with recognizing and managing risks related to climate change.

Three Lines of Defense Model		
Business Plans and Strategy		
1st Line of Defense <i>Operational and service groups</i> Identify and control risk at the front lines of the organization	2nd Line of Defense <i>Internal Controls team</i> Provides impartial enterprise risk and compliance analyses	3rd Line of Defense <i>Internal Audit team</i> Uses a standardized, objective process to identify risk-based audits of department and business unit controls and processes; reports directly to the Board's Audit Committee

Understanding ERM

Through ERM, internal risk owners identify, review and assess the company's risks. These risks are then linked to core ESG categories and regularly reviewed at the executive level to ensure strategy alignment and responsive risk mitigation.

The Board's Audit Committee also reviews pertinent risks and mitigation plans at least quarterly through our ERM process. This reporting allows the Board to analyze the company's material risks and direct business strategies accordingly.

Assessing Emerging Risks

On an annual basis, all leaders within the organization participate in risk surveys to review current risk drivers and identify any emerging risks. The ERM team also performs subject matter expert interviews across the organization to ensure a comprehensive process for risk identification.

When identifying enterprise-wide risks, we measure severity based on four characteristics. This process helps to ensure company-wide alignment on risk priority.

If a risk requires mitigation, we develop and execute specific plans to reduce the risk to an acceptable level.

Risk Measurement Characteristics

Impact	Likelihood	Velocity	Response Maturity
Expected effects	Potential for risk to occur	Speed of impact	Evaluation of controls and response plan in place to mitigate risk

Identifying Climate Risks

As part of our ERM process, Chesapeake has identified several climate-related risks that could impact our business. They include:

- **Transition risks:** Transition risks relate to the shift to a lower carbon energy supply.
- **Reputation risks:** Poor ESG performance could damage our corporate reputation among consumers, investors and other stakeholders.
- **Market risks:** Demand for oil and natural gas could be negatively impacted by market incentives to use alternative energy sources.
- **Physical risks:** These risks physically impact our operations, such as extreme weather conditions.

For the purposes of this report, we categorize climate-related risks according to the timelines below.

Defining Risk Horizons

12
Less than 12 months

Short-term

1 – 3
Years

Medium-term

5+
5 or more years

Long-term

Following our ERM process, once we identify a risk, we evaluate it against our risk-measurement characteristics. These characteristics closely mimic recommended TCFD disclosures.

Risk	Impact	Potential Timing	Mitigation Strategies
Transition <i>Regulatory and legislative</i>	Increased operating costs due to stricter controls, taxes or carbon pricing	Short- to Medium-term	<u>Policy engagement</u> , <u>emissions reduction practices</u> , new technology adoption
Reputation <i>Inadequate ESG standards and processes</i>	Negative corporate reputation perception, loss of access to capital and increased stakeholder activism	Short- to Medium-term	<u>Emissions reduction practices</u> , <u>stakeholder engagement</u> and reporting transparency, new technology adoption
Market <i>Lower demand</i>	Depressed prices affecting our financial performance	Medium- to Long-term	Market sensitivity analysis, diversified portfolio, <u>RSG</u> as market differentiator, hedging activity
Physical <i>Extreme weather</i>	Damage to facilities, disruption of operations and/or safety incidents	Short-term and ongoing	<u>Business continuity</u> and disaster recovery planning, facility design, <u>emergency preparedness</u>

Transition Risk

As the global economy shifts to a lower carbon future, legislative and regulatory proposals could restrict or tax GHG emissions and increase our operating costs relative to obtaining permits, operating our equipment and facilities, and adopting new technology.

At the federal level, the EPA has issued regulations that require us to establish and report a prescribed inventory of greenhouse gas emissions. These regulations, including any new potential controls on methane or carbon dioxide emissions, could expand because of goals set forth in the Paris Agreement. States may also pursue the issue directly or indirectly, enacting localized regulations governing or restricting greenhouse gas emissions.

Mitigation: We manage our regulatory risk through policy collaboration, supporting science-based research and adopting innovative technologies to reduce our footprint.

Policy Engagement

Through our policy engagement, we collaborate with stakeholders to develop policies that meet mutually beneficial environmental goals. We define sound policy as regulations that are based on scientific research and remain effective and equitable across regulated industries. Regulations should also recognize the expected growth and need for modern, affordable energy, as well as the continued technological and innovative advancements of our industry.

Research

We continue to partner with universities and other institutions to support scientific research that enhances our understanding of GHG emissions and climate change. Our most recent partnerships have focused on the study of methane detection and reduction.

Innovation

To meet regulatory requirements and voluntarily reduce emissions, we've adopted a number of innovative technologies to better detect emissions and prevent leaks or loss. Some of these technologies include continuous methane emission sensors, pneumatic retrofits, a comprehensive leak detection and repair (LDAR) program with FLIR cameras and our [WellTender mobile app](#).

Opportunity: We view policy engagement as an opportunity to influence lasting and effective change. Chesapeake supports thoughtful, constructive federal regulations related to both GHG and methane emissions that encourage performance-based criteria to allow companies flexibility in determining the most efficient approach to achieving a determined metric. We also encourage complementing existing regulatory frameworks as opposed to creating duplicative systems.

Our focus is collaborative, which is why we work with trade associations and other organizations to partner with government in developing regulations. We endorse both API and AXPC's Climate Policy and Principles as a guide for our climate advocacy efforts, and support policy that facilitates meaningful GHG emissions reductions; balances economic, environmental and energy security needs; and promotes innovation.

In addition to policy engagement, we'll continue to voluntarily reduce our emissions through technology adoption and continuous improvement programs such as pursuing responsibly sourced gas (RSG) certification. Our pledges to end routine flaring across our operations and reduce our methane intensity and GHG emissions are also significant steps to [reducing our climate-related impact](#).

Reputation Risk

Market and social pressures related to the transition to lower carbon energy may result in increased reputational risks for our industry and decreased access to capital. In particular, poor ESG performance may lead to subpar ratings from organizations that track ESG-related performance, impacting investment recommendations and actions by key investors, analysts and stakeholders. Negative ESG publicity may also affect public sentiment and, in turn, a company's social license to operate.

Mitigation: We're committed to transparent stakeholder engagement and forward-looking programs that promote ESG excellence.

Stakeholder Engagement

Through regular engagement, complemented by active listening, we respond to stakeholder concerns and continue to improve our operations.

Reporting Transparency

Each year we evolve and enhance our sustainability reporting to drive greater transparency. For our 2020 data, we consulted with an independent, third-party organization to review and verify our GHG intensity, methane intensity, TRIR and spills metrics. This added layer of accountability provides assurance for our highest-profile ESG performance metrics.

Proactive ESG-focused Programs

To meet our climate-related pledges, we continue to build upon our emissions reduction practices and adopt new ESG programs. One example is commitment to pursue RSG certification of production in our two natural gas basins. This independent certification verifies that our gas was produced to the highest ESG standards, meeting strict emissions requirements, among a number of additional factors. RSG also provides additional data assurance as part of the certification process.

Opportunity: We were the first company to announce a commitment to pursue RSG certification across two major shale basins, with a goal of completion by the end of 2Q 2022. We'll deliver on this commitment while also continuing to enhance our sustainability reporting. We're participating in industry efforts to standardize ESG reporting, particularly related to emissions, and increasing our communications to key stakeholders about our reporting. We commit to reporting our ESG performance at least annually, providing progress on our climate-related pledges to reach net zero direct GHG emissions by 2035.

Market Risk

The demand for oil and natural gas could be negatively impacted by regulatory or market incentives to conserve energy or use alternative energy sources in combating climate change. Lower demand for our products could temporarily or permanently reduce pricing should a significant share of energy reliance shift to other sources.

Mitigation: Thoughtful, long-range planning and strategic financial analysis, coupled with our diverse portfolio, allow us to reduce market volatility risk.

Market Analysis

At least quarterly we conduct market sensitivity analysis during which we evaluate our operational strategy and business portfolio against a number of market factors that could impact company performance based on product demand and pricing effects. Should a scenario show an enhanced risk, we develop a targeted mitigation plan.

Hedging

We strategically protect our capital program by using hedging to offset downside risk. By locking in future market prices, we protect our capital program and affiliated revenue should there be a dip in demand or a significant negative shift in oil and natural gas pricing.

Diversified Portfolio

Our diverse portfolio allows us to shift to the most profitable asset based on changes in market demand. By having both oil and natural gas assets in basins across the U.S., we can better react to market volatility.

Opportunity: We expect to be a significant producer of RSG, a differentiated product that we believe will increase in demand as our market adapts to a lower carbon future. Not only will we have significant volumes of certified RSG in our portfolio, but this production is strategically positioned near LNG terminals to meet the growing global interest in responsibly produced fuel. We also plan to apply the innovative technology used to fulfill our RSG certification to our mixed (oil and natural gas) assets to further improve our overall environmental performance.

Physical Risk

Climate change may produce global physical effects, such as higher sea levels, increased frequency and severity of storms, droughts, floods and other extreme weather events. If any of these effects occur in our operating areas, we could experience an incident at our sites, including safety or environmental concerns, downtime or damaged equipment. Our operational resources could also become limited or disrupted, affecting our production and financial performance.

Mitigation: Through the adoption of advanced technology, stringent processes to promote operational resilience and emergency preparedness, we protect our sites against physical risks.

Facility Design

Our facility-design standards require several elements to protect our operational equipment from extreme weather-related events. Some of these elements include the installation of catenary protection systems to reduce the risks of lightning strikes; cables anchoring tanks to concrete bases for protection during flooding; operational weatherization measures to protect against freezing temperatures; elevated berms for secondary containment if a spill occurs; and solar panels to power remote monitoring and shutdown capabilities if other power is lost.

Emergency Response Planning

Should extreme weather cause an emergency at one of our sites, our Emergency Response Plan (ERP) provides employees with the framework and action steps critical for responding to incidents in a safe, effective and efficient manner.

Business Continuity

While it's our goal to continue operations during an emergency, sometimes we must temporarily shut down a site or facility. If an emergency requires a prolonged closure, we utilize our business continuity and disaster recovery process to maintain critical operations. Our recovery team assesses the business impacts of certain risks, including extreme weather, and develops enterprise response and recovery plans to reduce potential associated impacts. These plans can include arranging alternate workspace, providing a secondary power source, or engaging with employees outside of our standard communication channels.

Opportunity: With a geographically diverse portfolio and nimble operating structure, we can efficiently shift resources should a weather emergency significantly impact one of our basins. Although we believe our mitigation plans would not require the shut-in of wells or production, should this need occur, we're well-equipped to make the operating changes necessary to continue to meet market demand through another Chesapeake asset.

Portfolio Resilience: Using Scenarios to Understand Risks, Opportunities

Along with the COVID-19 pandemic and a steady push to adopt new policies encouraging a lower carbon future, climate-related uncertainties continue to impact the domestic oil and natural gas sector. To best mitigate these uncertainties, we conduct a robust scenario analysis to assist in quantifying climate-related risks and opportunities and provide additional perspective on how a lower carbon future may impact the company's long-range business plans and portfolio optimization.

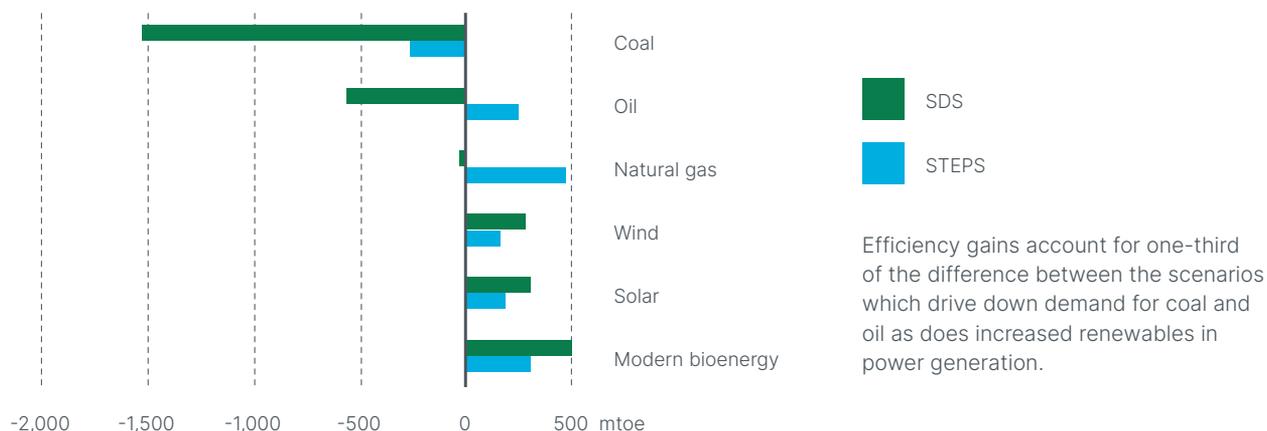
For our long-term planning, Chesapeake considers a variety of energy and policy forecasts and analyses from public and private institutions. However, for purposes of this climate-related report, we used scenarios from the International Energy Agency's (IEA) 2020 World Energy Outlook (WEO) to test our portfolio resiliency. Recommended by the Task Force on Climate-related Financial Disclosures (TCFD), this outlook includes climate change policies that align with the goals of the Paris Agreement.

While the 2020 WEO presents four unique scenario assessments, we based our analysis on the two scenarios we believe are pre-eminent benchmarks for projecting oil and natural gas demand and offer the most realistic view of future outlooks. The two referenced WEO scenarios include predicted fluctuations of product price and energy demand through 2040. Emissions impact is also analyzed, including measuring each scenario's ability to meet Paris Agreement objectives.

- The **Stated Policies Scenario (STEPS)**, which reflects current policy intentions and targets, includes the Nationally Determined Contributions Under the Paris Agreement, and assumes that the pandemic's impact to public health and the economy is gradually under control in 2021.
- The **Sustainable Development Scenario (SDS)** considers a surge in clean energy policies and investment that places the energy system on track to achieve sustainable energy objectives in full, including the Paris Agreement, while maintaining the same public health assumptions as the STEPS scenario.

Under the 2020 WEO modeling scenarios, oil and natural gas will remain a significant source of the energy makeup through 2040. With this, the STEPS scenario depicts world supply, demand and commensurate pricing for both oil and natural gas to realize a moderate uptick through 2040. However, the SDS scenario depicts a moderate decline in both world oil and natural gas supply and demand through 2040.

Change in Total Primary Energy in the Stated Policies and Sustainable Development Scenarios, 2019 – 2030⁽¹⁾



Although these scenarios provide studied constructs of the future, they're not forecasts. They represent a potential future, identifying possible trends or factors that could influence business models should a scenario's key assumptions occur.

Oil Demand and Pricing

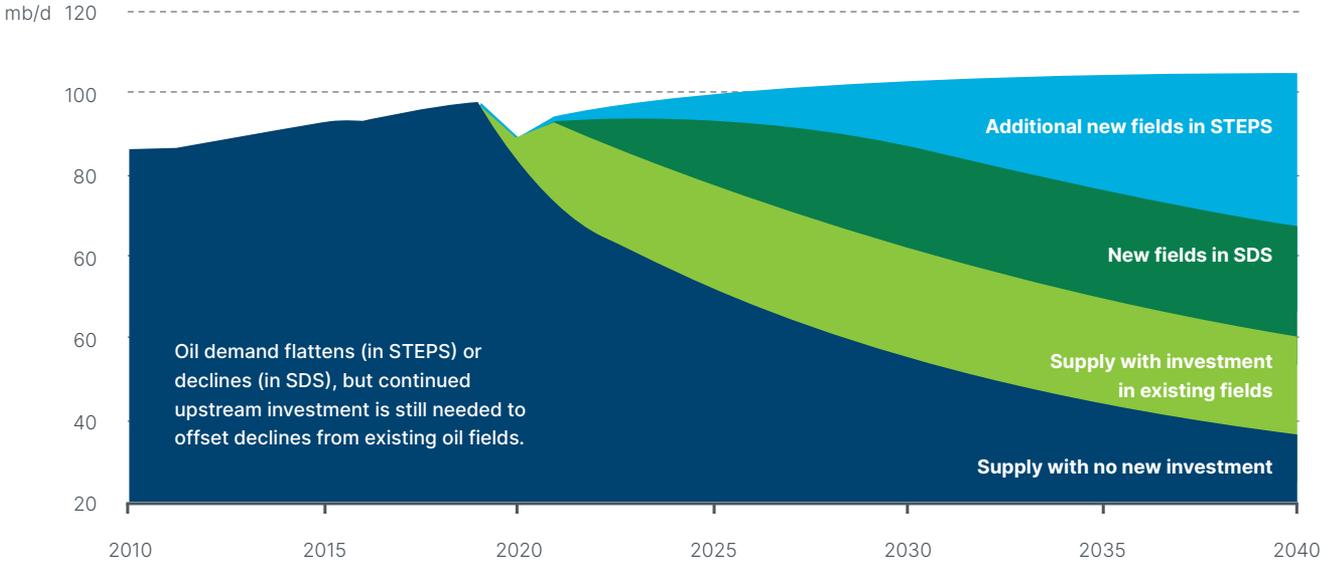
While global oil demand has increased for decades, impacts due to the COVID-19 pandemic and public policies supporting a lower carbon future have begun to stall growth. However, even with the carbon reductions identified in IEA's 2020 SDS scenario, oil continues to supply 23% of the world's primary energy demand in 2040, as opposed to the 31% makeup in 2019. In fact, while the SDS scenario projects lower oil demand in the 2040 timeframe, the IEA states that "decline in production from existing fields creates a need for new upstream projects, even in rapid energy transition."

Oil and Total Liquids Demand and Supply by Scenario (mb/d)⁽¹⁾

	STEPS		SDS	
	2025	2040	2025	2040
World oil demand	99.9	104.1	92.5	66.2
World liquids demand	102.8	109.2	96.9	73.6
World oil production	97.5	101.3	90.2	64.4
World oil supply	99.9	104.1	92.5	66.2

IEA anticipates a continued increase in oil demand under the STEPS scenario, with demand rising to pre-pandemic levels around 2023. After this time, demand is projected to rise by 0.7 mb/d each year on average through 2030, where it then reaches a plateau with annual growth tapering off to 0.1 mb/d per year.

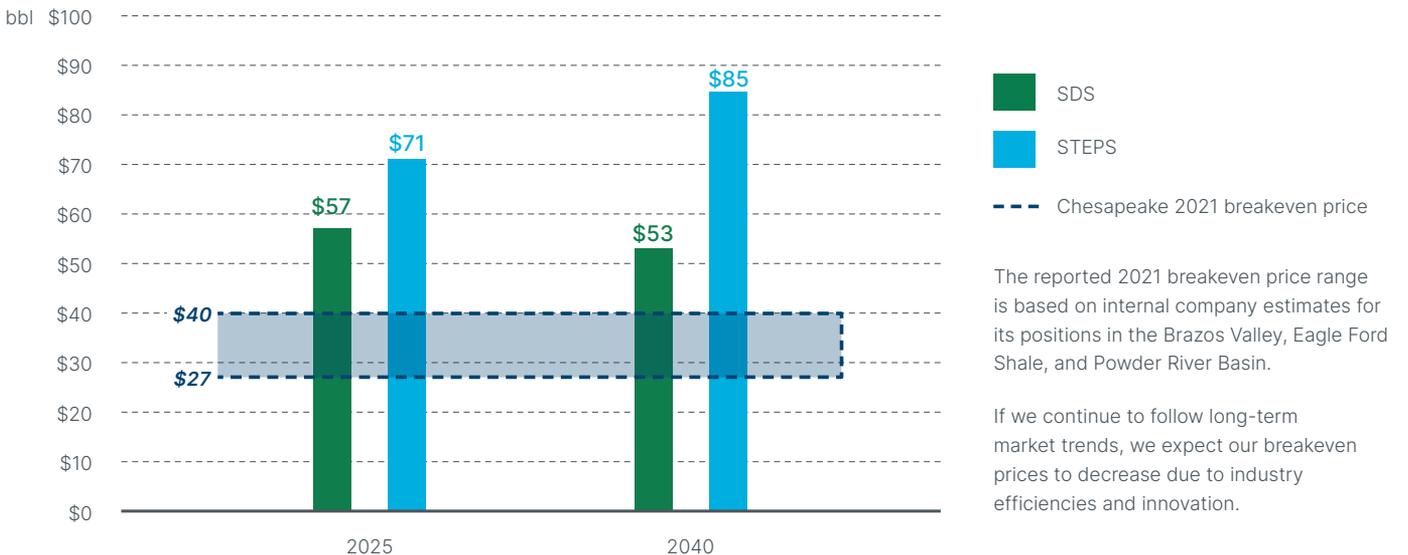
Global Oil Demand by Scenario and Declines in Supply from 2019⁽¹⁾



Even with oil demand peaking around 2023 according to the most stringent SDS scenario, the analysis suggests that companies developing high-value projects at streamlined costs will continue to remain competitive. In fact, upstream oil and natural gas investment is currently projected to average about \$320 billion in 2021, approximately 20% lower than the past five-year period. Assuming there will be a significant capital push to drive a lower carbon future in the energy sector, IEA's SDS continues to call for approximately \$400 billion per year in upstream oil and natural gas investment.

Oil Price by Scenario⁽¹⁾

as compared to Chesapeake breakeven pricing



Based on the pricing data provided and using conservative planning assumptions, we believe Chesapeake will continue to offer efficient investment returns through even the most restrictive scenarios' end date of 2040. This demonstrates both the robust nature and allocation optionality that exists today with Chesapeake's current portfolio, as well as our proven history of flexibility to respond to new innovations and changes in the energy landscape.

Natural Gas Demand and Pricing

While natural gas supply and demand fare best among fossil fuels under the two 2020 WEO scenarios, different policy contexts produce strong variations for the fuel's outlook through 2040. These outlook impacts are largely dependent on a few key factors, including:

- A push to improve air quality and support growth in manufacturing, combined with the expansion of gas infrastructure and demand for fuel in emerging markets and developing economies.
- Broad variability in the supply of associated gas, given the pricing and supply/demand balance regarding oil.
- Achieving a smooth balance between liquified natural gas (LNG) supply and demand, based on infrastructure, financing and policy constraints.
- Reduced long-term opportunities for coal-to-gas switching in developed economies due to stimulus spending directed toward renewables and a push for greater transparency and enhanced methane emissions abatement throughout gas-supply chains.
- Opportunities for the natural gas industry to retool itself via demonstrable progress with developments such as low-carbon hydrogen and carbon capture, utilization and storage (CCUS).

Under the STEPS scenario, global natural gas demand increases through 2040; however, under the more restrictive SDS, natural gas demand initially rises through 2025, then stabilizes and experiences moderate demand declines.

Natural Gas Demand and Supply by Scenario (bcm)⁽¹⁾

	STEPS		SDS	
	2025	2040	2025	2040
World natural gas demand	4,358	5,221	4,166	3,554
World natural gas production	4,358	5,221	4,166	3,554

Natural gas fulfills 25% and 23%, respectively, of world energy demand in 2040 under the STEPS and SDS scenarios.

The STEPS scenario anticipates North America will remain the world's largest natural gas producer through 2040. The SDS scenario is largely the same, although natural gas production from Eurasia slightly eclipses North America in 2040.

Natural Gas Price by Scenario⁽¹⁾

as compared to Chesapeake breakeven pricing



Similar to our oil price outlook, Chesapeake's cash-cost efficiency suggests a strong future for our natural gas projects. Chesapeake's current breakeven price reinforces the strength of our operational strategy and capital allocation flexibility as both demand and pricing evolve under these two scenarios.

Based on our 2020 scenario planning analysis, we're confident that our portfolio of assets will continue to deliver strong returns well into the future. It's also highly unlikely that we'll have any "stranded" assets as we align globally with the ambitions of the Paris Agreement.

(1) Based on IEA data from World Energy Outlook 2020 © OECD/IEA 2020, www.iea.org/statistics, all rights reserved, as modified by Chesapeake Energy Corporation



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 ultimately achieve our net zero direct GHG emissions goal.

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; it may be referred to as the "loss rate."
- **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 2020 unless otherwise stated. Certain performance data may have been impacted by the COVID-19 pandemic and the associated reduction in drilling and production activity.

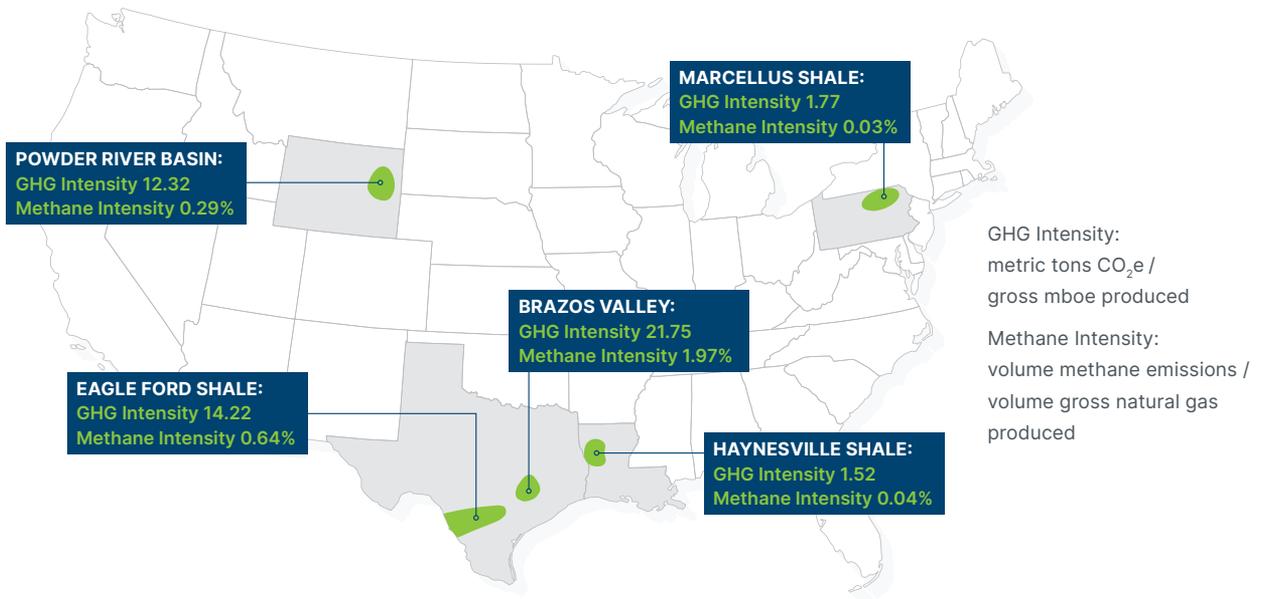
The EPA regulates all of our operations, including emissions, and we report Scope 1 emissions to the EPA's GHG Reporting Program as required by law. The reporting of certain other emissions, such as Scope 2 emissions, is not required, but we voluntarily report them in this analysis. For our 2020 data, we consulted 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

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

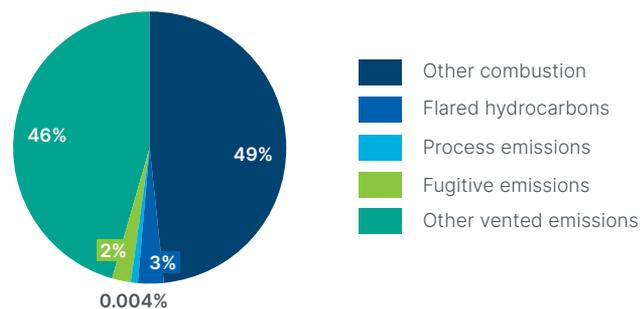
2020 GHG and Methane Intensity by Operating Area



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 newly 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.

2020 Scope 1 Direct GHG Emissions Sources



2020 Routine Flaring Metrics

Metric	2020
Gross annual volume of flared gas (mcf) ⁽¹⁾	711,934
Flaring intensity – gross annual volume of flared gas (mcf) / gross annual production (mcf)	0.05%
Flaring intensity – gross annual volume of flared gas (mcf) / gross annual production (boe)	0.002

Scope 2 GHG Emissions

2021 is the first year Chesapeake reported Scope 2 indirect emissions. We're committed to continuing to report this metric moving forward.

Metric	2020
Scope 2 emissions (million metric tons CO ₂ e)	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 Environmental Protection Agency's emission factors for listed fuel types. The estimated emissions reported represent the indirect end use greenhouse gas 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 when emissions already captured by other entities are reported in their Scope 1 or Scope 2 emissions.

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



Targets: Driving Progress, Improving Performance

In 2021, we announced ambitious targets as a pathway to Chesapeake achieving net zero direct (Scope 1) GHG emissions by 2035. We committed to this ambitious goal to make meaningful change, reduce our corporate impact and contribute to the climate change solution.



We set high standards for our climate performance, recognizing the responsibility entrusted to us by our stakeholders as we work to lead a responsible energy future.

Pathway to Net Zero Direct GHG Emissions

0

Routine flaring on wells completed in 2021 and beyond, enterprise-wide by 2025

5.5

GHG intensity by 2025
(tCO₂e/gross mboe produced)

0.09%

Methane intensity by 2025
(volume methane emissions/volume gross gas produced)

Achieving Our ESG Goals

Through a layered toolkit of technologies and best-management practices, we'll better detect and mitigate emissions in support of our 2025 timeline. 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
Sequestration	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)
	Explore sequestration opportunities including enhanced oil recovery (EOR), carbon capture and utilization (CCU) or carbon capture, utilization and storage (CCUS)	Reduced emissions with increased production
RSG	Deploy 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
Collaborative Partnerships	Partner with the Gas Technology Institute (GTI) and other 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

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.

Additionally, we're exploring opportunities to engage partners outside the traditional oil and natural gas value chain, including project-origination opportunities such as regenerative agriculture, which may ultimately achieve significant carbon-abatement potential at a low marginal cost. Our analyses focus on the effectiveness of each prospective technology from a technical, operational and economic standpoint.

TCFD Context Index

Our climate reporting follows the [Task Force on Climate-related Financial Disclosures \(TCFD\)](#) framework. By disclosing through this framework, we offer high-quality information that enhances our transparency on the impacts of climate change to our business. We respond to each of the four TCFD disclosure categories noting our climate-related risks and opportunities.

Disclosure Category	Description	Disclosure Location
Governance	<p>a) Describe the Board's oversight of climate-related risks and opportunities.</p> <p>b) Describe management's role in assessing and managing climate-related risks and opportunities.</p>	Climate Governance
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning where such information is material.	<p>a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term.</p> <p>b) Describe the impact of climate-related risks and opportunities on the organization's business, strategy and financial planning.</p> <p>c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.</p>	Climate Strategy & Risk Management , Portfolio Resilience
Risk Management Disclose how the organization identifies, assesses and manages climate-related risks.	<p>a) Describe the organization's processes for identifying and assessing climate-related risks.</p> <p>b) Describe the organization's processes for managing climate-related risks.</p> <p>c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.</p>	Climate Strategy & Risk Management , Air Quality , Managing Risk
Metrics and Targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	<p>a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk-management process.</p> <p>b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.</p> <p>c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.</p>	Climate Metrics , Targets , Performance Metrics



S.A.F.E. Culture: Safety First, Every Day

Safety is not just part of our culture — it's core to our commitment to leading a responsible energy future. We set and deliver strict safety standards, prioritizing the well-being of our employees and partners. Our safety culture is championed by our Board of Directors and executive leadership team, owned by every employee and contractor and managed by our Health, Safety, Environmental and Regulatory (HSER) team.

HSER Management System

Plan	Do	Check	Act
<i>Planning and Prevention</i>	<i>Process and Implementation</i>	<i>Performance Evaluation and Improvement</i>	<i>Organization and Leadership</i>
<ul style="list-style-type: none"> • Risk Management • Engineer Design • Organizational Excellence & HSER Stewardship 	<ul style="list-style-type: none"> • Operational Compliance, Controls & Data Governance • Contractor Management & Stakeholders • Emergency Response Program & Community Awareness 	<ul style="list-style-type: none"> • Incident Management • Monitoring, Measurement, Analysis & Evaluation 	<ul style="list-style-type: none"> • HSER Vision Statement & Protecting Ability to Operate • Leadership Commitment & Accountability • Organizational Authority

2020 Health and Safety Performance

0.40

Employee TRIR

0.04

Employee LTIR

0.38

Contractor TRIR

0.16

Contractor LTIR

Equipping Employees to Make Safe Decisions

Creating an incident-free work environment starts with setting clear expectations among employees, contractors and suppliers regarding our safety standards, and working to empower and equip individuals with the skills necessary to promote safety in their areas of work. We reinforce our commitment to a safe work environment through our Stay Accident Free Every Day (S.A.F.E.) program.

S.A.F.E. Program Goals

- Safety culture ownership
- Social license to operate
- Mindful operations
- Employee leadership



Stop Work Authority

Every person has the right, responsibility and authority to stop any task that's believed to be unsafe or noncompliant. This pledge empowers employees to speak up to protect the health and safety of others, the environment and our communities without repercussion for stopping work in good faith.



- S:** See unsafe or noncompliant behavior or process
- T:** Tell someone immediately
- O:** Order any unsafe behavior to cease
- P:** Postpone operations until the behavior or process is compliant and safe to proceed

Trainings

Every year our HSER team plans targeted trainings based on safety performance analysis, job functions and location specifics. Our training program includes a mix of in-person and virtual training, with greater emphasis on in-person instruction and includes all employees. Job-specific learning paths aim to exceed regulatory requirements and ensure employees are holistically prepared to execute their job functions safely and responsibly.

Chesapeake's training philosophy values contractor training in the same manner as employees. We design contractor training to align as much as possible with employee training, encouraging synchronized knowledge sharing and understanding, critical to decreasing our cumulative incidents.

Training in the Pandemic

For 2020, our total HSER training hours were reduced relative to past years due to the COVID-19 pandemic. Because many employees worked remotely and group gatherings were restricted, we made the difficult decision to temporarily pause and reshape some of our HSER trainings. Although we continued with computer-based training, certain trainings require real-world, operational experience and employee engagement to be effective. We're committed to safely returning our training program to its full structure as soon as possible.



Testimonials

Our employee testimonials program reinforces that a strong safety culture requires personal commitment. Through this program, individuals who have suffered significant work-related injuries testify to the personal, financial and physical aftereffects of their accidents. Presenters visit field offices and attend employee-contractor meetings (in-person or virtually) to emphasize personal safety. In 2020 and 2021, we intentionally included testimonials specific to mental health to raise awareness and reduce stigma.

Good Catch

Through our Good Catch program, employees and contractors submit documentation of outstanding HSER performance or instances when Stop Work Authority was used to address an HSER concern. Submissions are captured through an app and logged into a central system where data is pulled for trend analysis. Each month, our executive leadership reviews submissions and recognizes field and corporate employees who best reflected our safety culture. Lessons learned are often shared internally and on-site.

HSER Moments

To maintain a safe work environment, we must remain diligent in keeping safety top of mind, every day. We recommend that employees start every meeting, in the field or on campus, with a safety learning moment. To reinforce this, we created HSER Moments — single-page guides that address an HSER topic that can be shared in less than two minutes. More than 85 critical topics are available to employees, with content including first aid, basic electrical safety, fall protection and flood safety.

Each year, Chesapeake hosts HSER Excellence Awards events during which the organization celebrates how our safety and environmental commitments are lived out across our operating areas. Best practices and lessons learned are shared and senior leaders recognize the highest-performing teams.

Promoting Health & Well-Being

Supporting the individual well-being of our employees is foundational to our safety culture. We champion healthy lifestyles and offer resources encouraging our employees to put their health first.

Employee Health and Well-Being Program

- Preventive care
- Physical health benefits
- Mental health support
- Work-life integration

Supporting Employee Health

Across the company, employees are offered preventive programs and are incentivized to complete an annual screening for common health-related issues. In 2020, 60% of our workforce completed a health check and received a reduced insurance rate as a result.

To further support employee health, our corporate campus includes a fitness center that offers



chiropractor visits, physical therapy, personal training, nutritional counseling and group classes focused on physical fitness, stress relief and relaxation.

Employees who don't work at our corporate campus can schedule phone meetings with the fitness staff or nutritionist. Our fitness center staff also offers free workout videos through our center's YouTube channel, available for any employee to access at any time. Hundreds of employees have logged on remotely to participate in these workouts.

In addition to our competitive healthcare benefits, Chesapeake offers Teladoc memberships to employees and dependents enrolled in our health plan, allowing them to connect in minutes with a board-certified and state-licensed physician who can diagnose and treat common illnesses via phone or video 24 hours a day.

Recognizing Mental Health Needs

Mental health is an increased area of focus for the company, further brought to the forefront because of the pandemic. Our Employee Assistance Program (EAP) has been an important part of our benefits package for years, but we increased our promotion during COVID-19 to highlight support for our employees' emotional and mental wellness.

All employees have access to our EAP from the first day of employment, regardless of their health insurance plan. Employees and members of their households each receive six free, confidential counseling sessions per issue, per year. Our EAP can also provide referrals to help employees and their families cope with different life stages and challenges, such as prenatal planning, child or elder care, financial guidance and resources and legal support. In 2020, 283 individuals associated with Chesapeake used our EAP.

We also offer a number of programs and policies to promote job satisfaction and to help employees manage stress. These trainings provide employees with tools, techniques and skills to manage emotions with confidence and positive results.

Work-Life Integration

We recognize that our employees have full lives outside of work and that achieving a work-life balance can be difficult. For this reason, we support an integration of work and life priorities. To help our employees achieve this, we offer four hours of flexible scheduling each week in lieu of using paid time for personal or medical appointments.



On our corporate campus, we offer a number of work-life conveniences. For example, our Child Development Center offers quality childcare within walking distance of all offices.

We consistently review our benefits package for opportunities to support employees as they grow their families. We offer adoption assistance to help employees with qualified adoption expenses. We also offer up to four weeks of paid parental leave for all employees following a birth or adoption.

In 2020, 94 male employees and 40 female employees took paid parental leave, with 90% of these employees returning to work full-time after leave. Pregnant employees also have the option of taking short-term disability after the birth of a child to extend their maternity leave if they choose.



Occupational Health & Safety: Safety Today for a Healthy Tomorrow

Ensuring that everyone goes home safely every day requires ownership from every individual working at a Chesapeake location, and a commitment to continuous improvement. Through our [HSER management system](#), we identify potential health and safety risks our employees may encounter and mitigate them through planning, prevention and processes.

Job Safety Analysis

Chesapeake routinely performs a job safety analysis (JSA) to document potential hazards associated with a given project. If a safety hazard is identified, we require a mitigation plan. JSA documents are maintained daily on location with the most current conditions and operational plan. Employees and company representatives must review the JSA before beginning a job, in addition to attending a safety meeting.

Industrial Hygiene

Through our industrial hygiene initiative, we conduct exposure assessments to identify chemical, physical and biological stressors that may impact employee health while on a job site. These evaluations, which align with Occupational Safety and Health Administration standards, have helped us identify the following potential stressors at certain sites:

- Respirable crystalline silica
- Respirable dust
- Total hydrocarbons
- Noise
- Diesel particulate matter
- Inorganic acids
- Hydrogen sulfide

After identifying exposure hazards, we develop situational plans and trainings to best protect our employees.

We also consider new processes and technology to further increase employee safety. For example, we evaluated the impact of a patented temporary hatch plug — hazardous atmosphere reduction plug (HARP) — to reduce potential exposures to total volatile organic compounds (VOC). Using this plug was found to reduce VOC exposure by up to 94% and earned Chesapeake a Best Health, Safety, Environment / Sustainable Development Onshore Award at the 2020 World Oil Awards. We've implemented this solution throughout our oil assets where these exposures are most likely to occur.

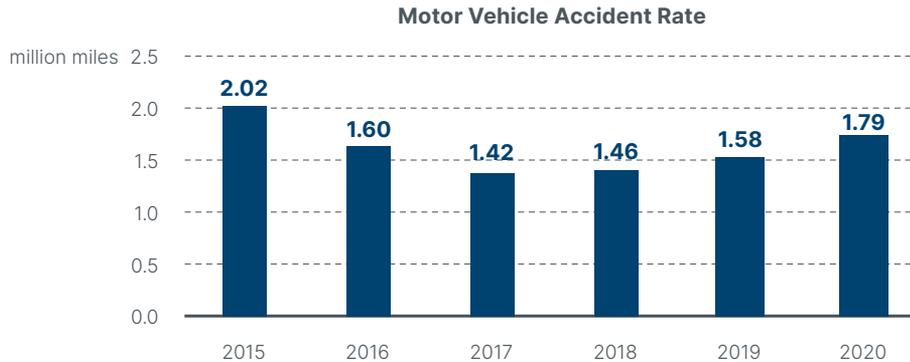


Remote Worker Safety

Every day, some Chesapeake employees spend their shifts working at multiple sites by themselves. This puts them at increased risk should an emergency occur in a remote location. Recognizing this, we implemented Trakopolis — a system that connects the company's vehicle safety system with the four-gas personal monitors employees are required to wear when visiting production sites. The monitor detects personal movements, alerting other team members if an employee is immobile for a period of time, and enables two-way communication if help is needed.

Driver Safety

Most of our fleet drivers spend time behind the wheel of a motor vehicle on a daily basis. We work to improve driver safety through three programs: driver education, driver monitoring and safe-driver recognition.



In 2020 Chesapeake experienced an increase in our preventable motor vehicle accident (MVA) rate, although we saw fewer vehicle incidents year over year. This discrepancy was related to the divestiture of our Mid-Continent asset and the “loss” of mileage — more than 15% — after the asset sale.

Chesapeake fleet drivers participate in four online and classroom courses, including the SMITH Driving System Program, which offers hands-on training common in driver’s education and defensive driving curriculum. After this training, employees begin to acquire consistent habits that help prevent accidents.



Employees must complete SMITH Driving System training before being assigned to a company vehicle.

Each Chesapeake vehicle includes an in-vehicle monitoring system (IVMS) to identify employee driving habits and address safety concerns. Employees are alerted when they speed, accelerate too fast or brake suddenly, and supervisors review reports of their employees’ driving performance on a weekly basis. The data gathered by this system is used to produce an IVMS rate as a leading indicator of our driving performance. The IVMS rate provides our management team with key insights into driver habits, which can help prevent on-road motor vehicle incidents.

We offer a recognition program that awards points to drivers who reach mileage milestones without triggering an IVMS alert. Recognition points may be exchanged for prizes, including the opportunity to buy a fleet vehicle at a 50% discount.

Ergonomics

To further protect employee health and safety while on the job, we offer dedicated ergonomics resources. Through our online ergonomics training module and a workstation posture evaluation tool, we encourage employees to maintain healthy posture and avoid injuries associated with overusing muscles and repeated tasks.

Corporate Campus Safety

Our corporate campus employees also have ownership in maintaining our safety culture. Through targeted communications, we increase safety awareness in the corporate environment, focusing on behavior often caused by distraction or lack of safety knowledge. Tangible safety tips, safety meetings and floor wardens all help to increase our safety performance on our corporate campus.

Improving Contractor Safety

Maintaining a safe work environment and supporting safe behaviors is a commitment that our employees and contractors own together. We hold each other accountable for keeping our sites, workforce and communities safe.

2020 Contractor Safety Performance

0.38

Contractor TRIR

0.16

Contractor LTIR

Specific to contractor safety, we know we must do better. In 2020 and 2021, we had two incidents (one in each year) that resulted in the loss of life. Three of our contractors died and one was seriously injured following a well-control incident in Burleson County, Texas, on Jan. 29, 2020. In July 2021, one of our Haynesville contractors sustained a head injury following a fall, and subsequently lost his life.

While investigations are ongoing, we're committed to understanding what occurred, ensuring the necessary action is taken and sharing key learnings throughout our operations.

Contractor Safety Management Program

We facilitate a comprehensive contractor safety management program to reinforce and maintain our safety standards and communicate best practices.

Our safety standards begin at the hiring process. From the start of a relationship with Chesapeake, contractors must pass a qualification process including an evaluation of each potential contractor's safety and environmental record. We use an online contractor-management platform during the hiring process and for ongoing monitoring of our contractors, which reviews and verifies contractor regulatory, environmental and safety-related requirements and documentation. Before approval, the prospective contractor must also agree to abide by Chesapeake's [Supplier Code of Conduct](#), committing to honor our core values and provide a safe and healthy workplace for all employees.

Our Suppliers Must Agree to:

Implement the necessary precautions to protect all employees and members of the communities where we operate	Observe all environmental, health and safety laws, regulations, rules and permit requirements that apply to our mutual operations	Report and take immediate steps to correct all accidents, injuries, unsafe or unhealthy work conditions
Stop work activities that pose a real or perceived safety risk	Prohibit harassment, violence, weapons or drug or alcohol use when conducting Chesapeake business, on or off company premises	Report concerns to Chesapeake through any number of outlets, including our anonymous website

Once approved, Chesapeake contractors complete both an industry orientation course and a Chesapeake-specific safety orientation before they arrive at a company location. The orientation sets clear safety expectations in accordance with industry-standard safety guidelines, which establish minimum requirements for HSER practices. Volunteers from major and independent operating companies, industry associations and educators developed the guidelines specifically for the U.S. onshore exploration and production industry.

Each year we review and revise this orientation for accuracy in methodology and compliance with new regulations. We also regularly review our contractor safety handbook, which outlines the basic safety and environmental requirements that all personnel must follow when working on our locations. This handbook sets the minimum expectations for acceptable work activity and reiterates an employee or contractor's responsibility to stop work that's believed to be unsafe or that could lead to environmental impact. The orientation and handbook can be accessed via the online contractor-management platform, Chesapeake's supplier portal or from Chesapeake HSER team members. The handbook and orientation are available in English and Spanish.

To further emphasize our commitment to safety, we host contractor safety meetings, during which our Operations staff tailor safety discussions to the operational areas where contractors are working.



As an additional step, we conduct contractor assessments in the field. These assessments, coordinated with our HSER audit team, confirm that our contractors are reporting their safety performance accurately. If a contractor's safety program doesn't meet our minimum standards, they receive disciplinary action that could include terminating their work with Chesapeake.

We also recognize the importance of supporting short service employees (SSE), or employees with fewer than six months experience, in their initial on-the-job training and performance. This effort is especially important because of the extensive employee turnover experienced in the service industry during the recent downturn. With that challenge in mind, we highly encourage every contractor to provide direct, one-on-one mentoring for each SSE deployed to a crew.

Partnering for a Safe Industry

Chesapeake partners with several industry trade organizations to share key safety learnings with our peers. While we may compete in the marketplace, we're united in keeping our employees, partners and neighbors safe. Chesapeake is involved in safety-related committees and/or membership with:

- American Exploration & Production Council
- American Petroleum Institute
- American Society of Safety Professionals
- ISN User Group
- National Safety Council



Working Toward Zero Incidents

Preventing incidents before they occur is always the goal of our HSER program. Incident prevention starts by identifying potential safety or environmental risks and then developing proactive solutions to offset hazards and keep our sites safe.

HSER Risk Identification

We identify and recognize risks in a number of ways, most notably through our Good Catch initiative, on-site inspections and audits, and data trend analysis.

- **Audits:** Our HSER Compliance Assurance team conducts audits across our operations to identify potential hazards. We use a hybrid audit system, combining desktop and at least two field audits (rotating across business units) each year.
- **Near Miss Analysis:** By tracking near miss incidents and analyzing near miss data, we recognize trends and apply key learnings across our operations.



Defining Near Miss Incidents

We define a near miss incident as an unplanned event that did not result in an injury, illness or damage, but had the potential to do so.

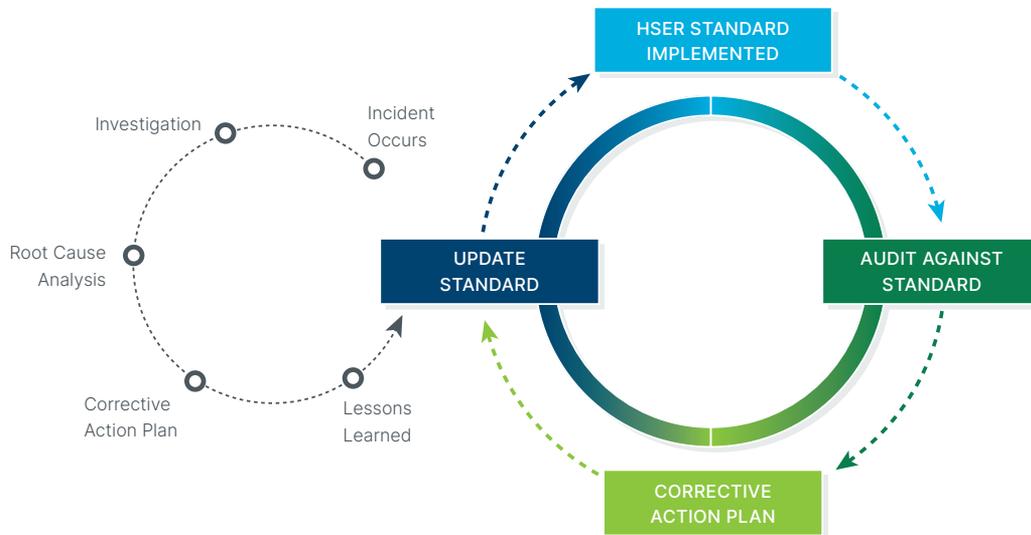
As part of our metrics reporting, we calculate a near miss frequency rate (NMFR) according to the formula provided by the SASB Oil & Gas Standard. In 2020, our NMFR was 1.6.

Near misses are most often reported through our Good Catch initiative, which we then record within our incident management database. In addition to noting the incidents that could have occurred, we include the corrective actions taken to prevent similar incidents in the future.

Learning from Incidents

Should an incident occur, it's our commitment to learn from it and, where appropriate, improve our processes. To deliver on this commitment, we utilize a root cause investigation system to standardize our reporting, investigation and analysis of incidents. This system enables us to determine the root causes of incidents and discern where and what improvements are necessary.

Root Cause Analysis and Learning Process



In 2021 we recognized that when a standard was updated, there were inconsistencies in how these changes were communicated and implemented. Our HSER team performed a gap analysis of our standard communications process and identified gaps where improvements could be made. For each identified gap, we recommended corrective action, assigned an employee owner and required a deadline for implementation.



Damage from excavation-related activities is the leading cause of pipeline incidents. To prevent these incidents, we encourage the public to call 811 to have pipelines and other utilities marked before digging. If your property includes an easement and you plan to build, please notify Chesapeake at least 30 days prior to construction.

Incident Response in Brazos Valley

In early 2020, Chesapeake experienced a well-control incident in Burleson County, Texas, in our Brazos Valley operations. The moment we were aware of the incident, we evacuated the well but, tragically, three contractors died and another was hospitalized.

We activated our emergency response command systems, setting up command posts in Oklahoma City and on-site. Our automated documentation and communication system let the corporate command center know exactly what was going on throughout the well-control process.

Once the site was secure, we addressed the well control-incident and resulting damage. Our Operations team established an incident action plan that included a framework of objectives to reduce our negative environmental impact. We worked to contain any releases, partnering with well-control experts to secure and contain the site. We have since plugged and abandoned the well.

Following well containment, we initiated an investigation into the incident. We continue to inform our Operations group of any important fact findings and have reviewed and retrained employees on pertinent policies and procedures. Once the investigation is complete, we'll share our findings across our operations.



Emergency Preparedness: Ready and Responsive

Our emergency procedures require employees to respond to all incidents quickly, with safety as the top priority. Procedures are guided by our Emergency Response Plan (ERP), which provides employees with the framework and action steps critical for responding to incidents in a safe, effective and efficient manner.

The ERP is built on:

- Well-trained personnel responding in a tiered approach based on incident level
- Engaged partnerships with local responders and professional emergency response contractors
- Scalable, flexible and adaptable operational capabilities
- A unified Incident Command approach and structure

In the case of a high-level incident, Chesapeake deploys its Emergency Preparedness and Response group composed of individuals trained in emergency planning and incident response management.

Chesapeake prepares for possible incidents by:

1

Utilizing risk identification tools to help determine sensitive sites and areas

2

Having an ERP and predetermined emergency response practices in place

3

Developing tactical response plans specific to the operating area

4

Conducting on-location drills based on possible scenarios

5

Performing in-depth exercises, including setting up incident command with Operations team members and corporate leadership

As part of our robust ERP, employees are trained on the same management system used by emergency responders, from firefighters to the Federal Emergency Management Agency (FEMA). The National Incident Management System (NIMS), a nationwide incident response template, enables Chesapeake to work cooperatively with local, state and federal agencies in the event of an emergency, regardless of location. NIMS also allows for the integration of facilities, equipment, personnel and communications to create common processes for planning and managing resources. This integration and collaboration expedites the emergency response.

Field employees are also trained in NIMS level 100 and 200 and to the operations level of Hazardous Waste Operations and Emergency Response. This additional training provides employees with a clear understanding of their responsibilities in an emergency, along with a consistent, Chesapeake-mandated procedure to follow. The training also facilitates more effective communications with emergency response personnel.

In addition to emergency response trainings, we develop and prepare specialized teams of employees — Local Emergency Response Teams (LERT) — to assume command and control of an incident safely and efficiently. All of our operational areas have LERT teams made up of highly trained HSER, Security, Geology and Operations employees who are ready to respond in the event of an emergency.

Chesapeake hosts unannounced LERT trainings at least twice a year, during which tabletop exercises are done to simulate actual events. In 2020, 197 attendees participated in 15 tabletop exercises to better prepare them should an incident occur.

Emergency Response Tiered Organization

Response Group	Field or Corporate	Level 1 Incident	Level 2 Incident	Level 3 or 4 Incident
Field staff and leadership	Field	X	X	X
Chesapeake Operations Center	Corporate	X	X	X
Emergency Response group	Corporate		X	X
LERT	Field		X	X
Crisis Management team	Corporate			X

In addition to training our on-site personnel in incident response, we partner with local fire and police departments to increase their capacity in the event of an emergency. Through our First Responder Outreach program, members of our Emergency Preparedness and Response group and Operations team interact regularly with local responders to understand department capabilities and establish partnerships before a potential incident.



The team also offers first responder information sessions covering such topics as how the exploration and production industry works, key industry terminology, potential site hazards and an overview of production site equipment. This additional education not only allows for better communication between Chesapeake and first responders but provides valuable safety awareness for the first responders themselves.



Diversity, Equity & Inclusion: Celebrating Differences, Valuing Voices

Building a diverse workforce and an equitable and inclusive work culture is critical to Chesapeake's sustainable success.

It's been an ongoing priority since the adoption of our Diversity Council in 2016 and our signature on the [CEO Action for Diversity & Inclusion™](#) pledge in 2019. Our Board of Directors and executive leadership team are committed to cultivating a workplace where diverse perspectives and experiences are welcomed and respected and employees feel encouraged to discuss diversity and inclusion.

While we've historically valued diversity within our workforce, we look to do more. That's why we're building on our diversity, equity and inclusion (DEI) commitment the right way — by listening to the perspectives and recommendations of employees at all levels of our organization.

We view DEI as a competitive advantage and, more importantly, as a demonstration of our core value of respect — respect for everyone's contribution, respect for each other's voices and experiences, and respect for new ideas.



pledge to be transparent in our progress and in the way we measure success in this critical area.

Like all corporations in this country, we have important work ahead of us. We

Defining DEI

We start by defining DEI within our organization because we believe definitions encourage accountability and alignment. Through these definitions, we identify what's important to us as an organization and show the relationship between these three concepts:



Diversity: Recognizing true disparities

Diversity reaches wide, honoring differences, demographics and backgrounds. While all diverse perspectives matter, true diversity recognizes disparities experienced by traditionally marginalized groups.

Equity: Rebalancing access to opportunities, free of barriers and systemic exclusion

Equity considers the needs and experiences of the individual (vs. equality, which assumes everyone is the same). It's a belief that certain people or groups of people have been systemically excluded and deserve to be seen and included.

Inclusion: Creating a culture of voice, value and equal opportunities

Inclusion works to ensure that all have equal access to opportunities and feel empowered to contribute to company success. It's the difference between being invited to a meeting vs. feeling like a valued member of the meeting.

Seeing Our Challenges

By first identifying our challenges to a truly diverse culture, we can address systemic issues and work toward solutions and long-term cultural change.

Challenge	Our Progress and Commitments
The business case for DEI is clear, but it also must be personal. We must talk about our program in a way that resonates with all employees.	<ul style="list-style-type: none"> Identified senior executive level DEI sponsor; adding champions as we build our leadership team Currently conducting focus groups with our individual contributors, giving them a voice so that our DEI initiatives are not “top down” Continue to amplify the voices of leaders and employees passionate about DEI, encouraging them to share their personal experiences
The oil and natural gas industry has historically lacked diversity.	<ul style="list-style-type: none"> Facilitated trainings with our people leaders, encouraging proactive steps to reduce filters, blind spots and unconscious bias Continue celebrating months/days honoring traditionally marginalized groups through internal communications Continue to address unjust social issues through executive and internal communications Continue to actively search for diverse candidates for leadership positions and promote job postings to diverse candidates Train our people leaders on DEI awareness and how to encourage an inclusive work environment
Women have often been underrepresented in the oil and natural gas industry.	<ul style="list-style-type: none"> Conducting a pay equity study to be used as a tool to ensure the company is treating all employees equitably Work to identify female and other protected class candidates for key leadership positions Provide unconscious-bias and related trainings to employees
Hiring is limited now, which impacts our opportunities to welcome diverse candidates.	<ul style="list-style-type: none"> Put processes in place to ensure we reach diverse candidates with our job postings as our hiring needs increase Train recruiters and leaders on implicit biases to create a more equitable interview and hiring experience
Diversity is not just a workforce issue.	<ul style="list-style-type: none"> Created a pilot supplier diversity program, including a Supplier Diversity team, to build our network of diverse suppliers and increase the amount of work awarded to those suppliers

Workforce Demographics

To have a strong, inclusive workplace culture, we must create a sense of belonging where everyone contributes and feels comfortable bringing new ideas and challenging the status quo. Key to creating this culture is having a workforce that represents the diversity present in our operating areas and across the country. We recognize we have work to do, and measuring our demographics is an important step toward accountability and progress.

29%

Women in workforce

22%

Women in leadership
(supervisor level and above)

21%

Ethnic minorities
in workforce

10%

Ethnic minorities in leadership
(supervisor level and above)

As of Dec. 31, 2020

While we work to diversify Chesapeake's employee base, our demographics have remained consistent since 2017, despite a more than 50% staff reduction.

Leadership Committed to Diversity and Inclusion

Chesapeake was the first company in the oil and natural gas industry to sign the CEO Action for Diversity & Inclusion™



pledge. This pledge brings together the business community to promote, advance and outline specific actions around increasing diversity and inclusion in the workforce.

Through this pledge, companies commit to four goals:

1. Making our workplaces safe to have complex, and sometimes difficult, conversations about diversity and inclusion
2. Implementing and expanding unconscious-bias education
3. Sharing best, and unsuccessful, practices
4. Creating and sharing strategic inclusion and diversity plans with our Board

Supporting Diverse Suppliers

In 2021, we launched our Supplier Diversity Program to increase the number of diverse suppliers hired by Chesapeake and to encourage the availability of a healthy and diverse supplier base to support our business.

Although definitions vary, diverse suppliers are typically businesses at least 51% owned, managed and controlled by people with disabilities, minorities, women, veterans or LGBTQ+ individuals.

We spent the first half of 2021 developing our strategy and building our framework for the pilot launch. Our pilot program includes the following elements:

- Strategy and policy
- People
- Process
- Technology
- Data and measures
- Supplier engagement

To measure our progress, we'll evaluate the number of diverse suppliers included in bids and hired by the company. We'll publish these numbers in 2022 to serve as a baseline moving forward.



Human Rights: Respecting the Rights of All

We believe all humans deserve respect and dignity and have the right to live free of social and political abuse and discrimination of all kinds.

While governments play a significant role in protecting and policing human rights, corporations also can help safeguard the most vulnerable. As a U.S. company that adheres to federal laws with respect to human rights, we believe one of our best opportunities to encourage positive change is through our suppliers. By adopting a human rights policy and incorporating it into our supply chain program, we can use our purchasing power for good.

Human Rights Policy

Our [human rights policy](#) clearly defines the high standards we have for our operations and our supply chain materials produced globally. It honors the freedoms outlined in the UN's Universal Declaration of Human Rights, upholds the UN's Guiding Principles on Business and Human Rights and provides common language and action steps to protect these rights. Our Code of Business Conduct and Ethics also defines the responsibilities that all Chesapeake employees share in protecting human rights and reporting violations through our ethics helpline.

Layers of Human Rights Protection

- Follow all federal and local laws
- Adopted a human rights policy
- Review annually our Code and human rights policy
- Incorporate our human rights policy into our supply chain program
- Manage our suppliers against our human rights expectations
- Promote our ethics helpline for human rights violations reporting
- Investigate and act on any human rights violations

We apply our human rights policy consistently across our operations, holding all suppliers to the same comprehensive criteria. We include our human rights standards as part of our supplier qualification program, and suppliers found in violation of our Code or human rights policy may be disciplined or terminated.

Our Board's ESG committee has ultimate oversight over the management of our human rights policy. All relevant reports of unethical business conduct — including any perceived violations or investigations into human rights abuses — are shared with the Audit committee and, if appropriate, the ESG committee.

0

Reported human rights violations through our ethics helpline in 2020

0

Proved or probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index

Indigenous Rights

Our human rights policy applies to our treatment of Indigenous peoples. We recognize that Indigenous peoples have unique rights and needs that we learn through respectful listening and partnership.

Specific to our operations, we're most likely to partner with Native Americans in producing U.S.-based oil and natural gas. While we don't have any active operations on tribal lands, we recognize the potential for future partnerships if our asset base expands to certain locations across the country.

Should we become involved with tribal lands, we're committed to a mutually beneficial relationship focused on economic development, community investment and cultural preservation. We'll develop these relationships through early engagement with tribal representatives, transparent business interactions and by following applicable laws and policies.



Committed to Our Communities

We recognize the opportunity we've been given — to be both a neighbor and an operator on someone's land — and we approach this role focused on safety, stewardship and partnership. We commit to responsible operations while working to strengthen the areas where we do business.

Strengthening the Communities We Call Home

Delivering on our business strategies provides a financial benefit to our shareholders and economic support to our communities. Our operations foster economic development through job creation, capital investment, tax revenue to municipalities and payments to our royalty and surface owners.

From 2016 through 2020, we paid nearly \$1 billion in taxes. These funds helped facilitate infrastructure projects, education and safety services.

In Pennsylvania, we also pay an annual "impact fee" that includes funds from natural gas operations and allocates a percentage to municipalities where we do business. Municipalities choose how to spend these funds according to 13 "purposes" outlined by the state's [Act 13](#). The remaining percentage of fees is distributed across all counties to be used for environmental initiatives.

2020 Taxes and Payments

\$200M

In taxes

\$935M

In royalty payments

>\$14M

In Pennsylvania impact fees

Preparing First Responders

Partnering with local emergency responders is important to our safety efforts and community engagement. Many of our operations are served by rural, often volunteer, fire departments. Given their limited resources, it's especially important for these departments to know what to expect in an emergency and to have knowledge of oilfield incident response. Chesapeake has a first responder outreach program to educate emergency responders on the lifecycle of a well and what they might expect should an incident occur.

Philanthropy and Volunteerism

Being a responsible operator means helping our neighbors. We strive to create sustainable, beneficial impacts by partnering with communities and investing in projects that align with local needs and business priorities. We accomplish this in several ways.

Charitable Donations	In-Kind Support	H.E.L.P. Initiative	Mentoring
Supporting organizations that align with our core values and business strategies	Donating advertising space and out-of-office resources	Connecting employees with local volunteer needs to create positive change in our communities	Partnering employees with local students to encourage academic success and build self-esteem

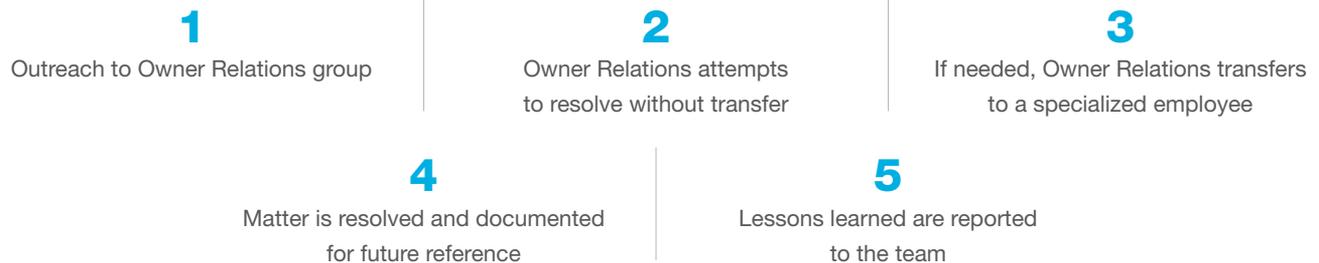
Partnering with Our Owners

Operating on someone's land is a responsibility Chesapeake takes seriously. We work to build long-term relationships with our royalty and surface owners through transparent communication and accessibility.

Critical to this commitment is active listening and two-way communication. Multiple groups across Chesapeake (including Land, Corporate Communications, Field Service Operations, and Health, Safety, Environment and Regulatory) work together to address questions and concerns of our royalty and surface owners.

In addition to these teams of employees, we offer our Owner Relations department as a central information hub for owners. Owners may call or email this group about topics such as lease agreements, payments and production.

Owner Relations Engagement Process



It's our goal to meet owner needs efficiently, often with one phone call or email. Our Owner Relations team receives comprehensive training to listen effectively and respond with the needed resources.



In 2020, the Owner Relations group responded to more than 48,500 owner interactions.

When our Owner Relations team is contacted, we track the interaction through a system that allows us to document the nature of the communications and assign specialized employees for response, if necessary. The program creates accountability across our organization, enabling Owner Relations team members and business unit supervisors to monitor the timeliness of our communications, report lessons learned and improve our processes.

Should an owner choose to access the Chesapeake website, there's a [dedicated page](#) for owner information including FAQs and important documents in English and Spanish.

Pennsylvania Royalty Owner Update

In March 2021, Chesapeake and our affiliates reached comprehensive settlements with the Pennsylvania Attorney General's Office and in class-action lawsuits brought on behalf of local oil and gas lessors for royalty-related claims. Moving forward from this legacy dispute provides an important opportunity to rebuild relationships with lessors, and we're squarely focused on strengthening our partnerships in Pennsylvania.

Because the dispute and subsequent settlements are complicated, Chesapeake created a website where Pennsylvania lessors can access the most up-to-date information regarding next steps. In addition to monetary relief, Pennsylvania owners are permitted to make a one-time election to determine how their royalties will be paid in the future. Options include in-basin pricing with no post-production costs deducted from their royalties, or out-of-basin pricing with the costs of getting the gas to other markets deducted from the proceeds. The goal is to provide greater transparency and afford owners more control over their payments.

To further create a positive working relationship in Pennsylvania, we're partnering with community members and local officials to host informational events to discuss our operations and encourage two-way communications. Also, our employees continue to be involved with philanthropic efforts, volunteering for nonprofit organizations like 4-H and helping with local community events.



In July 2021, several members of the Chesapeake team volunteered at The Children's House Child Advocacy Center in Towanda, PA.

The company also made a monetary donation for the program's "Camp Connection in a Bag," which supports children who have endured trauma from child abuse. Chesapeake employees helped to fill 400 bags with frisbees, ice cream vouchers, water bottles and other therapeutic items.



Charitable: Fueling Our Communities

Our core values drive us to be responsible members of the communities where we operate, including partnering with nonprofit organizations to strengthen the places we call home. Our support aligns with four charitable categories that honor our core values and allow us to invest in organizations that meet local needs.

Charitable Donation Pillars

STEM Education

Emergency &
Disaster Response

Environment

Community
Development

If an organization falls into one of our four giving categories, is a 501(c)(3) certified organization or accredited educational institution and operates in an area where we do business, they may apply for assistance. Organizations can request either in-kind (services or materials such as advertising, vehicles and office equipment) or financial donations.

Our charitable guidelines prohibit us from supporting individuals and certain types of organizations, causes and fundraising activities. These include:

- Religious or partisan causes
- Fraternal organizations, including college fraternities and sororities
- Sports teams
- Fundraising runs, walks or galas
- Golf or other sporting tournaments
- Advertising solicitations

If you would like to request a donation, please email community@chk.com. Requests are reviewed on a regular basis and response times may take up to three months depending on the review cycle.

A United Way Partner

In tandem with our charitable giving program, we host annual companywide fundraising campaigns to benefit local United Way chapters. Through a variety of employee-driven activities and events, our corporate campus and field offices raise awareness and collect donations for the organization and its beneficiaries.



In the last 10 years in Oklahoma City, Chesapeake and our employees have combined to donate more than \$25 million to the United Way of Central Oklahoma.

Employee Volunteerism

At Chesapeake, community involvement means more than just a financial donation. Our engagement is built upon intentional partnerships with nonprofits, sharing both our resources and the power of our people.

Through our H.E.L.P. (Helping Energize Local Progress) Initiative, we actively seek partnerships and volunteer opportunities that create a sustainable impact in the areas where we live. Showcasing the power of One CHK, our employees give their time generously, either individually or as larger groups.



Employees may use four hours of company time per year to volunteer at the nonprofit of their choice.

A cornerstone of our H.E.L.P. Initiative is the Chesapeake Mentoring Program. For more than 25 years, the program has paired employees with Oklahoma City students for weekly mentoring. Employees spend quality time with students during scheduled visits, encouraging academic performance, building self-esteem and helping instill responsibility.

Although the pandemic impacted our ability to mentor in-person, we identified other ways to support our partner schools and their students. From virtual mentoring to in-kind donations, we continue our educational relationships until it's safe for us to be in the classroom again.

Our employees — including members of our executive leadership team — also share their time, resources and business acumen by serving as board members for many of our nonprofit partners. Due in part to our employees' leadership, countless organizations continue to strengthen and expand the services they offer to our communities.



Environmental Management: Stewards of the Environment

Chesapeake is committed to respecting natural resources in our operations, reducing our environmental footprint and complying with all applicable laws and regulations. Environmental stewardship is a core value — foundational to who we are and how we operate.

2020 Environmental Performance

0.13%
Methane intensity

100%
Of wells reported to FracFocus

0.004
Net spill intensity rate

Nearly 120 million
Gallons of produced water recycled or reused

Our Health, Safety, Environmental and Regulatory (HSER) management system provides the planning and accountability needed to support our commitment to environmental excellence. Through this system, we focus on four categories — planning and prevention, process and implementation, performance evaluation and improvement, organization and leadership — each with an accompanying strategy and steps to translate words into action. From fostering a sustainable culture to promoting employee ownership of HSER issues, our HSER management system proactively identifies and manages risk across our organization for the safety of our people and stewardship of the environment.

HSER Management System Goals

<p>Safety of All</p> <p>Protecting our people is our first priority. We will never put our operations above the safety of our employees, partners or neighbors.</p>	<p>Protection of Natural Resources</p> <p>We commit to protect and care for the environment and comply with all applicable laws and regulations as part of our daily operations.</p>
<p>Operational Excellence</p> <p>We strive for excellence, move quickly to rectify any HSER problems associated with our operations and address any issues that arise.</p>	<p>Commitment of Company Resources</p> <p>We provide the human, physical and financial resources to achieve our HSER objectives, and we expect our partners to do the same.</p>
<p>Support of Industry Regulation</p> <p>We support science-based regulation at the appropriate level of government that helps ensure oil and natural gas wells are drilled, completed and produced safely and responsibly.</p>	<p>Continuous Improvement</p> <p>We continue to evaluate evolving environmental protection measures with the goal of improving our operating practices and further reducing our environmental footprint by using the latest technologies and operational procedures.</p>



Responsible Operations: Environmental Protection at Every Operational Stage

During the drilling phase, multiple layers of protective steel casing, surrounded by cement, are installed to protect freshwater aquifers and other natural resources. We engineer our wellbore design to prevent the migration of produced fluids and hydrocarbons. We also work with regulatory agencies to ensure we meet or exceed guidelines for wellbore construction. These guidelines often vary by jurisdiction in response to each state's unique geology.

Systematic monitoring takes place during drilling to safeguard the well for environmental and economic reasons. Each well is monitored by both the Drilling team on-site and our Operations Support Center (OSC) based in Oklahoma City. These teams work in tandem to monitor data and alerts, to help ensure drilling and wellbore construction accuracy.

One example of the importance of this monitoring is when drilling occurs near an offset well. It's Chesapeake's practice to conduct an anti-collision analysis prior to drilling to minimize the risk of interacting with a nearby well. Should our acreage be adjacent to that of another company, we coordinate with the neighboring company to identify its well locations and align our activity schedules.



Completions

After preparing the well during the drilling stage, we utilize hydraulic fracturing to stimulate and recover oil and natural gas resources. We employ the use of hydraulic fracturing technology for all wells and are committed to industry best practices in well integrity and chemical use.

We take a proactive approach to reducing or replacing the chemicals used in our hydraulic fracturing process through our GreenFrac[®] initiative. GreenFrac challenges Chesapeake engineers to evaluate the necessity of each chemical additive and determine if a more environmentally friendly option could be used.

In many of our operating areas we've implemented high-viscosity friction reducers, which largely eliminate the need for gelled fluid systems. In the Eagle Ford Shale, Brazos Valley, Powder River Basin and Haynesville Shale, we use crosslink systems only when needed.

Since 2011, Chesapeake has not used diesel, a common fuel and carrier solvent known to contain BTEX, in any concentration within our hydraulic fracturing chemistries.

FracFocus

For further transparency around the hydraulic fracturing process, we disclose the ingredients contained within completion fluids to state regulatory agencies and to the public on [fracfocus.org](https://www.fracfocus.org). FracFocus, a web-based registry with support from the U.S. Department of Energy, provides detail on completion process additives, chemicals and the amount of water used, as reported by oil and natural gas operators. Chesapeake was an early supporter of FracFocus, championing the site and contributing to its development.

When reporting to FracFocus, Chesapeake utilizes information supplied to us by our vendors in the form of Safety Data Sheets (SDS). The Occupational Safety and Health Administration (OSHA) governs the information that's supplied on the SDS and, in certain situations, allows a manufacturer or vendor to withhold specific information about a chemical or substance to protect confidential business information (CBI) or proprietary trade secret information. However, the manufacturer is required to report all pertinent health hazard warnings associated with any ingredient declared as CBI.

We encourage our additive suppliers to be as transparent as possible regarding the composition of their products. For example, we support our service providers reporting both the actual additives used in their hydraulic fracturing operations and, separately, the individual chemistries contained in the additives. Companies can enhance reporting transparency and maintain formulation confidentiality by keeping individual chemicals separate from their respective additives.

Since February 2011, we've reported on 100% of our well completions to FracFocus, a total of more than 7,600 disclosures.

Wellsite Integrity

Throughout a well's lifecycle, protecting both the wellbore and the pad site is paramount. Chesapeake utilizes a supervisory control and data acquisition (SCADA) system for monitoring different aspects of a well's performance during its life stages. Through a series of sensors on or near the well and its accompanying facilities, SCADA collects data that's monitored by our OSC employees.

SCADA Monitoring

- Pressure in wells and surface vessels
- Liquid levels in tanks
- Open/closed valve positions
- Well downtime
- Mobile SCADA — application used to access SCADA data on mobile devices

Should data indicate a potential concern, OSC team members alert field employees to investigate. Our proprietary WellTender mobile application also uses this site-sensor data.

WellTender acts as a dispatch system, automatically delivering alarms directly to the field, including downtime-related notifications. Lease operators, as the end users, receive a list of prioritized wells, allowing them to investigate and address issues more efficiently.



Not only does WellTender prioritize well visits, but it makes data available to most team members. In the past, lease operators could only review their personal routes via mobile technology. With WellTender, if a lease operator is out of the office, another team member can assume their priority wells.

Launched in 2018, the app is now used across all business units. As the application collects more data, there's an opportunity to analyze inputs to determine if predictive patterns exist and identify potential risk factors.

Inactive or Abandoned Wells

During a well's lifecycle, it may become necessary to temporarily abandon or to plug and abandon (permanently close) a well due to its economic viability. An industry term, "abandon" is a comprehensive process that could include either temporarily shutting in a well or plugging the well with approved materials, cutting off any casing and sealing the well.

Each state regulates this process uniquely, and Chesapeake follows applicable rules when managing inactive wells. Specific to each state, many regulations require a series of cement plugs placed inside the wellbore, across any hydrocarbon-bearing formations and freshwater aquifers. Testing is also often required to confirm there is no escape of hydrocarbon-containing materials.



Preventing Spills

Preventing spills is one of our key performance objectives — a goal that drives accountability across all employee levels.

For seven years, our compensation was tied to reducing our reportable spill count; however, in 2021, our Board of Directors redefined our spill performance metric to be a net spill intensity rate.

We calculate our net spill intensity rate by taking the ratio of liquids spilled outside of secondary containment (and not recovered) to total liquids produced. By focusing on net spill intensity, we shift our emphasis from reducing the number of spills to reducing the volumes released. This allows for a more accurate, year-over-year comparison and incentivizes reducing the environmental impact of spills.

Our 2020 net spill intensity rate was 0.004. This is our first time reporting this metric and we commit to reporting this year-over-year in the future.

2020 Spill Metrics

In 2021, we further enhanced our spill reporting to align with SASB's Oil & Gas accounting metric, defining a spill as greater than 1 barrel outside of secondary containment.

Metric	# of Spills	Total Barrels	% Recovered
Hydrocarbon spills >1 bbl outside of secondary containment	41	312	72%
Non-hydrocarbon spills >1 bbl outside of secondary containment	39	626	33%

In 2020, we handled more than 169 million barrels of liquids, including freshwater, produced water and oil, and contained more than 99.99% of these liquids. Although we consider this rate to be successful, our goal is always zero spills.

Spill Prevention Programs

Employees from our HSER teams collect and analyze spill data, identify spill causes and collaborate to implement operational design improvements to prevent spills. Our prevention efforts focus on several primary spill causes, including human error when transferring liquids, weather, corrosion and equipment failure. To safeguard our operations, we implement a number of proactive prevention programs.

Integrity management	Secondary containment	Regular maintenance and repair	Monitoring
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Integrity Management

Our integrity management efforts use technology and innovation to proactively identify and mitigate equipment corrosion. Over time, environmental conditions and produced water can corrode steel equipment, particularly tanks, valves, pipes and gathering lines. Our company-design standard requires new steel storage tanks to be internally coated to resist corrosion and built according to API standards. To ensure our design specifications are met, Chesapeake periodically visits and inspects tank manufacturer operations.

To further safeguard our tanks and heater treaters, we encourage the use of anodes — pieces of sacrificial metal that corrode first and protect the integrity of our equipment. Sacrificial anodes are monitored and replaced periodically as part of our prevention initiatives. Chesapeake also utilizes cathodic protection, which operates similarly to sacrificial anodes, to protect buried equipment including flow lines and pipelines.

In addition to internal protection, steel tanks are externally coated with a protective primer and paint layer and placed on gravel rings or other elevated bases to limit corrosion from standing rain or surface water. We also use ultrasonic testing to measure wall loss on equipment so it can be repaired or retired when appropriate.

Specific to our Marcellus operating area, we use double-walled fiberglass tanks for produced water storage. Unlike steel, fiberglass is naturally impervious to corrosion and the double-wall design eliminates the need for secondary containment. The Appalachia area receives significant precipitation that can gather in secondary containment and cause external corrosion or wear if not properly monitored. Chesapeake installs a water monitor in the interstitial area between the walls to ensure the integrity of the tank.

Secondary Containment

Secondary containment for storage tanks is a facility design standard and key to our spill prevention efforts. On all Chesapeake constructed facilities, impervious containment is required around tanks to capture any fluid that could escape primary containment. Secondary containment consists of steel walls layered with a polyurea coating or other acceptable materials designed to last the lifetime of the facility.



Maintenance and Monitoring

Early detection of corrosion is key to mitigating risk, and our operational staff receive training on how to identify corrosion as part of their routine field equipment inspections and maintenance. Production lines, vessels and tanks are regularly monitored through a corrosion chemical management program. Although most of our producing wells are treated with a liquid corrosion inhibitor, regular inspections help to determine whether corrosion has been mitigated or if further treatment is needed.

In addition to these inspections, our tank fluid-level sensors alert employees if tank levels change unexpectedly, indicating the potential for a leak. If such an instance arises, we either repair the corroded area or replace the equipment. As an additional precaution, our Operations team conducts reviews of near-miss incidents to identify causal factors and any necessary mitigations.

Spill Response Team

If a spill occurs, we're prepared to respond efficiently with a comprehensive, cross-functional team including Operations, Emergency Response and Environmental employees. When activated, this team focuses first on safety, then on environmental protection and regulatory compliance.

Operations	Emergency Response	Environmental
<ul style="list-style-type: none"> • Secure site for public safety and protection of on-site personnel • Collect initial information • Determine appropriate level of resources needed • Initiate containment measures and control the spill 	<ul style="list-style-type: none"> • Initiate emergency response plan and procedures tailored to the incident's severity level • Establish an incident command system with response experts on location, as needed based on severity level • Unify command with outside responders, as needed based on severity level 	<ul style="list-style-type: none"> • Notify the appropriate parties, including regulatory agencies and landowners if needed • Develop a spill delineation plan • Review data, develop a remediation plan • Conduct remediation activities • Confirm remediation and request regulatory closure

Each week, Senior Operational and HSER leaders review company incidents, including environmental spills, to ensure corrective actions are complete and to identify opportunities for continuous improvement.



Preserving Air Quality, Reducing Emissions

To help sustain air quality and reduce emissions, Chesapeake announced a series of corporate goals and actions to achieve net zero direct greenhouse gas (GHG) emissions by 2035.

Goal	Net zero direct GHG emissions by 2035
Pathway to Achievement	<ul style="list-style-type: none"> Eliminate routine flaring on all wells completed from 2021 forward (enterprise-wide by 2025) Reduce methane intensity to 0.09% by 2025 (volume methane emissions/volume gross natural gas produced) Reduce GHG intensity to 5.5 by 2025 (tCO₂e/gross mboe produced)

To achieve our pledges and reach our goal of net zero emissions, Chesapeake takes a thoughtful, integrated approach.

A Responsible Approach to Reducing Emissions

Innovation	Best Practices	RSG Certification	Research	Policy
Identify and adopt technology to drive down our emissions profile	Reduce emissions through facility design, routine inspections, monitoring, data efficacy and field-level training	Certify production across two major shale basins (first operator to do so); continue expanding learnings to other assets	Participate in scientific research to better characterize air pollution, GHG emissions and climate implications	Collaborate with government organizations and other stakeholders for science-based regulation

Compliance

Chesapeake's robust air program has regulatory compliance at its foundation. We utilize an electronic compliance management system that allows task tracking, report generation and emissions calculations to facilitate compliance with state and federal requirements, as well as integration with maintenance tasks and inspections with field employees.

Regulations are specific to the sources and pollutants emitted. At the federal level, the National Emission Standards for Hazardous Air Pollutants and the New Source Performance Standards are EPA rules and regulations that govern our operations. Each state has its own regulations, many of which require emissions inventories that account for the amount of pollutants released into the atmosphere.

We support science-based regulation of our operations, including the federal regulation of methane that we believe promotes natural gas as an integral part of a lower carbon future.

To ensure awareness of site emissions compliance, Chesapeake's Air Permitting and Compliance team developed on-site training for field staff. During this training, our Air team meets with operators in the field, walking them through facilities to identify emissions sources and ensure we meet operational and record keeping emissions requirements. To date, approximately 225 field employees and contract operators have participated in the training.

Smart Design Reduces Emissions

Although operational compliance is the fundamental goal of our air program, we also voluntarily implement measures to reduce air emissions from the inception of our facility design.

Emissions Reduction and Management Practices

- Automatic tank gauging
- Increased pipeline infrastructure (reduced truck traffic)
- Leak detection and repair (LDAR)
- Preventive maintenance practices
- Solar- and wind-powered equipment
- Electric distribution systems
- Pneumatic controller emissions reduction
- Elimination of high-bleed pneumatic devices
- Remote facility monitoring and shut down
- Vapor recovery
- Use of diesel-alternative fuels
- Green completions

Chesapeake is piloting the use of internally coated pipe in areas with increased potential for corrosion. We're evaluating whether operational and maintenance issues, such as scale build-up, are reduced when this internal coating is applied. We're also studying whether this application results in better overall system performance, which leads to enhanced emissions reduction and lowers maintenance costs.

Monitoring and Maintenance

Regular site inspections are an important step to identify potential emissions events. Our field staff visit production sites routinely, conducting on-site monitoring for air emissions and logging data in Chesapeake's proprietary WellTender mobile application. Key site sensor data is tracked through the app, and if a data input is outside normal operating and environmental parameters, the app alerts the lease operator.

In addition to monitoring, regular maintenance can reduce emissions. We initiate and manage maintenance activities through our Enterprise Asset Management software application. This program allows for the centralized management of equipment and asset data and offers a standardized work order system. Creating such consistency across our operating areas enables increased visibility and accountability for maintenance activities. It also provides data for trend analysis and preventive improvements to our sites.

Innovative Transportation Solutions

For safety and environmental purposes, we utilize pipelines for natural gas, oil and water transportation when possible. Across our operations, we're building an extensive pipeline network to move freshwater and produced water. Aside from promoting [water reuse](#), dedicated water pipelines reduce truck traffic and tailpipe emissions.

If pipelines are not available or feasible for economic or logistic reasons, we've developed other innovative solutions to limit trucking and reduce transportation emissions. In South Texas and Wyoming, Chesapeake designed and implemented central production facilities (CPFs) that use a pipeline-gathering system to bring the production of multiple pads into a single facility. Not only do CPFs reduce surface, wildlife and air impact through reduced equipment counts, they increase equipment reliability and product stream volumes, enabling additional natural gas to be captured and sold.

Flaring

Eliminating routine flaring, the flaring of natural gas at the primary separator during normal operations, is a key step to achieving net zero GHG emissions by 2035. Chesapeake is committed to finding solutions for our associated gas and venting volumes through innovation, pilot projects and enhanced design and development of our equipment.

Flaring Reduction Practices

- Working with gas-gathering companies to minimize flaring due to operational upsets
- Capturing emissions through vapor recovery units that direct vapors into a natural gas sales line
- Designing facilities to reduce or eliminate flaring from tanks
- Using produced gas as on-site fuel and for artificial lift
- Securing natural gas sales infrastructure or evaluating mobile solutions to prevent emissions
- Setting sales equipment before a well is ready to produce to minimize or eliminate flaring during start-up

Through strategic planning, innovation and partnerships, we'll eliminate routine flaring from wells completed in 2021 and across all operations by 2025.

2020 Routine Flaring Metrics

Metric	2020
Gross annual volume of flared gas (mcf) ⁽¹⁾	711,934
Flaring intensity – gross annual volume of flared gas (mcf) / gross annual production (mcf)	0.05%
Flaring intensity – gross annual volume of flared gas (mcf) / gross annual production (boe)	0.002

In some circumstances, we may need to flare primary gas for safety reasons. These events are not included in our flaring elimination commitment because they're considered non-routine according to the World Bank Group's definition.

Leak Detection and Repair (LDAR)

Oil and natural gas equipment can develop leaks despite regular maintenance and the requirements imposed by state and federal regulations. These leaks can release methane and volatile organic compounds (VOCs) into the atmosphere.

Chesapeake utilizes two primary methods — infrared cameras and regular on-site inspections — to identify leaks at our wellsites. Forward-looking infrared (FLIR) cameras allow field technicians to visualize leaks that may not be detected by unaided senses, as well as help pinpoint the source of the leak to direct specific maintenance activities.

While many of our FLIR inspectors and staff are certified through the Infrared Training Center, a national organization with thermal imaging expertise, Chesapeake also developed an in-house certification program focused on oil and natural gas operations. Both trainings teach optimal inspection techniques and how to determine root causes of leaks and may include shadowing experienced FLIR inspectors.



Most of our FLIR inspectors have lease operator experience or other suitable training, giving them the knowledge and authority to repair certain leaks immediately.

FLIR Monitoring Program

Detect	Repair	Record
<ul style="list-style-type: none"> 14 certified inspectors 13 FLIR cameras 3,688 FLIR inspections 	<ul style="list-style-type: none"> More than 80% of leaks repaired within one day of detection Leaks are repaired before the regulatory deadline, 2.5 days on average Sites are re-inspected after repair Common leak causes: Loose valves or gaskets that no longer seal properly Leak trend analysis drives preventive maintenance and future inspections 	<ul style="list-style-type: none"> Companywide system schedules inspections and records details for each leak and repair Robust monitoring system allows for compliance assurance
<p>Chesapeake complies with state and federal LDAR regulations, conducting leak detection surveys at the prescribed frequency. This commitment includes inspecting sites within 60 days of a new producing well.</p> <p style="text-align: center;">As of Dec. 31, 2020</p>		

The importance of targeted leak detection has led Chesapeake to voluntarily survey a number of our sites, exceeding regulatory requirements. We utilize a risk-based approach to determine which sites should be voluntarily inspected. In addition to FLIR camera surveys, our field staff regularly conduct audio, visual and olfactory (AVO) inspections when visiting their well sites.

FLIR Inspection Schedule

Play	Regulatory Requirements	Assigned FLIR Inspectors
Brazos Valley	Federal (semiannual) and state (quarterly)	1
Eagle Ford Shale	Federal (semiannual) and state (quarterly)	2
Haynesville Shale	Federal (semiannual)	2
Marcellus Shale	Federal (semiannual) and state (quarterly)	2
Powder River Basin	Federal (semiannual) and state (quarterly)	1

Of the sites we surveyed in 2020, more than 31% were inspected voluntarily.

Continuous Methane Emissions Technology

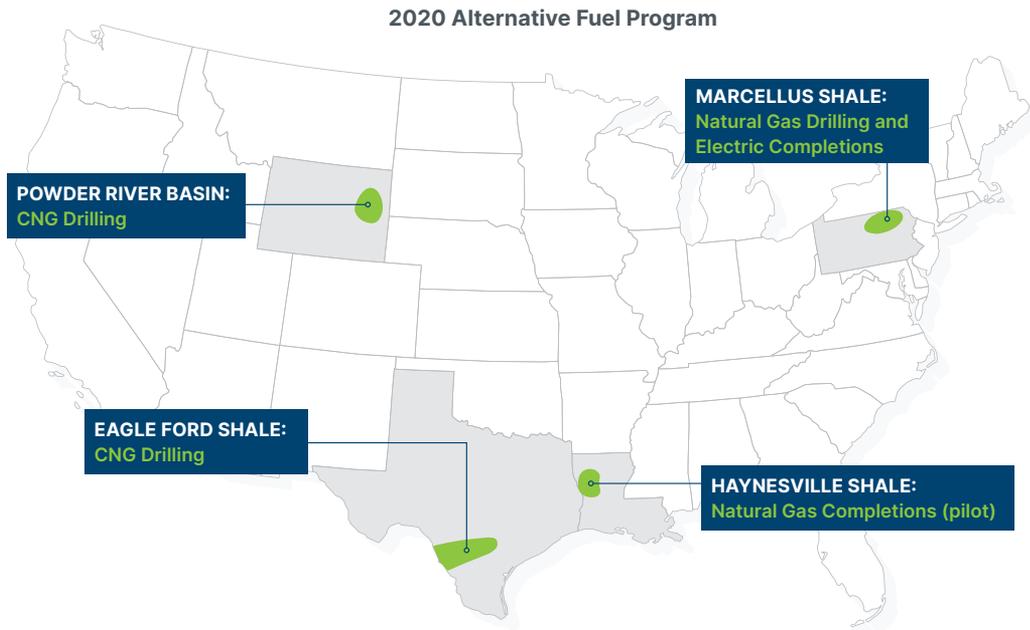
We continue to evaluate new technologies that could improve leak detection, including monitoring equipment currently in market development. Through our [RSG](#) certification efforts, we've deployed continuous fixed methane monitors at more than 50% of our production locations, representing more than 50% of the production in the Haynesville and Marcellus shales. In the Eagle Ford, Chesapeake is piloting a portable methane monitor capable of identifying and quantifying released volumes in real time.



In our Haynesville operating area, we utilize Scientific Aviation's SOOFIE continuous methane monitoring technology to detect emissions at our production sites.

Alternative Fuels

Operating on diesel-alternative fuels reduces both emissions and waste and provides cost savings for the company. Across Chesapeake-operated areas, we have a number of alternative fuel source capabilities.



In 2020, we powered approximately 25% of Chesapeake-operated rigs with diesel-alternative fuels. As a result, we reduced our use of diesel fuel for drilling by more than 400,000 gallons.

Electric Frac Fleet

In 2021, we completed our first Marcellus Shale well using an all-electric fracturing spread. Leveraging Chesapeake's local field gas network for 25 megawatts of lower carbon power generation, we reduced on-site emissions by 32%.

Because of this successful deployment, Chesapeake will continue to implement electric fracturing across the Marcellus with potential expansion to the Haynesville Shale by year-end 2022. Electric fleets will displace 100% of Chesapeake's associated diesel consumption during the stimulation operation, resulting in lower GHG emissions and reduced noise.

The use of an electric fleet in our Marcellus operating area alone could displace up to 4.4 million gallons of diesel per year.

The Environmental Partnership

In 2017, Chesapeake joined [The Environmental Partnership](#), a coalition of nearly 90 U.S. oil and natural gas companies working together to improve the industry's environmental performance through collaboration and knowledge sharing.

The partnership has focused on reducing emissions as a primary industry goal and established six separate Environmental Performance Programs for participating companies to phase into their operations. We support these programs and their goal of reducing emissions through the adoption of cost-effective technologies.

The Environmental Partnership Emissions Reduction Programs

Pneumatic Controller Program Replace, remove or retrofit high-bleed pneumatic controllers	Manual Liquids Unloading Program Minimize emissions during removal of liquids	Leak Detection/Repair Program Timely repair of leaking equipment
Compressor Program Implement various compressor emission reduction practices	Pipeline Blowdown Program Reduce emissions during pipeline blowdowns	Flare Management Program Reduce domestic high pressure flaring of associated gas



Responsible Water Management

Water is essential to both our communities and the future of energy development, making our commitment to water sourcing and water stewardship critical. We use water during two key operational stages – drilling and completions – and our water use varies according to the geology and the specific drilling and completion plans engineered for each well.

In 2020, we used approximately 61 million barrels of water, a water efficiency rate of 0.18 bbl/EUR boe.

2020 Freshwater Intensity and Freshwater Sources⁽¹⁾

	Brazos Valley	Eagle Ford Shale	Haynesville Shale	Marcellus Shale	Powder River Basin
Freshwater consumed (bbl)	15,065,339	15,048,936	7,401,730	19,754,287	1,570,177
Freshwater Intensity Rate (bbl/EUR boe)	1.68	0.61	0.14	0.08	0.23
Freshwater Sources (%)					
River			15%	95%	95%
Pond/Creek		81%			
Private Water Well	85%	100%	4%	3%	5%
Municipal	15%			2%	

(1) In accordance with the U.S. Geological Survey, freshwater is defined as water that has less than or equal to 1,000 mg/l total dissolved solids.

Chesapeake works to responsibly manage our water, both in sourcing and usage. Whenever possible, we use non-potable water sources for our drilling and completions needs, sourcing from private landowners, municipalities, regional water districts and river authorities. We work closely with federal, state and local agencies to evaluate and permit our freshwater usage.

Monitoring for Water Scarcity

Some of our operating areas, such as the Eagle Ford Shale and Powder River Basin, periodically experience varying levels of drought or water scarcity. We monitor drought level indications as published and updated quarterly by the U.S. Geological Survey (USGS) and through the World Resources Institute's Aqueduct Water Risk Atlas.

In 2020, 2% of our total freshwater used was sourced within a region classified as high or extremely high water-stress area.

Pipelines and Water Recycling

Whenever possible, we use pipelines to transport produced water. Using water pipelines:

- Reduces operational costs and complexities
- Minimizes truck traffic, and the associated road wear, on local roads
- Eliminates tailpipe emissions
- Utilizing water pipelines also encourages water reuse by allowing the transfer of produced water between sites. While produced water may be considered waste from one operational activity, it can be used as a freshwater alternative at a different site performing a different function.

Chesapeake was one of the first of our peers to have a dedicated water recycling program, and we continue to improve our recycling efforts. We nearly doubled the amount of water recycled from 2019 to 2020 and are committed to 100% produced water recycling or reuse in the Marcellus Shale. Additionally, we sometimes take produced water from other operators in the Marcellus and recycle it for our own operations.

In 2020, we transferred 6.68 million barrels of produced water through pipelines, removing the need for 56,597 truckloads to drive on local roads. This is the equivalent of nearly 850,000 vehicle miles.

In 2020, Chesapeake recycled nearly 120 million gallons of produced water.



Sharing Key Learnings

We're a founding member and active participant in the Energy Water Initiative (EWI) — and several regional water committees — to further improve our water stewardship efforts. Through EWI, we collaborate with our peers to share key learnings, innovations and best practices to improve lifecycle water use and management.

Chesapeake also jointly hosts conference calls twice a year with the Environmental Defense Fund. These calls are attended by representatives from academia, state and federal governments, NGOs and our industry to discuss and promote emerging topics, issues and studies related to the management and reuse of produced water.

Protecting Water Resources

Protecting ground and surface water is integrated into our daily operations. Our site assessment program creates consistent procedures to protect water and other environmental receptors when constructing new locations or conducting maintenance at existing locations.

Once we select a location to build a production facility, we take additional steps to protect ground and surface water during our operations. For example, during drilling we install three to five layers of steel well casing and cement that reinforce the integrity of our wells.

Water Management Best Practices

<p>Water Acquisition</p> <ul style="list-style-type: none"> • Seek to use non-potable water first • Permit withdrawals from freshwater sources • Certify the environmental and safety performance of all suppliers before work • Comply with local, state and federal regulations 	<p>Well Planning and Construction</p> <ul style="list-style-type: none"> • Conduct thorough site assessment, including wetlands and floodplain delineations • Perform baseline water quality assessment in all operating areas • Install 3–5 layers of steel well casing and cement for well integrity • Incorporate secondary containment • Comply with local, state and federal regulations
<p>Storage and Transportation</p> <ul style="list-style-type: none"> • Store produced water in API-certified tanks made of either steel or fiberglass • Coat tanks and use sacrificial anodes to resist corrosion • Transport by pipeline when and where feasible • Comply with local, state and federal regulations 	<p>Recycle, Reduce or Dispose</p> <ul style="list-style-type: none"> • Recycle produced water and evaluate freshwater use alternatives • Transfer produced water via pipelines, when possible • Participate in peer committees and academic research to increase knowledge and improve water stewardship efforts • Comply with local, state and federal regulations

Water Sampling

Chesapeake has developed a robust approach to groundwater protection throughout our operating areas, including pre- and/or post-drill water quality sampling as appropriate. We comply with state regulations and lease obligations that require sampling, and we conduct risk-based sampling to further safeguard ground and surface water during operations.

Independent, third-party consultants collect landowner water samples near our production sites, which are then analyzed by a state or nationally accredited laboratory. We test water supplies for a predefined set of parameters, including general water quality indicators, biological parameters, metals, dissolved gases and petroleum constituents. Landowners receive an analytical data package that includes fact sheets, links to appropriate state environmental agency websites and the EPA Water Systems Council WellCare Hotline.

Of our five operating areas, we sample water sources at least six months prior to drilling activities in the Marcellus Shale and the Powder River Basin. In the Eagle Ford Shale, Brazos Valley and Haynesville Shale, we use a risk-based approach to inform pre-drill water sampling with risk analysis performed at least three months before beginning drilling operations.

Post-drill water sampling is not required in most of our operating areas, except for the Powder River Basin, where we adhere to state regulations requiring subsequent water testing 12 to 24 months after setting production casing, with follow-up samples taken again 36 to 48 months after the original test. Post-drill sampling also occurs based on lease requirements or risk-based need in all our operating areas.

Once results are analyzed and shared with the landowner and regulatory bodies, where required, we store the results in an electronic data management system. This extensive water quality database, coupled with our operational knowledge, aids our decision-making on where and when to sample in the future.

In total, we've acquired more than 42,000 water samples to increase our understanding of the water quality in the areas where we operate.



Seismicity

Seismicity, and its correlation in certain locations to injection wells and completion activities, is the topic of several ongoing scientific studies. Chesapeake supports science-based research on this subject, including research conducted at [Stanford University's Center for Induced and Triggered Seismicity](#) to study the potential processes that may induce seismicity and to develop a framework for risk assessment and management.

To further support research on this issue, Chesapeake has shared the company's operational seismic data with Stanford and the Oklahoma Geologic Survey. The [Oklahoma Geological Survey](#) has used this data to depict faulting more accurately in the geological substrate, and to build maps to better educate industry about potential induced seismicity concerns.

We follow applicable federal laws when utilizing injection wells, as well as state regulations specific to each of our operating areas. We also have robust internal standards for well-siting and the safe injection and disposal of produced water.



Biodiversity: Stewardship from the Start

We consider stewardship from the start of our operations, adopting a site-assessment standard based on applicable federal and state regulations.

Site Assessment Protection Areas

Aquatic Resources and Floodplains	Historical and Cultural Resources	Community Impact	Biodiversity
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Before starting construction, we carefully assess the varying aspects of a proposed location, from its geography and topography to the potential existence of sensitive wildlife habitat, cultural resources, residences and other public-occupied sites. Protection of the nation’s waters, including streams, wetlands and floodplains, is also important to our assessment. Our analysis includes both a desktop and field review to identify the presence or absence of these sensitive receptors.

Central to our program procedures is going above and beyond compliance requirements. This means flagging any sensitivities within the proposed limits of disturbance (LOD) of our operations, plus a minimum of 100 feet beyond the LOD. If an environmentally sensitive receptor or cultural resource is identified within the proposed LOD, we avoid or minimize impacts by relocating site activity or developing a plan to protect the resource.

Site Assessment Procedures

Desktop Review	Field Review	Calibration
Corporate HSER Teams	Local, Trained HSER Personnel or Qualified Contractors	HSER and Operations Partnership
<ul style="list-style-type: none"> Locate asset and establish LOD Conduct initial site assessment to locate environmental or cultural sensitivities Forward findings to field review 	<ul style="list-style-type: none"> Conduct field visit to determine potential environmental or cultural receptors Identify positioning of receptors within study area Document results and collaborate with corporate team 	<ul style="list-style-type: none"> Review findings and determine if construction will impact receptors Obtain environmental permitting as required Redesign, move or adjust the timing of construction activities for environmental protection Map assessment results to build comprehensive database

We work closely with stakeholder groups, including landowners and federal, state and local governments, to coordinate site planning and protect any areas or species of concern. Our focus is to mitigate and minimize our environmental impact by redesigning, moving or adjusting the timing of construction activities. For example, in the Powder River Basin, we collaborate with the Wyoming Game and Fish Department and the Bureau of Land Management to protect migratory birds by avoiding or rescheduling operations to preserve their nesting/brooding cycles.



Sage-Grouse Conservation in the Powder River Basin

Chesapeake is a founding member of the Douglas Core Area Restoration team — partners working to advance collective knowledge of sage-grouse habitat conservation. For nearly a decade, the team has developed projects to enhance sage-grouse seasonal habitat, restored previously disturbed habitat and implemented projects that target local threats to sage-grouse in southeastern Wyoming.

Douglas Core Area Restoration Highlights

<p>50+ lbs</p> <p>Wyoming Big Sagebrush seed collected to grow native sagebrush seedlings</p>	<p>120,000+</p> <p>Native sagebrush seedlings planted to help restore safe-grouse habitat</p>	<p>5,000 acres</p> <p>Project span</p>	<p>3,100+ acres</p> <p>Cheatgrass treated to reduce cover and the threat of wildfire within safe-grouse habitat</p>
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Reducing, Reusing and Responsibly Managing Our Waste

Tracking and accounting for our waste is an area of continuous improvement for the company.

We use a custom web application called Point to Point to track our hauled water and waste streams used throughout a well's lifecycle. Through this app's database, a monthly report is prepared and distributed to operational and HSE leadership for each business unit noting the volume and cost of the solid waste generated. By building awareness, we challenge each business unit to reduce its waste production to minimize landfilling,

Hauled Waste by Category

Waste Material ⁽¹⁾	Hauled Waste (%)
Processing / recycled facility fluid	95%
Containment fluid	4%
Drill cuttings	1%
Other	0.16%

(1) Data represents waste tracked in Point to Point for the 2020 calendar year

Each operating area has a waste management plan that lists wastes generated, the characterization of the wastes in that jurisdiction, on-site management requirements and best practices, and approved waste disposal vendors. Each plan is reviewed and updated at least annually to address changes to state regulations, operations and vendor capacity.

As an example, one of our operating areas needed to add on-site compression to several production locations. This operational decision added a new waste stream to the business unit's waste plan. HSER waste specialists characterized the waste and worked with operations personnel to develop on-site management procedures, including choosing the most appropriate type of disposal.

Reducing Waste

Our Waste and Operations teams consider innovative solutions for reducing or recycling waste to limit our environmental impact. Our teams have adopted the:

- Treatment and reuse of produced water in operations
- Recovery of waste petroleum hydrocarbon liquids and sludges or energy
- Treatment and then use of materials for road base or mulch
- Implementation of closed loop drilling systems to reduce waste and enhance fluid reuse
- Use of wastes to conduct elementary neutralization
- Development of an eco-office exchange program to redeploy surplus office supplies



Hazardous Waste

While waste characterization and management can vary from state to state, Chesapeake is required under the Resource Conservation and Recovery Act (RCRA) to properly characterize all waste we generate.

According to the RCRA, active facilities are given a “generator status” based on their monthly rates of hazardous waste generation, and Chesapeake facilities have been designated as Very Small Quantity Generators. In 2020, we generated approximately 1,200 pounds of RCRA hazardous waste — less than 1% of the company’s total waste.

NORM Waste

The disposal of waste containing naturally occurring radioactive material (NORM) is highly specialized, requiring proper handling, removal and transport procedures. While the radioactivity emitted from the sediments on production equipment is a fraction of regulated radiation worker dose limits, Chesapeake follows the As Low As Reasonably Achievable (ALARA) radiation production standard to minimize exposure.

Our HSER and Operations teams partner to measure the level of NORM on all locations using specialized radiation survey equipment. We then use this data to implement appropriate safe work practices, including the use of specially licensed and trained professionals for handling and disposal.

All Chesapeake locations that generate, process or dispose of produced water are surveyed regularly to properly identify and manage accumulations of NORM.

NORM Procedures

Employee Training	Worker Protective Equipment	Surveying
Transport	Transitional Storage	Disposal

Business Waste Recycling

Beyond operational site waste, our business functions produce a limited amount of electronic and battery waste. It's our intention to recycle these materials by partnering with entities that specialize in disposing these types of products. For example, we collect batteries on our corporate campus and in our field locations before sending them to a national collection firm for recycling and recovery of usable materials.

Our electronic waste recycling vendor repurposes reusable IT equipment and parts, recycling any non-usable assets. This process also includes comprehensive data destruction and protection of company assets while preparing the equipment for additional use. Our vendor maintains certifications related to IT asset disposition and recycling, including R2⁽²⁾, ISO 9001⁽³⁾, ISO 14001⁽⁴⁾ and OHSAS 18001⁽⁵⁾.

In 2020 we reduced waste on our corporate campus by:

- Recycling more than 180,000 pounds of paper
- Reusing office supplies and equipment through our eco-office exchange
- Reclaiming and recycling aerosol can elements to avoid disposing as hazardous waste
- Recycling batteries of all types (from traditional household use to more specialized)

(2) R2 is the leading global standard for electronics reuse and recycling. The R2 standard establishes best practices for data security, environmental protection, worker safety, and transparency.

(3) ISO 9001 is the globally recognized standard for a quality management system.

(4) ISO 14001 is globally recognized as a standard for environmental management systems, ensuring environmental impacts are analyzed and minimized.

(5) OHSAS 18001 is a management system standard specifically focused on identifying and mitigating hazards to worker health and safety.

Performance Metrics

Company Profile	2020	2019	2018	2017
Revenues	\$5.21 billion	\$8.49 billion	\$10.23 billion	\$9.50 billion
Operated wells	5,200	8,500	7,200	9,500
Net average daily production (mboe/d)	445	485	520	548
Proved reserves (mmboe) ⁽¹⁾	802	1,572	1,448	1,912
Tax payments (state and federal)	\$195 million	\$272 million	\$236.5 million	\$206 million
Health and Safety	2020	2019	2018	2017
Employee Total Recordable Incident Rate (TRIR)	0.40	0.16	0.26	0.05
Employee Lost Time Incident Rate (LTIR)	0.04	0.03	0.03	0.02
Employee Days Away, Restricted or Transferred (DART) rate	0.08	0.06	0.06	0.02
Employee Fatalities	0	0	0	0
Contractor TRIR	0.38	0.49	0.62	0.56
Contractor LTIR	0.16	0.12	0.14	0.14
Contractor DART rate	0.17	0.22	0.33	0.34
Contractor Fatalities	3	0	1	0
Combined TRIR (employee and contractor)	0.39	0.42	0.53	0.41
Motor vehicle accident rate (per million miles)	1.79	1.58	1.46	1.42
HSER training hours per employee (average) ⁽²⁾	8	12	9	13
Workforce	2020	2019	2018	2017
Employee headcount	1,532	2,292	2,351	3,223
Women in workforce (% represented)	29%	28%	32%	31%
Board of Directors	25%	20%	25%	25%
In leadership (supervisor level and above)	22%	22%	22%	22%
Individual contributors	30%	25%	28%	26%
Ethnic minorities in workforce (% represented)	21%	18%	17%	16%
Board of Directors	13%	10%	13%	13%
In leadership (supervisor level and above)	10%	10%	11%	9%
Individual contributors	24%	18%	16%	15%
Voluntary turnover rate (% of workforce)	7%	7%	10%	8%
Voluntary turnover (number of employees)	136	177	256	249
Staff reduction (number of employees)	550	328	439	36
Professional development training hours per employee (average)	4	19	30	29

Performance Metrics

Communities	2020	2019	2018	2017
Charitable giving (financial and in-kind)	\$899,399	\$1.45 million	\$1.60 million	\$1.78 million
Employee giving (workplace campaigns)	\$412,254	\$773,863	\$834,768	\$1.06 million
Owner Relations team interactions (phone calls and emails)	~48,500	~92,000	~85,600	~105,700

Environment	2020	2019	2018	2017
Scope 1 GHG emissions (million metric tons CO ₂ e) ⁽³⁾	1.86	2.81	2.55	3.22
Carbon dioxide (million metric tons)	0.94	–	–	–
Methane (million metric tons CO ₂ e)	0.91	–	–	–
Methane (% of scope 1)	49%	–	–	–
Nitrous oxide (million metric tons CO ₂ e)	0.001	–	–	–
GHG emissions intensity (metric tons CO ₂ e / gross mboe produced) ⁽³⁾	6.0	8.2	7.2	9.1
Methane intensity (volume methane emissions / volume gross natural gas produced) ⁽³⁾	0.13%	0.17%	0.16%	0.19%
Scope 1 GHG emission sources (metric tons CO ₂ e) ⁽³⁾	1,855,982	–	–	–
Flared hydrocarbons (metric tons CO ₂ e)	57,992	–	–	–
Other combustion (metric tons CO ₂ e)	902,773	–	–	–
Process emissions (metric tons CO ₂ e)	71	–	–	–
Other vented emissions (metric tons CO ₂ e)	861,062	–	–	–
Fugitive emissions (metric tons CO ₂ e)	34,084	–	–	–
Scope 2 GHG emissions (million metric tons CO ₂ e) ⁽⁴⁾	0.063	–	–	–
Scope 3 GHG emissions (million metric tons CO ₂ e) ⁽⁵⁾	57	–	–	–
Gross annual volume of flared gas (mcf) ⁽³⁾	711,934	–	–	–
Flaring intensity (gross annual volume of flared gas (mcf) / gross annual production (mcf)) ⁽³⁾	0.05%	–	–	–
Flaring intensity (gross annual volume of flared gas (mcf) / gross annual production (boe)) ⁽³⁾	0.002	–	–	–

Performance Metrics

Environment	2020	2019	2018	2017
Average water used to drill and complete a well (gal / foot)	1,326	1,069	915	952
Water efficiency rate (water used (bbl) / boe produced for wells completed in a given year)	1.07	1.00	0.88	0.92
Water efficiency rate (water used (bbl) / EUR boe for wells completed in a given year)	0.18	0.23	0.22	0.23
Freshwater intensity rate (freshwater consumed (bbl) / boe produced)	0.19	0.24	0.22	0.23
Total freshwater consumed from regions with high or extremely high baseline water stress (bbl) ⁽⁶⁾	1,570,177	3,078,282	–	–
Total volume of produced water recycled / reused (gal)	119,798,490	64,714,356	107,543,659	128,052,162
Water recycling rate (water recycled (bbl) / total water consumed (bbl))	0.024	0.027	0.037	0.036
Reportable spills > 100 bbls (count)	4	12	3	7
Reportable spills > 100 bbls (total bbls)	568	2,592	692	2,760
Reportable spills > 100 bbls (% recovered)	67%	64%	51%	37%
Spill intensity rate (produced liquids spilled (bbl) / total liquids produced (mdbl))	0.008	0.017	0.005	–
Environmental penalty assessments in excess of \$100,000	0	0	0	0

Data and information included in this report were subject to internal review and are believed to be correct at the time of reporting. Data reflects year-end calculations and may include divested assets until divestitures' closing dates. For certain reporting elements, later changes in categorization could affect data after publication.

(1) We expect that our proved reserves will increase in 2021 due to the Vine acquisition, higher operating activity and commodity prices.

(2) Excludes field operation trainings.

(3) Emissions estimate developed under the EPA's Greenhouse Gas Reporting Program (operated onshore production, Brazos Valley sand mine, and gathering and boosting facilities).

(4) Chesapeake calculates its reported emissions using regional utility emissions factors.

(5) Chesapeake reports 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 developed by IPIECA / API (2016). The calculation methodology applies the EPA's emission factors for listed fuel types; representing indirect end use greenhouse gas emissions of the products created from our crude oil and natural gas.

(6) Volumes reported are based on World Resource Institute's Aqueduct Water Risk Atlas annual water stress criteria.

AXPC ESG Metrics

American Exploration and Production Council (AXPC) ESG Metrics

Greenhouse Gas Emissions	2020
GHG emissions (metric tons CO ₂ e)	1,855,982
GHG intensity — GHG emissions (metric tons CO ₂ e) / gross annual production as reported under Subpart w of EPA's GHG Reporting Program (mboe)	6.0
Percent of GHG emissions attributed to boosting and gathering segment	1.25%
Methane emissions (metric tons CH ₄)	36,461
Methane intensity — methane emissions (metric tons CH ₄) / gross annual production as reported under Subpart w of EPA's GHG Reporting Program (mboe)	0.12
Percent of methane emissions attributed to boosting and gathering segment	0.51%

Flaring	2020
Gross annual volume of flared gas (mcf) ⁽¹⁾	711,934
Percentage of gas flared per mcf of gas produced (gross annual volume of flared gas (mcf) / gross annual gas production (mcf)) ⁽¹⁾	0.05%
Volume of gas flared per barrel of oil equivalent produced (Gross annual volume of flared gas (mcf) / gross annual production (boe)) ⁽¹⁾	0.002

(1) Emissions estimate developed under the EPA's Greenhouse Gas Reporting Program (operated onshore production, Brazos Valley sand mine, and gathering and boosting facilities).

Spills	2020
Spill intensity — produced liquids spilled (bbl) / total produced liquids (mbbl)	0.008

Water Use	2020
Freshwater intensity — freshwater consumed (bbl) / gross annual production (boe)	0.19
Water recycling rate (water recycled (bbl) / total water consumed (bbl))	0.024
Does your company use WRI Aqueduct, GEMI, Water Risk Filter, Water Risk Monetizer, or other comparable tool or methodology to determine the water-stressed areas in your portfolio?	WRI Aqueduct Water Risk Atlas

Safety	2020
Employee TRIR — has # of employee OSHA recordable cases x 200,000 / annual employee workhours	0.40
Contractor TRIR — # of contractor OSHA recordable cases x 200,000 / annual contractor workhours	0.38
Combined TRIR — # of combined OSHA recordable cases x 200,000 / annual combined workhours	0.39

AXPC ESG Metrics

Supporting Data	2020
Gross annual oil production (bbl)	64,000,576
Gross annual gas production (mcf)	1,527,120,659
Gross annual production (boe)	318,520,686
Gross annual production (mboe)	318,521
Gross annual production — as reported under subpart w of EPA's GHG Reporting Program (mboe)	309,070
Total produced liquids (mdbl)	107,642
Produced liquids spilled (bbl)	912
Freshwater consumed (bbl)	58,840,469
Recycled water (bbl)	2,852,345
Total water consumed (bbl)	61,727,834
Employee OSHA recordable cases	10
Contractor OSHA recordable cases	22
Combined OSHA recordable cases	32
Annual employee workhours	4,997,926
Annual contractor workhours	11,478,181
Annual combined workhours	16,476,107

Data and information included in this report were subject to internal review and are believed to be correct at the time of reporting. Data reflects year-end calculations and may include divested assets until divestitures' closing dates. For certain reporting elements, later changes in categorization could affect data after publication.

Value Reporting Foundation: SASB Standards

Oil & Gas – Exploration and Production, Sustainability Accounting Standard

Topic	Code	Accounting Metric	Disclosure Level	Disclosure Location
Greenhouse Gas Emissions	EM-EP-110a.1	Gross global Scope 1 emissions, percentage methane, percentage covered under emissions-limiting regulations	Full	Climate Metrics ; Performance Metrics Our operations are governed by local, state and federal regulations including those based on the Clean Air Act. This includes air permitting, emission standards, reporting, monitoring and recordkeeping standards.
	EM-EP-110a.2	Amount of gross global Scope 1 emissions from: (1) flared hydrocarbons, (2) other combustion, (3) process emissions, (4) other vented emissions, and (5) fugitive emissions	Full	Climate Metrics ; Performance Metrics
	EM-EP-110a.3	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Full	CEO Letter ; Targets
Air Quality	EM-EP-120a.1	Air emissions of the following pollutants: (1) NO _x (excluding N ₂ O), (2) SO _x , (3) volatile organic compounds (VOCs), and (4) particulate matter (PM ₁₀)	None	
Water Management	EM-EP-140a.1	(1) Total fresh water withdrawn, (2) total fresh water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Full	Water ; Performance Metrics Nearly all freshwater withdrawn from regions with high or extremely high water stress was consumed. Federal and state agencies authorize and monitor Chesapeake's surface and groundwater appropriation and beneficial uses.
	EM-EP-140a.2	Volume of produced water and flowback generated; percentage (1) discharged, (2) injected, (3) recycled; hydrocarbon content in discharged water	Partial	Water ; Performance Metrics We do not discharge any treated water to surface water or for land application.
	EM-EP-140a.3	Percentage of hydraulically fractured wells for which there is public disclosure of all fracturing fluid chemicals used	Full	Responsible Operations ; Performance Metrics

Value Reporting Foundation: SASB Standards

Oil & Gas – Exploration and Production, Sustainability Accounting Standard

Topic	Code	Accounting Metric	Disclosure Level	Disclosure Location
Water Management (cont.)	EM-EP-140a.4	Percentage of hydraulic fracturing sites where ground or surface water quality deteriorated compared to a baseline	None	Baseline water sampling is discussed in Responsible Operations . We sample water sources in all five of our operating areas according to regulatory requirements.
Biodiversity Impacts	EM-EP-160a.1	Description of environmental management policies and practices for active sites	Full	Environmental Management ; Spill Prevention ; Air Quality ; Water ; Biodiversity ; Waste ; Responsible Operations
	EM-EP-160a.2	Number and aggregate volume of hydrocarbon spills, volume in Arctic, volume impacting shorelines with ESI rankings 8-10, and volume recovered	Full	Spill Prevention ; Performance Metrics We do not operate in the Arctic or in/near the shorelines referenced and therefore have no spills in these areas.
	EM-EP-160a.3	Percentage of (1) proved and (2) probable reserves in or near sites with protected conservation status or endangered species habitat	None	Our Biodiversity section highlights how we protect wildlife and their habitats during our operations.
Security, Human Rights & Rights of Indigenous Peoples	EM-EP-210a.1	Percentage of (1) proved and (2) probable reserves in or near areas of conflict	Full	Since we operate only onshore and in the U.S., we do have operations in or near areas of conflict.
	EM-EP-210a.2	Percentage of (1) proved and (2) probable reserves in or near Indigenous land	Full	We have no active operations on Indigenous land. Any reserves on Indigenous land are currently being processed for transfer as part of our Mid-Continent asset sale.
	EM-EP-210a.3	Discussion of engagement processes and due diligence practices with respect to human rights, Indigenous rights, and operation in areas of conflict	Full	Human Rights
Community Relations	EM-EP-210b.1	Discussion of process to manage risks and opportunities associated with community rights and interests	Full	Stakeholder Engagement ; Community Investment ; Owner Relations
	EM-EP-210b.2	Number and duration of non-technical delays	None	We experienced no non-technical delays in 2020.

Value Reporting Foundation: SASB Standards

Oil & Gas – Exploration and Production, Sustainability Accounting Standard

Topic	Code	Accounting Metric	Disclosure Level	Disclosure Location
Workforce Health & Safety	EM-EP-320a.1	(1) Total recordable incident rate (TRIR), (2) fatality rate, (3) near miss frequency rate (NMFR), and (4) average hours of health, safety, and emergency response training for (a) full-time employees, (b) contract employees, and (c) short-service employees	Partial	S.A.F.E. Culture ; Incident Prevention ; Performance Metrics
	EM-EP-320a.2	Discussion of management systems used to integrate a culture of safety throughout the exploration and production lifecycle	Full	S.A.F.E. Culture ; Health and Well-Being ; Occupational Health & Safety ; Contractor Safety ; Incident Prevention ; Emergency Preparedness
Reserves Valuation & Capital Expenditures	EM-EP-420a.1	Sensitivity of hydrocarbon reserve levels to future price projection scenarios that account for a price on carbon emissions	Full	Portfolio Resilience
	EM-EP-420a.2	Estimated carbon dioxide emissions embedded in proved hydrocarbon reserves	None	
	EM-EP-420a.3	Amount invested in renewable energy, revenue generated by renewable energy sales	None	We utilize certain renewable energy sources as part of our daily operations, including solar to power certain site equipment. We continue to evaluate renewable energy investment as a potential forward-looking strategy for the company.
	EM-EP-420a.4	Discussion of how price and demand for hydrocarbons and/or climate regulation influence the capital expenditure strategy for exploration, acquisition, and development of assets	Full	Climate Governance ; Climate Strategy & Risk Management
Business Ethics & Transparency	EM-EP-510a.1	Percentage of (1) proved and (2) probable reserves in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Full	Human Rights
	EM-EP-510a.2	Description of the management system for prevention of corruption and bribery throughout the value chain	Full	Operating with Integrity
Management of the Legal & Regulatory Environment	EM-EP-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Full	Political Participation ; Climate Strategy & Risk Management

Value Reporting Foundation: SASB Standards

Oil & Gas – Exploration and Production, Sustainability Accounting Standard

Topic	Code	Accounting Metric	Disclosure Level	Disclosure Location
Critical Incident Risk Management	EM-EP-540a.1	Process Safety Event (PSE) rates for Loss of Primary Containment (LOPC) of greater consequence (Tier 1)	None	
	EM-EP-540a.2	Description of management systems used to identify and mitigate catastrophic and tail-end risks	Full	Business Continuity ; Climate Strategy & Risk Management ; Emergency Preparedness ; Incident Prevention
Activity Metrics	EM-EP-000.A	Production of: (1) oil, (2) natural gas, (3) synthetic oil, and (4) synthetic gas	Full	Oil: 64,000,576 bbl; Natural gas: 1,527,120,659 mcf; we do not produce synthetic oil or synthetic gas
	EM-EP-000.B	Number of offshore sites	Full	Zero locations; we only perform work onshore and in the U.S.
	EM-EP-000.C	Number of terrestrial sites	Full	5,200 operated wells; Performance Metrics

IPIECA, API and IOGP

Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Governance and Business Ethics	GOV-1: Governance Approach	C1: Describe your governance architecture, including the role of the board, board committees, board diversity, executives, managers, the workforce and stakeholders	Full	Accountability & Compensation ; Climate Governance
		C2: Describe your code of conduct, values and principles and how they relate to sustainability	Full	Operating with Integrity
		C3: Describe the way in which your board reviews sustainability issues, including risks and opportunities, supported by examples of their work in action	Full	Managing Risk ; Climate Strategy & Risk Management
		C4: Provide an overview of, or list, your corporate policies that address sustainability issues	Full	Operating with Integrity
		C5: Set out how your board and executives monitor strategic performance and goals	Full	CEO Letter ; Operating with Integrity ; Accountability & Compensation ; Climate Strategy & Risk Management ; Targets
Management Systems	GOV-2: Management Systems	C1: Describe the structure and scope of your management systems related to sustainability issues, including ethics and compliance (including the arrangements for non-operated joint ventures)	Partial	Operating with Integrity ; Accountability & Compensation ; Supply Chain Management
		C2: Discuss how your system helps you assess and address impacts, risks and opportunities and develop actions to mitigate negative and foster positive consequence	Full	Stakeholder Engagement ; Managing Risk ; Business Continuity ; Climate Strategy & Risk Management ; Emergency Preparedness
		C3: Describe your company-wide standards that set performance requirements for assets, including internal standards or external international / national standards that you follow	Full	Operating with Integrity ; Supply Chain Management
		C4: Describe how your leadership team supports your system at all levels, including how they demonstrate their commitment and how you foster a strong, positive culture throughout the organization	Full	Operating with Integrity ; Our People ; Accountability & Compensation
Preventing Corruption	GOV-3: Preventing Corruption	C1: Describe your governance and management approach, policies, codes of conduct and internal controls, related to prevention of bribery and corruption	Full	Operating with Integrity ; Supply Chain Management
		C2: Describe your employee awareness and training programmes	Full	Operating with Integrity
		C3: Discuss how your anti-corruption policies and due diligence procedures apply to your business partners, including suppliers and contractors	Full	Supply Chain Management
		C4: Outline your processes for reporting, review and follow-up of suspected non-compliances	Full	Operating with Integrity ; Supply Chain Management

IPIECA, API and IOGP

Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Governance and Business Ethics (cont.)	GOV-4: Transparency of Payments to Host Governments	C1: Provide a general overview of your policies and programmes on revenue transparency	Full	We only operate in the U.S., paying local, state and federal taxes. Our taxes paid are listed in Community Investment and Performance Metrics .
		C2: Describe the scope of your legal and policy mandates for government revenue reporting with which you are obliged to comply	N/A	Not applicable – see above
		C3: Describe your participation in the EITI, where relevant, or any other voluntary reporting initiatives on revenue transparency	N/A	Not applicable – see above
		C4: Disclose, or reference sources of disclosure for, your payments to host governments, where reporting is subject to governmental legal or policy mandates, or EITI requirements	N/A	Not applicable – see above
	GOV-5: Public Advocacy and Lobbying	C1: Describe your governance approach and management processes on advocacy and lobbying	Full	Political Participation
Climate Change and Energy	CCE-1: Climate Governance and Strategy	C1: Describe your approach to governance and management of climate-related risks and opportunities, including board-level accountabilities and processes that allow related issues and impacts to be considered when making strategic business decisions	Full	Climate Governance ; Climate Strategy & Risk Management
		C2: Report the highest-level position in your company that is accountable for policy and strategy on addressing climate-related risks and opportunities	Full	Climate Governance
		C3: Disclose your positions and any related policies that address climate-related risks and opportunities for society and ecosystems	Full	Climate Strategy & Risk Management
		C4: Discuss the relationship between future energy supply / demand balances and your climate policy and strategy, including how the transition risk to lower-carbon energy may influence your asset base, business performance and value	Full	Climate Strategy & Risk Management ; Portfolio Resilience
	CCE-2: Climate Risk and Opportunities	C1: Describe your general approach to managing climate-related risks and opportunities, including discussion on: <ul style="list-style-type: none"> · identification and evaluation of risks and opportunities; · incorporation of risks and opportunities are into business; · strategies and planning for existing operations and new projects; · risks and opportunities related to energy transition; · risk mitigation opportunities through nature based solutions; and · physical climate-related risks, such as rising sea levels or flood risk 	Partial	Climate Strategy & Risk Management

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Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Climate Change and Energy (cont.)	CCE-2: Climate Risk and Opportunities	C2: Outline your GHG emissions management strategy, including plans, commitments, investments and activities to mitigate GHG emissions within your operations	Full	Climate Strategy & Risk Management ; Targets ; Air Quality
		C3: Explain how you assess, prioritize and manage methane risks and impacts as part of your overall GHG emissions management strategy	Full	Climate Strategy & Risk Management
		C4: If you have quantitative GHG emission or energy-related targets, describe the: <ul style="list-style-type: none"> · scope of your targets — total GHG, CO₂, methane, other GHGs, energy use, and / or flaring; · type of targets (absolute or intensity); · targets already underway or planned; · approach used to measure progress towards these targets; and · baseline period and timescale, along with progress towards meeting your targets 	Full	Climate Metrics ; Targets
CCE-3: Lower-Carbon Technology	C1: Describe how you introduce and apply technologies that reduce CO ₂ emissions, that relate to: <ul style="list-style-type: none"> · operations (Scope 1); · imported electricity and steam (Scope 2); and · as applicable, consumer use of products (Scope 3) 	Full	Climate Strategy & Risk Management ; Air Quality	
		C2: As applicable, discuss your approach to supply of lower-carbon and / or alternative energy, including descriptions of relevant operational activities, plans or projects. If relevant, include: <ul style="list-style-type: none"> · data on amount and type of energy supplied; and · management of any associated social or environmental impact 	Partial	Air Quality
CCE-4: Greenhouse Gas (GHG) Emissions	C1: Report your company-wide direct GHG emissions (Scope 1), using your preferred approach (operational, equity share or other) to include: <ul style="list-style-type: none"> · direct CO₂; · direct CH₄; and · direct other greenhouse gases 	Full	Climate Metrics ; Performance Metrics	
		C2: Report your company-wide indirect GHG emissions related to imported energy (Scope 2), separate from direct emissions, using the same approach as for C1	Full	Climate Metrics ; Performance Metrics
		C3: Report your GHG emissions, disaggregated by business activity. For example, oil and gas production, refining.	Partial	AXPC Data
		C4: Report your GHG emissions intensity, company-wide and, if appropriate, disaggregated by business activity	Partial	Climate Metrics ; Performance Metrics

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Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Climate Change and Energy (cont.)	CCE-5: Methane Emissions	C1: Describe your approach to managing methane emissions, including: <ul style="list-style-type: none"> · responsibilities for management of methane-related climate issues; · risk assessment and mitigation plans; and · direct or estimated measurement and monitoring methods 	Full	Climate Strategy & Risk Management ; Climate Metrics ; Targets ; Air Quality ; Performance Metrics
		C2: Discuss your performance in managing methane emissions (as reported in CCE-4) by source and activity in terms of total absolute emissions and emission intensities.	None	
	CCE-6: Energy Use	C1: Report your company’s total energy use	None	
		C2: Discuss your initiatives and progress towards improving energy efficiency and consuming less energy. For example, many companies are producing energy on site and using combined heat and power (also known as cogeneration) plants to improve energy efficiency.	Full	Air Quality
	CCE-7: Flared Gas	C1: Report the total quantity of hydrocarbon gas flared from your operations	Full	Routine flaring totals reported in Climate Metrics ; Air Quality ; Performance Metrics sections
		C2: Indicate geographical locations of significant flaring	None	
		C3: State any commitments or targets you have set that relate to flaring, including collaboration with cross-industry initiatives	Full	Home Page ; CEO Letter ; Targets ; Air Quality
		C4: Report contribution of flaring to your total GHG emissions in CO ₂ e	None	
		C5: Describe your current and future flare reduction activities, including long-term reduction improvements versus short-term operational fluctuations	Full	Targets ; Air Quality
	Environment	ENV-1: Freshwater	C1: Report the total volume of freshwater you withdraw	Partial
C2: Report the total volume of freshwater you consume			Full	AXPC Data
C3: Provide a list and / or a percentage of your projects and operations that are in water-stressed or water-scarce areas			Full	Water ; Performance Metrics
C4: Report the percentage of freshwater you withdraw or consume in water-stressed or water-scarce areas, detailing how you reached that percentage			Full	Performance Metrics
C5: Report the total reduction in freshwater withdrawn or consumed due to your water reduction measures, including water you replace or recycle / reuse within your reporting boundaries			None	

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Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Environment (cont.)	ENV-2: Discharges to Water	C1: For upstream facilities, report the quantity of hydrocarbons (in metric tonnes) and / or annual average concentrations (in mg/l or ppm) in produced water and process wastewater that you discharge to surface water	None	We do not discharge any treated water to surface water or for land application.
		C2: For refineries and other downstream facilities, report the quantity of hydrocarbons (in metric tonnes) and / or annual average concentrations (in mg/l or ppm) that you discharge to surface water	N/A	
	ENV-3: Biodiversity Policy and Strategy	C1: Describe your biodiversity management approach, including policy, positions, goals, strategies, risk / impact assessments, mitigation plans and outcomes. This can include how you apply the mitigation hierarchy and international biodiversity standards in your operational planning, from early concept through to decommissioning.	Full	Biodiversity
		C2: Provide examples or case studies of operating areas where you have put biodiversity management activities and adaptive management in place	Full	Biodiversity
		C3: Set out your processes for identifying and managing activities in sensitive operating areas, such as Biodiversity Actions Plans. Include the criteria you use to determine sensitivity and any applicable metrics	Full	Biodiversity
	ENV-4: Protected and Priority Areas for Biodiversity Conservation	C1: Provide a list and / or a percentage of your projects and operations that are in or near protected areas and priority sites for biodiversity conservation	None	
		C2: Describe your commitments, including avoidance and mitigation measures, that relate to projects and operations in or near protected areas and priority sites for biodiversity conservation	Full	Biodiversity
	ENV-5: Emissions to Air	C1: Report your total emissions, by category: · volatile organic compounds (VOCs); · sulphur oxides (SOx); · nitrogen oxides (NOx)	None	
		C2: Discuss how you monitor and manage the impact of your operations on local air quality, including any technologies you use, such as those that remove or treat combustion emissions in operations or fuel products	Full	Air Quality
	ENV-6: Spills to the Environment	C1: Describe your strategies and risk-based approach to prevent accidental releases of hydrocarbons / other materials to the environment	Full	Spill Prevention
		C2: Report the number and volume of hydrocarbon spills greater than 1 bbl reaching the environment	Full	Spill Prevention

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Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Environment (cont.)	ENV-6: Spills to the Environment	C3: Provide case studies or examples of significant spills, as determined by the company, which may include descriptions of the following: <ul style="list-style-type: none"> · your response measures to address immediate and long-term effects; · any secondary effects on local communities and stakeholders; · your stakeholder engagement; · incident investigation findings, if available, including root-causes; and · actions you are taking to prevent recurrence and share lessons 	None	
		C4: Describe your emergency preparedness and response programmes, plans, organizational structures and affiliations for an effective response to spills and other emergencies. Your description may include the development and checking of contingency plans, including aspects such as training, skills development, and emergency response exercises.	Full	Emergency Preparedness ; Spill Prevention
	ENV-7: Materials Management	C1: Describe your approach to materials management. This may include your operational strategies to optimize design, minimize the amount of materials you use, and promote efficient use while ensuring sustainable recovery and regeneration for further beneficial use	Full	Waste ; Responsible Operations
		C2: Describe your efforts to minimize the generation and disposal of waste, to increase reuse and recycling and to continuously improve your materials management practices	Full	Waste ; Water
		C3: Report the quantities of waste that you: <ul style="list-style-type: none"> · generate; · dispose; and · recycle, reuse or recover. You may report hazardous and non-hazardous waste separately, or total waste, stating that this includes both hazardous and non-hazardous material.	Partial	Waste
ENV-8: Decommissioning		C1: Describe your approach to planning and executing decommissioning activities for offshore and onshore assets	Partial	Responsible Operations
		C2: Provide information on management of materials recovered from decommissioning activities including any applicable data on the percentage of materials reuse and recycling, achieved or planned, for significant decommissioning projects (i.e. for major facilities such as offshore production rigs, refineries or major pipelines / terminals)	None	
Safety, Health and Security	SHS-1: Safety, Health and Security Engagement	C1: Describe your approach to managing workforce participation in safety, health and security	Full	S.A.F.E. Culture ; Health & Well-Being ; Occupational Health & Safety ; Contractor Safety

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Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Safety, Health and Security (cont.)	SHS-1: Safety, Health and Security Engagement	C2: Outline your overall approach to safety, health and security training for the employees and contractors that make up your workforce. Include information on whether training initiatives are extended to other parties, such as non-operated joint ventures, business partners, suppliers, security forces, public emergency response groups, consumers and local communities.	Full	S.A.F.E. Culture ; Contractor Safety
		C3: Discuss the coverage of your safety, health and security engagement programmes and the extent to which you include contractors	Full	Contractor Safety
Workforce Health	SHS-2: Workforce Health	C1: Describe your processes and programmes for identifying and addressing significant workforce health issues at the local, regional and global level, together with any results and plans	Full	Health & Well-Being ; Occupational Health & Safety
		C2: Describe aspects of your management systems that are specific to health and any improvements you have planned or made	Full	COVID-19 Response ; Health & Well-Being ; Occupational Health & Safety
		C3: Describe your proactive wellness initiatives that encourage the adoption of healthier lifestyles, including nutrition, fitness and awareness of health risk factors	Full	Health & Well-Being
Occupational Injury and Illness Incident	SHS-3: Occupational Injury and Illness Incident	C1: Report your work-related injuries separately for employees and contractors, including: <ul style="list-style-type: none"> · total recordable injury frequency; · lost time injury frequency; · number of fatalities (excluding illness fatalities); · fatal accident rate (excluding illness fatalities); and · fatal incident rate 	Full	S.A.F.E. Culture ; Performance Metrics
		C2: Describe any significant incidents that occurred during your reporting year, detailing the impact and actions taken in response	Full	Incident Prevention
		C3: Describe any initiatives to improve your safety performance	Full	S.A.F.E. Culture ; Occupational Health & Safety ; Contractor Safety
		C4: Describe safety incident trends and the most common causes of work-related incidents together with any initiatives you have introduced to address these causes	Partial	S.A.F.E. Culture ; Occupational Health & Safety ; Contractor Safety ; Incident Prevention
Transport Safety	SHS-4: Transport Safety	C1: Describe your risk management approach to transport safety, including policies and practices required within your management systems	Full	Occupational Health & Safety
		C2: Report the number of work-related workforce (employee or contractor) fatalities caused by transport incidents	Full	Occupational Health & Safety ; Contractor Safety
		C3: Describe your efforts to engage with external parties, including local communities and authorities, to improve transport safety, including education and training and implementation of new technology	None	

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Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Safety, Health and Security (cont.)	SHS-5: Product Stewardship	C1: For petroleum consumer products, such as fuels, petrochemicals and hydrocarbon-derived polymers and lubricants, discuss your approach to product assessments, for new and existing products and how you address any findings	N/A	
		C2: Describe how you communicate product HSE hazards and risk controls to your customers and the general public, including information on transportation and handling of products	N/A	
		C3: Describe your approach to health, safety and environmental management of products	N/A	
	SHS-6: Process Safety	C1: Number of Tier 1 process safety events reported separately for each major business activity, such as refining or upstream	None	
		C2: Provide qualitative descriptions of any significant process safety events that occurred during the reporting year, including your response and lessons learned to prevent recurrence	None	
		C3: Explain how you review your assessment and management of process safety risks	None	
	SHS-7: Security Risk Management	C1: Describe your approach to security management for existing operations, projects planned or underway and new locations for business activities, including assessment of threats, vulnerabilities and risks	Full	Cybersecurity; Emergency Preparedness
		C2: Outline awareness and training processes that address security risks and threat response procedures for your workforce and how you make members of the community aware of relevant security risks	Full	Cybersecurity; Emergency Preparedness
		C3: Outline your management approach to promoting resilience to cybersecurity threats or attacks	Full	Cybersecurity
Social	SOC-1: Human Rights Due Diligence	C1: Describe the components of your company's human rights due diligence approach and how it is applied to company processes to assess, address, monitor and communicate actual or potential human rights impacts	Full	Human Rights
		C2: Describe processes and practices to provide access to remedy mechanisms at the local level, supported by specific examples as appropriate	None	
		C3: Describe how human rights considerations are factored into early phase decision making, including project siting and planning for new projects, with joint venture partners, and likewise for decommissioning or sale of operations	None	
		C4: Outline the scope, content and tracking of human rights training programmes. You could include figures for people trained in a given year, the proportion trained against the population that may need training, and how you measure the effectiveness of training.	None	

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Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Social (cont.)	SOC-1: Human Rights Due Diligence	C5: Report qualitative measures for tracking the effectiveness of implementation and the outcomes of policies and procedures. For example, human rights considerations when evaluating investments.	None	
	SOC-2: Suppliers and Human Rights	C1: Describe your approach and processes for promoting respect for human rights by your suppliers	Full	Human Rights
		C2: Describe how you screen and assess suppliers for social, environmental and human rights-related risks	Full	Supply Chain Management
	SOC-3: Security and Human Rights	C1: Describe your relevant policies, programmes and processes relating to security and human rights	Full	Human Rights
		C2: Describe how your security and human rights policies, programmes and processes are implemented at the country, regional or facility-specific level	Full	Our Human Rights Policy, Information Security Policy and Codes of Conduct apply to all of our operations across the U.S., including each of our field office locations.
		C3: Describe communication efforts to implement your commitments on security and human rights with host governments and authorities, contractors and subcontractors, in your supply chain and civil society	N/A	We operate in the U.S. only and more than 99% of our suppliers are U.S. based.
	SOC-4: Site-Based Labour Practices and Worker Accommodation	C1: Describe your approach to the recruitment and employment of your site-based workforce, including how you communicate your expectations to your suppliers of contract labour	Full	Operating with Integrity ; Contractor Safety ; Supply Chain Management
		C2: Describe your approach to monitoring and addressing on-site working conditions, including the quality of worker accommodation	Full	Supply Chain Management
		C3: Describe your approach to engaging with contractor management and the workforce so that their recruitment, employment, working and living conditions are aligned with your company's expectations and with relevant national or international laws, standards or guidelines	Full	Operating with Integrity ; Supply Chain Management
	SOC-5: Workforce Diversity and Inclusion	C1: Describe your policies, programmes and procedures to promote workforce diversity and inclusion, and non-discrimination	Full	Operating with Integrity ; DEI
		C2: Provide workforce composition data for gender and / or other diversity categories	Full	Our People ; DEI ; Performance Metrics
		C3: Discuss workforce composition, particularly with reference to your management positions	Full	Our People ; Performance Metrics
	SOC-6: Workforce Engagement	C1: Provide examples of how you engage with your workforce, including examples of approach, frequency, coverage, communication of results and action plans	Full	Our People ; Careers

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Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Social (cont.)	SOC-6: Workforce Engagement	C2: Set out your approach to handling worker concerns and issues	Full	Careers
	SOC-7: Workforce Training and Development	C1: Describe the key elements of your approach to training and development	Full	Operating with Integrity ; Our People ; S.A.F.E. Culture
		C2: Illustrate how you implement training and development programmes, e.g. hours of training, training investment, number of staff trained	Full	Our People ; S.A.F.E. Culture ; Performance Metrics
	SOC-8: Workforce Non-Retaliation and Grievance Mechanisms	C1: Describe your policies, approach and / or mechanisms that aim to secure non-retaliation, non-discrimination and confidentiality when addressing grievances. This might extend to access to third-party independent grievance mechanisms.	Full	Operating with Integrity
	SOC-9: Local Community Impacts and Engagement	C1: Discuss your approach to engagement with relevant stakeholders, including communities, civil society (including human rights defenders), other companies and / or governments	Full	Stakeholder Engagement ; Community Investment ; Owner Relations
		C2: Describe your policies, programmes or procedures for: · assessing and addressing local community impacts, including archeological, historic and cultural sites, and how these considerations are embedded into early phase planning and site / route selection; · engaging with affected stakeholders and responding to their grievances and concerns; · monitoring the effectiveness of the steps you take to prevent, mitigate and resolve adverse impacts; and · public disclosure of information on your activities and management of impacts	Full	Stakeholder Engagement ; Operating with Integrity ; Community Investment ; Owner Relations ; Biodiversity
		C3: Provide case studies that illustrate the effectiveness and results of your engagement with stakeholders and / or how you have managed any impact on local communities, their environmental and cultural resources	None	
	SOC-10: Indigenous Peoples	C1: Describe your policies, programmes, procedures and practices used to: · identify and address your impacts on Indigenous Peoples; · train your staff on engagement and consultation with Indigenous Peoples; · engage with Indigenous Peoples to seek a formal agreement or FPIC where needed and to address their grievances, concerns and expectations; · collaborate on opportunities that create mutual benefits; and · increase Indigenous participation through employment and business opportunities	Partial	DEI

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Sustainability Reporting Guidance for the Oil and Gas Industry

Category	Indicator	Core Reporting Elements	Disclosure Level	Disclosure Location
Social (cont.)	SOC-11: Land Acquisition and Involuntary Resettlement	C1: Describe your policies, programmes and procedures for involuntary resettlement, including engagement processes and practices with affected communities, including any international standards you have used	N/A	
		C2: Describe your policies, programmes and procedures for land acquisition, including relationship with compulsory purchase / eminent domain when in the public interest	Full	Owner Relations
	SOC-12: Community Grievance Mechanisms	C1: Describe your community and stakeholder grievance mechanisms	Full	Operating with Integrity; Stakeholder Engagement; Owner Relations
		C2: Describe your policies, approach and / or mechanisms for receiving, responding to and resolving external grievances, covering your efforts to manage confidentiality and avoid retaliation	Full	Operating with Integrity; Stakeholder Engagement; Owner Relations
	SOC-13: Social Investment	C1: Describe your social investment strategies, programmes and procedures	Full	Community Investment; Charitable
		C2: Report your company's total social investment expenditure	Full	Performance Metrics
SOC-14: Local Procurement and Supplier Development	C1: Describe your strategies, programmes and procedures that are designed to improve the ability of local suppliers and contractors to support operations and projects, such as actions that help local suppliers meet company and international standards	Full	Supply Chain Management	
SOC-15: Local Hiring Practices	C1: Describe your strategies, programmes and procedures aimed at providing employment opportunities to residents or nationals of host countries	Full	We only operate in the U.S. and list our employment numbers in Our People and Performance Metrics , as well as our supplier figures within Supply Chain Management .	

Task Force on Climate-related Disclosures (TCFD)

Category	Description	Disclosure Level	Disclosure Location
Governance Disclose the organization's governance around climate-related risks and opportunities.	a) Describe the Board's oversight of climate-related risks and opportunities. b) Describe management's role in assessing and managing climate-related risks and opportunities.	Full	Climate Governance
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy and financial planning where such information is material.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term. b) Describe the impact of climate-related risks and opportunities on the organization's business, strategy and financial planning. c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Full	Climate Strategy & Risk Management ; Portfolio Resilience
Risk Management Disclose how the organization identifies, assesses and manages climate-related risks.	a) Describe the organization's processes for identifying and assessing climate-related risks. b) Describe the organization's processes for managing climate-related risks. c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	Full	Climate Strategy & Risk Management ; Air Quality ; Managing Risk
Metrics and Targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk-management process. b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks. c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	Full	Climate Metrics ; Targets ; Performance Metrics

GRI G4 Standards (2016–2020)

Category	Indicator	Issue	Disclosure Level	Disclosure Location
GRI 102: General Disclosures	102-1	Name of the organization	Full	Reporting Guidance
	102-2	Activities, brands, products and services	Full	Reporting Guidance
	102-3	Location of headquarters	Full	Reporting Guidance
	102-4	Location of operations	Full	Reporting Guidance
	102-5	Ownership and legal form	Full	Reporting Guidance
	102-6	Markets served	Full	Reporting Guidance ; Stakeholder Engagement
	102-7	Scale of the organization	Full	Reporting Guidance ; Performance Metrics
	102-8	Information on employees and other workers	Full	Our People ; Contractor Safety ; Performance Metrics
	102-9	Supply chain	Full	Supply Chain Management
	102-10	Significant changes to the organization and its supply chain	Full	In 2020-21, the organization emerged out of bankruptcy and appointed a new Board of Directors and CEO. Despite these changes, there was limited impact on our supply chain as noted in our Supply Chain Management section.
	102-11	Precautionary principle or approach	None	
	102-12	External initiatives	Full	Responsibly Sourced Gas ; COVID-19 Response ; TCFD Content Index ; S.A.F.E. Culture ; Emergency Preparedness ; Human Rights
	102-13	Membership of associations	Full	Political Participation ; Air Quality
	102-14	Statement from senior decision-maker	Full	CEO Letter
	102-15	Key impacts, risks and opportunities	Full	Reporting Guidance ; Managing Risk ; Climate Strategy & Risk Management
	102-16	Values, principles, standards and norms of behavior	Full	Our Culture ; Operating with Integrity
	102-17	Mechanisms for advice and concerns about ethics	Full	Operating with Integrity ; Accountability & Compensation ; Human Rights
	102-18	Governance structure	Full	Accountability & Compensation ; Climate Governance
	102-19	Delegating authority	Full	Accountability & Compensation ; Climate Governance

GRI G4 Standards (2016–2020)

Category	Indicator	Issue	Disclosure Level	Disclosure Location
GRI 102: General Disclosures (cont.)	102-20	Executive-level responsibility for economic, environmental and social topics	Full	Accountability & Compensation ; Climate Governance
	102-21	Consulting stakeholders on economic, environmental and social topics	Full	Stakeholder Engagement ; Accountability & Compensation ; Climate Governance
	102-22	Composition of the highest governance body and its committees	Full	Accountability & Compensation
	102-23	Chair of the highest governance body	Full	Accountability & Compensation
	102-24	Nominating and selecting the highest governance body	Full	Accountability & Compensation
	102-25	Conflicts of interest	Full	Operating with Integrity
	102-26	Role of highest governance body in setting purpose, values and strategy	Full	Our Culture ; Operating with Integrity ; Accountability & Compensation
	102-27	Collective knowledge of highest governance body	Full	Accountability & Compensation ; Climate Governance
	102-28	Evaluating the highest governance body's performance	Full	Proxy Statement
	102-29	Identifying and managing economic, environmental and social impacts	Partial	Managing Risk ; Incident Prevention ; Environmental Management
	102-30	Effectiveness of risk management processes	Full	Accountability & Compensation ; Managing Risk ; Climate Governance
	102-31	Review of economic, environmental, and social topics	Full	Our Board of Directors meets at least four times a year and Board committees meet even more regularly. Each committee reviews direct or indirect ESG issues during its meetings.
	102-32	Highest governance body's role in sustainability reporting	Full	Our Board of Directors reviews our sustainability reporting. The ESG Committee plays the largest role in confirming topic coverage and engaging with reporting practices.
	102-33	Communicating critical concerns	Full	Operating with Integrity ; Managing Risk
	102-34	Nature and total number of critical concerns	None	
	102-35	Remuneration policies	Full	Proxy Statement
	102-36	Process for determining remuneration	Full	Proxy Statement
102-37	Stakeholders' involvement in remuneration	None		

GRI G4 Standards (2016–2020)

Category	Indicator	Issue	Disclosure Level	Disclosure Location
GRI 102: General Disclosures (cont.)	102-38	Annual total compensation ratio	None	
	102-39	Percentage increase in annual total compensation ratio	None	
	102-40	List of stakeholder groups	Full	Stakeholder Engagement
	102-41	Collective bargaining agreements	Full	We had no employees engaged in collective bargaining agreements in 2020.
	102-42	Identifying and selecting stakeholders	Full	We engage with all stakeholders impacted directly by our business as noted in the Stakeholder Engagement section.
	102-43	Approach to stakeholder engagement	Full	Stakeholder Engagement
	102-44	Key topics and concerns raised	Full	Reporting Guidance ; Stakeholder Engagement
	102-45	Entities included in the consolidated financial statements	Full	The filing entity is Chesapeake Energy Corporation and our Form 10-K includes an exhibit (Exhibit 21) of significant subsidiaries.
	102-46	Defining report content and topic boundaries	Full	Reporting Guidance
	102-47	List of material topics	Full	Reporting Guidance
	102-48	Restatements of information	Full	We had no restatements of information from 2019 to 2020 sustainability reporting.
	102-49	Changes in reporting	Full	We had no significant changes in 2020 from previous reporting periods related to material topics.
	102-50	Reporting period	Full	Reporting Guidance
	102-51	Date of most recent report	Full	Reporting Guidance ; CEO Letter
	102-52	Reporting cycle	Full	Reporting Guidance
	102-53	Contact point for questions regarding the report	Full	IR@chk.com
	102-54	Claims of reporting in accordance with the GRI Standards	Full	Reporting Guidance
102-55	GRI content index	Full	Content Indices	
102-56	External assurance	Partial	Certain significant data points were verified by a third party, as noted in Reporting Guidance and Climate Metrics .	

GRI G4 Standards (2016–2020)

Category	Indicator	Issue	Disclosure Level	Disclosure Location
GRI 103: Management Approach	103-1	Explanation of the material topic and its boundary	Partial	Reporting Guidance ; Topic Focus
	103-2	The management approach and its components	Partial	We discuss management approaches throughout our report with specific emphasis on the CEO Letter ; Reporting Guidance ; Managing Risk ; Cybersecurity ; Climate Strategy & Risk Management sections.
	103-3	Evaluation of the management approach	Partial	Managing Risk ; Cybersecurity ; Climate Strategy & Risk Management ; S.A.F.E. Culture
GRI 201: Economic Performance	201-1	Direct economic value generated and distributed	Partial	Performance Metrics ; Community Investment
	201-2	Financial implications and other risks and opportunities due to climate change	Full	Climate Strategy & Risk Management
	201-3	Defined benefit plan obligations and other retirement plans	Partial	Our People
	201-4	Financial assistance received from government	N/A	
GRI 202: Market Presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	None	
	202-2	Proportion of senior management hired from the local community	None	
GRI 203: Indirect Economic Impacts	203-1	Infrastructure investments and services supported	Partial	Community Investment
	203-2	Significant indirect economic impacts	Partial	Community Investment ; Owner Relations
GRI 204: Procurement Practices	204-1	Proportion of spending on local suppliers	Full	Supply Chain Management
GRI 205: Anti-Corruption	205-1	Operations assessed for risks related to corruption	None	
	205-2	Communication and training about anti-corruption policies and procedures	Partial	Operating with Integrity
	205-3	Confirmed incidents of corruption and actions taken	None	
GRI 206: Anti-Competitive Behavior	206-1	Legal actions for anti-competitive behavior, anti-trust and monopoly practices	Full	Any material litigation or threatened litigation is noted in our annual 10-K.
GRI 301: Materials	301-1	Materials used by weight or volume	Partial	Water ; Performance Metrics
	301-2	Recycled input materials used	Partial	Water ; Performance Metrics
	301-3	Reclaimed products and their packaging materials	None	

GRI G4 Standards (2016–2020)

Category	Indicator	Issue	Disclosure Level	Disclosure Location
GRI 302: Energy	302-1	Energy consumption within the organization	None	
	302-2	Energy consumption outside of the organization	None	
	302-3	Energy intensity	None	
	302-4	Reduction of energy consumption	None	
	302-5	Reductions in energy requirements of products and services	None	
GRI 303: Water and Effluents	303-1	Interactions with water as a shared resource	Partial	Water
	303-2	Management of water discharge-related impacts	Full	We did not discharge any treated water to surface water or for land application in 2020.
	303-3	Water withdrawal	Partial	Water ; Performance Metrics
	303-4	Water discharge	Full	We did not discharge any treated water to surface water or for land application in 2020.
	303-5	Water consumption	Partial	Water ; Performance Metrics
GRI 304: Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Partial	Biodiversity
	304-2	Significant impacts of activities, products and services on biodiversity	None	
	304-3	Habitats protected or restored	Partial	Biodiversity
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	None	
GRI 305: Emissions	305-1	Direct (Scope 1) GHG emissions	Full	Climate Metrics ; Performance Metrics
	305-2	Energy indirect (Scope 2) GHG emissions	Full	Climate Metrics ; Performance Metrics
	305-3	Other indirect (Scope 3) GHG emissions	Full	Climate Metrics ; Performance Metrics
	305-4	GHG emissions intensity	Full	Climate Metrics ; Performance Metrics
	305-5	Reduction of GHG emissions	Partial	Performance Metrics
	305-6	Emissions of ozone-depleting substances (ODS)	None	
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions	None	

GRI G4 Standards (2016–2020)

Category	Indicator	Issue	Disclosure Level	Disclosure Location
GRI 306: Waste	306-1	Waste generation and significant waste-related impacts	Partial	Waste
	306-2	Management of significant waste-related impacts	Partial	Waste
	306-3	Waste generated	Partial	Waste
	306-4	Waste diverted from disposal	Partial	Waste
	306-5	Waste directed to disposal	None	
GRI 308: Supplier Environmental Assessment	308-1	New suppliers that were screened using environmental criteria	Full	Supply Chain Management
	308-2	Negative environmental impacts in the supply chain and actions taken	None	
GRI 401: Employment	401-1	New employee hires and employee turnover	Partial	Performance Metrics
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	Full	Our People
	401-3	Parental leave	Partial	Our People ; DEI
GRI 402: Labor/Management Relations	402-1	Minimum notice periods regarding operational changes	Full	We report any material changes to our strategy and operations in our 10-K and 10-Q disclosures.
GRI 403: Occupational Health and Safety	403-1	Occupational health and safety management system	Full	S.A.F.E. Culture
	403-2	Hazard identification, risk assessment and incident investigation	Full	S.A.F.E. Culture ; Occupational Health & Safety ; Contractor Safety ; Incident Prevention
	403-3	Occupational health services	Full	S.A.F.E. Culture ; Occupational Health & Safety ; Contractor Safety ; Incident Prevention
	403-4	Worker participation, consultation and communication on occupational health and safety	Partial	S.A.F.E. Culture
	403-5	Worker training on occupational health and safety	Full	S.A.F.E. Culture ; Occupational Health & Safety ; Contractor Safety ; Emergency Preparedness
	403-6	Promotion of worker health	Full	COVID-19 Response ; Health & Well-Being ; Occupational Health & Safety
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Full	Occupational Health & Safety ; Incident Prevention

GRI G4 Standards (2016–2020)

Category	Indicator	Issue	Disclosure Level	Disclosure Location
GRI 403: Occupational Health and Safety (cont.)	403-8	Workers covered by an occupational health and safety management system	Partial	Our HSER management system, which includes occupational health and safety standards, complies with OSHA requirements and covers all of our employees. All contractors are expected to abide by the minimum safety requirements and expectations set forth in our Contractor Handbook and Supplier Code of Conduct.
	403-9	Work-related injuries	Partial	S.A.F.E. Culture ; Occupational Health & Safety ; Contractor Safety ; Performance Metrics
	403-10	Work-related ill health	None	
GRI 404: Training and Education	404-1	Average hours of training per year per employee	Partial	Performance Metrics
	404-2	Programs for upgrading employee skills and transition assistance programs	Full	Our People
	404-3	Percentage of employees receiving regular performance and career development reviews	Full	Our People
GRI 405: Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	Partial	Accountability & Compensation
	405-2	Ratio of basic salary and remuneration of women to men	None	
GRI 406: Non-Discrimination	406-1	Incidents of discrimination and corrective actions taken	None	
GRI 407: Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Full	We are not aware of instances where freedom of association and/or collective bargaining was at risk. We further mention this in our Human Rights section.
GRI 408: Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	Full	Because we only operate in the U.S. and more than 99% of our suppliers are U.S. based, we do not have operations and suppliers at significant risk for child labor incidents. This is also addressed in our human rights policy within the Human Rights section.

GRI G4 Standards (2016–2020)

Category	Indicator	Issue	Disclosure Level	Disclosure Location
GRI 409: Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor		Because we only operate in the U.S. and more than 99% of our suppliers are U.S. based, we do not have operations and suppliers at significant risk for forced or compulsory labor incidents. This is also addressed in our human rights policy within the Human Rights section.
GRI 410: Security Practices	410-1	Security personnel trained in human rights policies or procedures	None	
GRI 411: Rights of Indigenous Peoples	411-1	Incidents of violations involving rights of Indigenous peoples	Full	We had no incidents of violations involving rights of Indigenous peoples.
GRI 413: Local Communities	413-1	Operations with local community engagement, impact assessments, and development programs	Full	Community Investment ; Owner Relations ; Charitable
	413-2	Operations with significant actual and potential negative impacts on local communities	None	
GRI 414: Supplier Social Assessment	414-1	New suppliers that were screened using social criteria	Partial	As part of our screening process all suppliers must commit to and abide by the social criteria outlined in our Supplier Code of Conduct.
	414-2	Negative social impacts in the supply chain and actions taken	None	
GRI 415: Public Policy	415-1	Political contributions	Full	Political Participation
GRI 416: Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	None	
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	N/A	Not applicable
GRI 417: Marketing and Labeling	417-1	Requirements for product and service information and labeling	N/A	Not applicable
	417-2	Incidents of non-compliance concerning product and service information and labeling	N/A	Not applicable
	417-3	Incidents of non-compliance concerning marketing communications	N/A	Not applicable
GRI 418: Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	Full	We had no instances of substantiated complaints concerning breaches of customer privacy and losses of customer data in 2020.