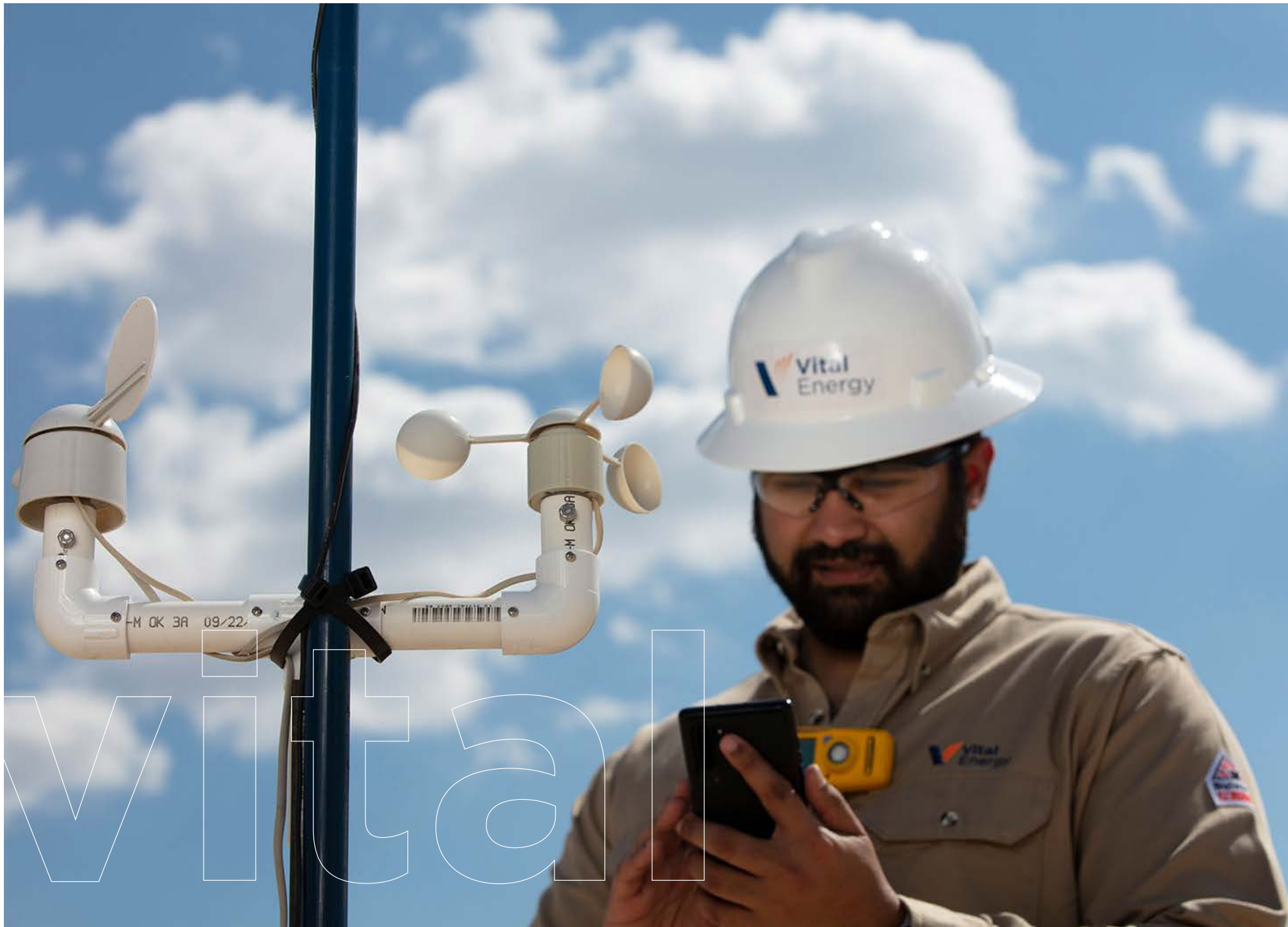




2023
Climate Risk
and Resilience
Report



in this report



Please visit our [2023 Sustainability Report](#) or vitalenergy.com for more information.



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Letter from Our Leaders November 2023

Vital Energy exists to energize human potential. We see a future where people are powered by sustainable and abundant energy — a vision we intend to achieve by producing the affordable, lower carbon intensity energy needed to power people’s lives.

Global energy challenges require balancing energy security demands with a lower carbon economy. As an industry, we must accept our responsibility to lower our respective emissions profiles, while maintaining affordable and reliable supply. At Vital Energy, this means using innovation and our limitless mindset in support of global climate goals.

Through strong governance, targeted goal setting and proactive emissions reduction programs, we are working to be a leader among our peers in a low carbon future. It is our goal to reduce our emissions and emissions intensity, while mitigating the risks associated with climate-related impacts.

On this matter, our comprehensive approach to emissions reduction is working. After setting four short-term targets, we have already achieved two of them — our 2022 Scope 1 Greenhouse Gas (GHG) emissions intensity is below our 2025 target of 12.5 mtCO₂e/MBOE and our methane emissions are below our 2025 target of 0.20%¹ — three years ahead of schedule.

¹ As a percentage of natural gas produced.

We reached these milestones by instilling environmental and safety management best practices across our Company and investing in new technologies to optimize production, lower operating costs and reduce our emissions. We commend every Vital Energy employee for making environmental stewardship a daily priority.

We are proud of our measurable progress and must continue to take advantage of this significant momentum. As our partners, we encourage your accountability, and we pledge to continue to transparently report on our performance.

Today’s energy challenges are complex, but our work (and most importantly, our product) is vital. We provide access to the energy that powers life, and we are committed to doing this both reliably and responsibly. Thank you for your interest as we work together to create a future that provides plentiful energy for all.

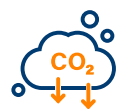
Sincerely,

Jason Pigott
President and CEO

William Albrecht
Chair, Board of Directors

Jarvis V. Hollingsworth
Chair, Nominating, Corporate Governance, Environmental and Social Committee of the Board of Directors

our targets by 2025



< 12.5 mtCO₂e / MBOE
Scope 1 GHG Emissions Intensity

ACHIEVED



< 0.20%
Methane Emissions¹

ACHIEVED



Eliminate
Routine Flaring



50% Recycled Water
for Completion Operations



< 10 mtCO₂e / MBOE
Scope 1 and 2 GHG Emissions Intensity

by 2030



Ready for a Lower Carbon Future

The world needs access to reliable, affordable energy that is also low carbon. Vital Energy is meeting this challenge, recognizing our stakeholders and our industry’s responsibility to reduce its carbon footprint to better align with global climate goals.

We’ve made significant progress toward achieving our climate-related targets. Vital Energy is also proud to be the first Permian operator to receive a third-party, industry-specific certification for responsible operations through Project Canary’s TrustWell™ Certification.¹ This certification placed Vital Energy in the top quartile of U.S. onshore operators committed to risk mitigation and environmental responsibility.

This year, we also expanded our certification and continuous emissions monitoring programs to cover our near-term development program, representing approximately 60% of our gross operated oil production. In part due to this program expansion, we were the first company to earn a AAA Low Methane Rating. Of our 2022 certified volumes, 80% achieved a Low Methane Rating for site specific emissions less than 0.20% methane as a percentage of natural gas produced.



Progress Toward Achieving our Climate Targets

Category	2019 Baseline	Target	2022 Performance	Target Status
by 2025	Scope 1 GHG emissions intensity	26.03 mtCO ₂ e / MBOE	below 12.5 mtCO ₂ e / MBOE (52% reduction from baseline)	10.70 mtCO ₂ e / MBOE Achieved (59% reduction from baseline)
	Methane emissions	0.87% ²	below 0.20% (77% reduction from baseline)	0.11% Achieved (87% reduction from baseline)
	Routine flaring	867 MMCF / year	Zero	500 MMCF / year 42% reduction to date
	Recycled water	35% water recycling rate 8 million bbls recycled	50% for completion operations	49% water recycling rate 18.5 million bbls recycled 99% toward our target
by 2030	Combined Scope 1 and 2 GHG emissions intensity	26.53 mtCO ₂ e / MBOE	below 10 mtCO ₂ e / MBOE (62% reduction from baseline)	12.37 mtCO ₂ e / MBOE 86% toward our target 53% reduction to date

¹ Project Canary is a third-party organization that offers holistic environmental assessments. The TrustWell score measures internal processes and operational risk profiles, while the Low Methane Rating focuses exclusively on methane intensity at both the basin and site level.

² As a percentage of natural gas produced.

The World Needs Access to Reliable, Affordable Energy

By 2050, the world economy could more than double in size, with emerging markets growing nearly twice as fast as advanced economies.¹ Historically, when economies grow so does energy demand.

Yet, for the first time in two decades, the number of people without access to modern energy is also increasing. According to the International Energy Agency (IEA), 770 million people live without electricity and often the electricity that is available is unreliable.² Additionally, more than 2.5 billion people rely on inefficient and polluting cooking fuels like animal dung and crop waste.³ This means that nearly one out of every three people on earth doesn't have the reliable energy they need to energize their potential.

As our energy demands increase, our society is also calling for lower carbon energy to confront the impacts of climate change. While some may view these needs as competing, we recognize that the most sustainable operators will be reliable, lower cost and lower carbon.

United States Production Leads in Emissions Reduction

The U.S. is the largest oil and natural gas producer in the world and has already shown measurable progress in reducing emissions.⁴ Using flaring as a proxy for environmental performance, the U.S. has stronger performance than all other countries that have material volumes of energy production. Additionally, flaring associated with U.S. oil and natural gas production has declined more rapidly than any other country, underscoring our commitment to producing reliable and environmentally sustainable energy.⁵

U.S. oil and natural gas production is highly regulated, ensuring proper governance and a high degree of concern for the safety and well-being of our workforce and operating areas. Like Vital Energy, many companies in our industry are committed to protecting human rights and creating a safe, inclusive workplace for all.

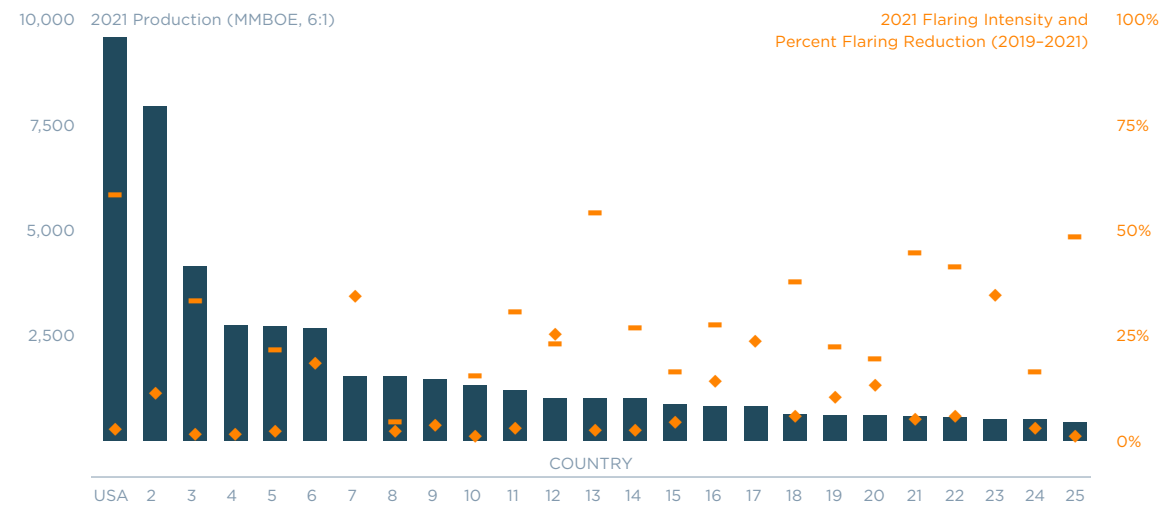
U.S. Oil & Natural Gas

- Highest production
- Among lowest flaring intensity
- Highest reduction in flaring since 2019

Global Production vs. Flaring⁵

- Production (MMBOE) (2021)
- ◆ Flaring Intensity (MCF / BOE) (2021)
- ▬ Percent Flaring Reduction (2019–2021)

* Countries with increased flaring



¹ PWC, "The Long View: How Will the Global Economic Order Change by 2050?" February 2017. Accessed May 2023.

² IEA, "Access to Electricity." Accessed April 2023.

³ IEA, "Access to Clean Cooking." Accessed April 2023.

⁴ U.S. Energy Information Administration, "Rankings about Energy in the World," production through 2021. Accessed September 2023.

⁵ Enverus, May 2023.

The World Needs Access to Reliable, Affordable Energy CONTINUED

Lower Cost Operators are More Sustainable

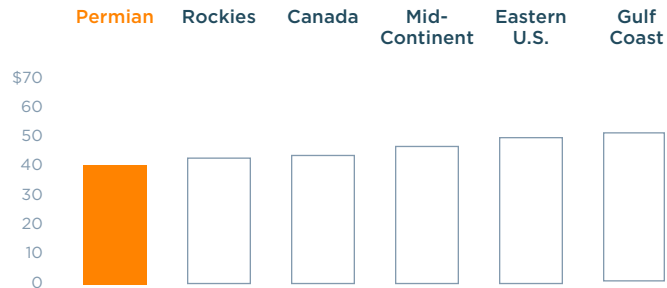
To best meet future energy demand, we must consider a mix of reliable fuel and energy sources. As more energy options enter the market, demand for any one energy type may decrease and future industry leadership will be driven in part by cost efficiency. Those producers with the lowest costs will have a significant advantage in a more competitive marketplace.

Vital Energy operates in the Permian Basin, which boasts the lowest breakeven development costs for existing oil and natural gas plays in North America. Furthermore, our assets are in the Permian's two lowest cost sub-basins (Delaware and Midland). These strategic locations, coupled with our continued commitment to optimizing our production, underscore the resilience of our assets.¹



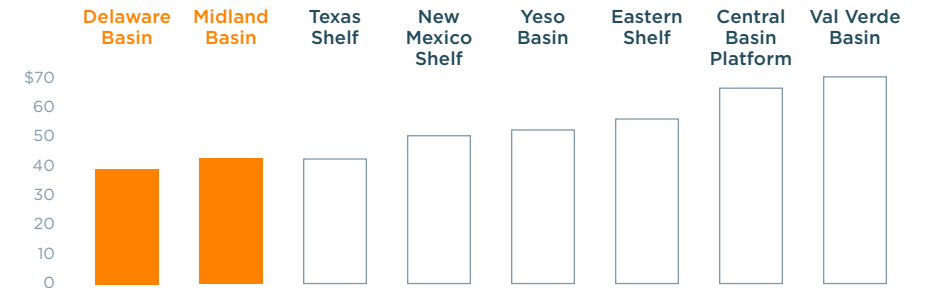
¹ Enverus. Breakeven data (20:1) for North American Oil and Natural Gas Basins, April 2023. Enverus. Breakeven data (20:1) for Permian Basin sub-basins, April 2023.

Breakeven Oil Prices for North American Oil and Natural Gas Basins¹



Vital Energy assets are well positioned to continue supplying the lower cost, lower carbon energy the world needs.

Breakeven Oil Prices for the Permian Basin¹



Vital Energy Operations



TCFD
Response

Governance

We believe that good governance is responsive to stockholder interests and considers the long-term sustainability of the Company. Both attributes contribute positively to our governance around climate-related matters.

Our Board’s Nominating, Corporate Governance, Environmental and Social Committee (NGE&S) is responsible for monitoring and evaluating programs and policies related to environmental, social and governance (ESG), including climate-related risks. Climate concerns and issues are discussed at each quarterly committee meeting and relevant updates are provided to the Board-at-large at least quarterly. At quarterly Committee meetings, the Committee actively monitors performance toward our targets and provides updates to the Compensation Committee on ESG metrics related to our Short-Term Incentive Program (STIP) and Long-Term Incentive Program (LTIP).

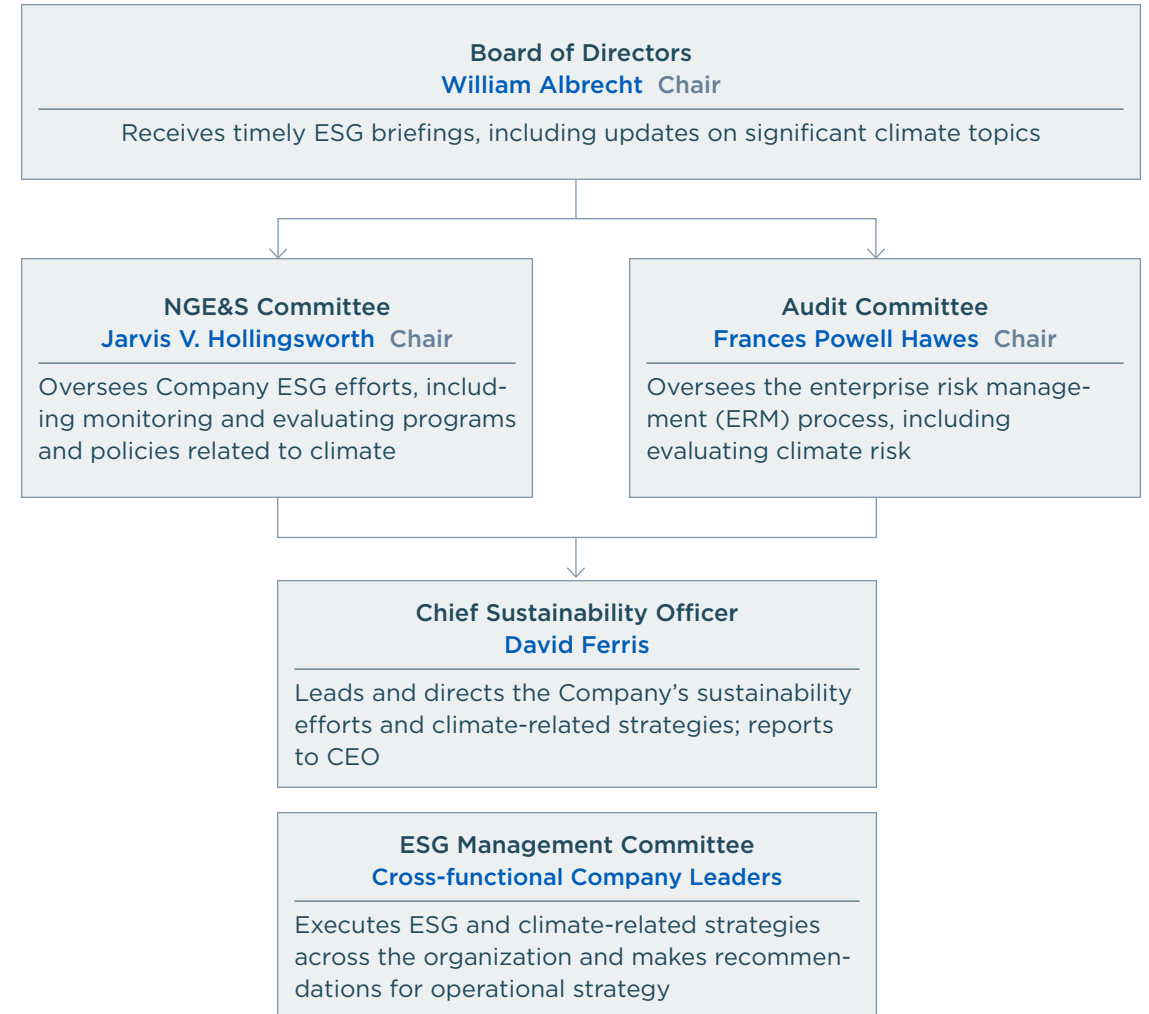
In 2022, our Board held 27 meetings in Committee, or as a full Board, with climate and ESG-related items discussed during 63% of those meetings.

63%

At an organizational level, our ESG Management Committee (a multi-disciplined team including leaders from operations, business development, finance and accounting, supply chain, legal and audit, and human and investor relations) leads our emissions reduction strategy and activity as directed by our Chief Sustainability Officer (CSO). In his role, our CSO reports to the CEO and provides regular updates at NGE&S Committee meetings. At least annually, this combination of leadership works together to establish the Company’s overall sustainability strategy, targets and ESG compensation metrics.

For the past two years (2021 and 2022), we tied ESG metrics to our executive and employee compensation programs. Specific to climate, our LTIP includes the achievement of our 2025 emissions reduction targets. More detail on our Governance practices can be found [here](#).

Governance At-a-Glance



Strategy

Scenario Analysis and Strategy Resilience

After conducting our first scenario analysis in 2021, we continue to review climate scenarios (1.5°C, 2°C and net zero) annually to test the resilience of our asset portfolio and understand the potential impacts of climate change on our business operations and financial performance. In our analysis, we evaluate the carbon pricing transition risks to our business that may occur in any of the potential futures that may exist throughout the global economy's energy transition.

We expect our assets to be resilient sources of reliable energy in a variety of low carbon climate scenarios, including 2°C, 1.5°C and net zero, according to our risk and scenario analysis.

For our 2023 scenario analysis, we evaluated eight individual scenarios developed from the IEA, Wood Mackenzie and the Network for Greening the Financial System (NGFS), analyzing the projected pricing of oil from 2030 through 2050 against our breakeven price in five-year increments. We believe this analysis provides a comprehensive picture of carbon pricing transition risk across the next decade.

Given the nature of our business, one of our greatest climate-related risks revolves around the potential for future market shifts, particularly through regulations that may impact demand for oil and mechanisms that implement carbon pricing in a net zero scenario. Our scenario analysis is therefore focused on evaluating this specific climate-related transition risk. We may consider other forms of climate scenario analyses in the future.

¹ USD per barrel (prices normalized to 2019 USD)

² The three integrated assessment models utilized were the REMIND-MAGPIE model developed by the Potsdam Institute for Climate Impact Research (PIK), the MESSAGEix-GLOBIOM model developed by the International Institute for Applied Systems Analysis (IIASA), and the GCAM model was developed by the Pacific Northwest National Laboratory (PNNL).

The table below includes each scenario's median expected price of crude oil, incorporating any expected carbon pricing that may exist in each particular scenario.

Expected Crude Oil Price for Scenarios¹

Scenario	Description	2030	2040	2050
IEA NZE Scenario	Related to the global energy sector, achieves net zero emissions by 2050, with advanced economies reaching net zero before others (consistent with limiting global temperature rise to 1.5 °C)	\$35	\$30	\$24
Divergent NZ REMIND (NGFS)	Reaches net zero around 2050 but with higher costs due to divergent (but immediate) policies introduced across sectors; to account for uncertainty, each scenario has been generated by 3 different integrated assessment models ²	\$66	\$69	\$79
Divergent NZ MESSAGEix (NGFS)		\$71	\$99	\$177
Divergent NZ GCAM (NGFS)		\$64	\$61	\$65
NZ 2050 REMIND (NGFS)	Limits global warming to 1.5 °C through stringent climate policies and innovation, reaching net zero CO ₂ emissions around 2050; to account for uncertainty, each scenario has been generated by 3 different integrated assessment models ²	\$70	\$75	\$89
NZ 2050 MESSAGEix (NGFS)		\$75	\$125	\$165
NZ 2050 GCAM (NGFS)		\$65	\$64	\$70
Wood Mackenzie AET-2.0	Limits global warming to 2°C through a significant erosion of fossil fuel demand, but resilient gas demand	\$40	\$40	\$30



Strategy Resilience

Although there are risks, we find that the shift to a net zero scenario also offers opportunity for Vital Energy. The United States Energy Information Administration (EIA) and the IEA both continue to project that oil and natural gas will remain a significant part of the global energy mix across most scenarios limiting warming to 1.5°C or 2°C. In the IEA Net Zero Emissions by 2050 Scenario, oil and natural gas are projected to account for 8% and 11% (respectively) of the world’s primary energy demand.¹

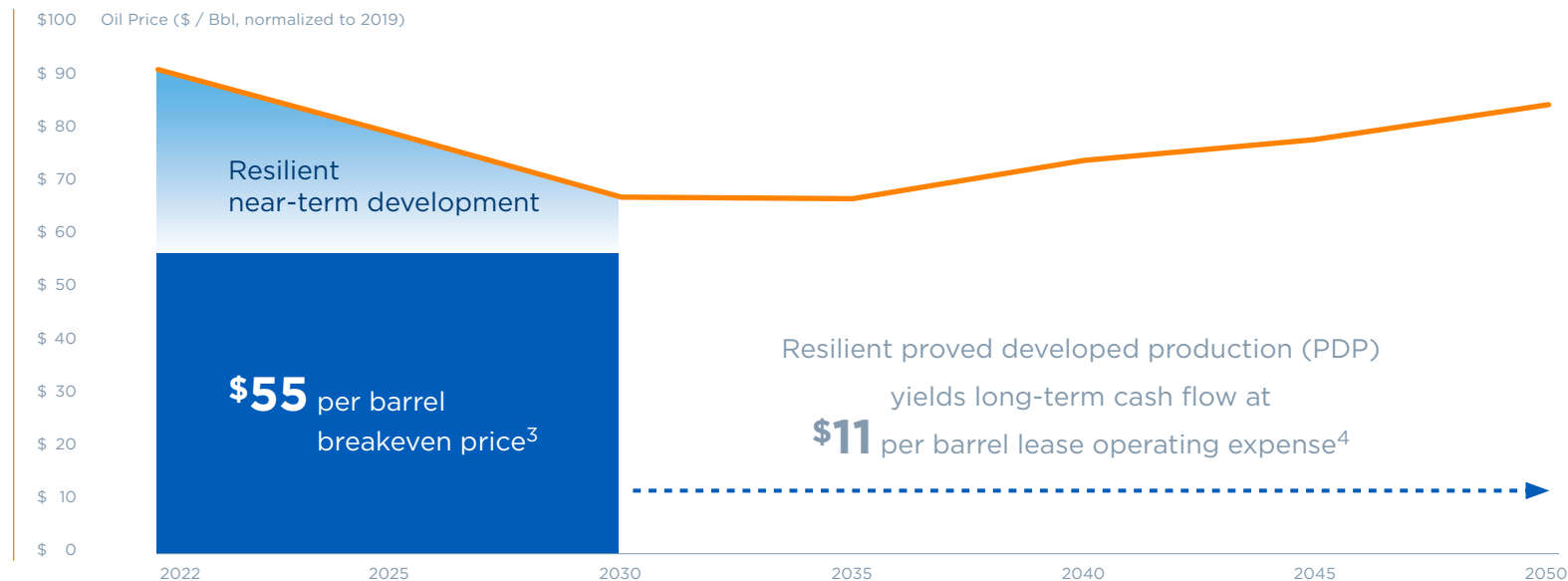
This means that even in a net zero scenario, oil and natural gas production will represent approximately 20% of future energy supply.¹ Given our focus on lowering the carbon intensity of our oil and natural gas production, and our position in two of the most economic basins in the world, we believe we are well positioned to supply a portion of this future oil and natural gas demand.

Vital Energy’s assets in the Permian Basin have a projected breakeven cost of \$55 per barrel of oil for our development plans for the next 10 years, which is well below the median expected price of crude oil across six of the eight different 2°C, 1.5°C and net zero scenarios reviewed.³ Beyond 2030, our projected lease operating expense is \$11 per barrel, suggesting Vital Energy’s assets and operations will deliver long-term cash flow in a net zero future.⁴

This analysis also reaffirms our strategic approach to sustainable production focused on using technological innovation to drive both efficiency and reduce our environmental impact. We are confident our current asset portfolio will remain resilient in a low carbon energy future. We will continue to evaluate the impact climate-related risks and opportunities may have on our future strategy and financial performance.

Inventory Resilience Through 2030 Provides Long-term Cash Flow

- Average Development Inventory Breakeven (per barrel)
- ⋯ Average Lease Operating Expense (per barrel)
- Median Oil Price Across Climate Scenarios²



¹ IEA, “[Net Zero by 2050: A Roadmap for the Global Energy Sector](#),” Accessed April 2023.

² We utilized the following climate scenarios from Central Banks and Supervisors Network for Greening the Financial System (NGFS) and the IEA to create the median net zero curve: Divergent NZ REMIND, Divergent NZ MESSAGEix, Divergent NZ GCAM, NZ 2050 REMIND, NX 2050 MESSAGEix, and NZ 2050 GCAM.

³ Breakeven price calculated using a 20:1 natural gas to oil ratio; Vital Energy [June 2023 Investor Presentation](#). Breakeven price doesn’t reflect acquisitions made in 2023.

⁴ Average Lease Operating Expense (December 2022, SEC reserves case)

Climate Risk and Resilience Report



Strategy CONTINUED

Taking Advantage of Opportunities, Recognizing Risks

We are ready for a lower carbon future, in part because of our strategic planning around climate-related opportunities and risks.

Climate risks and opportunities are included in our strategy development and influence our capital budget allocation. Investment decisions are informed by our carbon abatement curve, with input from our ERM process, to guide investments toward projects that mitigate risk or are both economically and environmentally sustainable.

Additionally, these investments are in line with our emissions reduction targets and included in both our STIP and LTIP programs to create further alignment with climate risks and opportunities across the Company. These considerations are included in our business strategies and budgets and approved by our Board annually.

Time Horizons for Climate Risks and Opportunities

Near-term

1-3 years

Medium-term

4-6 years

Long-term

7-10 years

Opportunities	Potential Timing	Potential Impacts on Business, Strategy and Financial Planning
Resource Efficiency — By making our processes more efficient, we could experience reduced operating costs.	Near-term	<ul style="list-style-type: none"> Increased product due to low carbon intensity operations Decreased disposal costs due to water recycling and reuse More operational flexibility due to less reliance on natural resources
Energy Source — The market could shift to prefer lower-emitting sources of energy.	Near- to Medium-term	<ul style="list-style-type: none"> Increased demand (and revenue) for responsibly sourced oil and gas Returns on investment in our adoption of low-emissions technology Increased capital availability and reputational benefits
Products and Services — Development of new climate-related services or products adjacent to our industry could be investment or expansion opportunities.	Medium- to Long-term	<ul style="list-style-type: none"> Increased revenue through solutions and access to industry-adjacent markets Diversification of product offerings



Climate Risk and Resilience Report

Strategy CONTINUED



We evaluate transition and physical risks as defined by the Task Force on Climate-related Financial Disclosure (TCFD)'s recommendations.¹

Climate-related Risk Drivers	Potential Timing	Potential Impacts on Business, Strategy and Financial Planning
<p>Transition Risks</p> <p>Policy and legal — Climate change legislation or emissions-limiting regulations could restrict GHG emissions and expose the industry to litigation, which may not be covered under our insurance policies.</p>	<p>Near-, medium- and long-term</p>	<ul style="list-style-type: none"> • Increased operating costs, including purchasing and operating emissions control systems or other programs to comply with regulatory requirements • Reduced earnings due to increased operating costs and/or reduced demand • Affected ability to conduct operations and/or incurred operational delays • Decreased future demand
<p>Technology — Markets could substitute fossil fuel products for lower emissions options, plus we could incur costs to adopt lower emissions technology into our portfolio.</p>	<p>Near-term</p> <hr/> <p>Long-term</p>	<ul style="list-style-type: none"> • Increased operating costs, including purchasing and operating emissions control systems or other programs to comply with regulatory requirements • Capital investment loss if technologies are unsuccessful <hr/> <ul style="list-style-type: none"> • Decreased future demand, reduced revenue
<p>Market — Fuel and energy conservation measures, alternative fuel requirements and the increased competitiveness of alternative energy could reduce oil and natural gas demand.</p>	<p>Long-term</p>	<ul style="list-style-type: none"> • Decreased future demand, reduced revenue
<p>Reputation — Key stakeholders, including investors, could shift their market opinions driven by negative sentiment toward our sector.</p>	<p>Long-term</p>	<ul style="list-style-type: none"> • Reduced access to investment capital • Reduced access to financial loans or available capital funding • Unable to achieve desired level of capital efficiency or free cash flow within desired timeline
<p>Physical Risks</p> <p>Acute — We could experience increased severity of extreme weather events.</p>	<p>Medium-term</p>	<ul style="list-style-type: none"> • Increased insurance premiums or reduced ability to secure insurance on “high-risk” assets
<p>Chronic — Globally, there could be changes in precipitation patterns, as well as rising temperatures and sea levels.</p>	<p>Long-term</p>	<ul style="list-style-type: none"> • Increased operating costs due to property damage or loss (resulting damage may not be fully insured) • Reduced revenue if production ability is impacted • Increased threat of environmental or safety incidents • Increased operating costs due to water stress

¹ TCFD, “Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures,” pgs. 75 and 76.



Risk Management

Vital Energy is committed to assessing physical, energy transition and climate-related risks as part of our ERM process and environmental management system. These processes help embed climate-related risks more deeply into our strategic planning process and work to ensure the highest possible data quality of our emissions inventories.

Our ERM process identifies, assesses, prioritizes and mitigates the Company’s most significant enterprise risks and uncertainties that could materially impact the long-term health of the Company or prevent the achievement of strategic objectives. It is an iterative exercise consisting of the following steps:



Vital Energy’s Director of Internal Audit manages our ERM process and functionally reports to our Board’s Audit Committee and administratively reports to our General Counsel. As a member of the ESG Management Committee, our Director of Internal Audit tracks and monitors climate-related risks and mitigation plans. Our Board reviews ERM findings and risk mitigation plans at least annually. Our Chief Sustainability Officer (strategy) and our Vice President of Operations (implementation) then manage these plans.

Climate-Related Risks and Mitigation

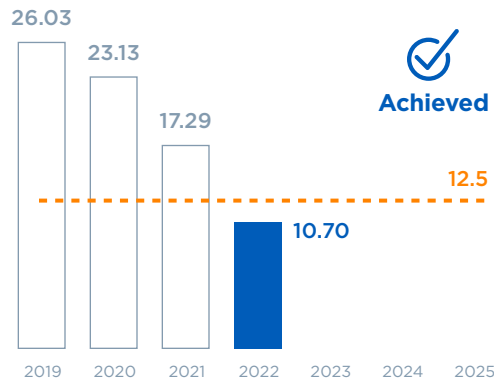
Risk	Ongoing Mitigation
Policy and legal	<ul style="list-style-type: none"> Active monitoring and stakeholder engagement Voluntary GHG emissions reduction strategy and target setting
Technology	<ul style="list-style-type: none"> Thorough pilot testing and adoption of new technology with proven track record of success Participation in and collaboration with industry trade associations for information sharing
Market	<ul style="list-style-type: none"> Voluntary GHG emissions reduction strategy and target setting Strategic hedging program and focus on developing low cost, high-margin assets
Reputation	<ul style="list-style-type: none"> TrustWell™ Certification as responsibly sourced oil and natural gas Transparency in sustainability reporting, goal setting and progress
Physical (acute)	<ul style="list-style-type: none"> Emergency response preparedness Spill prevention and containment procedures Water stewardship and conservation goals and programs
Physical (chronic)	<ul style="list-style-type: none"> Water stewardship and conservation goals and programs Duplicative gas takeaway initiative and programs

Metrics and Targets

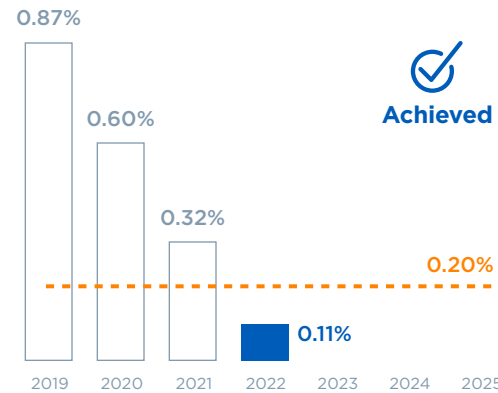
Vital Energy tracks and monitors a number of climate-related metrics, which are verified with limited assurance by a third party. Our priority is to reduce the Scope 1 and 2 emissions associated with our operations. When developing our climate targets, we created corresponding roadmaps to achieve our reductions. Our Board has ultimate oversight of these targets and receives quarterly progress updates at Board and Committee meetings.¹

Emissions Reduction Targets and Progress

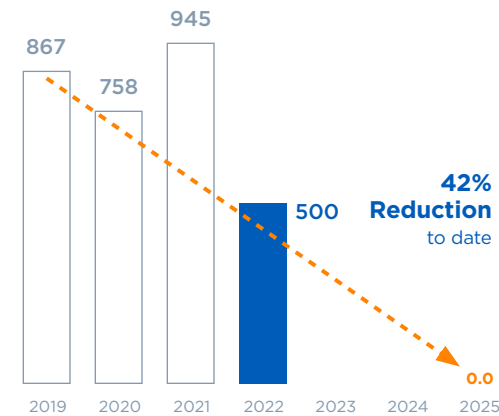
Scope 1 GHG Emissions Intensity Target
by 2025 (mtCO₂e / MBOE)



Methane Emissions Target⁴
by 2025 (mtCH₄ / MCF)

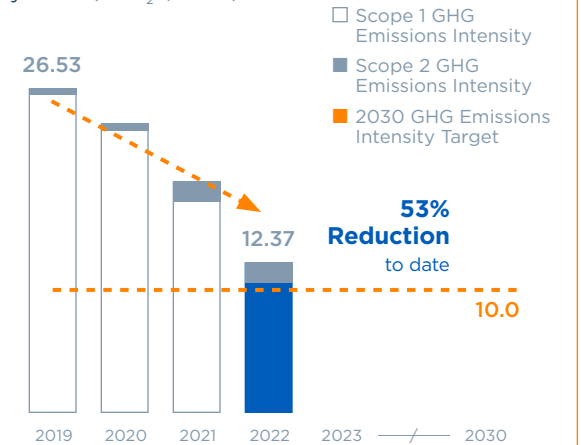


Elimination of Routine Flaring Target
by 2025 (MMCF per year)



42%
Reduction
to date

Scope 1 and 2 GHG Emissions Intensity Target
by 2030 (mtCO₂e / MBOE)



53%
Reduction
to date

Metric	2019 ²	2020 ²	2021	2022	
Absolute Emissions	Scope 1 emissions (mtCO ₂ e)	1,070,077	950,218	708,178	452,106
	Scope 2 emissions (mtCO ₂ e)	20,288	21,578	65,361	70,574
	Scope 3 emissions ³ (mtCO ₂ e)	14,572,966	14,450,486	14,719,384	15,524,955
Emissions Intensities	Scope 1 GHG emissions intensity (mtCO ₂ e / MBOE)	26.03	23.13	17.29	10.70
	Methane emissions ⁴ (mtCH ₄ / MCF / gross annual production as reported under subpart W (MBOE))	0.87%	0.60%	0.32%	0.11%

¹ For hard-to-abate emissions, we may consider the future use of high-quality offsets; however, we do not intend to use offsets to reduce emissions that could otherwise be economically abated.

² In 2021, we closed on two acquisitions. The 2019 and 2020 Scope 1 emissions data published in this report has been recalculated to include emissions for these acquisitions.

³ Scope 3 emissions estimates are based on gross operated sales volumes using the Ipeica Scope 3 Category 11 methodology. This methodology assumes oil and natural gas sold was burned as fuel and incorporates EPA GHG emissions factors. Gross operated sales volumes were used in our Scope 3 emissions estimations to prevent double counting of energy used in operations to produce oil and natural gas, which falls under Scope 1 emissions.

⁴ Methane emissions intensity is calculated as a percentage of natural gas produced.

Emissions Reduction Initiatives

In support of our climate targets, we are committed to reducing our emissions through voluntary efforts that go beyond compliance with regulatory requirements. We dedicated both resources and expertise toward abating our Scope 1 and 2 emissions, which enabled us to achieve our Scope 1 GHG emissions intensity target ahead of schedule.

To continue our progress and help us plan for future capital expenditures, we adopted a carbon abatement cost (CAC) curve. The results of this curve show expected money spent compared to emissions reduction results — enabling better decision-making when selecting solutions that provide carbon abatement relative to the cost of offsetting such emissions.

Using our CAC curve, our pathway to continued emissions reductions and our 2030 target include:

1 Enhancing monitoring and leak mitigation

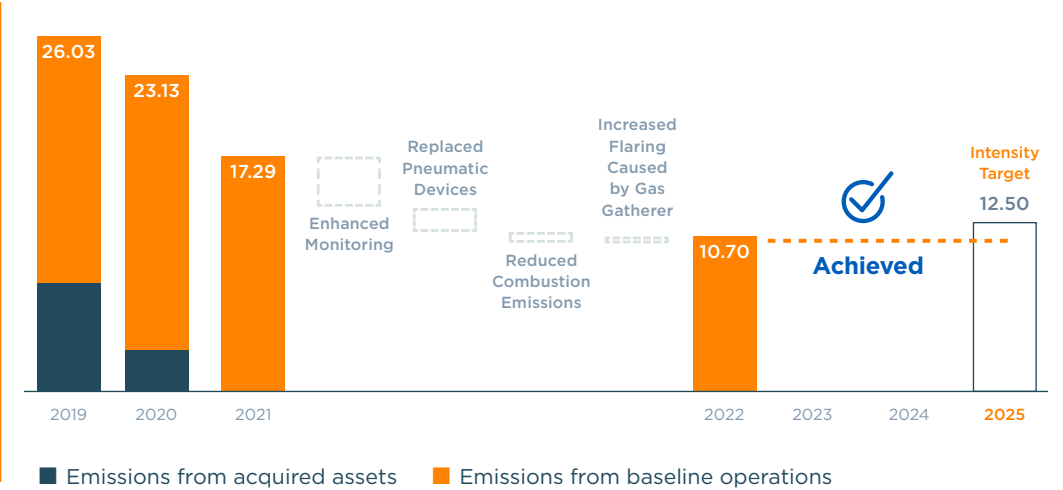
2 Reducing flared and vented emissions

3 Electrifying operations

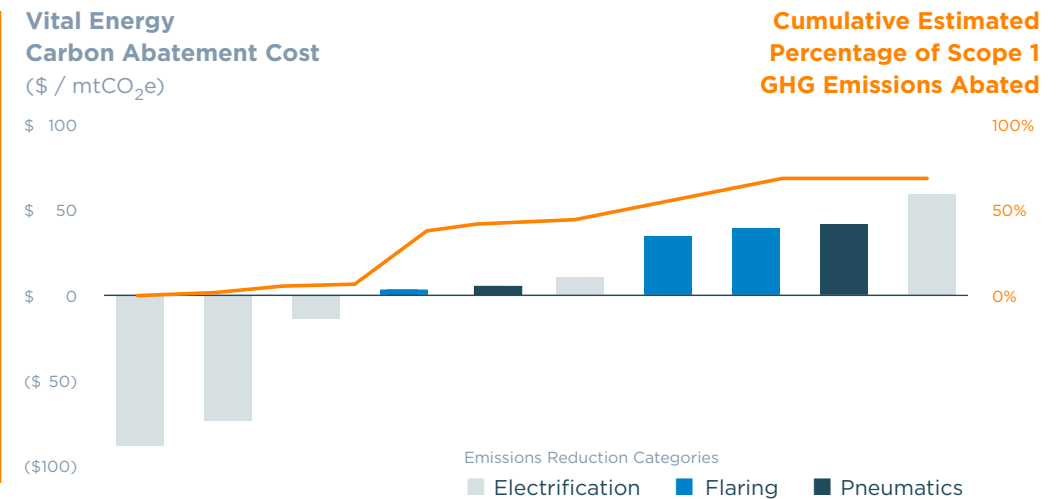


Reduction Progress vs. 2025 Target

Scope 1 GHG Emissions Intensity (mtCO₂e / MBOE)



Carbon Abatement Cost Curve



Emissions Reduction Initiatives CONTINUED

1

Enhancing Monitoring and Leak Mitigation

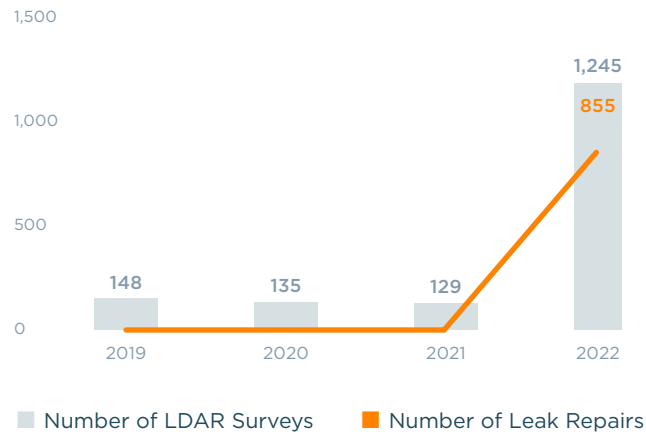
As part of our digital transformation, called Intelligent Well, we adopted technology solutions that help to reduce emissions through continuous emissions monitoring systems (CEMS) and early leak detection. These solutions include thermal imaging cameras (computer vision), IoT sensor arrays and continuous emissions monitoring systems.

We deployed CEMS to monitor approximately 60% of our gross operated oil production. Combining the data from these devices enables us to detect, and in some cases predict, when emissions events will occur. On-site sensors and computer vision produce real-time measurements that predict potential venting events associated with equipment failure, including predicting a vapor recovery unit failure as shown in the chart to the right.

In addition to on-site monitoring tools, we expanded our Leak Detection and Repair (LDAR) program to inspect all Company-operated facilities at least quarterly, and we are using a drone to inspect our gathering lines, compressor sites and other operated facilities.

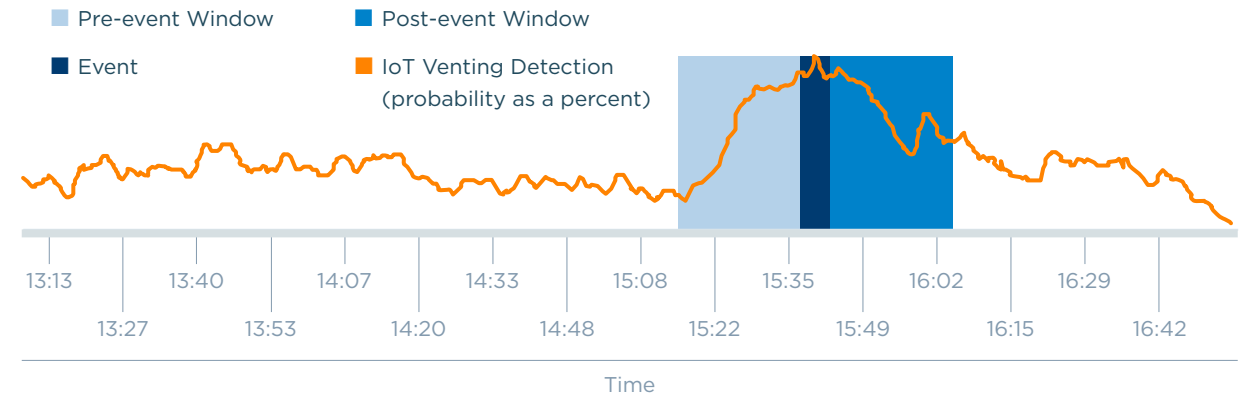
Increased LDAR and Monitoring

- Expanded CEMS to cover approximately 60% of gross operated oil production
- Conducted regular inspections of facilities without CEMS
- Completed quarterly LDAR inspections at all operated facilities

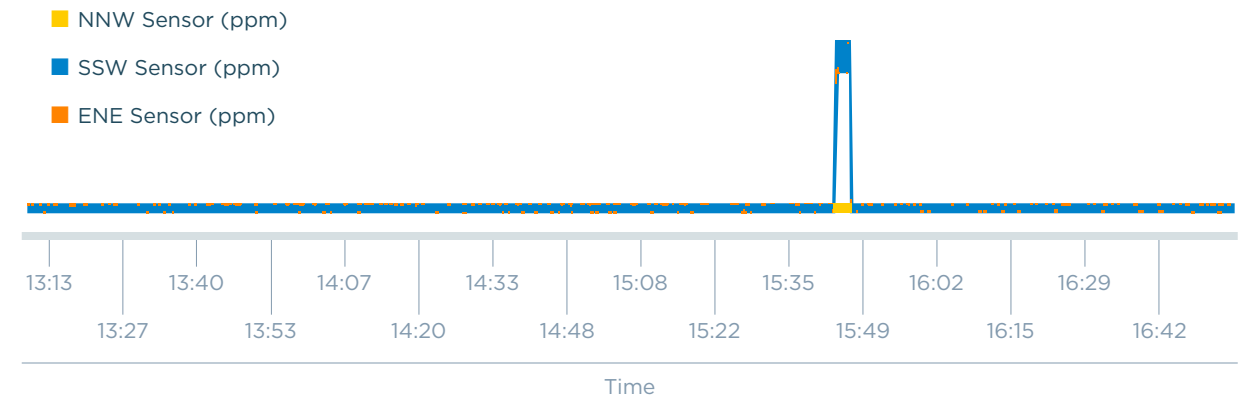


Computer Vision Predicts / Detects Emissions Event, Confirmed by CEMS

Computer Vision



Continuous Emissions Monitoring System



Emissions Reduction Initiatives CONTINUED

2 Reducing Flared and Vented Emissions

We are committed to zero routine flaring by 2025, in alignment with the World Bank Zero Routine Flaring Initiative. In 2022, we continued to reduce routine flaring volumes, resulting in a 42% reduction since our 2019 baseline — and we are on track to meet our 2025 target.

Additionally, we are proud to have reduced total flaring by 28% since 2019. Non-routine flaring caused by our gas gatherer accounted for 62% of our total flared volumes in 2022.

By proactively communicating with our gas gatherers, we help mitigate the impact of their service disruptions. Where appropriate, we continue to proactively invest in multiple gas pipeline connections, decreasing our dependence on the performance for any one given gas gatherer. Given additional gas processing and takeaway in the basin, we expect non-routine flaring to decrease over the medium-term.

Related to vented emissions, we continue to test and implement new initiatives and technologies to mitigate vented emissions, including:

Converting vented pneumatic devices

to non-vent with intermittent back-pressure valves expected to be replaced by the end of 2023 and all remaining vented devices to be converted to non-vent by 2025

Outfitting all new Company-operated facilities with vapor recovery systems

to minimize emissions during routine operations and on-site combustors to minimize emissions during non-routine emergency events

Expanding our Continuous Emissions Monitoring Systems

(CEMS), currently covering approximately 60% of gross operated oil production, to mitigate emissions at Company-operated facilities



3 Electrifying Operations

To further reduce our Scope 1 emissions, we're incorporating electrification into our operations. We recently converted our Tier IV dual-fuel hydraulic fracturing fleet to an electric fleet, which began operations in early 2023. Additionally, we use a closed-loop flowback system to mitigate leaks from occurring during our completion and flowback operations.

Our production operations have eliminated the use of diesel generators and continue to evaluate opportunities to electrify portions of our drilling and production operations. For example, in our 2023 drilling program, we powered several multi-well pad developments with lower carbon electricity from the ERCOT grid. In areas where there is no access to electric grid power, we use natural gas generators to power our completion and production operations until alternative sources of low carbon electricity are available.

Additionally, at facilities where utility power is not yet available, we incorporated an innovative "mobile pipeline" to use liquified natural gas (LNG) to power natural gas generators, as opposed to using diesel. Being unafraid to challenge the status quo and pilot new technologies help us mitigate our environmental impact and improve our operational performance.

Emissions Reduction Initiatives CONTINUED



Reduction Initiatives by Emissions Type

Scope 1 Emissions	Scope 2 Emissions	Scope 3 Emissions
<ul style="list-style-type: none"> • Replacing pneumatic devices and reducing vented emissions • Expanding electrification of field operations • Expanding continuous emissions monitoring and our LDAR program • Monitoring approximately 60% of gross operated oil production via continuous emissions monitoring program 	<ul style="list-style-type: none"> • Exploring renewable energy partnerships, particularly those partnerships that create additional renewable energy on the grid vs. buying unbundled renewable energy credits 	<ul style="list-style-type: none"> • Partnering with third-party midstream and refining companies to mitigate emissions across the value chain • Collaborating with energy consumers in our value chain to explore opportunities for mutual benefit

Climate Risk and Resilience Report

Task Force on Climate-related Financial Disclosures (TCFD)



The Financial Stability Board created the TCFD to improve and increase reporting of climate-related financial information. The work and recommendations of the Task Force help organizations better understand what financial markets want from disclosure in order to measure and respond to climate change risks. TCFD recommendations are structured around four thematic areas that represent core elements of how organizations operate: governance, strategy, risk management, and metrics and targets.

RECOMMENDED DISCLOSURE	RESPONSE
Governance	
Board oversight	<p>Our Board's Nominating, Corporate Governance, Environmental and Social (NGE&S) Committee is accountable for monitoring and evaluating programs and policies relating to ESG, including climate-related risks. Climate concerns and issues are discussed at each quarterly committee meeting and relevant updates are provided to the Board-at-large at least quarterly. Also at quarterly meetings, the Committee actively monitors performance toward our targets and provides updates to the Compensation Committee on ESG metrics related to our Short-Term Incentive Program (STIP) and Long-Term Incentive Program (LTIP).</p> <p>Specific to risk (including climate-related risk), our Board receives an annual enterprise risk management (ERM) report that includes identified risks and mitigation plans.</p> <p>A more thorough climate governance structure is available in our Governance section.</p>
Management's role in assessing and managing climate-related risks	<p>At an organizational level, our ESG Management Committee leads our emissions reduction strategy and activity and executes climate-related risk mitigation plans, as directed by our Chief Sustainability Officer (CSO). This committee is a multi-disciplined team of internal leaders from the operations and business development, finance and accounting, supply chain, legal and audit, and human and investor relations teams, in addition to other departments.</p> <p>Our CSO leads and directs the Company's sustainability efforts, including guiding climate-related strategies. He reports to the CEO and provides regular updates at NGE&S Committee meetings.</p> <p>A more thorough climate governance structure is available in our Governance section.</p>
Strategy	
Short-, medium-, and long-term climate-related risks	<p>Vital Energy is committed to assessing physical, energy transition and climate-related risks as part of our ERM process and environmental management system. These processes help embed climate-related risks more deeply into our strategic planning process and work to ensure the highest possible data quality of our emissions inventories.</p> <p>We have identified climate-related risks using TCFD-aligned categories of policy and legal, technology, market, reputation and physical (acute / chronic) risks. In our Strategy section, we list individual risks under each category as well as their potential impacts on our business, strategy and financial planning.</p> <p>Our annual strategic planning and year-end budgeting process, tied with our ERM process, also highlights climate-related opportunities for our organization. These opportunities include resource efficiencies, energy source shifts to more responsibly sourced oil and gas, and the potential for development of new lower carbon services or products adjacent to our industry.</p> <p>Both our risks and opportunities are measured against consistent time horizons: short-term (1-3 years), medium-term (4-6 years) and long-term (7-10 years).</p> <p>Our Strategy section lists our risks and opportunities, their possible time horizons and their potential impacts to our business, strategy and financial planning.</p> <p>The Risk Management section notes the mitigation plans for reducing climate-related risks to an appropriate level.</p>

Climate Risk and Resilience Report

TCFD CONTINUED



RECOMMENDED DISCLOSURE **RESPONSE**

Strategy

Impact of climate-related risks and opportunities on business, strategy, and financial planning

In our climate report’s strategy section, we list both climate-related risks and opportunities with their potential impacts on our business, strategy and financial planning. Specific to opportunities, many relate to increased demand for our responsibly sourced product. For risks, potential impacts could include increased costs, decreased demand, limited access to capital and increased threat of incidents.

Climate risks and opportunities are included in our strategy development and influence our capital budget allocation. Investment decisions are informed by our carbon abatement curve, with input from our ERM findings, to guide investments toward projects that mitigate risk or are both economically and environmentally sustainable.

Additionally, these investments are in line with our emissions reduction targets and included in both our STIP and LTIP programs to create further alignment with climate risks and opportunities across the Company. These considerations are also included in our business strategies and budgets and approved by our Board annually.

A comprehensive table listing our opportunities, risks and their potential impacts on our business, strategy and financial planning is available in our [Strategy section](#).

Resilience of strategy, taking into consideration climate-related scenarios

Annually, Vital Energy conducts third-party scenario analyses to provide an even more comprehensive review of the resilience of our business strategy with respect to climate-related scenarios. The methods used align with the TCFD and utilize transition risk scenarios from the IEA. The outcome of our analysis found that Vital Energy is positioned to continue producing oil and natural gas profitably, even in a carbon-constrained environment, and our business is likely to be resilient to the potential price impacts outlined in the IEA Net Zero Emissions Scenarios.

We expect our portfolio of assets to remain resilient in a range of possible future low oil prices and lower carbon scenarios. We also expect to remain a leading low cost operator through expanding high-margin inventory and leveraging our contiguous acreage position to drive operational efficiency and increase drilling program rates of return. Furthermore, Vital Energy expects to continue acquiring strategic assets that we can develop economically and operate in a way that improves the environmental performance of those assets.

More information, including the results of our 2023 analysis against eight different scenarios, can be found in our [Strategy section](#).

Risk Management

Process to assess climate-related risks

Vital Energy is committed to assessing physical, energy transition and climate-related risks as part of our ERM process and environmental management system. These processes help embed climate-related risks more deeply into our strategic planning and work to ensure the highest possible data quality of our emissions inventories.

Our ERM process identifies, assesses, prioritizes and mitigates the Company’s most significant enterprise risks and uncertainties that could materially impact the long-term health of the Company or prevent the achievement of strategic objectives. ERM findings and risk mitigation plans are reviewed at least annually by our Board.

More information on our ERM process, including its steps, is available in our [Risk Management section](#). This section also includes additional detail about risk identification and governance.

Process for managing climate-related risks

Managing our climate-related risks takes collaboration across our company. After risk identification through our ERM process, our Director of Internal Audit tracks and monitors climate-related risks and mitigation plans. As a member of the ESG Management Committee, he works in collaboration with his committee members to help ensure the execution of the risk mitigation plans. Our Chief Sustainability Officer has ultimate oversight of climate-related risk mitigation and leads risk mitigation strategy with our Vice President of Operations leading strategic implementation.

We have developed mitigation plans for the following risks: Policy and legal, technology, market, reputation and physical risks (acute and chronic), which support our larger climate-related targets.

Mitigation plans by individual risk are defined in our [Risk Management section](#).

Climate Risk and Resilience Report

TCFD CONTINUED



RECOMMENDED DISCLOSURE **RESPONSE**

Risk Management

Integration of risk process into overall risk management Our ERM process and its integration across our company is noted in the response above. It's important to highlight that ESG risks and issues (including climate) are overseen by our Board's NGE&S Committee, which monitors and evaluates programs and policies on at least a quarterly basis. The Committee holds primary responsibility for reviewing our ESG performance, including ESG/climate-related risks and exposures.

More information on our ERM process, including its steps, is available in our [Risk Management section](#).

Metrics and Targets

Metrics used to assess climate-related risks; Scope 1, Scope 2 and Scope 3 GHG emissions	Metric	2019	2020	2021	2022
	Scope 1 emissions (Metric tons CO ₂ e)	1,070,077	950,218	708,178	452,106
	Scope 2 emissions (Metric tons CO ₂ e)	20,288	21,578	65,361	70,574
	Scope 3 emissions (Metric tons CO ₂ e)	14,572,966	14,450,486	14,719,384	15,524,955
	Methane emissions (mtCH ₄ / MCF) ¹	0.87%	0.60%	0.32%	0.11%
	Scope 1 GHG emissions intensity (Metric tons CO ₂ e)	26.03	23.13	17.29	10.70

More information can be found in our [Metrics and Targets section](#).

Targets used to manage climate-related risk and opportunities and performance against these targets	Target	Timeline	Progress
	Scope 1 GHG emissions intensity (mtCO ₂ e / MBOE) below 12.5	By 2025	Target Achieved - 2022 Scope 1 emissions intensity was 10.70 (a reduction of 59% over 2019 baseline)
	Methane emissions (mtCH ₄ / MCF) below 0.20% ¹	By 2025	Target Achieved - 2022 methane emissions were 0.11% (a reduction of 87% over 2019 baseline)
	Eliminate routine flaring (in alignment with the World Bank Zero Flaring Initiative)	By 2025	42% reduction to date
	Combined Scope 1 and 2 GHG emissions intensity (mtCO ₂ e / MBOE) below 10.0	By 2030	53% reduction to date

More information can be found in our [Metrics and Targets section](#).
Also, information about how we tie some of these targets to compensation is available in the [Governance section](#).

¹ As a percentage of natural gas produced.

Data Assurance

Independent Verification Statement at the Limited Assurance Level for CY2022

For Vital Energy: September 21, 2023

Scope of Engagement

HXE Partners was contracted by Vital Energy to provide independent, third-party verification of Vital Energy's Greenhouse Gas (GHG) emissions inventory, injury rate inventory, and other environmental metric reporting for the calendar year (CY) 2022, with responsibility for providing a limited level of assurance regarding their accuracy and completeness, in accordance with the ISO 14064-Part 3: *Specification with Guidance for the Verification and Validation of Greenhouse Gas Statements*, and the International Standard on Assurance Engagements (ISAE) 3000 Revised, *Assurance Engagements Other than Audits or Reviews of Historical Financial Information*.

Our engagement covered Vital Energy's owned operations across the U.S. using the operational reporting method. The scope of our review included Vital Energy's data sources encompassing:

- **All Scope 1** emission sources: from oil and gas production operations (flared emissions, vented emissions process emissions, fugitives, and combustion), fleet mileage (diesel and gasoline consumption) and Volatile Organic Compounds (VOCs)
- **All Scope 2** emission sources: purchased electricity
- Total Energy Usage from purchased electricity, natural gas, propane, and motor vehicle fleet
- **Scope 3 emissions from Use of Sold Products (Category 11)**
- **Safety Metrics** LTIR (Employee and Contractor), TRIR (Employee and Contractor), Fatalities (Employee and Contractor), Process Safety Events

Other verified environmental metrics related to Vital's business and operating process are listed below:

- **Freshwater Withdrawn and Consumed**
- **Volume of Produced Water**
- **Volume of Flowback Water**
- **Liquid Waste Generation**
- **Solid Waste Generation**

Vital Energy is responsible for collecting, analyzing, and presenting data sources provided to HXE, as well as for maintaining effective internal controls over the systems from which the data sources. Data sources have been approved by and remain the responsibility of Vital Energy.

The verification assessment, conducted in accordance with ISO-14064-3 and ISAE 3000 included:

- Verification of Vital Energy's reporting methodologies for the greenhouse gas emissions and environmental related data sources with:
 - The World Resources Institute / World Business Council for Sustainable Development (WRI/WBCSD) Greenhouse Gas Protocol: *A Corporate Accounting and Reporting Standard (Revised Edition)*
- Review that the data sources have considered sector guidelines
- Evaluation of the accuracy and reliability of provided data sources

Verification Process and Document Review

As part of this assurance engagement, HXE conducted the following verification activities:

- Conducting an overarching strategic/risk analysis
- Generating and developing a verification plan and a data and information sampling plan
- Interviewing relevant employees at Vital Energy responsible for managing GHG emissions and environmental data and records

- Verifying GHG emissions and environmental data and records at an aggregated level for CY 2022
- Reviewing Vital Energy's data management systems, from data handling to internal verification procedures, to confirm that there were no significant errors, omissions, or misstatements in provided data sources
- Conducting materiality review of findings

HXE discussed the specific review tasks completed and which areas were flagged for clarification or improvement with Vital Energy. Vital Energy has addressed all requests for clarification and has completed all necessary corrective actions. The following data has been fully verified to the limited assurance method.

Table 1. Summary of Vital Energy's Data for CY2022

Scope of GHG Emissions and Energy Use	Value	Unit
Scope 1 GHG Emissions	452,106	MTCO ₂ e
Scope 2 (Market Based Emissions)	70,574	MTCO ₂ e
Scope 3 (Use of Sold Products)	15,524,955	MTCO ₂ e

Environmental & Safety Metrics	Value	Unit
LTIR - Employee	0	Rate
LTIR - Contractor	0.58	Rate
TRIR - Employee	0	Rate
TRIR - Contractor	0.78	Rate
Fatality - Employee and Contractor	0	Number of Fatalities
Process Safety Events	1	Number of Events
Liquid Waste	99.36	Cubic Meters
Solid Waste	3,390.6	Cubic Meters
Freshwater Consumed	19,005,836	Barrels
Freshwater Withdrawn	19,005,836	Barrels
Volume of Flowback Water	7,715,869	Barrels
Volume of Produced Water	59,046,697	Barrels

Assurance Finding

Based on these review processes and procedures, nothing has come to HXE's attention that would cause us to believe that Vital Energy has not, in all material respects:

- Met the requirements of the criteria listed above; and
- Disclosed accurate and reliable performance data and information as summarized in Table 1 above.

The opinion expressed is formed based on a **limited level of assurance** and at the materiality of the professional judgment of the verifier. Note the extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Signed,



On behalf of HXE Partners LLC
September 21, 2023