



vital
Energizing human potential

2024
Climate Risk
and Resilience
Report

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About Us

Founded in 2006, Vital Energy, Inc. (NYSE: VTLE) is an independent energy company with headquarters in Tulsa, Oklahoma. Vital Energy's business strategy is focused on the acquisition, exploration and development of oil and natural gas properties in the Permian Basin of West Texas. Since our earliest days, we've focused on something greater than producing hydrocarbons — providing the energy vital to helping people live better, healthier and more prosperous lives.



Please visit our [2024 Sustainability Report](#) or [vitalenergy.com](https://www.vitalenergy.com) for more information.



Letter from Our Leaders

Today, Vital Energy Inc. (Vital Energy) believes our purpose is more important than ever. We seek to energize human potential by producing reliable and affordable energy and reducing environmental impacts for future generations.

We recognize the future will be lower carbon and that our industry's market winners will balance a sustainable environmental track record with the lowest breakeven costs. By setting measurable goals, we aim to empower our team to find safe and economic solutions to reduce our emissions profile.

Since achieving our interim emissions reduction goals — Scope 1 GHG emissions intensity below 12.5 mtCO₂e / MBOE and methane emissions below 0.20%¹ — we're now working toward reducing our combined Scope 1 and 2 GHG emissions intensity to below 10 mtCO₂e / MBOE by 2030. We set determined targets for our sustainability program, which we believe help us achieve long-term value.

In 2023, Vital Energy closed six accretive acquisitions in the Permian Basin, enhancing our scale, establishing a core operating position in the Delaware Basin, and significantly improving the depth and quality of our inventory. We're working to incorporate these assets into our larger sustainability program and improve elements of their sustainability performance to meet our standards of operational excellence.

When reporting against our emissions reduction targets, our 2023 performance includes our legacy and newly acquired assets for the entirety of 2023, as consistent with EPA Subpart W reporting. Even after incorporating these assets, we reduced our Scope 1 GHG emissions intensity by 65% and our methane emissions by 90% as compared to our 2019 baseline. We also continue to make progress toward eliminating routine flaring.

Also in 2023, we achieved our freshwater reduction target, using at least 50% recycled water for our completion operations. Meeting our goals has and will continue to require innovative thinking, technology and collaboration with our stakeholders.

We believe we have the right strategy and team in place to achieve our vision of supplying low-cost, sustainable oil and natural gas to the world. Our team is encouraged — even challenged — to question conventional practices when improvements are needed and to respond with a limitless mindset. We're proud of our progress and appreciate your interest in our role in creating a sustainable energy future.

Sincerely,

Jason Pigott
President and CEO

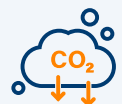
William Albrecht
Chair, Board of Directors

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

November 2024

¹ As a percentage of natural gas produced.

Our targets by 2025



< 12.5 mtCO₂e / MBOE
Scope 1 GHG Emissions Intensity

ACHIEVED



< 0.20%
Methane Emissions¹

ACHIEVED



50% Recycled Water
for Completion Operations

ACHIEVED



Eliminate
Routine Flaring



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

By 2030

Resilient in a Lower Carbon Future

The World Needs Access to Reliable, Affordable Energy

Oil and natural gas are the cornerstones of global energy security. Today, these fuels provide 55% of the world's energy and, by the end of 2024, world oil demand is expected to be 3 million barrels per day higher than it was in 2019.¹ This demand will continue to accelerate as growing populations in the developing world require more access to energy, a resource that is key to alleviating global poverty and sustaining economic development.

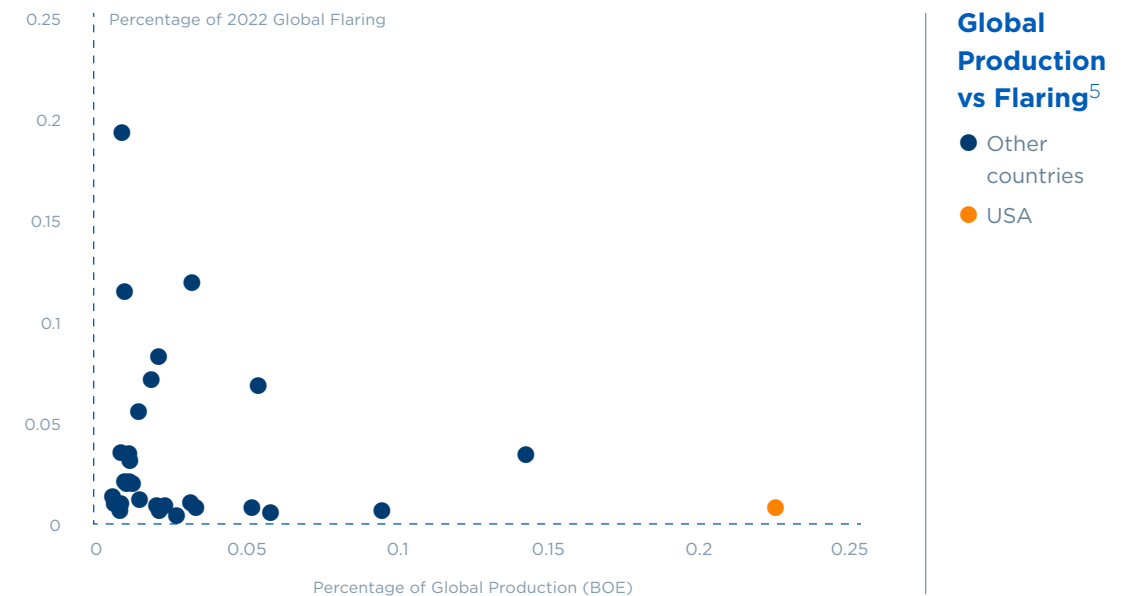
For the first time in two decades, the number of people without access to modern energy is increasing. According to the International Energy Agency (IEA), approximately 770 million people live without electricity and often the electricity that is available is unreliable.² Additionally, more than 2.5 billion people rely on inefficient and polluting cooking fuels like animal dung and crop waste.³ This means that nearly one in three people on Earth lacks the reliable energy needed to sustain their well-being.

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 as competing needs, sustainable operators are already leading the way as they seek to provide lower cost and lower carbon energy. To help promote a secure energy future, the global economy must continue to invest in energy that has these characteristics.

U.S. Leads in Production, Continues Emissions Reduction Progress

The U.S. is the largest oil and natural gas producer in the world and has already shown measurable progress in reducing emissions.⁴ The country's oil and natural gas production is also highly regulated, helping to ensure proper governance of operations.

Using flaring as a proxy for environmental performance, the U.S. has a 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 sustainable energy.⁵



¹ S&P Global, "[The Return of Energy Security](#)" February 2024. Accessed October 2024.

² IEA, "[Access to Electricity](#)." Accessed October 2024.

³ IEA, "[Access to Clean Cooking](#)." Accessed October 2024.

⁴ U.S. Energy Information Administration, "[Rankings about Energy in the World](#)," production through 2021. Accessed October 2024.

⁵ Enverus, May 2024.

Climate Risk and Resilience Report

Resilient in a Lower Carbon Future CONTINUED

Through target setting and strategic planning, Vital Energy is implementing measurable emissions reduction initiatives. In fact, the Company has already achieved two of its three 2025 emissions reduction targets, reducing Scope 1 GHG and methane emissions intensities by 65% and 90% respectively since 2019.¹

We will strive to achieve our remaining 2025 and 2030 emissions reduction targets by continuing our focus on:

- Converting to non-vent pneumatic devices
- Electrifying our field operations, where feasible
- Expanding digital technology and emissions monitoring
- Increasing the frequency of our on-site leak detection and repair program
- Reducing flaring through additional third-party offtake, where feasible

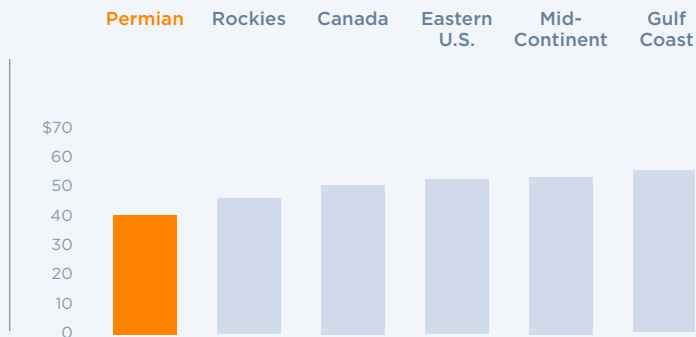
Low Cost is Sustainable

A key attribute to future industry leadership is cost efficiency. Those producers with the lowest costs will have a significant advantage in a more competitive marketplace.

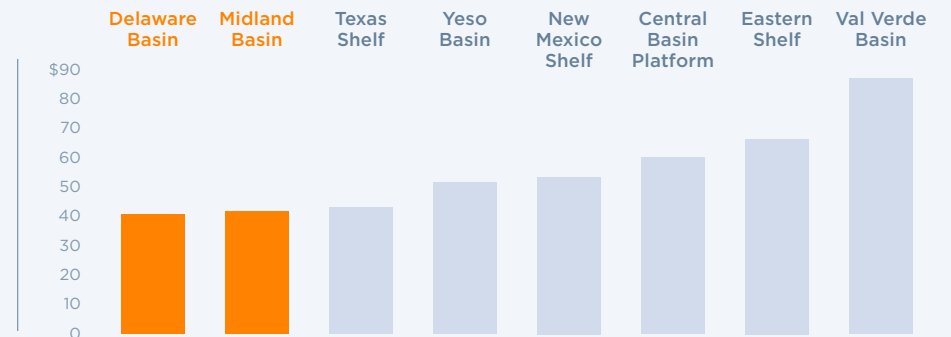
Vital Energy operates in the Permian Basin, which boasts the lowest breakeven development costs for existing oil and natural gas plays in North America. Furthermore, our assets are in the Permian's two lowest cost sub-basins (Delaware and Midland). These strategic locations, coupled with our continued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

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

Breakeven Oil Prices for North American Oil and Natural Gas Basins²



Breakeven Oil Prices for the Permian Basin²



Vital Energy Operations

¹ Please refer to our [performance metrics table](#) for the data used to calculate these percentages.

² 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, May 2024.



TCFD -Aligned Disclosure



Governance

We believe that good governance is accountable, transparent, responsive to stockholder interests and protects the long-term sustainability of the Company. Reflecting these attributes, environmental, social and governance (ESG) oversight occurs at multiple levels of our organization.

Board Oversight

Our Board of Directors has ultimate oversight of our ESG strategy and performance with our Nominating, Corporate Governance, Environmental and Social (NGE&S) Committee monitoring ESG and climate issues on at least a quarterly basis.

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 each of its meetings, the NGE&S Committee monitors Company performance and progress against our sustainability-related targets, including those specific to emissions reduction.

In 2023, our Board met 33 times either as a whole or in Committee. Climate or ESG-related matters were discussed at nearly 36% of these meetings.

Management's Role in Assessing and Managing Climate-related Risks

Management of our daily sustainability and climate efforts is led by our Sustainability Management Committee, a multi-disciplinary team of leaders responsible for implementing, executing and assessing new and ongoing ESG efforts across the organization. The Sustainability Management Committee's recommendations provide key considerations for our operations and business strategy and increase awareness of sustainability and climate-related matters throughout the organization.

Our Chief Sustainability Officer leads the Sustainability Management Committee and provides regular updates to the NGE&S Committee and Board.



¹ Including the following teams: Operations and Business Development, Finance and Accounting, Supply Chain, Legal and Audit, and Human Resources and Investor Relations

Governance CONTINUED

Tying Compensation to Emissions Reduction

We align our Short-Term Incentive Program (STIP) and Long-Term Incentive Program (LTIP) payouts to sustainability targets, incentivizing accountability and ownership at all levels of our organization.

Our STIP has quantifiable goals related to both employee and contractor TRIR, produced fluid spill intensity and emissions reduction targets. Additionally, our LTIP includes a metric tied to progress against our 2025 emissions reduction targets. For more information on our executive and employee pay programs, please view our [Proxy Statement](#).

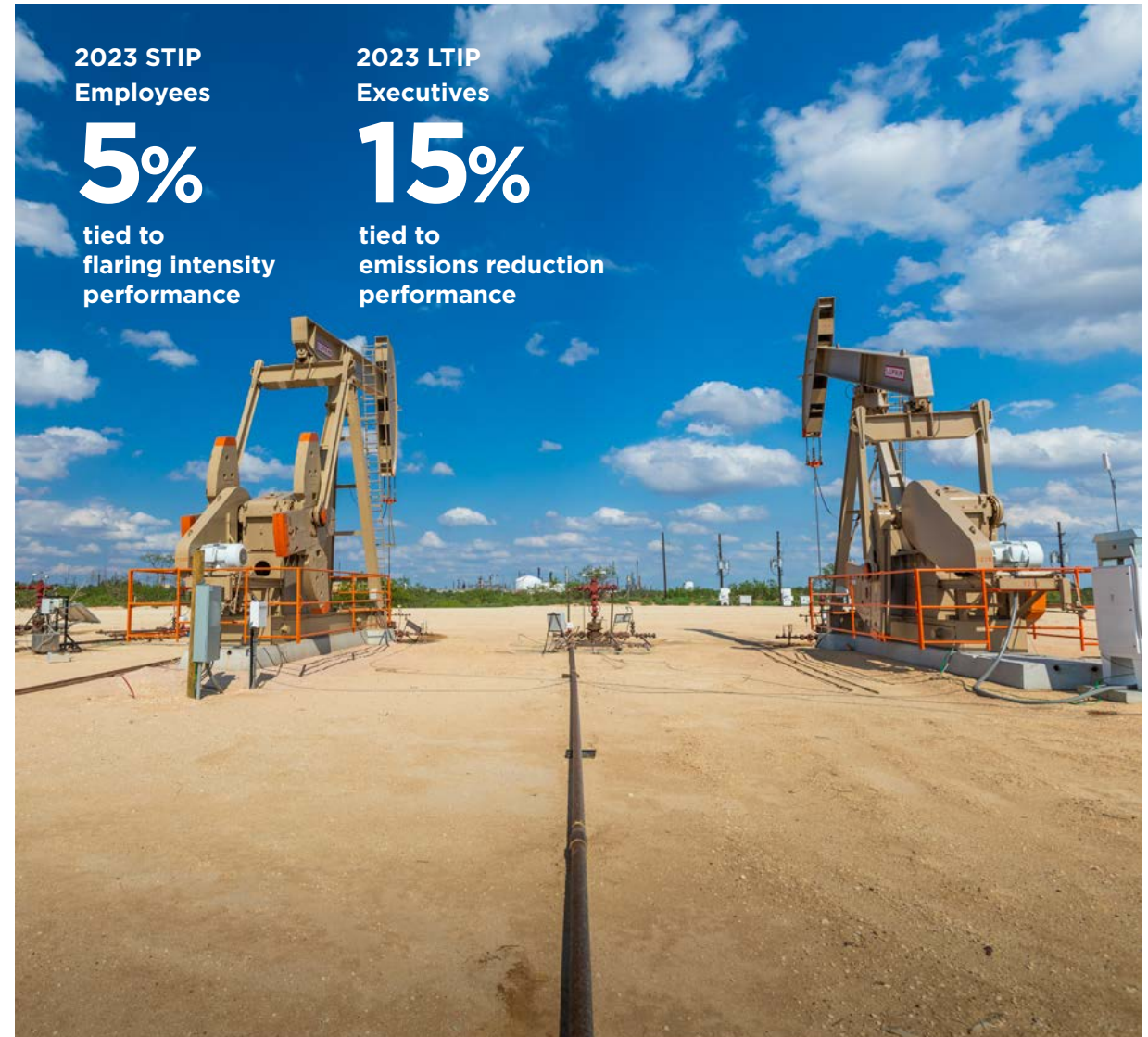
Participation in Third-party Emissions Programs

We also participate in third-party programs that allow us and attempt to verify our sustainability and operational practices and provide continued learning and knowledge sharing. These include:

- **OGMP 2.0:** In 2024, we joined the Oil & Gas Methane Partnership (OGMP) 2.0, the only comprehensive, measurement-based international reporting framework for the oil and natural gas sector.
- **The Environmental Partnership:** Comprised of U.S. oil and natural gas companies, this coalition works to improve our industry's environmental performance. As a member, we have committed to implementing programs that serve to reduce emissions and increase operational efficiencies.
- **Texas Methane & Flaring Coalition:** This partnership between Texas oil and natural gas companies and trade organizations identifies and promotes best practices to minimize flaring and methane emissions.

Acquisitions and Sustainability Strategy

During the due diligence phase, we review a potential acquisition's sustainability performance as part of our overall evaluation of the asset. Specifically, methane is an important consideration for both portfolio impact and potential asset improvement. We pride ourselves on the emissions reductions we have achieved from both our legacy and acquired assets and aim to continue this acquisition strategy as we work towards our 2030 emissions reductions target.



Climate Risk and Resilience Report



Strategy

Identifying Climate-related Risks and Opportunities

As part of our enterprise risk management (ERM) process, we assess our operations for climate-related risks and opportunities, and work to mitigate or maximize them in a lower carbon future.

Climate risks and opportunities are included in our strategy development and influence our capital budget allocation which is approved by our Board annually. Based on our risk and opportunity analysis, informed by our carbon abatement cost curve and ERM process, we prioritize projects and investments that reduce risk and have both economic and environmental benefits.

Time Horizons

Near-term
1-3 years

Medium-term
4-6 years

Long-term
7-10 years

Risk or Opportunity Assessed	Time Horizon Assessed	Potential Impact on Strategy and Financial Planning
Transition Risks Policy and legal Climate change legislation or emissions-limiting regulations could restrict the level of GHG emissions companies are allowed to emit and expose the industry to litigation, which may not be covered under our insurance policies.	Near-, medium- and long-term	<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
Technology Markets could substitute fossil fuel products for lower emissions options, plus we could incur costs to adopt lower emissions technology into our portfolio.	Near-term	<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
	Long-term	<ul style="list-style-type: none"> Decreased future demand, reduced revenue
Market Fuel and energy conservation measures, alternative fuel requirements and the increased competitiveness of alternative energy could reduce oil and natural gas demand.	Long-term	<ul style="list-style-type: none"> Decreased future demand, reduced revenue
Reputation The opinions of key stakeholders, including investors, may be influenced by negative sentiment towards the fossil fuel energy industry.	Long-term	<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

Climate Risk and Resilience Report

Strategy CONTINUED



Time Horizons

Near-term
1-3 years

Medium-term
4-6 years

Long-term
7-10 years

Risk or Opportunity Assessed	Time Horizon Assessed	Potential Impact on Strategy and Financial Planning
<p>Physical Risks</p> <p>Acute We could experience increased severity of extreme weather events.</p>	Medium-term	<ul style="list-style-type: none"> • Increased insurance premiums or reduced ability to secure insurance on “high-risk” assets • Interrupted supply chain • Potential for employee or other on-site worker injury • Disrupted operations
<p>Chronic Global changes in precipitation patterns, as well as rising temperatures and sea levels.</p>	Long-term	<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 (water rates) • Interrupted supply chain • Potential for employee or other on-site worker injury or safety incident • Less efficient equipment • Disrupted operations
<p>Opportunities</p> <p>Resource Efficiency By making our processes more efficient, we could experience reduced operating costs.</p>	Near-term	<ul style="list-style-type: none"> • Increased product due to lower carbon intensity operations • Decreased disposal costs due to water recycling and reuse • More operational flexibility due to less reliance on natural resources
<p>Energy Source The market could shift to prefer lower carbon sources of energy.</p>	Near- to medium-term	<ul style="list-style-type: none"> • Increased demand (and revenue) for lower carbon intensity oil and natural gas • Returns on investment in our adoption of low-emissions technology • Increased capital availability and reputational benefits
<p>Products and Services Development of new climate-related services or products adjacent to our industry could be investment or expansion opportunities.</p>	Medium- to long-term	<ul style="list-style-type: none"> • Increased revenue through solutions and access to long-term industry-adjacent markets • Diversification of product offerings

Climate Risk and Resilience Report

Strategy CONTINUED



Scenario Analysis

Vital Energy conducted our first formal scenario analysis in 2021 and has continued this exercise annually to test the resilience of our asset portfolio against the potential impacts of climate change on our business operations and financial performance.

Scenario analysis is useful in the disclosure of climate-related risks and opportunities as it evaluates a range of hypothetical outcomes under a given set of assumptions and constraints. Scenarios are circumstantial, plausible futures intended to draw attention to key factors that could drive financial impacts for a company.

In 2024, Vital Energy retained Sodali & Co. to perform two types of scenario analyses, studying transition and physical risks. Although risks were identified, the analyses found the Company to be resilient in a lower carbon future as fossil fuels have and will continue to play a significant role in global energy supply. Even in IEA's most stringent net zero scenario, fossil fuels will make up more than 20% of world energy supply in 2050.¹

Similarly, even in what we consider to be aggressive net zero scenarios, Vital Energy's portfolio is likely to continue to deliver long-term cash flow due to its break-even pricing, projected lease operating expense and focus on high-value acquisition growth further positions.

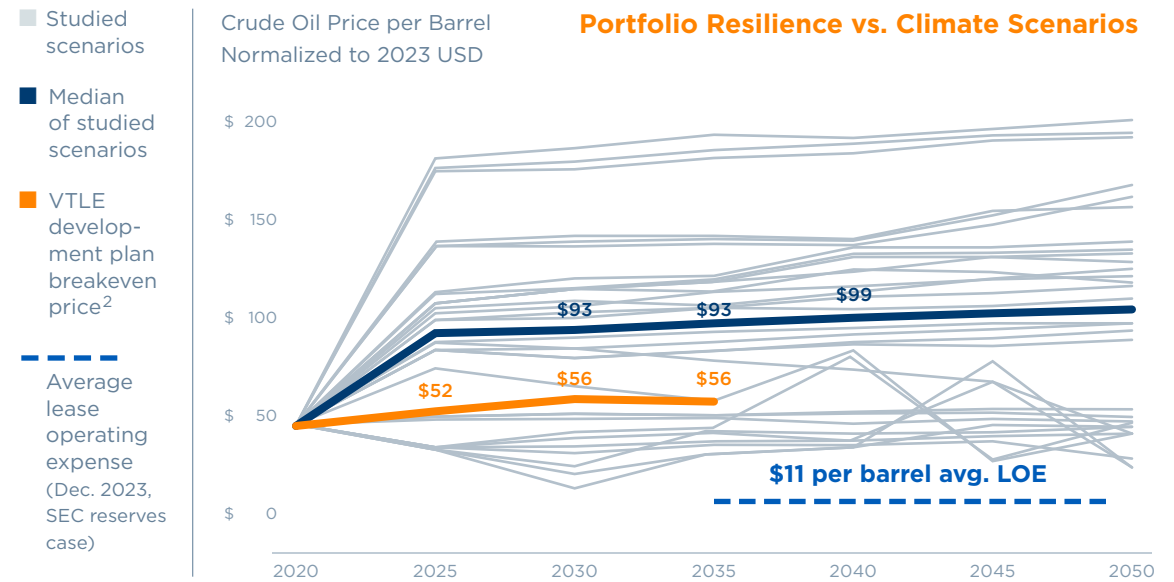
Transition Risk Scenario Analysis

Given the nature of our business, we believe one of our greatest climate-related risks revolves around the potential for future market shifts, particularly as a result of regulations that may impact oil demand or implement carbon pricing.

For our 2024 scenario analysis, we evaluated climate transition scenarios developed by the U.S. Energy Information Administration (EIA), IEA and Network for Greening the Financial System (NGFS), analyzing the projected pricing of oil and natural gas (from present to 2050) against our breakeven (BE) prices.

We believe these scenarios offer a diverse range of future conditions from reputable and established sources recognized within our industry. These scenarios include:

- **Current Policies:** Reflecting a business-as-usual future that maintains existing climate change and energy policies are in place today
- **Net Zero 2050:** Representing a pathway for the global energy sector to achieve net zero carbon emissions by 2050
- **Other:** Including various other scenarios with different economic conditions, policy and technology landscapes



¹ IEA, "Net Zero by 2050: A Roadmap for the Global Energy Sector." Pg. 57. Accessed October 2024.

² Includes inventory from 2023 acquisitions but does not reflect inventory from 2024 acquisitions.



Physical Risk Scenario Analysis

As extreme weather events increasingly threaten global and domestic physical security, we conducted a formal assessment of how these physical risks could impact our portfolio.

To better understand these potential risks, we evaluated representative concentration pathways (RCP) 2.6, 6.0, and 8.5. These pathways model the net increase in warming of the Earth's atmosphere under different GHG concentrations and offer predictions of how varying levels of GHGs will change in the future and impact natural hazards, including temperature, sea level and extreme weather.

Physical Risk Scenario Descriptions

Scenario	Description ¹	Temperature Impact (by 2100)
RCP 2.6	CO ₂ emissions start declining by 2020 and reach zero by 2100 scenario	Likely to limit global warming below 2°C
RCP 6.0	Global emissions are assumed to peak around 2080 then decline	Likely global temperature rise by about 3-4°C
RCP 8.5	Global emissions continue to rise throughout the 21st century	Likely global mean temperature rise by about 4°C

Within these scenarios, we studied specific risk indicators under the three RCP pathways and utilized Climate Analytics' Climate Impact Explorer, the WRI's Aqueduct Water Risk Atlas and FEMA's National Risk Index as data sources. Sodali & Co collected data on each climate risk indicator for the years 2030 and 2050 and evaluated the likelihood of risk occurrence by time horizon (near-, medium- and long-term) and risk exposure (low, medium or high).

¹ Climate Analytics, [Climate Impact Explorer](#)

² Highest physical risks (based on physical risk assessment)

Of the physical risks, including wildfire, hurricane, river flood, water stress and extreme heat, only water stress and extreme heat were found to be either medium or high risk. For these risks, we have developed risk mitigation strategies as further defined in our [Risk Management](#) section.

Some of the risk mitigation strategies include setting Company performance targets, such as our freshwater reduction goal to use at least 50% recycled water in our completion operations by 2025. As noted in our [2024 Sustainability Report](#), this target was achieved.

Risk ²	Description	Potential Impact	VTLE Risk Mitigation
Water Stress (Chronic)	Water stress occurs when water demand exceeds available amount High risk now through long-term	<ul style="list-style-type: none"> Deterioration of freshwater resources Increased operating costs, water rates Disrupted operations 	<ul style="list-style-type: none"> Water stewardship and recycling program Freshwater reduction target (achieved, 0% freshwater used in completion operations in 2023)
Extreme Heat (Chronic)	Heat waves occur when air temperature and humidity reach high values; heat stress refers to high thermal exposure to a human body Reaches medium risk in the long-term	<ul style="list-style-type: none"> Less efficient equipment Reduced output Reduced labor productivity Worker health concern 	<ul style="list-style-type: none"> Worker safety programs and procedures



Risk Management

Vital Energy is committed to assessing physical and transition climate risks as part of our ERM process and environmental management system. These processes help embed climate-related risks into our strategic planning process.

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:

Identify risks	Develop rating criteria (e.g., impact, velocity, likelihood) and identify key risks
Assess and prioritize risks	Validate and assess current list of risks by gathering internal and external insights on drivers or root causes
Mitigate	Create a mitigation plan based on the assessment and prioritization of risks
Monitor and report	Monitor and evaluate effectiveness of risk mitigation and Key Risk Indicators; report quarterly to executives and Board
Integrate	Discuss plans with third parties and embed risks into operational and strategic planning

Our Director of Internal Audit, who functionally reports to the Audit Committee Chair and administratively reports to our General Counsel, facilitates the ERM program. We leverage a combination of quarterly and annual internal ERM efforts and regular stakeholder engagement to understand and focus on issues of material significance to both Vital Energy and our stakeholders.

As a member of the Sustainability Management Committee, our Director of Internal Audit tracks and monitors climate-related risks and mitigation plans and our Board reviews ERM findings and risk mitigation plans at least annually. Our Chief Sustainability Officer and our Vice President of Operations Support manage the strategy and implementation of these risk mitigation plans.

Climate-Related Risks Assessed and Mitigation Efforts

Risk	Mitigation
Transition 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"> Participation in third-party verification programs, such as OGMP 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 recycling program Freshwater reduction target (achieved, 0% freshwater used in completion operations in 2023) Worker safety programs and procedures
Chronic	<ul style="list-style-type: none"> Water stewardship and recycling programs Freshwater reduction target (achieved, 0% freshwater used in completion operations in 2023) Duplicative gas takeaway initiative and programs Robust worker safety programs and procedures

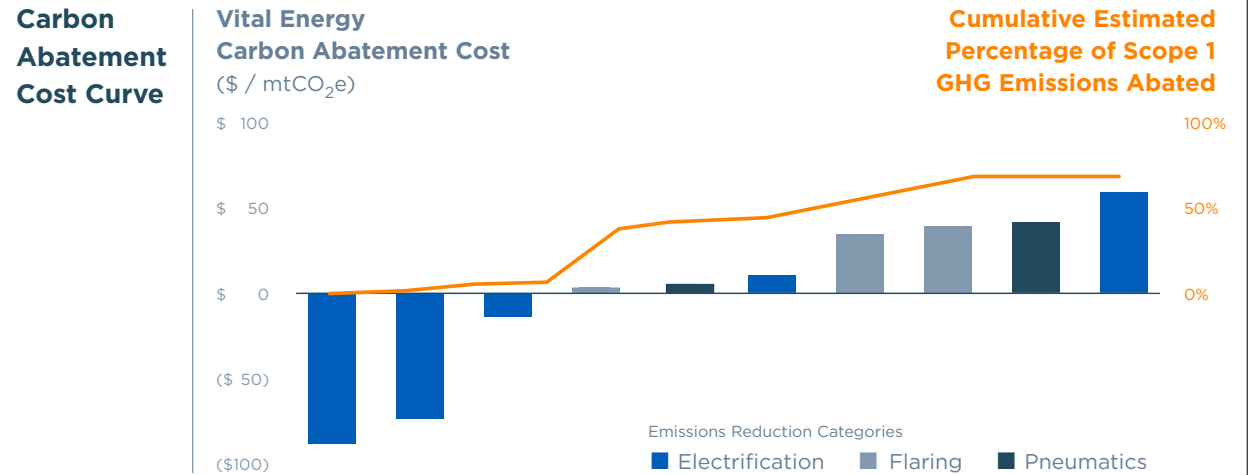
Risk Management CONTINUED



Investing in Emissions Reductions for a Lower Carbon Future

Vital Energy is committed to reducing our emissions through voluntary efforts that go beyond regulatory requirements. We dedicate both resources and expertise toward abating our Scope 1 and 2 emissions, which enabled us to achieve our 2025 emissions reduction targets ahead of schedule and make significant progress toward our 2030 goal.

We utilize a carbon abatement cost (CAC) curve to enable more effective decision-making when selecting solutions that provide carbon abatement relative to the cost of offsetting such emissions. Since 2019, we've invested approximately \$9 million in emissions reduction initiatives, which has mitigated at least \$8 million per year in potential methane fees.



Using our CAC curve, our pathway to continued emissions reductions (and achieving our 2030 target) includes:

- 1** **Enhancing** monitoring and leak mitigation
- 2** **Reducing** flared and vented emissions
- 3** **Electrifying** operations

Risk Management CONTINUED

1 Enhancing monitoring and leak mitigation

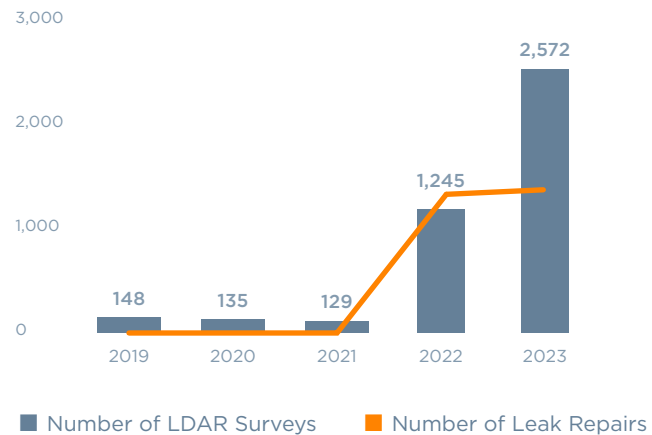
Beginning in 2022, we adopted technology solutions that help to reduce emissions through continuous emissions monitoring systems (CEMS) and early leak detection. These solutions include thermal imaging cameras (computer vision), IoT sensor arrays and continuous emissions monitoring systems.

We deployed CEMS to monitor more than 60% of our gross operated oil production. Combining the data from these devices enables us to detect, and in some cases, identify emissions events before they 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 at least annually.

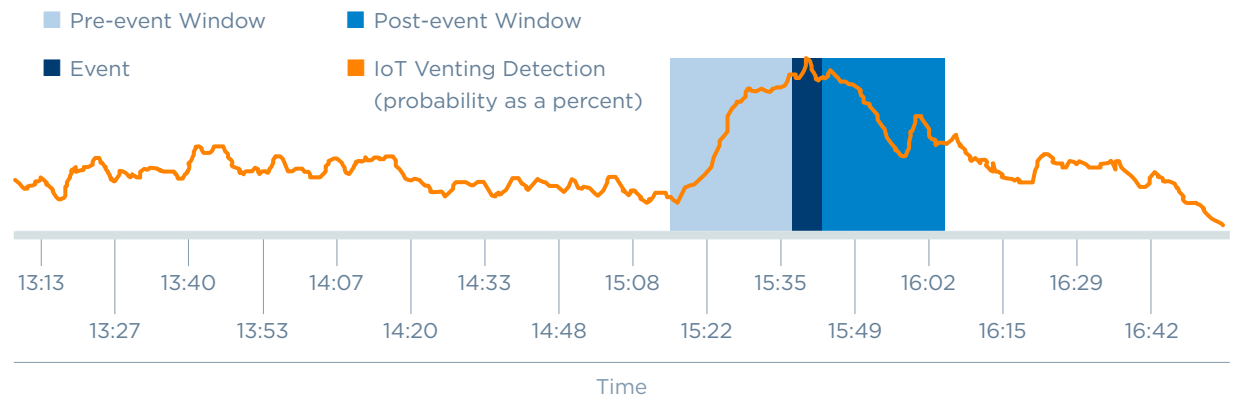
Increased LDAR and Monitoring

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

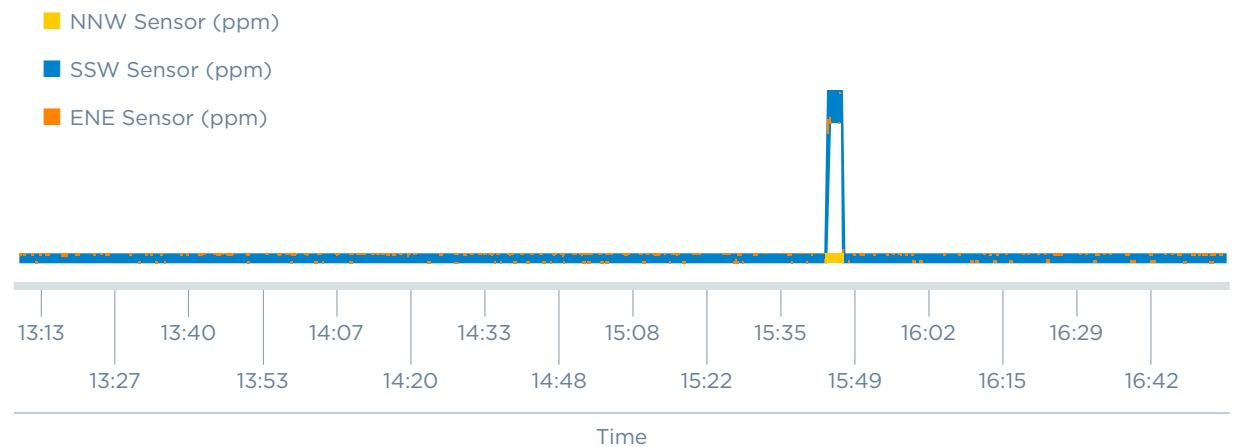


Computer Vision Predicts / Detects Emissions Event, Confirmed by CEMS

Computer Vision



Continuous Emissions Monitoring System (CEMS)





Risk Management CONTINUED

2 Reducing flared and vented emissions

We're committed to zero routine flaring by 2025, in alignment with the World Bank Zero Routine Flaring Initiative. In 2023, we continued to reduce routine flaring volumes, resulting in a 58% reduction since our 2019 baseline and keeping us on track to meet our 2025 target.

While we continue to make progress in reducing our routine flaring, we're also working to reduce non-routine flaring whenever possible. Non-routine flaring is primarily caused by disruptions in the gas gathering we rely on. We proactively communicate with our gas gatherers, helping to mitigate the impact of their service disruptions. Where appropriate, we also continue to proactively invest in multiple gas pipeline connections, decreasing our dependence on the performance of any one gas gatherer.

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

- ▶ **CONVERTING VENTED PNEUMATIC DEVICES**
To non-vent devices on both legacy and acquired acreage
- ▶ **OUTFITTING ALL NEW COMPANY-OPERATED FACILITIES WITH VAPOR RECOVERY SYSTEMS**
To minimize emissions during routine operations and non-routine emergency events
- ▶ **EXPANDING OUR CONTINUOUS EMISSIONS MONITORING SYSTEMS (CEMS)**
Currently covering more than 60% of gross operated oil production to mitigate emissions at Company-operated facilities

3 Electrifying operations

To further reduce our Scope 1 emissions, we incorporated electrification into our operations including converting our Tier IV dual-fuel hydraulic fracturing fleet to an electric fleet (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 operational teams have eliminated the use of diesel generators and continue to evaluate opportunities to electrify portions of our drilling and production operations. Where possible, we continue to power drilling and production operations with electricity from the ERCOT grid. In areas where there is no access to electric grid power, which is of particular concern in remote areas of our operations, grid reliability can limit our ability to electrify our operations. In those instances, we intend to utilize natural gas generators until reliable, alternative sources of low-carbon electricity become available.

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

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 • Monitoring more than 60% of gross operated oil production • Expanding CEMS and LDAR programs 	<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



Metrics and Targets

Understanding our carbon footprint is key to mitigating emissions across our operations. Improved monitoring, detection and measurement allows us to identify those operational areas that can be most impactful in reducing our emissions.

	Metric	2019 ¹	2020 ¹	2021	2022	2023
Absolute Emissions	Scope 1 emissions (mtCO ₂ e)	1,070,077	950,218	708,178	452,106	663,046
	Scope 2 emissions (location-based) (mtCO ₂ e) ²	20,288	21,578	65,361	70,574	203,376
	Scope 2 emissions (market-based) (mtCO ₂ e) ²	—	—	—	—	226,974
	Scope 3 emissions ³ (mtCO ₂ e)	14,572,966	14,450,486	14,719,384	15,524,955	27,348,482
Emissions Intensity	Scope 1 emissions intensity (mtCO ₂ e / MBOE)	26.03	23.13	17.29	10.70	9.14
	Methane emissions (mtCH ₄ / gross annual natural gas production as reported under Subpart W)	0.87%	0.60%	0.32%	0.11%	0.08%

Joining OGMP

In 2024, Vital Energy joined OGMP 2.0, which brings together oil and natural gas companies and other stakeholders to improve the accuracy and transparency of methane emissions reporting. Although our program was largely aligned with the OGMP framework prior to our membership, we're continuously seeking opportunities to improve. We intend to report annually on our Scope 1 methane emissions using the methods and science-based measurement frameworks as required by OGMP.

OGMP requires companies to establish enterprise-wide methane emissions reduction goals, similar to our 2025 methane emissions reduction target, which is inclusive of 11 acquisitions made since our 2019 baseline year. We anticipate publishing our first report to OGMP in May 2025, which will include implementation plan and pathway for achieving OGMP's highest level of reporting.

Incorporating Acquisitions into our Metrics and Targets

All data reported in 2023 includes both legacy and acquired assets from date of ownership. The only exception is our 2023 emissions data, which represents the full calendar year in accordance with Subpart W reporting. Data prior to 2023 is not inclusive of the six Permian Basin acquisitions that closed in 2023.

Target performance and status are inclusive of acquisitions closing between 2019 and 2023.

¹ In 2021 we closed on two acquisitions. Our 2019 and 2020 Scope 1 emissions data has been recalculated to include emissions for these acquisitions.

² Scope 2 emissions include electricity consumed by our field operations and don't include electricity consumed by our offices.

³ Scope 3 emissions estimates are based on gross operated sales volumes using the Ipieca 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.

Climate Risk and Resilience Report



Metrics and Targets CONTINUED

Our priority is to reduce the Scope 1 and 2 emissions associated with our operations. To support this goal, we developed a series of climate-related targets with 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

	CATEGORY	TARGET	2023 PERFORMANCE ⁴	TARGET PROGRESS	
By 2025	Scope 1 GHG emissions intensity ²	Below 12.5 mtCO ₂ e/MBOE 2019 baseline of 26.03 mtCO ₂ e/MBOE	9.14 mtCO ₂ e/MBOE	Achieved 65% reduction from baseline	
	Methane emissions ³	Below 0.20% 2019 baseline of 0.87%	0.08%	Achieved 90% reduction from baseline	
	Recycled water	50% for completion operations 2019 baseline of 35% water recycling rate (8 million bbls recycled)	57% water recycling rate	Achieved More than 20.5 million bbls recycled	
	Routine flaring	Zero 2019 baseline of 867 MMCF/year	366 MMCF/year	58% reduction to date	
By 2030	Combined Scope 1 and 2 GHG emissions intensity	Below 10 mtCO ₂ e/MBOE 2019 baseline of 26.53 mtCO ₂ e/MBOE	11.94 mtCO ₂ e/MBOE	88% toward our target 55% reduction to date	

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 Scope 1 metrics are based on EPA Subpart W reporting, all performance is as of December 31, 2023.

³ As a percentage of natural gas produced.

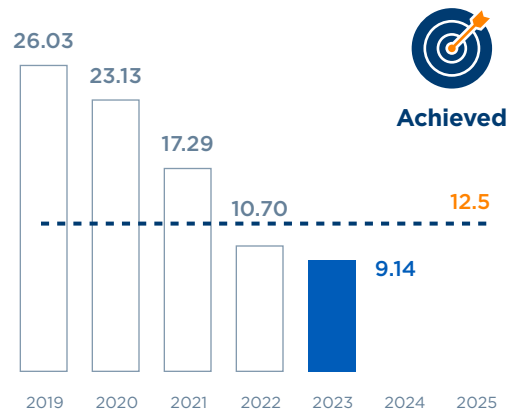
⁴ 2023 performance is inclusive of acquisitions closed in the 2023 calendar year.

Metrics and Targets CONTINUED

2025 TARGETS

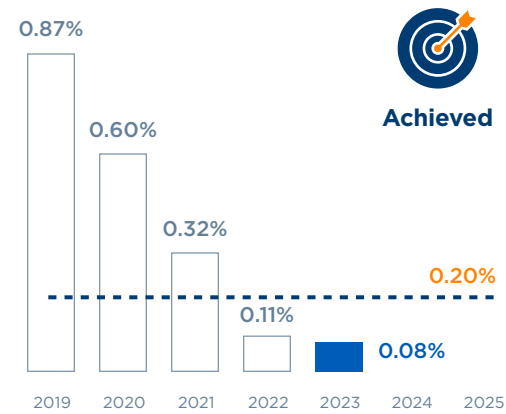
Scope 1 GHG Emissions Intensity

mtCO₂e / MBOE



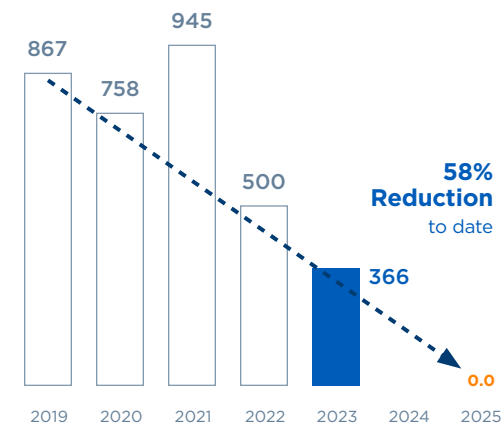
Methane Emissions Intensity

mCH₄ / MCF



Routine Flaring

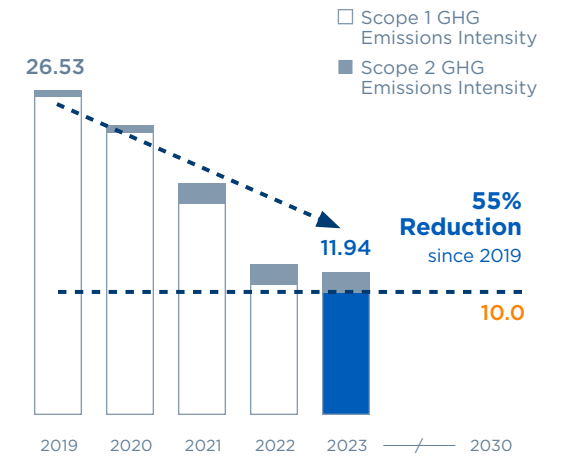
MMCF



2030 TARGET

Scope 1 and 2 GHG Emissions Intensity

mtCO₂e / MBOE



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 TCFD help organizations better understand the types of information to disclose to support investors, lenders, and insurance underwriters in appropriately assessing and pricing risks related to climate change. 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.</p> <p>Also at quarterly meetings, the Committee actively monitors performance toward our targets and provides updates to the Compensation Committee on environmental and safety 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 Climate Risk and Resilience Report (Governance section).</p>
Management's role in assessing and managing climate-related risks	<p>At an organizational level, our Sustainability Management Committee leads our emissions reduction strategy and executes climate-related risk mitigation plans, as directed by our Chief Sustainability Officer (CSO). This committee includes internal leaders from teams across our Company, including: Operations and Business Development, Finance and Accounting, Supply Chain, Legal, Audit, Human Relations and Investor Relations.</p> <p>Our CSO leads and directs the Company's sustainability efforts, including guiding climate-related strategies. This person reports to the CFO and provides regular updates at NGE&S Committee meetings.</p> <p>A more thorough climate governance structure is available in our Climate Risk and Resilience Report (Governance section).</p>
Strategy	
Short-, medium-, and long-term climate-related risks	<p>Vital Energy is committed to assessing physical and transition risks related to climate change as part of our ERM process and environmental management system. These processes help embed climate-related risks more deeply into our strategic planning process.</p> <p>We have identified climate-related risks using TCFD-aligned categories of policy and legal, technology, market, reputation and physical (acute / chronic) risks.</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: near-term (1-3 years), medium-term (4-6 years) and long-term (7-10 years).</p> <p>Our Climate Risk and Resilience Report (Strategy section) lists our risks and opportunities, their possible time horizons and 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	<p>Climate-related risks and opportunities are included in our strategy development and influence our capital budget allocation. Investment decisions are informed by our carbon abatement cost curve, with input from our ERM findings, to guide investments toward projects that mitigate risk and/or are economically and environmentally sustainable.</p> <p>When applicable, Company investments work to support our emissions reduction targets as included in both our STIP and LTIP programs. These considerations are also included in our business strategies and budgets and approved by our Board annually.</p> <p>A comprehensive table listing our opportunities, risks and their potential impacts on our business, strategy and financial planning is available in our Climate Risk and Resilience Report (Strategy section).</p>
Resilience of strategy, taking into consideration climate-related scenarios	<p>Annually, Vital Energy partners with a third party to conduct scenario analyses to provide a 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, EIA and NGFS and physical risk scenarios from the Climate Analytics' Climate Impact Explorer.</p> <p>The outcome of our 2024 analysis found that Vital Energy is well-positioned to continue producing oil and natural gas profitably, even in a carbon-constrained environment. We expect our portfolio of assets to remain resilient in a range of lower carbon scenarios.</p> <p>We expect to remain a leading low-cost operator by 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.</p> <p>More information, including the results of our 2024 analysis against different climate scenarios, can be found in our Climate Risk and Resilience Report (Strategy section).</p>
Risk Management	
Process to assess climate-related risks	<p>Vital Energy is committed to assessing physical and transition risks as part of our ERM process and environmental management system. These processes help embed climate-related risks more deeply into our strategic planning.</p> <p>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.</p> <p>More information on our ERM process, including our approach, is available in our Climate Risk and Resilience Report (Risk Management section). This section also includes additional detail about risk identification and governance.</p>
Process for managing climate-related risks	<p>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 Sustainability Management Committee, the director works in collaboration with committee members to help facilitate the execution of the risk mitigation plans.</p> <p>Our Chief Sustainability Officer has ultimate oversight of climate-related risk mitigation and leads risk mitigation strategy with our Vice President of Operations Support leading strategic implementation.</p> <p>We have developed mitigation plans for various risks, including policy and legal, technology, market, reputation and physical risks (acute and chronic), which support our larger climate-related targets.</p> <p>Mitigation plans by individual risk are defined in our Climate Risk and Resilience Report (Risk Management section).</p>

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 Climate Risk and Resilience Report ([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	2023
Scope 1 emissions (Metric tons CO ₂ e)	1,070,077	950,218	708,178	452,106	663,046
Scope 2 emissions (location-based) (Metric tons CO ₂ e)	20,288	21,578	65,361	70,574	203,376
Scope 2 emissions (market-based) (Metric tons CO ₂ e)	—	—	—	—	226,974
Scope 3 emissions (Metric tons CO ₂ e)	14,572,966	14,450,486	14,719,384	15,524,955	27,348,482
Methane emissions (mtCH ₄ / MCF)	0.87%	0.60%	0.32%	0.11%	0.08%
Scope 1 GHG emissions intensity (Metric tons CO ₂ e)	26.03	23.13	17.29	10.70	9.14

Scope 2 emissions include electricity consumed by our field operations and don't include electricity consumed by our offices.

Estimated Scope 3 emissions based on gross operated sales volumes using the Ipieca Category 11 methodology, which incorporates EPA GHG emissions factors. Our Scope 3 estimates are preliminary and subject to uncertainty, inconsistency or duplication.

Methane emissions are calculated as a percentage of natural gas produced.

More information can be found in our Climate Risk and Resilience Report ([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 in 2022 - 2023 Scope 1 emissions intensity was 9.14 (a reduction of 65% over 2019 baseline)
Methane emissions (mtCH ₄ / MCF) below 0.20%	By 2025	Target Achieved in 2022 - 2023 methane emissions were 0.08% (a reduction of 90% over 2019 baseline)
Eliminate routine flaring (in alignment with the World Bank Zero Flaring Initiative)	By 2025	58% reduction since 2019 baseline
Combined Scope 1 and 2 GHG emissions intensity (mtCO ₂ e / MBOE) below 10.0	By 2030	55% reduction since 2019 baseline

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

Also, information about how we tie some of these targets to compensation is available in the [Governance section](#).

Climate Risk and Resilience Report

Independent Limited Assurance Statement

To: The Stakeholders of Vital Energy, Inc.

October 16, 2024

Introduction and Objectives of Work

Apex Companies, LLC (Apex) has been engaged by Vital Energy, Inc. (Vital Energy) to provide limited assurance of its Scope 1 greenhouse gas (GHG) emissions, Scope 2 GHG emissions (location-based and market-based), and water data. This assurance statement applies to the Subject Matter included within the scope of work described below.

This information and the presentation of the Subject Matter are the sole responsibility of the management of Vital Energy. Our sole responsibility was to provide independent assurance on the accuracy of the Subject Matter.

Scope of Work

The scope of our work was limited to assurance over Scope 1 GHG emissions, Scope 2 GHG emissions (location-based and market-based), total volume of produced water, volume of produced water spilled, and volume of produced water recovered for the period Calendar Year 2023 (January 1, 2023 to December 31, 2023) (the 'Subject Matter').

Data and information supporting Scope 1 and Scope 2 GHG emissions, total volume of produced water, volume of produced water spilled, and volume of produced water recovered were primarily historical in nature and in some cases estimated.

Reporting Boundaries

The following are the boundaries used by Vital Energy for reporting sustainability data:

- **Operational Control**
- **Worldwide**
- **Production operations only** (offices are excluded)

Reporting Criteria

The Subject Matter needs to be read and understood together with:

- **World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD) GHG Protocol Corporate Accounting and Reporting Standard**
- **Company Protocol**

Limitations and Exclusions

Excluded from the scope of our work is any verification of information relating to:

- **Activities outside the defined assurance period.**

This limited assurance engagement relies on a risk based selected sample of sustainability data and the associated limitations that this entails. The reliability of the reported data is dependent on the accuracy of metering and other production measurement arrangements employed at site level, not addressed as part of this assurance. This independent statement should not be relied upon to detect all errors, omissions or misstatements that may exist.

Responsibilities

This preparation and presentation of the Subject Matter are the sole responsibility of the management of Vital Energy.

Apex was not involved in the drafting of the Reporting Criteria. Our responsibilities were to:

- obtain limited assurance about whether the Subject Matter has been prepared in accordance with the Reporting Criteria;
- form an independent conclusion based on the assurance procedures performed and evidence obtained; and
- report our conclusions to the management of Vital Energy.

Assessment Standards

We performed our work in accordance with Apex's standard procedures and guidelines for external Assurance of Sustainability Reports and International Standard on Assurance Engagements (ISAE) 3000 Revised, Assurance Engagements Other than Audits or Reviews of Historical Financial Information (effective for assurance reports dated on or after Dec. 15, 2015), issued by the International Auditing and Assurance Standards Board. A materiality threshold of 35-percent was set for the assurance process.

Summary of Work Performed

As part of our independent assurance, our work included:

1. Assessing the appropriateness of the Reporting Criteria for the Subject Matter;
2. Conducting interviews with relevant personnel of Vital Energy;

3. Reviewing the data collection and consolidation processes used to compile Subject Matter, including assessing assumptions made, and the data scope and reporting boundaries;
4. Reviewing documentary evidence provided by Vital Energy;
5. Agreeing a selection of the Subject Matter to the corresponding source documentation; and
6. Reviewing Vital Energy systems for quantitative data aggregation and analysis.

Conclusion

On the basis of our methodology and the activities described above:

- Nothing has come to our attention to indicate that the Subject Matter is not fairly stated in all material respects; and
- It is our opinion that Vital Energy has established appropriate systems for the collection, aggregation and analysis of quantitative data.

A summary of the data within the scope of assurance for Calendar Year 2023 is attached.

Statement of Independence, Integrity and Competence

Apex is an independent professional services company that specializes in Health, Safety, Social and Environmental management services including assurance with over 30 years history in providing these services.

Apex has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities.

No member of the assurance team has a business relationship with Vital Energy, its Directors or Managers beyond that required of this assignment. We have conducted this verification independently, and there has been no conflict of interest.

The assurance team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes, and has over 20 years combined experience in this field and an excellent understanding of Apex's standard methodology for the verification of greenhouse gas emissions data.

Attestation:



Trevor Donaghu
Lead Assuror ESG Director
Apex Companies,
LLC Pleasant Hill, California



Jessica Jacobs
Technical Reviewer
ESG Senior Project Manager
Apex Companies, LLC
Cincinnati, Ohio

Summary of Calendar Year 2023 Data Subject to Assurance Vital Energy, Inc.

Metric Type	Units ¹	CY 2023
Scope 1	mtCO ₂ e	663,046
Scope 2 (location-based)	mtCO ₂ e	203,376
Scope 2 (market-based)	mtCO ₂ e	226,974
Total Volume of Produced Water	Barrels	79,578,444
Total Volume of Produced Water Spilled ²	Barrels	1,988
Total Volume of Produced Water Recovered	Barrels	799

¹ Unit abbreviations: mtCO₂e = metric tons of carbon dioxide equivalent

² Reported spills exclude any spills that are under 1 barrel of produced fluid spilled outside of a lined secondary containment.