

Investing Responsibly

Riverstone ESG Report 2022

RIVER
STONE



Founders' Statement

Our primary obligation is to be exceptional stewards of our investors' capital. In today's world, this translates not only into delivering strong risk-adjusted returns but also doing so in a manner which formally adopts and integrates proportionate and measured environmental, social and governance (ESG) practices for the benefit of a diverse group of stakeholders.

This is all at a time of increasing economic uncertainty, emerging regulatory complexity and political scrutiny that will undoubtedly shape how ESG evolves over the coming years.

As we issue this, our fourth annual ESG report, we continue to recognize the correlation between those businesses that make ESG a core pillar of their strategies and day-to-day operations and those that are successful in what they do. At Riverstone, we remain committed to deploying your capital in a manner that appropriately and thoughtfully integrates sustainability, ethical and social considerations.

In our last ESG report, we outlined several ambitious objectives. The advances we have made against each of these are set out in more detail in the following pages.

Emissions Reporting

We are particularly proud of the work we have undertaken to measure greenhouse gas (GHG) emissions across our portfolio. We now know the magnitude of financed emissions from our investments for the 2021 calendar year.

Having completed our baseline year, we have two primary goals on emissions:

- Increasing GHG emissions data quality with more of our portfolio companies reporting more granular, "bottom-up" data
- Working with our portfolio companies on GHG emissions reduction initiatives and technologies

As a firm, we will continue to invest in climate solutions and data analytics to decrease the emissions of our portfolio companies. By reducing these emissions and being able to track such reductions, we hope to understand and effectively communicate our contribution to climate change mitigation. For more information on our GHG emissions, please refer to [pages 18–19](#).

Climate Risk

As the effects of climate change become more visible, it is becoming clearer to us that climate risk is also financial risk. The climate crisis poses a host of different risks to the financial stability of all organizations that need to be anticipated and incorporated into investment decisions. These risks fall under two main categories: "physical risks" and "transition risks."



During 2022, we undertook physical and transition climate risk assessments for the majority of our portfolio. We plan to use the results to support our portfolio companies as they seek to improve their climate resilience and capture potential opportunities presented by the energy transition. For more information on the climate risk assessments we undertook, please refer to [pages 15–17](#).

While some of the identified risks may be unavoidable, understanding and adapting to the distinct and systemic risks posed by the effects of climate change are important first steps to reducing climate risk, and therefore the financial risks associated with climate change.

In addition to our work around emissions and climate change, there are a number of other noteworthy developments to our ESG program, which are highlighted in the following pages.

We are encouraged by the improvements we have made to our ESG program in 2022. However, against the backdrop of the heightened focus on ESG and, in particular, on climate change issues, we recognize there is much more work required, in partnership with you, our investors, our management teams, regulators and other important stakeholders. We will continue to prioritize our commitment to being responsible investors and look forward to providing further updates on our ESG activities in the year to come.

Thank you for your continued support.

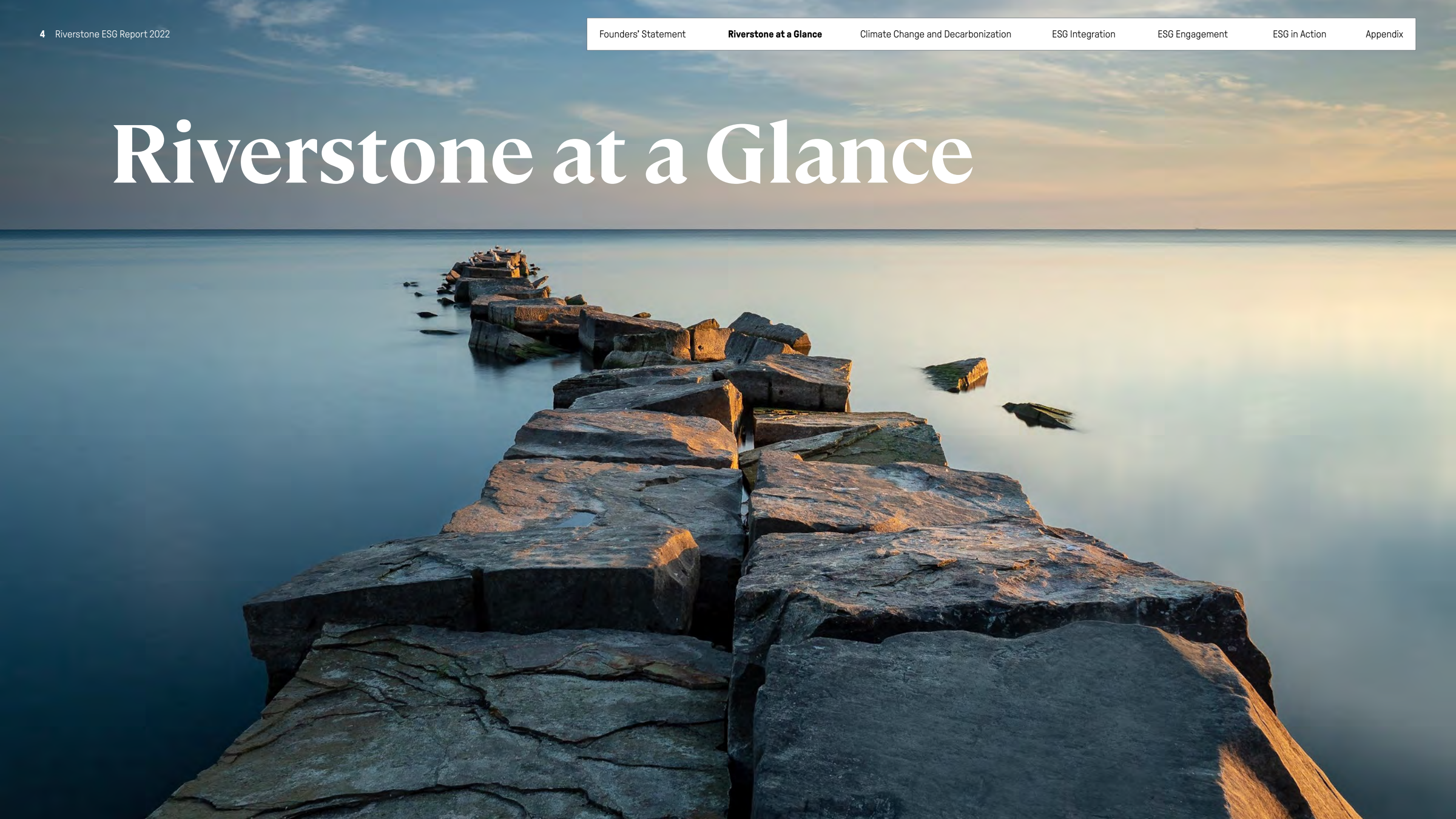
PIERRE F. LAPEYRE, JR.

DAVID M. LEUSCHEN



At Riverstone, we remain committed to deploying your capital in a manner that appropriately and thoughtfully integrates sustainability, ethical and social considerations.

Riverstone at a Glance



About Riverstone

Our Firm

Riverstone is one of the world's largest and most experienced investment firms focusing on the energy, power, infrastructure and decarbonization sectors. Founded in 2000, the firm leverages significant knowledge across the value chain to pursue private equity and credit investments that support the low carbon transition while generating positive returns for its investors.

Headquartered in New York, Riverstone has offices in Menlo Park, Houston, London, Amsterdam and Mexico City. Throughout our 20+ years of experience, Riverstone has offered integrated investment solutions across a variety of geographies and capital structures.

The firm has established a strong reputation in the power and renewable energy sectors since inception. Building on our deep expertise, our culture of innovation and entrepreneurship has enabled the firm's active investment in the low carbon transition since 2009. We continue to apply our advanced perspective while pursuing economic opportunities primarily centered around decarbonization.

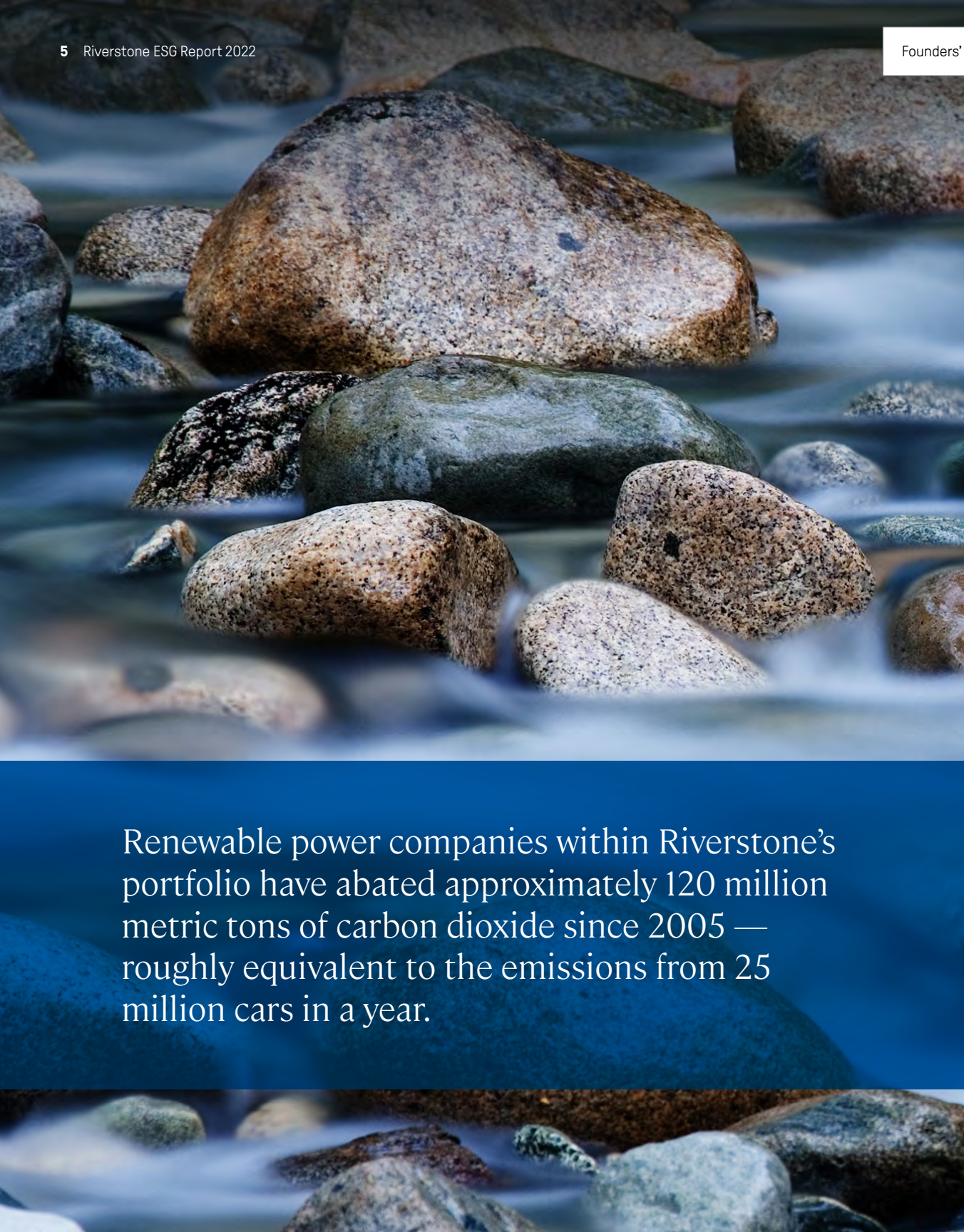
Our Philosophy

Riverstone believes the depth and breadth of its investment experience is one of the firm's differentiating strengths. Energy is highly complex and requires strong technical expertise, financial sophistication and deep relationships to produce the best returns.

The energy transition and decarbonization adds an additional layer of complexity due to the inherent nature of systemic change. The ability to successfully invest in energy transition and any particular subsector within decarbonization is significantly enhanced by deep knowledge of the energy and power sector due to the interconnected nature of energy to the broader economy.






Riverstone has built and evolved its platform to cater to this dynamic and has developed an investment presence that spans all major aspects of the power, energy transition and decarbonization landscape.

We operate with a "One Firm" mindset, which emphasizes knowledge-sharing and collaboration across the portfolio to share insights and best practices, utilize our network and benefit from portfolio expertise and synergies.



Renewable power companies within Riverstone's portfolio have abated approximately 120 million metric tons of carbon dioxide since 2005 — roughly equivalent to the emissions from 25 million cars in a year.

KEY STATS

 <p>\$1.9 billion of capital raised for decarbonization special purpose acquisition companies (SPACs)^[1]</p>	 <p>\$8.1 billion in capital committed to renewable energy and decarbonization companies^{[1][4]}</p>	
 <p>\$43 billion in capital raised^{[1][2]}</p>	 <p>85+ employees^[5]</p>	 <p>6 offices globally</p>
 <p>195+ investments supporting low carbon companies^[3]</p>	 <p>15 countries invested in^[1]</p>	 <p>200+ portfolio companies^[1]</p>

MEMBERSHIPS

Signatory of:
 Principles for Responsible Investment

Signatory to the Principles for Responsible Investment



Private equity action on climate change

Member of Initiative Climat International



Signatory to the Institutional Limited Partners Association Diversity in Action Initiative



Signatory to the ESG Data Convergence Initiative

[1] From inception to December 31, 2022.

[2] The 2021 ESG Report stated \$44 billion of capital raised; the total has been amended to \$43 billion, which is accurate for both 2021 and 2022.

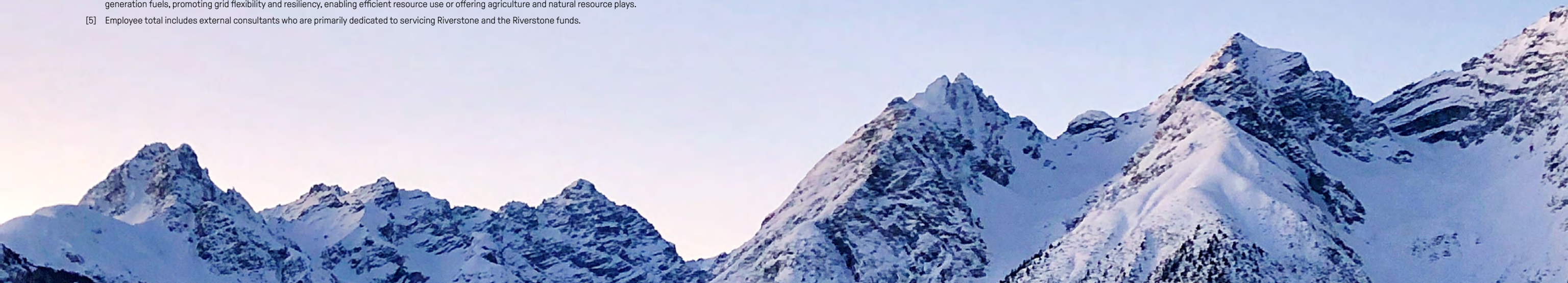
[3] Includes initial and follow-on investments in renewable energy, decarbonization and energy transition portfolio companies, inclusive of SPACs and credit fund investments, since 2005.

[4] Riverstone defines renewable energy and decarbonization companies whose business activities may be associated with generating renewable energy, supporting electrification of transportation, exploring next generation fuels, promoting grid flexibility and resiliency, enabling efficient resource use or offering agriculture and natural resource plays.

[5] Employee total includes external consultants who are primarily dedicated to servicing Riverstone and the Riverstone funds.

[ESG POLICY >](#)

[DIVERSITY & INCLUSION POLICY >](#)



ESG: 2022 in Review

Climate Change

- Completed actions to further develop Riverstone's ESG reporting, resulting in further alignment with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD)
- Engaged a leading carbon accounting platform, Persefoni, to collaborate with our portfolio companies to track their emissions, yielding disclosure of our financed emissions for the first time, including Scope 1 and 2 emissions and significant sources of Scope 3 emissions for our portfolio companies
- Performed climate risk assessments to identify physical and transition risks for the majority of the portfolio

ESG Integration

- Maintained portfolio company performance against our ESG Minimum Expectations (ESG-MEs) and continued to strengthen criteria to drive further improvements in performance
- Developed an ESG onboarding pack for new portfolio companies to share information with them about our ESG program, portfolio engagement and best practices
- Continued to expand our Green and Sustainability-Linked Loan investments across our credit funds

ESG Engagement

- Strengthened our partnership with Howard University by providing summer internships, participating in their career fair and leading on-campus seminars
- Built ESG capacity at all levels in Riverstone by facilitating training on ESG topics, including unconscious bias and anti-harassment, and providing guidance on effectively utilizing the ESG toolkit
- Participated in the ESG Data Convergence Initiative (EDCI) to contribute comparable data that will enable private equity firms to better assess their ESG progress and practices



Climate Change and Decarbonization

The background of the page is a high-angle, wide shot of a vast, deep blue ocean. The horizon line is visible in the middle of the frame, separating the dark blue water from a lighter, clear blue sky. The water's surface shows subtle ripples and textures, and the overall color palette is a gradient of blues, from deep navy to bright sky blue.

Alignment with the TCFD Recommendations

Riverstone recognizes that climate change is a threat to our global economy, society and ecosystems. As a firm, we support the Paris Agreement and its goal to limit global warming to less than 2°C above pre-industrial levels. In addition, climate change also impacts how we evaluate investment risk and opportunity as part of the world's transition to a low carbon economy.

In its April 2022 report, the Intergovernmental Panel on Climate Change (IPCC) identified the financial industry as a fundamental enabler of the low carbon transition. As the effects of climate change continue to become more apparent, capital allocators can look to climate-related disclosures to make informed decisions. To enable greater understanding of these impacts, the TCFD recommendations promote consistency and transparency around climate-related reporting. The climate disclosure proposal presented by the U.S. Securities and Exchange Commission (SEC) also aligns emerging regulations with the pillars and requirements of the TCFD framework.

In 2022, Riverstone performed analyses and took steps to improve our management practices and enhance our disclosures through increased alignment with TCFD guidance. Riverstone's disclosures aligning with the TCFD recommendations and structure are included in [pages 10–19](#) of this report. For additional information, please reference our TCFD Index starting on [page 41](#).

In addition to reporting on more elements of the TCFD recommendations in 2022, we also consider the TCFD Supplemental Guidance for the Financial Sector specific to asset managers.

Riverstone's GHG emissions disclosure efforts align with the Partnership for Carbon Accounting Financials (PCAF) Global GHG Accounting and Reporting Standard for the Financial Industry.

We also reference the supplemental guidance in the GHG Accounting and Reporting for the Private Equity Sector report – produced by Initiative Climat International (iCI) and Environmental Resources Management (ERM) and supported by the Principles for Responsible Investment (PRI).



\$8.1 billion

in capital committed to renewable energy and decarbonization companies since inception^[1]



45

renewable energy and decarbonization portfolio companies since inception, including fund continuation vehicles and credit fund investments

^[1] Riverstone defines renewable energy and decarbonization companies whose business activities may be associated with generating renewable energy, supporting electrification of transportation, exploring next generation fuels, promoting grid flexibility and resiliency, enabling efficient resource use or offering agriculture and natural resource plays.

Governance

Responsibilities

Driving collaboration across the firm, our cross-functional ESG Committee leads Riverstone's ESG program and our response to climate change which includes our climate strategy, climate risk assessments, risk management efforts and GHG reporting for our firm and portfolio.

The ESG Committee monitors consistent application of our [ESG Policy](#) and associated ESG initiatives across our activities.

The ESG Committee also supports our ESG deal leads. Each of our investment teams has a designated ESG deal lead who helps to screen, assess and manage climate-related risks and opportunities for each portfolio company throughout the investment lifecycle. Please refer to [page 25](#) for more details about the responsibilities of ESG deal leads.

We incorporate external support as needed to enhance our ESG program and disclosures. For example, ERM serves as an external advisor to our ESG Committee and assists our ESG deal leads with portfolio engagement.

As part of Riverstone's commitment to decarbonization, we have also engaged a leading carbon accounting platform, Persefoni, to measure, track and report GHG emissions across our portfolio. Persefoni's platform is fully compliant with the PCAF framework and all calculations adhere to the global gold standard of carbon accounting – the GHG Protocol.

Awareness

We endeavor to enhance understanding of climate-related risks and opportunities across our firm and increase awareness of key actions by providing regular ESG training for our investment professionals. Through our ESG training, we review information about Riverstone's ESG program and ESG deal lead responsibilities. We also provide updates on available resources, such as the ESG toolkit and the ESG diligence scorecards, which include our climate change screening questionnaire and inform due diligence and portfolio engagement around ESG topics. In addition, we held a firm-wide call in 2022 to share the findings of our climate risk assessments and highlight the importance of managing climate-related risks and opportunities.

RIVERSTONE ESG COMMITTEE



ROBERT TICHIO

Partner & Head of Decarbonization Growth Equity



JAMIE BRODSKY

Partner & Co-Head, Riverstone Credit



CYNTHIA KUEPPERS

Managing Director, Decarbonization Growth Equity



JESAL SHAH

Managing Director, Private Equity



JOSH PRENTICE

Head of Investor Relations



MEGHAN PASRICHA

Managing Director, Riverstone Credit



ELIOT COTTON

General Counsel, Energy Transition & Credit



MICHAEL EISENBERG

Partner, ERM



Strength in Numbers

View interviews with key leaders within the firm to learn more about how we strive to understand and monitor the GHG footprint of our investments.

Strategy

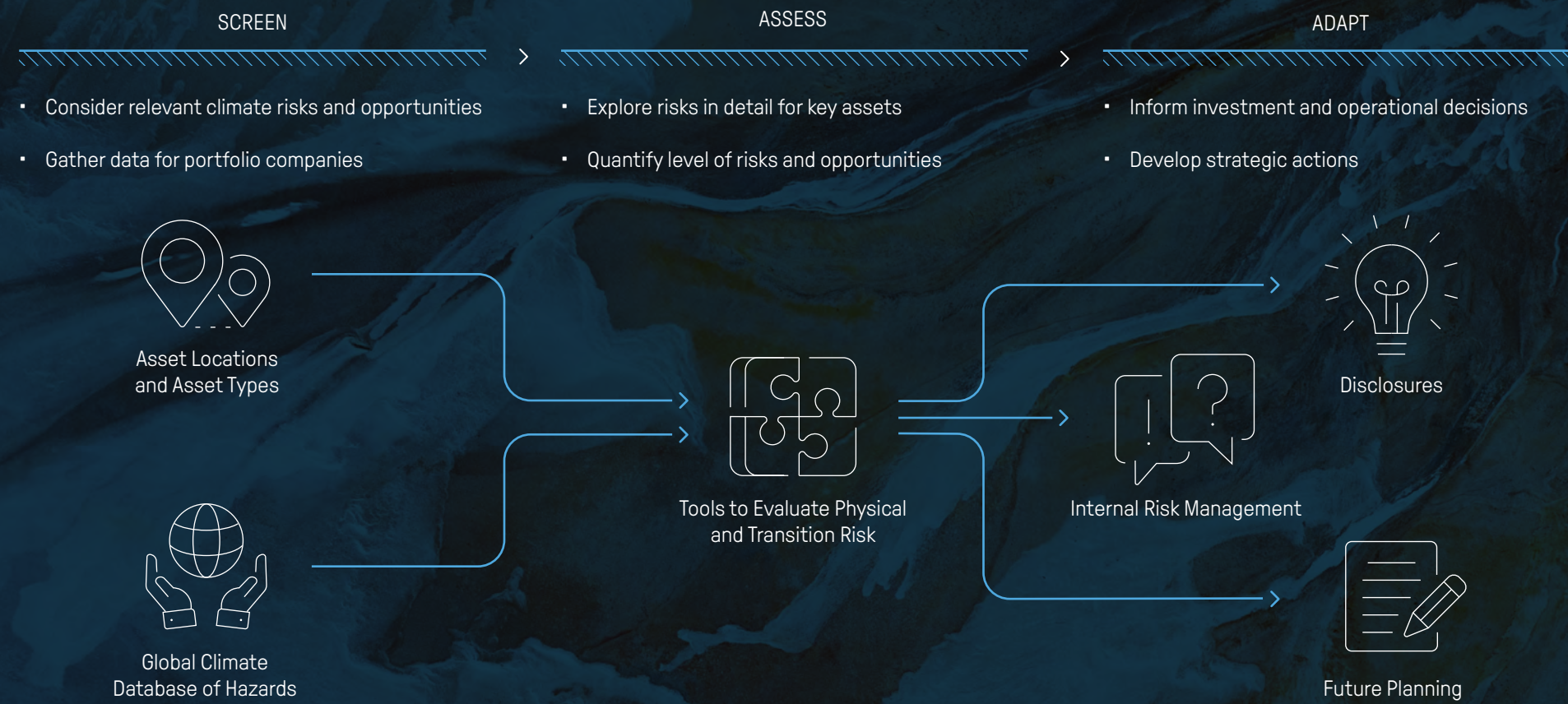
Climate-Related Risks and Opportunities

We continue to inform our climate strategy by monitoring physical and transition risks and opportunities within our portfolio. Riverstone leverages these insights to drive conversations with portfolio company management teams and to inform our overall decarbonization investment approach as part of the low carbon transition. We consider the following time horizons as we evaluate risks:

- Short term: Present–2030
- Medium term: 2031–2040
- Long term: 2041–2050

Climate risk assessments allow us to proactively identify key hazards. Our investment time horizon focuses on the short-term timeframe. By understanding present and future risks, we can support portfolio company success throughout the lifetime of our investment and integrate our findings into implementation plans and investment strategies. To inform our efforts, our third-party partner, ERM, leveraged a Screen – Assess – Adapt strategic approach for reviewing portfolio company data and used innovative tools that generated insights into key risks and opportunities.

OUR STRATEGIC APPROACH TO CLIMATE-RELATED RISK MITIGATION AND ADAPTATION



PHYSICAL RISK

Based on the evaluation of the selected sites, the majority of portfolio company site locations assessed as part of the climate risk assessment reflects moderate physical risk in the present timeframe. Approximately 18% of assets have high or very high risk, and this proportion increases to 30% of assets by 2030.

Climate risk assessment conducted on a subset of the portfolio revealed that companies may be subject to a variety of physical climate hazards. Please see [page 15](#) for details about the selection of portfolio companies included in the analysis. In the short term, top climate hazards across select portfolio companies include water stress (including drought), tropical cyclones, wildfires and flooding risk. Key emerging risks, which reflect the greatest increases in risks over medium- and long-term time horizons, are extreme heat, water stress and wildfires.

Company-specific risk profiles, which highlight key climate hazards facing the portfolio company, were developed and shared with each company that was included in the assessment.

Impacts of climate hazards vary by sector and asset type. Examples of potential impacts to operations include the following:

- Extreme weather events, such as cyclones, wildfires and flooding, may damage critical infrastructure, buildings, equipment and vehicles, as well as interrupt key transportation routes and supply chain networks
- Water stress and extreme heat may reduce productivity levels and lead to higher costs for cooling systems and other operational needs

- Climate hazards may pose health and safety risks to site personnel and may require delays in operations that impact revenue
- If risks are not managed properly, climate-related events could lead to potential contaminations, waste releases and water pollution in the local environment

TRANSITION RISK

From a transition risk perspective, losses in market share and revenue primarily drive growing risks for exploration and production and midstream oil and gas and coal-fired power generation portfolio companies in the medium- and long-term timeframes in a low carbon future.

Some portfolio companies could benefit in the future from falling fuel prices but may also realize reduced operational expenditures by switching to lower carbon fuels. However, potential decarbonization policies may add carbon pricing to fuel costs and require companies to invest in emissions reduction measures throughout their operations.

In the near term, natural gas may serve as a lower-emitting “bridge” option compared to coal and other high carbon fuels. If demand increases, natural gas-fired power generation portfolio companies may have potential expansion opportunities. Despite potential short-term benefits, natural gas demand is ultimately expected to decrease over medium- and long-term time horizons in a low carbon future and impact the market share for portfolio companies in related sectors.

Power and energy transition portfolio companies may have greater growth opportunities in a low carbon future, which could be readily available in the short-term time horizon. Emerging supportive policies and incentives may further improve the conditions for these portfolio companies, depending on geography.

Portfolio companies that focus on renewable energy and electric vehicle charging infrastructure may have greater opportunity for market expansion over time. However, portfolio companies may receive pressure to decarbonize their supply chains and invest in new technology to reduce their carbon footprint, which may increase operational costs for emissions management.

TRANSITION RISKS AND OPPORTUNITIES

Risks	Potential Impacts
Policy and Legal	<ul style="list-style-type: none"> • Increased carbon taxes, carbon pricing and cap and trade programs could add costs to fuel and require companies to make investments to reduce emissions from operations • Increased potential for changes to federal regulations relating to oil and gas operations, such as drilling or methane flaring • Greater pressure to reduce emissions throughout the supply chain, including raw materials, construction and product manufacturing stages, may increase operational costs
Technology and Resource Efficiency	<ul style="list-style-type: none"> • Decreased fossil fuel demand due to greater clean resource adoption or advancements in energy efficiency technology could lead to loss of revenue • Additional emissions-reducing technology may be required to decarbonize manufacturing processes and operations, which could potentially lead to increasing capital cost of investments
Markets	<ul style="list-style-type: none"> • Decreased fossil fuel demand may result in loss of market share and revenue for midstream services, exploration and production and power companies • Greater adoption of low- or zero-emitting power sources and related support services and analytics for these intermittent resources could present market growth opportunities • Increased transportation electrification resulting in greater build-out of supportive charging infrastructure could present market growth opportunities
Reputation	<ul style="list-style-type: none"> • Further change in customer perceptions or stakeholder pressures to decarbonize • Increased shift directly away from carbon-intensive industries

Implementation Plan

At portfolio company level, we aim to enhance resilience against climate-related risks through strategic engagement and mitigation of risks identified in our assessment. By leveraging these findings to promote discussion with management teams, we plan to outline actions for mitigating physical risks, encouraging geographical diversity, preparing for market shifts and limiting emissions in advance of impending regulations.

Our climate strategy focuses on investments that support the energy transition. Our climate risk assessment highlighted the intensifying risks usually associated with conventional investments and outlined the types of companies that may access greater market share in the future.

The screening did not include financial or impact assessments at this stage, but we plan to make use of the initial insights from the risk analysis. Going forward, we intend to primarily invest in businesses that support the low carbon transition and represent key growth opportunities. We concentrate on reducing the impact that our investments have on the climate by investing in five core areas that offer scalable climate solutions:

- Grid flexibility and resiliency
- Electrification of transportation
- Next generation fuels
- Efficient resource use
- Agriculture and natural resource plays

As we evolve our investment strategy in alignment with the low carbon transition, we will also consider opportunities to integrate climate-related physical and transition risks into our investment process. We will strive to draw on potential opportunities to increase resilience and drive value creation across our portfolio, and we aim to track our progress as we build further on our performance.



CASE STUDIES: DECARBONIZATION HIGHLIGHTS

As part of our decarbonization growth strategy, we continue to invest in portfolio companies that support the low carbon transition.



T-REX offers a cloud-based platform that enables holistic insights for structured finance

T-REX allows investors to more accurately assess the risk profiles of investments in emergent clean technologies. Through its SaaS-based platform, T-REX onboards borrowers' ESG data alongside deal data, empowering lenders to structure, monitor and dynamically price facilities based on ESG objectives. By improving lending risk transparency, T-REX facilitates investment in new technologies and infrastructure projects that promote decarbonization and drive the energy transition to a lower carbon economy. To date, T-REX has helped deliver transparency on more than \$10 billion of ESG-linked financing.



Anuvia provides sustainable, crop nutrition products with enhanced nutrient delivery

Anuvia produces a unique, sustainable bio-based fertilizer that is a direct replacement for conventional fertilizers and does not require change in farming practices. This contributes to increased grower yields and potential returns on investment, while improving soil health and reducing reliance on fossil fuel-based fertilizers. In support of a more circular economy, Anuvia also facilitates waste elimination by incorporating reclaimed organic materials within its products, enabling more sustainable farming practices while maximizing efficiency to meet increasing agricultural demands. Since Riverstone's investment in 2022, Anuvia's products have been responsible for approximately 99,657 metric tons of CO₂ of avoided emissions as substitutes for conventional fertilizers.



Infinitum designs, engineers and manufactures axial flux permanent magnet electric motors

Infinitum has developed an axial flux permanent magnet electric motor that meets the industry's highest efficiency standards (IE5). At less than half the size and weight of comparable motors, Infinitum's energy-efficient motors also generate fewer GHG emissions during operation and require fewer raw materials during manufacturing compared to conventional motors. Sustainability and circularity principles are at the core of Infinitum's motor design, with a focus on reuse throughout the product lifecycle. As a result, the majority of the motor product components can be reused for over 100 years. In 2022, Infinitum avoided approximately 5,928 metric tons of CO₂ emissions compared to the production and operation of standard electric motors.

Risk Management

We actively utilize our ESG toolkit, climate risk assessments and portfolio engagement processes to support our portfolio companies in managing climate-related risks and monitoring GHG emissions.

During pre-investment due diligence, our deal teams evaluate how a potential investment assesses and manages climate-related risks and opportunities. As part of scoring prospective investments on the basis of ESG performance, the deal teams utilize our climate change screening questionnaire to analyze whether a company has considered impacts from climate-related market shifts, regulatory and voluntary frameworks and extreme weather events.

Each Investment Committee memo includes the results of this assessment, along with a summary of other key ESG practices, to inform investment decisions.

In 2022, we collaborated with a third party, Persefoni, to engage a subset of our portfolio companies to track their emissions. During ownership, we expect portfolio companies to establish a GHG baseline inventory for Scope 1 and 2 emissions, monitor their emissions and annually report on performance as part of our portfolio engagement process.

Deal teams, with third party support as required, develop actions to help portfolio companies meet our expectations and improve their overall ESG performance, including efforts related to climate change. For more information about portfolio risk management, please see [page 23](#).

Additionally, Riverstone actively communicates with portfolio companies on climate-related topics throughout the year as part of our wider portfolio engagement efforts. Please see [page 25](#) to learn more about how we engage with our portfolio companies.

Climate Risk Assessment

Riverstone utilizes risk assessments throughout the investment lifecycle to identify and assess the impacts from potential climate-related risks and opportunities. The analysis allows us to identify risks for and to better inform our engagement with specific portfolio companies.

In 2022, we expanded upon our pilot climate assessment and conducted an in-depth climate risk assessment for certain portfolio companies to contribute to a greater understanding of Riverstone's exposure to acute and chronic climate hazards, as well as the types of climate policy, technology, market, reputational and legal risks.

We selected portfolio companies based on the level of our equity ownership and the materiality of each company to our business strategy. The subset of companies reflects the wide range of sectors and geographies represented in our portfolio.

The results of the recent analysis provided insights about the relevant types of climate-related risks and opportunities, which are described in this report starting on [page 12](#). In addition to supporting engagement with specific portfolio companies, we aim to apply the results to inform our ongoing implementation plan to prepare for climate change and advance our decarbonization investments.



PHYSICAL RISK ANALYSIS

To understand the acute and chronic physical risks associated with climate change, our assessment included analysis of extreme temperatures, flooding (river, rainfall and coastal), tropical cyclones, wildfires, rainfall-induced landslides, water stress and drought. We evaluated current and emerging climate hazards at operational sites for certain portfolio companies at present, 2030 and 2050 timeframes.

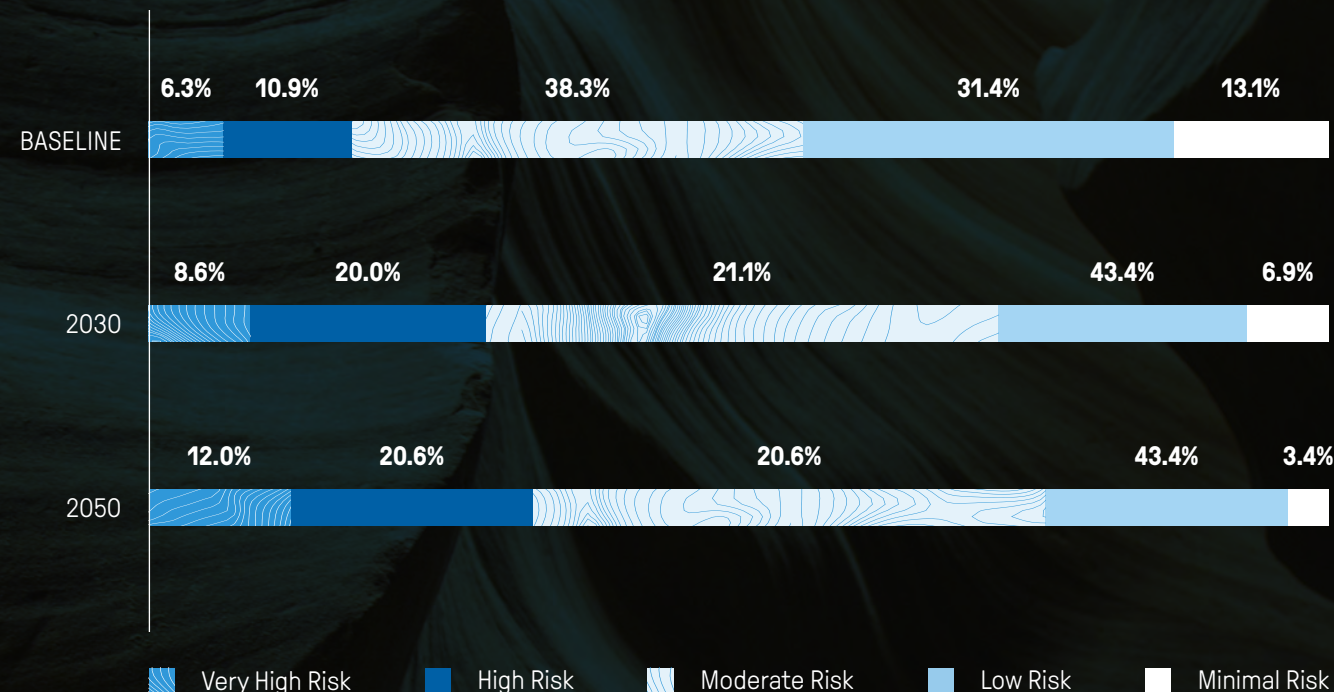
The scenarios used for the climate analysis are based on the IPCC Assessment Report 6, which incorporates approximately 100 leading climate models into five Shared Socioeconomic Pathways (SSPs). These SSPs present plausible scenarios for global trends in net carbon dioxide emissions. Although uncertainties exist around the different scenarios and climate impacts, evaluation across multiple scenarios enables increased preparedness against possible risks. Two climate scenarios were analyzed in our physical risk assessment:

- SSP1-2.6 is a low GHG emissions scenario in which global warming stays below 2°C by 2100, aligned to current commitments under the Paris Agreement
- SSP3-7.0 represents a high GHG emissions scenario in which an average warming greater than 3°C is projected to occur by 2100

We utilized ERM’s proprietary Climate Risk Impacts and Solutions Platform (CRISP) tool to conduct a TCFD-aligned assessment of our portfolio’s physical assets. CRISP integrates climate data and exposure ratings, which account for the characteristics of the site type (e.g., an oil and gas, renewable or manufacturing site), and normalizes the risk levels of individual climate hazards to produce overall risk scores. The analysis considered acute risks, which reflect extreme weather events, and chronic risks, which are longer-term shifts in climate patterns.

For the subset of portfolio companies reflected in the analysis, the screening provided asset-specific climate risk scores and highlighted the asset locations and climate hazards that pose the greatest risk. Assessment results included climate risk scores at the present, 2030 and 2050 timeframes under the two SSP scenarios. This analysis generated asset-specific insights about the top baseline climate hazards and emerging climate hazards at a given location. We will leverage these findings throughout portfolio engagement to build resilience across operational sites within our portfolio.

PHYSICAL RISK LEVEL IN CURRENT AND FUTURE TIME HORIZONS^{[1][2]}



[1] Based on the SSP3-7.0 climate scenario and the assets analyzed in the 2022 climate risk assessment.

[2] Climate risk ratings at the asset level present a summary statistic across different climate hazards (flooding, extreme heat, tropical cyclones, etc.) While generalizing an asset’s overall climate risk from “Low” to “Very High” is essential for comparative analysis, especially when assessing risk across a portfolio of assets, an overall risk rating should be distinguished from the underlying individual climate hazards. Certain individual hazards may be rated as “Very High Risk,” but with an asset’s overall resulting risk rating being lower due to other individual hazards being rated as “Low Risk.” An asset must be threatened by several hazards that reflect “Very High Risk” for an asset to achieve a “Very High Risk” rating overall. Each asset risk category may remain stable due to individual hazards remaining relatively stable for all time horizons. Conversely, the individual hazards may increase or decrease but result in a stable rating (e.g., risk of flooding may be increasing while risk of extreme cold may be decreasing).

TRANSITION RISK ANALYSIS

We also conducted a climate transition risk assessment to better understand how climate-related risks and opportunities might develop under different scenarios, including how impacts change if policy efforts ramp up over time to meet climate targets. Similar to the physical risk analysis, the transition risk analysis employed two main scenarios to determine potential trends. For global temperature alignments, the scenarios incorporated data primarily from the International Energy Agency (IEA) World Energy Outlook and IEA Energy Technology Perspectives models:

- The 2°C scenario limits global temperature rises to less than 2°C by 2100, based on pathways for sustainable development
- The business-as-usual (BAU) scenario applies current policies and commitments outlined by countries to mitigate emissions

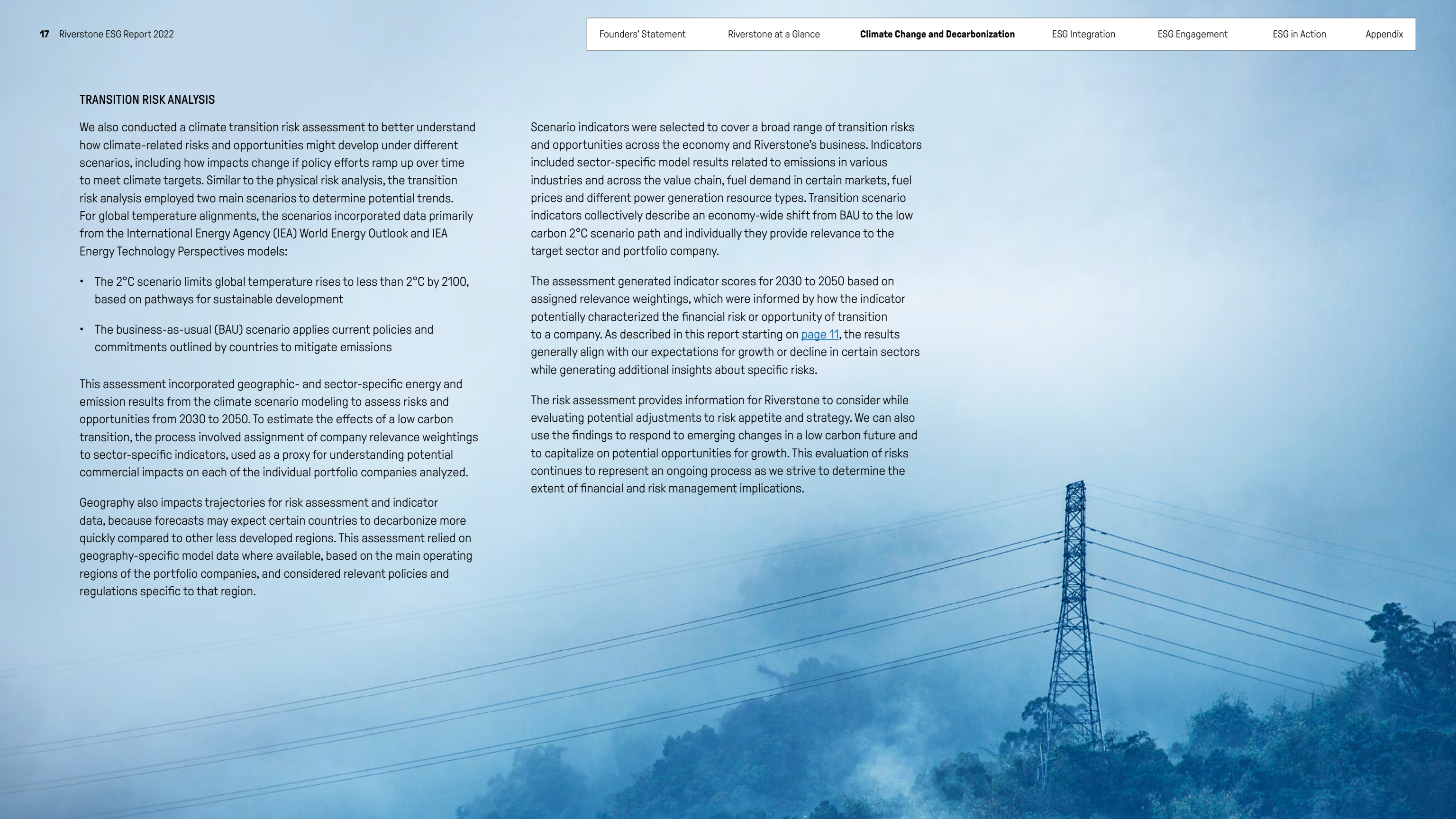
This assessment incorporated geographic- and sector-specific energy and emission results from the climate scenario modeling to assess risks and opportunities from 2030 to 2050. To estimate the effects of a low carbon transition, the process involved assignment of company relevance weightings to sector-specific indicators, used as a proxy for understanding potential commercial impacts on each of the individual portfolio companies analyzed.

Geography also impacts trajectories for risk assessment and indicator data, because forecasts may expect certain countries to decarbonize more quickly compared to other less developed regions. This assessment relied on geography-specific model data where available, based on the main operating regions of the portfolio companies, and considered relevant policies and regulations specific to that region.

Scenario indicators were selected to cover a broad range of transition risks and opportunities across the economy and Riverstone's business. Indicators included sector-specific model results related to emissions in various industries and across the value chain, fuel demand in certain markets, fuel prices and different power generation resource types. Transition scenario indicators collectively describe an economy-wide shift from BAU to the low carbon 2°C scenario path and individually they provide relevance to the target sector and portfolio company.

The assessment generated indicator scores for 2030 to 2050 based on assigned relevance weightings, which were informed by how the indicator potentially characterized the financial risk or opportunity of transition to a company. As described in this report starting on [page 11](#), the results generally align with our expectations for growth or decline in certain sectors while generating additional insights about specific risks.

The risk assessment provides information for Riverstone to consider while evaluating potential adjustments to risk appetite and strategy. We can also use the findings to respond to emerging changes in a low carbon future and to capitalize on potential opportunities for growth. This evaluation of risks continues to represent an ongoing process as we strive to determine the extent of financial and risk management implications.



Metrics and Targets

To establish a GHG emissions baseline for our portfolio, Riverstone engaged a leading carbon accounting platform, Persefoni, to support our portfolio companies in calculating their GHG emissions. We performed our GHG accounting in alignment with the PCAF standard to estimate our Scope 3 category 15 financed emissions across our portfolio. The organizational reporting boundary was used in accordance with the GHG Protocol, and the calculations included the seven GHGs outlined in the IPCC Fourth Assessment Report and converted to carbon dioxide equivalent (CO₂e) using relevant global warming potentials.

For each portfolio company, we evaluated Scope 1 and 2 emissions, and we included partial Scope 3 emissions for portfolio companies based on Scope 3 materiality determinations.^[1]

In 2021, our financed emissions were 4.7 million metric tons of CO₂e for Scope 1 (direct emissions) and Scope 2 (purchased energy) in our portfolio, and our financed emissions were 8.9 million metric tons of CO₂e for Scope 1, Scope 2 and partial Scope 3 emissions in our portfolio. See [page 19](#) for further details on our financed emissions by fund.

To measure our portfolio's progress in this area, we also track GHG reporting through our ESG-MEs, which include a recommendation for companies to calculate their GHG baseline for Scope 1 and Scope 2 and annually monitor and report their GHG emissions. We continue to track this metric to assess how companies can enhance their GHG emissions management. We also collect and report climate data along with other ESG-related data through the EDCI.

[1] Materiality was determined by reviewing common sources of emissions for each industry and evaluating the most significant sources for each portfolio company included in Scope 3 calculations. Companies were then engaged to confirm the materiality of emissions for relevant Scope 3 categories. Frequently reported categories deemed material include Upstream (categories 1, 2, 3, 4, 5 and 6) and Downstream (category 11) Scope 3 emissions.

We plan to explore opportunities to help portfolio companies set individual GHG reduction targets. Some of our portfolio companies have already set reduction targets:

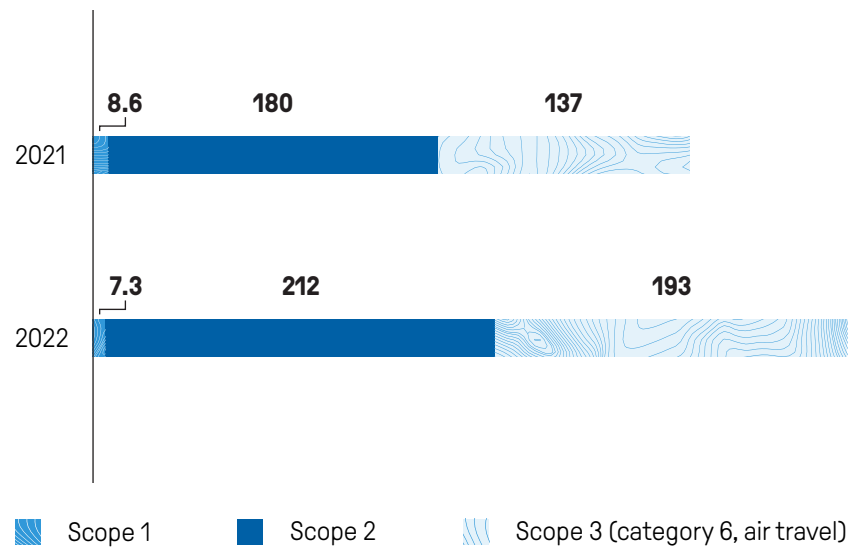
Company	Climate-Related Targets ^[2]
Ascent Resources	2025 Scope 1 and 2 Carbon Neutrality Target
Enviva	2030 Net Zero Target Plan to Neutralize Scope 2 Emissions by Using 100% Renewable Energy by 2030
Hammerhead Resources	2030 Net Zero on Scope 1 and 2 Emissions
Onyx Power	2035 Carbon Neutral Target
Pipestone Energy	2035 Net Zero Target
Talen Energy	2030 Absolute CO ₂ Emissions Target of 75%
Talos Energy	2025 Scope 1 GHG Intensity Reduction Goal of 30%
Trigon Pacific Terminals	Annual GHG Intensity Average Reduction Goal of ≥1% (Inventory-Based)
VEMO	2027 Net Zero Target ^[3]
Vesta Energy	15% Reduction in Scope 1 and 2 Emissions Intensity by 2025

[2] This table is based on third-party information as of December 31, 2022, and has not been independently verified.

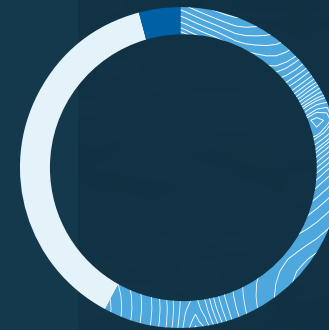
[3] VEMO's net zero target covers the company's fleets.

Additionally, we continue to calculate Riverstone's annual firm GHG footprint to assess the climate impact of our own activities and identify ways to reduce or offset our carbon footprint. In 2022, we expanded and refined our analysis of Scope 1 emissions from stationary combustion at our facilities, Scope 2 emissions from purchased electricity at our sites and Scope 3 emissions from private and commercial air travel (category 6). We also reevaluated our 2021 emissions baseline using our revised methodology, leading to an updated estimate of 326 metric tons CO₂e for our operational emissions in 2021.^[1] This adjustment was largely driven by adopting an updated methodology around private air travel. In 2022, our total emissions across these categories amounted to approximately 413 metric tons of CO₂e. Compared to 2021, Riverstone's emissions increased by approximately 27% year-over-year. This increase was largely due to greater amounts of business travel and increased office energy use as our operations returned to more in-person work, post-pandemic.

OPERATIONAL EMISSIONS AT RIVERSTONE (METRIC TONS OF CO₂e)



[1] We updated our calculation methodology but did not incorporate new sources of data.



2021 FINANCED EMISSIONS (SCOPE 1 AND 2) BY FUND^[2]

- **58%** Riverstone Global Energy and Power Fund VI, L.P.
- **38%** Riverstone Global Energy and Power Fund V, L.P.
- **4%** Other Riverstone Funds^[3]

[2] Financed emissions do not include emissions from Riverstone credit funds.

[3] This category includes all other funds where affiliates of Riverstone Holdings, LLC are the managers, including fund continuation vehicles.



4.7 million

metric tons of CO₂e of financed emissions (Scope 1 and 2)



Q&A with Cynthia Kueppers, Managing Director, Decarbonization Growth Equity



How does Riverstone leverage GHG emissions data to support its decarbonization efforts?

To drive improvements across our business, we need to understand the extent of our climate-related impacts. Measuring the GHG emissions produced by our direct operations and portfolio enhances transparency, enables more informed decision-making and is key to our decarbonization efforts.

In 2022, we expanded our GHG disclosures by calculating our financed emissions as part of our Scope 3 emissions. Using Persefoni's GHG emissions platform, we were able to produce an emissions inventory that aligns with the PCAF standards and includes emissions from our portfolio.

By measuring our financed emissions, we can consider the opportunities to address the environmental impacts within our portfolio. To support the energy transition, we can employ our extensive energy expertise to advise our portfolio companies and provide data-driven recommendations to reduce emissions.

Our foundational GHG baseline also enables us to track performance and compare progress across our investments. As we continue to invest in businesses that promote decarbonization, we will use GHG emissions data to explore further options to mitigate climate-related impacts in our portfolio.

How does the climate-related risk management process create value for Riverstone?

Throughout our investment process, we remain dedicated to monitoring and evaluating ESG performance within our portfolio companies.

In 2022, we completed climate risk assessments for a select group of companies within our portfolio. This process generated insights about potential risks to a portfolio company's value chain and allowed us to identify opportunities to improve business resilience for our assets. The assessment also highlighted key considerations that continue to inform our investment selection and demonstrated how we can prioritize sectors and locations to deliver value to investors.

We continue to evaluate how to evolve our processes in alignment with leading practices by considering emerging regulations and standards. Changes in the marketplace, including SEC disclosure mandates, inform our risk management approach as we integrate climate-related screenings into our assessment process for investments before and during ownership. Doing so enables Riverstone to efficiently make investment decisions, increasing our ability to remain agile and drive decarbonization investments while enhancing due diligence and ultimately yielding returns on climate benefits and capital returns.

What do you view as potential opportunities to expand your commitment to address climate change?

We are exploring opportunities to set climate-related targets as part of our strategy to enhance progress and measure performance. It is important that our team examine recognized standards to inform any future commitments and align with established frameworks that will further our business objectives and provide value to our investors.

Riverstone supports the Paris Agreement and its goal to limit global warming to no more than 2°C above pre-industrial levels. Considering industry-accepted guidance on climate-related targets allows us to affirm this support and strengthen our commitment to the energy transition, while expanding our investment horizon.

In addition to evaluating targets for the firm, we plan to deepen engagement with our portfolio companies around climate-related topics, including opportunities to set individual climate goals. This exercise enables greater collaboration with our portfolio and contributes to their ESG performance while also promoting transparency in portfolio efforts to reduce emissions.

Our Continued Focus on Climate Change

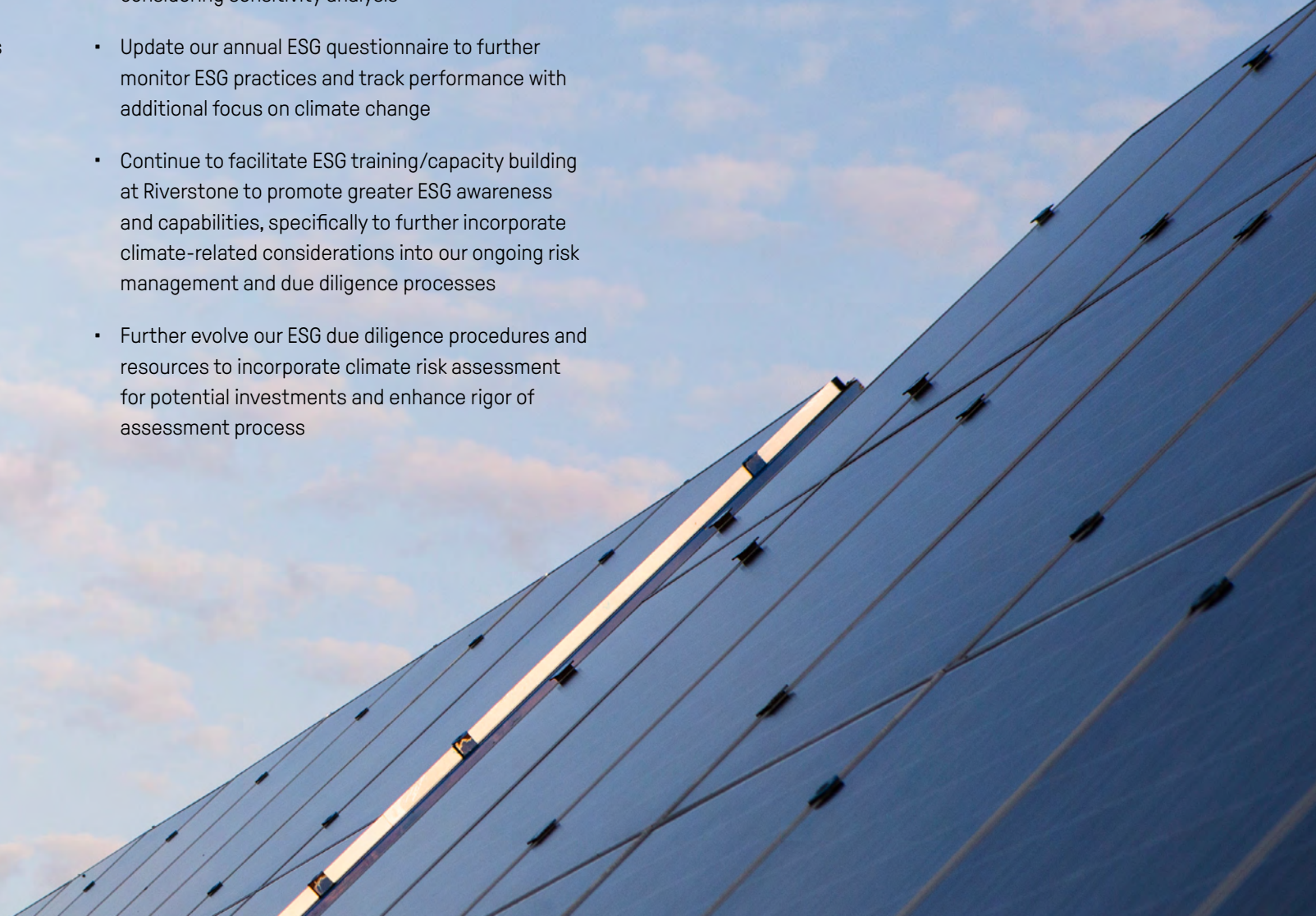
In support of the low carbon transition, we will continue to focus on investments in decarbonization and plan to further align with the recommendations of the TCFD.

As the ESG landscape evolves, we are preparing to manage ESG risks by monitoring emerging industry trends and scanning the regulatory horizon, including evolving requirements from the SEC.

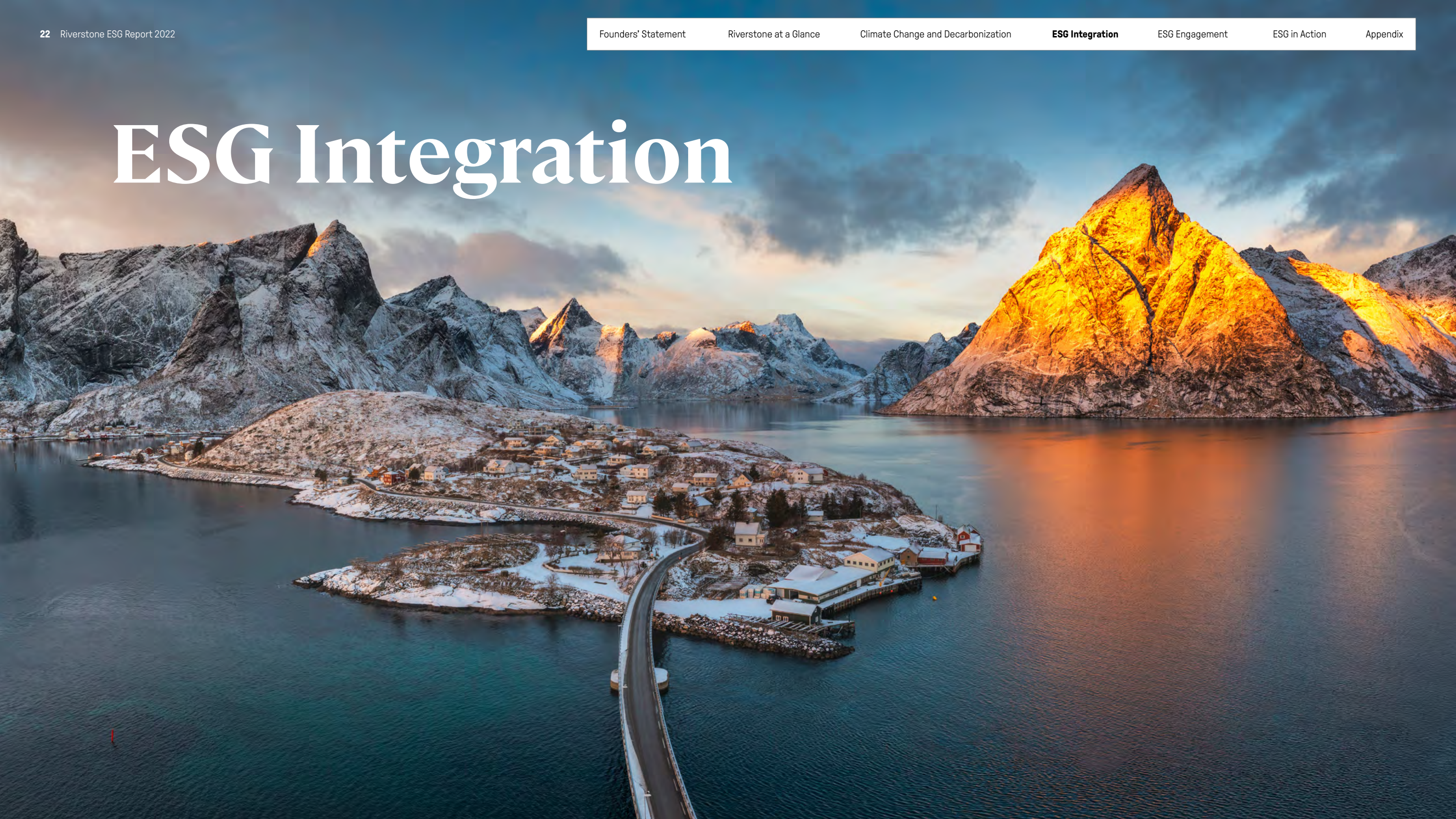
We also plan to maintain awareness of changes in reporting frameworks as the International Sustainability Standards Board (ISSB) strives to develop global sustainability standards. We will consider opportunities to integrate these standards once available to provide additional ESG data in our reporting. In addition, we will monitor the framework in development from the Taskforce on Nature-related Financial Disclosures (TNFD).

We will also continue to mature our ESG program by leveraging the insights collected during the past year and strengthening our management approach for climate change. To accomplish this, we plan to build on the objectives outlined in our 2021 ESG Report while looking to incorporate additional priorities for 2023 and 2024:

- Continue to further align our reporting with the TCFD recommendations and evaluate opportunities to advance our risk management and estimate the financial implications of risks
- Refine our GHG accounting across our portfolio companies and include any new investments in our GHG inventory
- Consider development of potential targets for emission reductions and support our portfolio companies in understanding their emissions and pursuing their own reduction goals
- Using the findings from our climate risk assessment, enhance our engagement with our portfolio companies to mitigate climate-related risks, capitalize on opportunities to enhance resilience and assess opportunities to build on our risk assessment further by evaluating additional companies and considering sensitivity analysis
- Update our annual ESG questionnaire to further monitor ESG practices and track performance with additional focus on climate change
- Continue to facilitate ESG training/capacity building at Riverstone to promote greater ESG awareness and capabilities, specifically to further incorporate climate-related considerations into our ongoing risk management and due diligence processes
- Further evolve our ESG due diligence procedures and resources to incorporate climate risk assessment for potential investments and enhance rigor of assessment process



ESG Integration



Mitigating ESG Risk

Riverstone has a multi-faceted approach to identify and mitigate risks as part of our pre-investment due diligence and throughout our ownership. We continually refine our methodologies to align with evolving frameworks and to enhance our risk management processes.

In 2022, we also provided training on our ESG toolkit for our investment teams so they can effectively make use of this resource throughout the deal lifecycle. To further support engagement with our portfolio, we produced an ESG onboarding pack that investment teams plan to share with new portfolio companies. This ESG onboarding pack offers an introduction to Riverstone's expectations and ESG program to integrate companies into Riverstone's portfolio and prepare them for regular engagement.

Ethics and Compliance

Prioritizing ethics and compliance is critical to successful business and a key part of our focus on the "G" of ESG. We have rejected investment opportunities that present excessive ethics and compliance concerns, and we require new investments to meet international best practices for compliance.

Understanding that our portfolio companies operate in sectors and jurisdictions often associated with high risks for bribery and corruption, we take a risk-based approach to assessing their compliance programs and actively supporting and monitoring their ongoing compliance efforts. For example, we require our investments that face international bribery risks to design and adopt comprehensive written anti-corruption policies, designate compliance officers and communicate rules and standards through periodic compliance training.

Since 2012, we have implemented a formal risk mapping and compliance oversight program that prioritizes diligence and controls in three critical stages of the investment lifecycle:

- 1. Investment/acquisition vetting:** Our due diligence process includes assessment of corruption risks, compliance practices and potential liabilities. We also secure applicable compliance assurances within purchase/investment agreements and train the portfolio company's management team on our expectations.
- 2. Portfolio company compliance oversight:** We provide ongoing guidance to address corruption risks for our portfolio companies and regularly assess their compliance programs. In addition, we annually present an award to an outstanding compliance professional within our firm or portfolio.
- 3. Company exit:** At the time of exit of an investment, we leverage compliance insights gained from that company into ongoing oversight of the portfolio to promote continuous improvement. We believe that strong compliance programs add value because we find that purchasers are more frequently interested in companies that have taken responsible approaches to managing compliance risks.

ESG Minimum Expectations (ESG-MEs)

Riverstone has nine ESG-MEs that are essential for reinforcing our ESG framework among our portfolio companies. Deal teams use the ESG-MEs to assess potential investments during the due diligence stage, and we request that all our portfolio companies meet or exceed them during our period of ownership. Additionally, the ESG-MEs play a key role in our credit portfolio comprised mostly of Green Loans and Sustainability-Linked Loans.

- **ME1:** The company should have a diversity and inclusion (D&I) policy and/or initiatives to promote D&I
- **ME2:** ESG matters should be a standing board agenda item at every board meeting
- **ME3:** The company should have designated responsibility for ESG matters within its senior leadership
- **ME4:** The company should have policies in place to address ESG matters relevant to the company and its industry
- **ME5:** The company should have systems in place to identify and proactively manage ESG risk material to its operations
- **ME6:** The company should have a GHG baseline, and annually monitor and report GHG emissions
- **ME7:** The company should have a whistleblower policy/process and hotline in place
- **ME8:** The company should have a safety management system in place relevant to its operations
- **ME9:** The company should have means to prevent cyberattacks and data theft

See [page 26](#) to see how our portfolio performed in 2022 against each of our ESG-MEs. We plan to explore opportunities to expand these ESG-MEs in the future and will continue to update our ESG toolkit and questionnaires to align with evolving standards.

INTEGRATING ESG ACROSS THE DEAL LIFECYCLE

DUE DILIGENCE

Each Investment Committee memo includes an **ESG diligence scorecard**, which assesses pre-investment ESG performance, incorporates our climate change screening questionnaire, describes findings from due diligence (including key ESG risks, observed good practices and improvement opportunities) and outlines any ESG actions required for advanced investments

INITIAL INVESTMENT

In the first 100 days of ownership, we aim to collaborate with the portfolio company management teams to execute actions from the **100-day plans**, which reflect due diligence findings, and to establish the necessary policies, plans and processes to properly manage ESG risks and drive value creation

Our **ESG onboarding pack** provides context for Riverstone's ESG program, explains the criteria for meeting ESG-MEs and highlights the regular engagements between Riverstone and portfolio companies

ENGAGEMENT

We collect data from portfolio companies through **annual ESG questionnaires** to assess alignment with the ESG-MEs, measure changes in ESG performance and gather ESG key performance indicators

Based on ESG questionnaire responses, we generate **annual ESG monitoring scorecards** that summarize the overall ESG rating for the company, performance against the ESG-MEs, good ESG practices reported and recommendations for improvement for portfolio companies

In alignment with the **ESG Data Convergence Initiative**, we collect key ESG data from portfolio companies and include the findings in our ESG monitoring scorecards

We engage with portfolio companies to enhance their **ESG reporting** and encourage additional disclosures

Through **climate risk assessments**, we periodically evaluate the climate-related risks and opportunities in our portfolio and collaborate with portfolio companies to mitigate risks and leverage opportunities

EXIT

Deal teams summarize the ESG performance of our investments and, where appropriate, make relevant ESG disclosures and evaluate whether potential buyers' ESG standards comply with all applicable laws



The **ESG toolkit** provides a framework to integrate ESG throughout the deal lifecycle, including pre-investment, ownership and exit. Our investment teams leverage the templates and processes outlined in the ESG toolkit to consistently identify and manage material ESG risks and opportunities for Riverstone's private equity investments.

Supporting Local Communities

Our portfolio companies continue to demonstrate responsible corporate citizenship through their commitments to meeting local needs and serving their communities. For example, two of our portfolio companies operating in Europe and/or with European personnel donated resources to support victims of the Ukraine War.



In March 2022, Onyx Power (Onyx), a European-based power generation company, made a donation of EUR 500,000 to support people affected by the war in Ukraine. Given that Onyx has plants in Germany and the Netherlands, the donation was split 50:50 between a German charity “[Aktion Deutschland Hilft](#)” and a Dutch charity “[Giro555](#),” which are both alliances of local aid organizations that raise funds for victims of humanitarian disasters.



Ridgebury Tankers (Ridgebury) partners with Bernhard Schulte Shipmanagement GmbH (BSM), a ship management company that provides services for Ridgebury’s vessels. Through BSM, Ridgebury employs crews from many nations, including the Ukraine, and some of these Ukrainian seamen leveraged BSM’s agency networks to evacuate their families from areas under threat during the outbreak of the war in Ukraine. The coordination with specific families required significant time and resources by personnel of Ridgebury and BSM, and Ridgebury and its employees contributed approximately \$60,000 to this effort.

Portfolio Engagement

Accountability

Nominated investment team members serve as ESG deal leads and engage their respective portfolio company on ESG management and performance. In partnership with Riverstone’s internal legal team, ESG deal leads maintain responsibility for coordinating the completion of annual compliance reviews and ESG questionnaires and providing feedback on the ESG monitoring scorecards.

Riverstone’s annual performance reviews assess the quality of ESG engagement driven by each ESG deal lead, and the results inform decisions related to compensation and promotion for ESG deal leads.

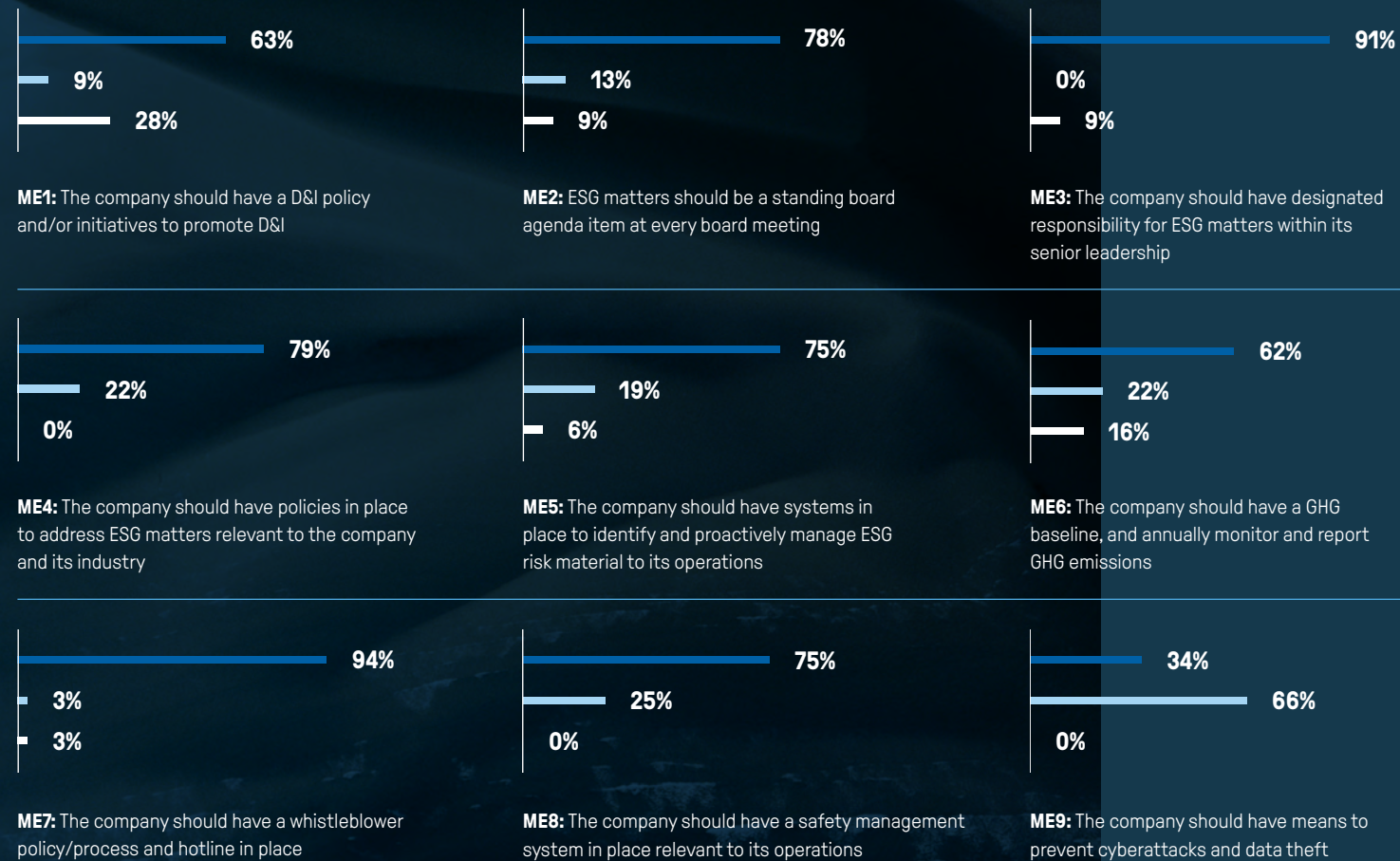
ESG Monitoring and Reporting

In parallel with regulatory-related assessments, we annually review implementation of ESG processes at our portfolio companies and assess changes in ESG performance. In 2022, Riverstone incorporated additional data points in our annual ESG questionnaire and increased our standards to refine scoring in the analysis. ESG monitoring scorecards summarize each portfolio company’s progress and our recommendations to improve performance. For more information about our ESG engagement during the ownership stage, please see [page 24](#).

Each year, our portfolio companies also complete a separate assessment related to anti-bribery and corruption compliance in alignment with regulations, and Riverstone supports portfolio companies in evaluating and addressing corruption risks and compliance practices. We also utilize a third party to perform cybersecurity assessments of portfolio companies and evaluate alignment with Riverstone’s Cybersecurity Minimum Standards, which include financial, operational technology and information technology controls. For more information on our cybersecurity program, please see [page 31](#).

PORTFOLIO ESG PERFORMANCE^[1]

■ Met or Exceeded ■ Partially Met ■ Unmet



[1] Results do not include credit fund investments. Non-operational (non-op) portfolio companies were removed from these results due to limitations on non-op ESG performance. These removals did not have a material impact on portfolio ESG performance results for 2022. For next year's questionnaire, the approach for non-ops will be reassessed to more directly measure non-op ESG management of operators. These results reflect data based on our 2022 ESG questionnaire, which assesses progress made in calendar year 2021 and Q1 of 2022.

ESG Performance Across the Portfolio

We strive to improve our ESG program and align with evolving market expectations. In 2022, we adjusted our ESG performance review process to meet more stringent expectations and encourage our portfolio companies to enhance their ESG programs further to meet or exceed requirements.

As part of our updated approach, we included two new ESG-MEs (related to diversity and cybersecurity), enhanced scoring calibration and tightened criteria across all ESG-MEs. In addition to our higher standards to enhance overall maturity, the portfolio experienced company exits, and we introduced new companies to the questionnaire process. However, results still show that most portfolio companies address our ESG-MEs:

- The majority of companies have reported a policy or initiatives related to D&I.
- While over half of the portfolio companies are monitoring GHG emissions, this remains a challenge for smaller companies. We expect improvements in next year's questionnaire due to our engagement with Persefoni to perform carbon accounting for our portfolio during calendar year 2022 for 2021 emissions.
- All companies have at least partially implemented some level of cybersecurity controls to maintain data privacy and information technology security.
- Over 75% of our portfolio have specific policies in place across multiple ESG matters, and all portfolio companies at least have policies on certain topics, such as codes of conduct or health and safety policies.
- All portfolio companies, excluding those designated as non-operational entities, maintain safety programs and systems. The majority of companies also collect quantitative data on key safety metrics, such as lost time incident rates and near misses.

Despite an increase in assessment rigor, companies that continue to participate in our ESG review process tend to improve their performance against our ESG-MEs. Companies that are not meeting ESG-MEs include smaller companies with fewer employees and companies that are new to the questionnaire process. We expect that alignment with ESG-MEs will increase over time through continuous engagement led by our ESG deal leads.

Credit Portfolio

ESG standards remain critical for our credit business as we provide support and resources to our borrowers and management teams in managing their ESG risks and mitigating their contributions to climate change. To date, Riverstone Credit Partners (RCP) has committed approximately \$880 million towards investments across decarbonization and the transition to a low carbon economy.

Although we have limited ability to influence our portfolio companies as credit investors compared to our equity portfolio, we endeavor to increase transparency and alignment through board observer seats, ESG questionnaires and scorecards, affirmative covenants and loan economics tied to sustainability metrics. In addition, since RCP loans are structured as Green Loans or Sustainability-Linked Loans (SLLs), we believe that every investment is advancing decarbonizing and energy transition infrastructure.

We have integrated ESG considerations across all of our credit investments as we believe ESG is critical to assessing risk. Each new borrower completes an ESG questionnaire prior to closing to evaluate ESG metrics. During the diligence process, we typically conduct background checks for key management team and board members where applicable. We also structure our investments as first lien Green Loans or SLLs, which are incorporated into our portfolio risk grid. These tools provide structure around our diligence processes for strong risk-adjusted returns while continuing to support a low carbon future.

Once invested, RCP actively monitors ESG metrics through annual questionnaires and scorecards, similar to our equity investments. We have also identified an ESG deal lead among the credit team for each investment.

Going forward, we are working with third-party partners to develop an ESG onboarding deck to help our borrowers achieve the ESG-MEs over time. These external partners also help with ESG monitoring and assessment throughout the life of the loan as well as progressing our diversity and inclusion initiatives.

Green Loans and Sustainability-Linked Loans

By structuring each new loan as either a Green Loan or an SLL, we strive to enhance the decarbonization impact of our credit portfolio. We initially assess whether each new opportunity meets the Green Loan Principles (GLP), including:

- Use of proceeds
- Process for project evaluation and selection
- Management of proceeds
- Reporting

To the extent the opportunity does not qualify as a Green Loan, Riverstone will seek to evaluate the sustainability goals of the company and structure the loan in accordance with the Sustainability-Linked Loan Principles (SLLP). The following are critical aspects of the SLLP:

- The Sustainability Performance Targets are set by the borrower and not the lender
- The sustainability goals are measurable and auditable
- Negative economic consequences are imbedded in the loan documentation for failing to meet the goals by a specified timeline



A photograph of a cave interior. The walls and ceiling are composed of layered rock formations, possibly limestone, with a blueish-grey hue. The water in the foreground is a deep, clear blue, reflecting the light from the cave. The overall atmosphere is serene and natural.

ESG Engagement

Annual ESG MVP Award

In 2022, we nominated two individuals, the Sr. Vice President, Production, Marketing and ESG and the Corporate ESG Lead at Hammerhead Resources, as the recipients of our inaugural ESG MVP Award. In support of Hammerhead's 2030 net zero target, they have led initiatives to understand and monitor baseline air pollutants and emissions, enhance efficiencies throughout operations and evaluate carbon capture and storage technologies. Their commitment and collaboration have accelerated the path to net zero by targeting reductions in emissions and pushing Hammerhead to become a leader in sustainability. Please see [page 36](#) for a case study on Hammerhead Resources and its proposed net zero pathway.

We intend to use this annual award to recognize a Riverstone investment professional or portfolio company employee who has consistently demonstrated proactive leadership in determining and addressing ESG risks and opportunities throughout the calendar year.

Cultivating a Diverse Future

In 2022, Riverstone strengthened its partnership with Howard University as part of our commitment to improving diversity and inclusion within the industry and to developing a pipeline of skilled talent.

We participated in Howard's career fair to discuss career paths at Riverstone and opportunities for summer internships. As a result, Riverstone sponsored summer internships for two Howard University students. Our program provided students with a paid, 8-week learning experience where students shadowed Riverstone deal teams and completed one summer-long project with support from the Riverstone professionals.

In addition, we strive to educate students about investing in the energy sector and provided on-campus seminars to the Howard Finance Club about the private equity and energy industries. We continue to look for opportunities to develop our talent pipeline and to educate students about our industry.

ESG at Riverstone

ESG Training

All of our investment professionals complete specific ESG training, which is updated and provided on an annual basis. In addition, we require all investment professionals to participate in annual trainings related to the following:

- Anti-Bribery & Corruption
- Anti-Harassment
- Anti-Money Laundering
- Cybersecurity
- Directors' Duties
- Unconscious Bias
- Ethics & Compliance

Diversity and Inclusion

We strive to cultivate an inclusive environment with professionals that represent diverse backgrounds and experiences because we recognize the value for our business and investors. By becoming a signatory to the Institutional Limited Partners Association (ILPA) Diversity in Action initiative, Riverstone committed to engaging with limited partners and other general

partners to integrate policies and actions that promote D&I in the private equity industry. Riverstone has taken the following measures in support of the initiative:

- Compiled demographic data at the firm in accordance with ILPA's Diversity Metrics Template to gain a better understanding of our workforce and how we can improve
- Working with recruiting firms that align with Riverstone's D&I policy to promote interviews across diverse candidate pools
- Partnering with Howard University, a Historically Black College or University
- Provided D&I training on unconscious bias and anti-harassment for all investment professionals

We know that strong D&I performance has a net positive effect on an organization, reduces groupthink and supports effective decision making. As regulatory scrutiny increases in 2023, we will need to consider how we can continue to demonstrate our focus on and progress on D&I.

Cybersecurity

In collaboration with senior leadership, our information technology team leads our efforts to thoroughly protect our systems, our operations and the data entrusted to us by our stakeholders. We systematically engage our employees on cyber issues, leveraging our “One Firm” approach so that all employees share responsibility for supporting data protection and security.

Our Disaster Recovery & Business Continuity Plan and Cybersecurity Incident Response Plan supports proper escalation of all unexpected events to the firm’s leadership and any relevant third parties, such as retained counsel and cyber incident response partners. In support of continuous improvement, we perform the following initiatives:

- We annually validate our plans through a cyber incident tabletop exercise to review the best course of action if a cyber incident occurs
- As part of our risk assessment process, we routinely test for weaknesses to anticipate any risks of cyberattacks, and we may extend our evaluation to critical third parties
- Through annual third-party verification, we benchmark our system against industry standards and frameworks, including the U.S. National Institute of Standards and Technology (NIST), the SEC and the Financial Industry Regulatory Authority
- We participate in scenario planning exercises for cyber incidents and conduct annual business continuity tests
- All new employees receive training when they are hired, and we require semi-annual refresher training for all employees globally
- To mitigate cyber incidents across our portfolio, we encourage portfolio companies to complete annual risk assessments through a third party to identify vulnerabilities, and we support our portfolio companies in strengthening cybersecurity measures

ESG Reporting

Increasing Transparency

Amid a rapidly changing regulatory landscape, Riverstone monitors emerging mandatory practices through diligent regulatory horizon scanning. Our firm continues to track and prepare for the SEC's proposed rulings on climate risk disclosure, definitions for fund types and ongoing changes to examinations. In addition, we continue to evaluate the requirements of the EU Taxonomy for Sustainable Activities and the Corporate Sustainability Reporting Directive (CSRD) for applicability to Riverstone operations for reporting in accordance with European Sustainability Reporting Standards (ESRS).

Reflecting our increased alignment to evolving industry standards and frameworks, this report is our fourth annual ESG report in which we highlight certain advancement in our ESG management approach across private equity and credit funds throughout 2022.

Since we became a signatory to PRI in 2020, we have submitted our first voluntary PRI response in 2021 and scored above the median in both the Investment and Stewardship Policy and the Private Equity modules. We strive to enhance our scores in future reports and to use the results to further integrate ESG best practices into our investment processes. We are preparing for our first mandatory PRI report for 2023.

Signatory of:



ESG Data Convergence Initiative (EDCI)

Riverstone is proud to be one of over 275 leading general partners and limited partners representing \$25 trillion in assets under management (AUM) in the EDCI. We chose to engage in the EDCI to contribute to comparable data that will enable asset management firms to better assess their ESG progress and practices. Several of Riverstone's portfolio companies provided data that we included in our 2022 EDCI submission.

We hope that the project will bring private equity stakeholders together to establish a consensus around ESG metrics and procedures and enable general partners to gather better, more informed ESG data.

While we recognize the difficulties of standardizing metrics and reporting frameworks for a set of firms as diverse in scope as they are in geography, the effort firmly aligns with Riverstone's commitment to transparency and persistent, incremental improvement. For more information, please visit the [EDCI website](#).

2022 CATEGORIES FOR EDCI METRICS



GHG emissions



Renewable energy



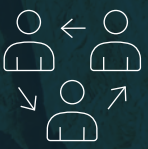
Work-related injuries



Net new hires



Board diversity



Employee engagement

ESG REPORTING IN OUR PORTFOLIO



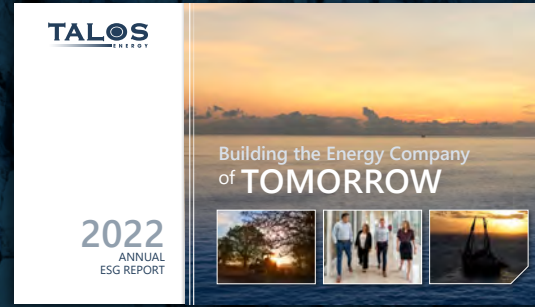
PIPESTONE ENERGY

2021 ESG Report



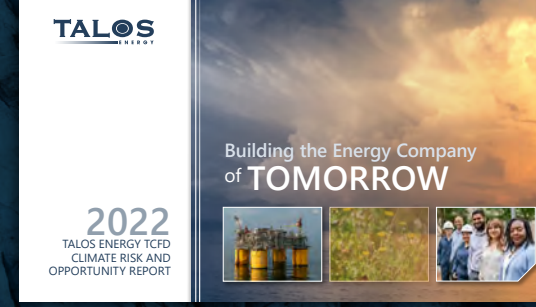
ENVIVA

2021 Corporate Sustainability Report



TALOS ENERGY

2022 Annual ESG Report



TALOS ENERGY

2022 TCFD Climate Risk and Opportunity Report



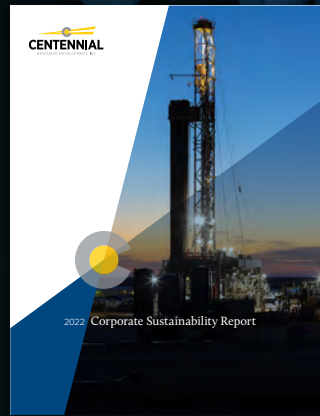
VESTA ENERGY

2022 Sustainability Report



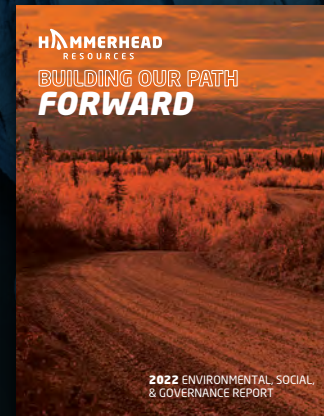
ASCENT RESOURCES

2021 Environmental, Social and Governance Report



PERMIAN RESOURCES CORPORATION (FORMERLY CENTENNIAL RESOURCE DEVELOPMENT)

2022 Corporate Sustainability Report



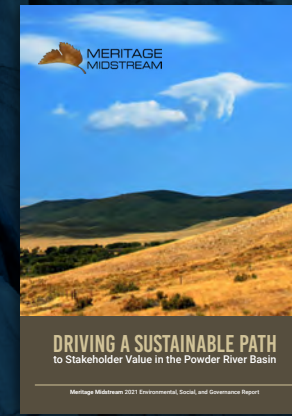
HAMMERHEAD RESOURCES

2022 Environmental, Social, and Governance Report



IMTT

2021 Sustainability Report



MERITAGE MIDSTREAM

2021 Environmental, Social, and Governance Report



RIDGEBURY TANKERS

2021 Sustainability Report



PATTERN ENERGY

2022 Sustainability Report

ESG in Action



CASE STUDY

Ascent Resources

[Ascent Resources](#) (Ascent) is a natural gas exploration and production (E&P) company focused on acquiring, developing, producing and operating natural gas and oil properties in the Utica Shale. It is one of the largest privately held E&P companies in the U.S. in terms of asset size and net production and the largest natural gas producer in the state of Ohio.

Ascent is focused on reducing its environmental impact and endeavors to be carbon neutral on Scope 1 and 2 emissions by the end of 2025. In 2021, Ascent saw a 23% and 56% decrease in its GHG and methane intensity rates, respectively. To achieve this, Ascent implemented several emissions reduction tools and practices, including zero routine flaring, pneumatic control devices, liquids unloading and a dual-fuel program, which displaced a portion of the diesel that has historically been used to power completions with natural gas from the field. In 2021, Ascent expanded this program further and extended it to drilling rigs.

Ascent also collaborates with industry associations that focus on reducing emissions from the natural gas and oil industry. As a member of ONE Future, Ascent supports a decrease in methane emissions from the natural gas supply chain to 1% by 2025. All Ascent-operated well pads participate in the ONE Future production sector commitment to achieve a methane intensity of 0.28% by 2025. In 2021, Ascent's methane emissions intensity was 0.04%, which is 85% lower than ONE Future Coalition's 2025 target. Additionally, Ascent participates in The Environmental Partnership, which includes over 80 U.S. natural gas and oil companies working together to produce natural gas and oil resources in an environmentally sound manner.

0.04%

methane emissions intensity rate driven by investments in operational improvements



CASE STUDY

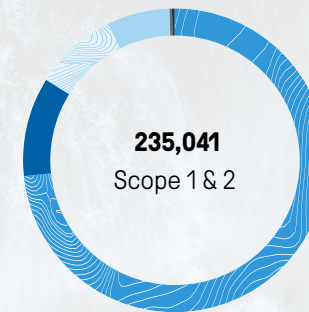
Hammerhead Resources



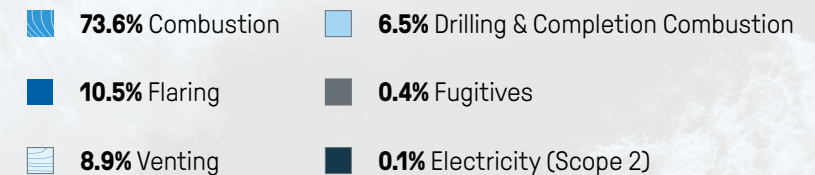
[Hammerhead Resources](#) (Hammerhead) is a growth-oriented, upstream Canadian oil and gas company headquartered in Calgary, Alberta, with an asset portfolio in Northern Alberta.

In 2020, Hammerhead made the commitment to become net zero by 2050. Since that time, Hammerhead has dedicated resources to focus on understanding its baseline air pollutants and emissions (Scope 1, 2 and 3), challenging operations to improve efficiency around emitting sources and evaluating solutions to achieve an accelerated net zero goal on a Scope 1 and 2 basis by 2030.

Hammerhead has mapped its path to net zero using carbon capture technology and will be progressing engineering design on its current batteries in the coming years. Hammerhead's goal is to not only be considered a top producer, but to accelerate its net zero target to 2030 while also becoming a leader in ESG disclosure and sustainability performance.



HAMMERHEAD 2021 EMISSIONS (METRIC TONS CO₂e)^[1]



[1] 2021 emissions have been amended from Hammerhead's 2022 ESG Report to reflect a 733 metric ton increase due to previously unaccounted liquid fuel invoices. Regarding calculation methodology, greenhouse gases included in Scope 1 and 2 calculations are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). HFCs, PFCs, SF₆ and NF₃ volumes are zero. All emission factors used for Scope 1 and 2 emissions, nitrogen oxides, sulfur dioxides and other significant air emissions are provided by the Canadian Association of Petroleum Producers (CAPP), Canada Energy Regulator (CER), Environment Climate Change Canada (ECCC) and Alberta Environment and Parks (AEP). All standards, methodologies and assumptions used for air emission calculations are provided by the CAPP, ECCC and AEP.

BUILDING THE PATH TO NET ZERO 2030

2022

- Quantified baseline for Scope 3 Emissions
- Gold Creek and Karr Asset certification under E0100™ Standard for Responsible Energy Development
- Invested \$2.5 million to eliminate 65% of vented emissions

2023

- Zero routine venting by end of 2023
- Pilot continuous fugitive emissions monitoring

2022–2030

- Carbon capture and storage progression with net zero Scope 1 and 2 by 2030
- Monitor and evaluate new technologies and alternate energy sources for additional emission reduction opportunities

2023–2028

- 10% annual reduction in flaring

CASE STUDY

Talos Energy

[Talos Energy](#) (Talos) is an innovative, industry-leading energy company focused on complementary businesses of offshore E&P and Carbon Capture and Sequestration (CCS) opportunities in the U.S. Gulf of Mexico, Gulf Coast and offshore Mexico.

As one of the largest offshore operators in the U.S., Talos is providing safe, reliable and responsible energy production through conventional upstream exploration, value-focused mergers and acquisitions (M&A) and thoughtful capital allocation towards key catalysts. Simultaneously, Talos is taking a leadership role in the low carbon economy by utilizing its expertise, experience and assets to reduce industrial emissions through its leading portfolio of CCS opportunities along the U.S. Gulf Coast.

Talos recently announced four CCS projects spanning from Corpus Christi, Texas, to New Orleans, Louisiana, and is concentrating its efforts on the transportation, storage and monitoring of carbon emissions from a wide array of industrial partners.

Please watch Talos' sustainability [video](#) for more details on Talos Low Carbon Solutions and its role in the energy transition.

27%

Scope 1 GHG emissions intensity reduction from 2018 baseline, with a target of 30% emissions intensity reduction by 2025



CASE STUDY

Vesta Energy

[Vesta Energy](#) (Vesta) is a privately owned producer of high-quality light oil based in western Canada. Global events in 2022 highlighted importance of secure and reliable energy and the vital role that responsibly produced oil and gas will play during the low carbon energy transition over the following decades.

With demand growing for responsible oil production, Vesta has achieved substantial emission intensity reductions of both direct and indirect emissions. The results of Vesta efforts are evident:

- Vesta's Scope 1 and 2 emissions intensity is leading among its oil producing peers in Canada
- Vesta's current emission intensity is below the 5-to-10-year targets of many oil and gas producers in North America

Vesta strives to further reduce its corporate emissions intensity as well as the emissions intensity of many of its service providers. Vesta's current projects include:

- Installation of active harmonic control systems to improve its electrical consumption efficiency
- Expanding opportunities to provide its lower carbon natural gas production to service providers as a diesel fuel substitute

Vesta's goal is to produce the lowest emission barrel of oil by Scope 1 and 2 intensity in our country.



40%

reduction of Scope 1 (direct) emissions in the last 4 years

100%

facilities have continuous methane monitoring systems for early fugitive emissions detection

100%

large engines are controlled for low nitrogen oxide emissions and methane vent gas capture

70%

reduction of methane emissions in the last 4 years through venting elimination projects

100%

production sites are connected to the electrical grid, eliminating the need for onsite power generation

100%

methane venting pneumatic devices have been retrofitted to operate on compressed air

CASE STUDY

Streamline Innovations

[Streamline Innovations](#) (Streamline) offers environmentally forward hydrogen sulfide (H₂S) treating solutions to help heavy industry around the world achieve environmental performance objectives, improve sustainability and transition to a low carbon economy.

A leader in green solutions for treating H₂S and other toxic emissions, Streamline's patented, biodegradable chemistry and processes converts toxic H₂S in mass into elemental sulfur, which can be cleanly disposed of or used in agriculture. Many alternative treatment solutions result in hazardous or toxic byproducts that require special handling. In addition, Streamline's chemistry is regenerative, so it can be reused hundreds of times versus toxic alternatives, reducing its footprint and the consumption of raw materials relative to other alternatives.

H₂S is a key issue that is present in many industrial processes throughout the world. H₂S is a leading cause of human inhalation accidents, corrosion and sulfur dioxide (SO₂) emissions, which are a primary cause of acid rain. Streamline's process can be applied across industries, including energy, biogas, landfill gas and renewable fuels, municipal wastewater and industrial air and water. Within energy, H₂S is present in roughly 40% of natural gas volumes and 100% of biogas volumes. Within municipal wastewater, H₂S treating is required in 25% of the world's water treatment plants.

In November 2021, Riverstone credit funds provided a \$20 million term loan to Streamline, increasing the commitment to a \$45 million term loan in May 2022. The term loan is structured in compliance with the LSTA Green Loan Principles, which aim to facilitate and support environmentally sustainable economic activity by financing eligible projects. Sustainable Fitch, a division of Fitch Group focused on ESG, provided a second-party opinion confirming the term loan as a green loan aligned with the four pillars of the LSTA Green Loan Principles and the LSTA category of pollution and prevention. The use of proceeds for the term loan is to expand Streamline's H₂S treating fleet across multiple industries and geographies.



25

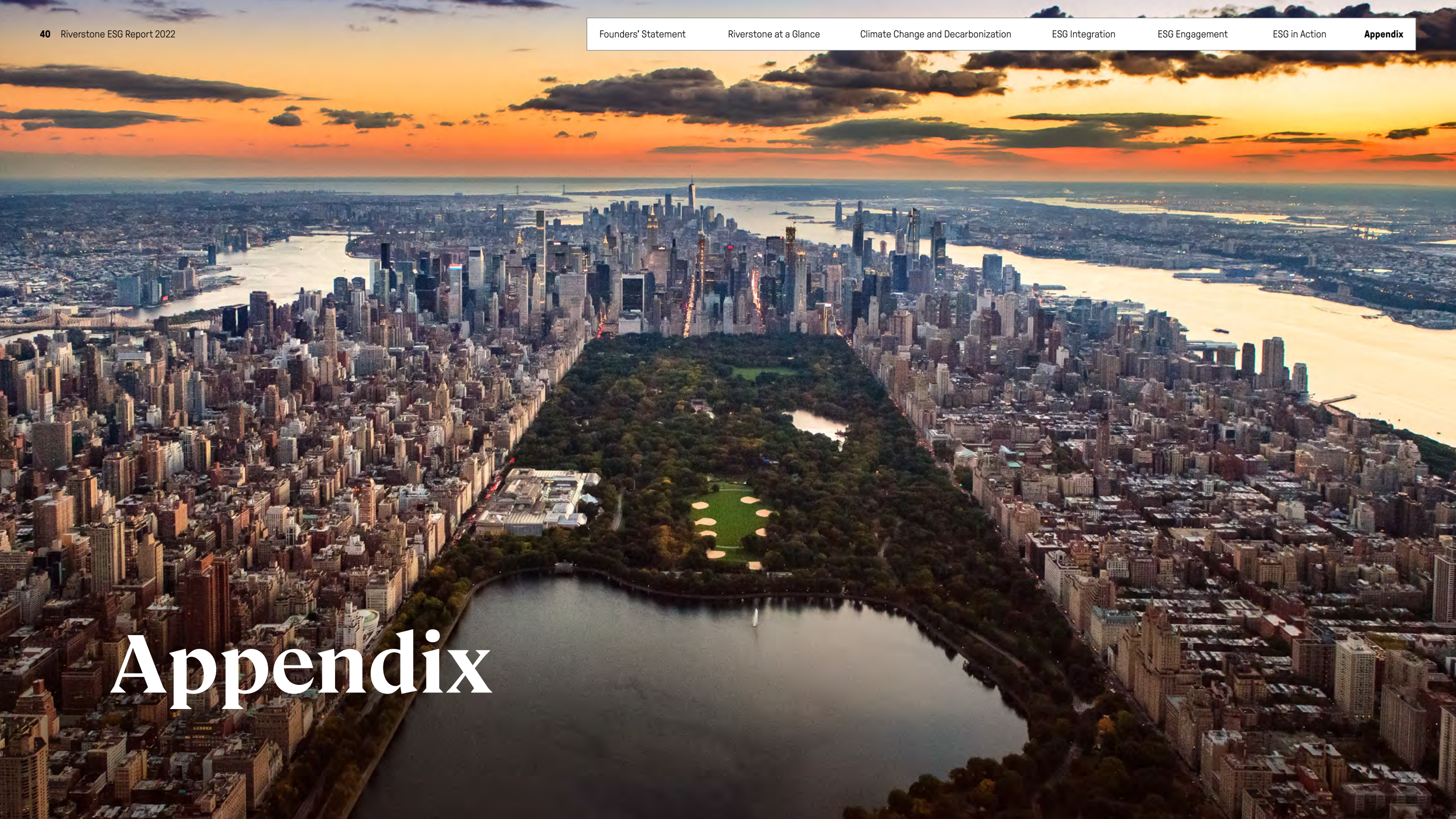
granted patents with 19 in progress

Capacity to eliminate the flaring of over 100 million pounds of toxic SO₂ per year

40+

H₂S treating plants in service or fabrication

Eliminates the need for over 50 million gallons of hazardous chemistry per year



Appendix

TCFD Index

The TCFD recommendations provide guidance for organizations to report relevant climate-related financial disclosures structured around four key areas, including governance, strategy, risk management and metrics and targets.

Governance

Disclose the organization's governance around climate-related risks and opportunities

Oversight of climate-related risks and opportunities

The ESG Committee directs Riverstone's climate strategy based on risks and opportunities that have arisen due to climate change.

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Governance [p. 10](#)

[Riverstone Holdings LLC – ESG Policy](#)

Management's role in assessing and managing climate-related risks and opportunities

A designated investment team member serves as the ESG deal lead for each portfolio company. The ESG deal leads support assessment and management of climate-related risks and opportunities throughout the investment lifecycle. In addition, all Riverstone investment professionals must complete specific ESG training to promote the continued implementation of Riverstone's ESG program. In 2022, we reviewed the outputs of our climate risk assessments with our investment professionals.

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Governance [p. 10](#)

[Riverstone Holdings LLC – ESG Policy](#)

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

The climate-related risks and opportunities the organization has identified over the short, medium, and long term

The top climate-related risks identified among selected portfolio companies include water stress, tropical cyclones, wildfires and flooding risk. Emerging risks with increasing risk levels in the short term (present to 2030) are extreme heat, water stress and wildfires. Transition risks exist for portfolio companies involved in E&P, midstream services and coal-fired power, because reductions in fossil fuel demand may lower market share and revenue for these companies. Power and energy transition portfolio companies, such as those focused on renewable energy and electric vehicle charging, may be poised for significant growth opportunities in conjunction with the transition to a low carbon economy.

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Strategy [pp. 11-14](#)

The impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

Our climate strategy involves 1) risk mitigation and adaptation within our current investments to enhance portfolio resilience and 2) pursuing investments in businesses that support decarbonization. We concentrate on scalable climate solutions in five core areas:

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Strategy [pp. 11-14](#)

- Grid flexibility and resiliency
- Electrification of transportation
- Next generation fuels
- Efficient resource use
- Agriculture and natural resource plays

The resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

We conducted risk assessments to identify climate-related risks and opportunities for individual portfolio companies. Physical risk analysis considered climate scenarios that projected high emissions with warming greater than 3°C by 2100 and low emissions with warming below 2°C by 2100, which aligned with the Paris Agreement. Transition risk analysis considered climate scenarios that reflected both current business-as-usual commitments and a more ambitious pathway to limit warming to 2°C by 2100.

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Risk Management [pp. 15-17](#)

Risk Management

Disclose how the organization identifies, assesses, and manages climate-related risks

The processes for identifying and assessing climate-related risks

We have compiled a GHG inventory for each portfolio company to identify high levels of emissions and understand sources of risks. We have also completed climate risk assessments for a majority of our portfolio companies to determine physical and transition climate-related risks.

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Risk Management [pp. 15–17](#)

The processes for managing climate-related risks

To mitigate and adapt to climate-related risks, we actively engage our portfolio companies throughout the investment lifecycle to outline actions to improve ESG performance and address climate change. Our ESG toolkit and other resources support our investment teams in collaborating with portfolio companies to meet our ESG expectations. We also continue to focus our investments on businesses that support the transition to a low carbon economy.

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Risk Management [pp. 15–17](#)

Riverstone ESG Report 2022 – ESG Integration in Our Investments: Mitigating ESG Risk [pp. 23–24](#)

Metrics and Targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities

The metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process

We conduct GHG accounting for our portfolio companies to understand our Scope 3 financed emissions. We also evaluate our own Scope 1, 2 and 3 (air travel) emissions for the firm. Through our ESG-MEs, we assess additional metrics related to GHG reporting and risk management to track performance for our portfolio companies.

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Metrics and Targets [pp. 18–19](#)

Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions and the related risks

2021 Financed Emissions

- Scope 3 emissions (category 15, financed emissions, including only Scope 1 and 2 emissions for the portfolio): **4.7 million metric tons of CO₂e**
- Scope 3 emissions (category 15, financed emissions, including Scope 1, Scope 2 and partial Scope 3 emissions for the portfolio): **8.9 million metric tons of CO₂e**

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Metrics and Targets [pp. 18–19](#)

2021 Operational Emissions

- Scope 1 emissions: **8.6 metric tons of CO₂e**
- Scope 2 emissions: **180 metric tons of CO₂e**
- Scope 3 emissions (category 6, air travel): **137 metric tons of CO₂e**

2022 Operational Emissions

- Scope 1 emissions: **7.3 metric tons of CO₂e**
- Scope 2 emissions: **212 metric tons of CO₂e**
- Scope 3 emissions (category 6, air travel): **193 metric tons of CO₂e**

Note: Scope 3 emissions (category 15, financed emissions) are not available until the following reporting year.

The targets used by the organization to manage climate-related risks and opportunities and performance against targets

One of our ESG-MEs assesses whether GHG reduction targets are in place for portfolio companies. Multiple portfolio companies have already established their own climate-related targets to reduce emissions. We will leverage insights for our risk management process to consider opportunities to support our portfolio companies in setting additional targets where applicable.

Riverstone ESG Report 2022 – Climate Change and Decarbonization: Metrics and Targets [pp. 18–19](#)

Contact

For more information on ESG at Riverstone, please visit our Responsible Investing page at riverstonellc.com.

As part of our commitment to continually improve our ESG program, Riverstone welcomes investor input. Please send any comments or questions to lprelations@riverstonellc.com.

While Riverstone seeks to integrate ESG matters into its overall investment management processes, including the standards and strategies described in this report, there can be no assurance that Riverstone will be able to successfully apply such strategies or implement its ESG policies to procure particular ESG results for any particular portfolio company or other initiative. The ESG results for any portfolio company or business referred to herein are no guarantee as to ESG outcomes for any other portfolio company. Applying ESG factors to investment decisions involves a mix of factors, including considerations that are qualitative and subjective by nature. There can be no assurance that the ESG criteria utilized by Riverstone, or any judgment exercised by Riverstone with respect to ESG matters, will reflect the beliefs or values of any third party.

The case studies presented in this report are intended to highlight relevant portfolio company ESG characteristics or results and are set forth for illustrative purposes only. There can be no assurance that other Riverstone portfolio companies will have similar ESG characteristics or results.

This Riverstone ESG report is for the period ending December 31, 2022. This report does not constitute an offer to sell or a solicitation of an offer to purchase any securities. Past or projected performance is no guarantee of future results. Additionally, we may provide information herein that is not necessarily "material" under federal securities laws for SEC reporting purposes, but that is informed by various ESG standards and frameworks (including standards for the measurement of underlying data) and the interest of various stakeholders. Much of this information herein is subject to assumptions, estimates or third-party information that is still evolving and subject to change. For example, our disclosures based on any standards may change due to revisions in the framework requirements, availability of information, changes in our business or applicable government policies, or other factors, some of which may be beyond our control.

No representation, warranty, forecast or other projection is given with respect to any investment results. This report contains forward-looking statements and actual results and outcomes may differ materially and adversely. Numbers and percentages in this report include estimates, approximations and assumptions that, if inaccurate, may make results differ from current disclosures and expectations. We are also reliant in part on third-party data that we have not independently verified or audited.

This report is designed to be read electronically. Please consider the environment before printing this report.

© 2023 Riverstone. All rights reserved.



RIVER
STONE