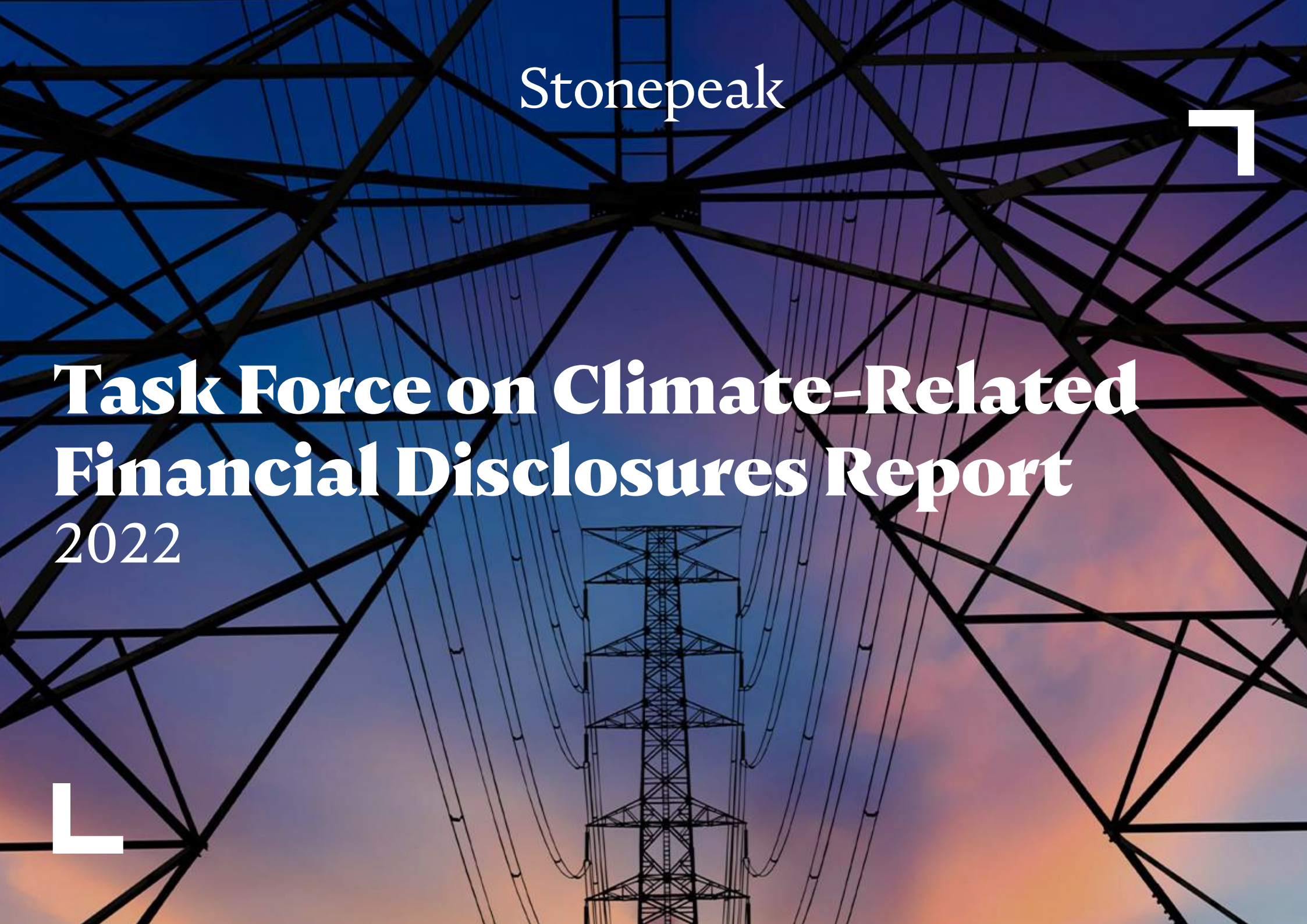
Stonepeak

Task Force on Climate-Related Financial Disclosures Report

2022



Stonepeak Partners, LP (together with its affiliated entities, "Stonepeak" or the "Firm")[1] is a leading alternative investment Firm specializing in infrastructure and real assets.

We invest in the critical infrastructure that underpins our daily lives, from communications towers and data centers, which are the backbone of a connected digital society, to energy and electricity production and distribution assets, which power our homes and businesses, to transport and storage facilities, which enable the movement of essential goods.

Introduction

"In 2022, we continued to integrate sustainability considerations into each phase of the investment life cycle, from sourcing to stewardship, with resilience at the forefront of that strategy. Fundamentally, and especially in today's rapidly changing world, we believe these factors are essential to creating stronger, more efficient businesses that deliver lasting value for our partners."

Mike Dorrell
Chief Executive Officer

Our 2021 inaugural Taskforce for Climate-Related Financial Disclosures ("TCFD") report was an important milestone in Stonepeak's management of climate-related risks and opportunities across our business and investment activities. Our second TCFD report provides an update on how we are pragmatically and transparently managing those risks and opportunities, and the continued evolution of our approach.

As discussed in the 2021 TCFD report, man-made climate change and the need for accelerated and socially equitable decarbonization present evolving, immediate, and multi-decade challenges and opportunities. A transformation of the global energy system, which is responsible for ~73% of greenhouse gas ("GHG") emissions[2], must occur over time to meet decarbonization objectives; however, we also must grow the supply of reliable and affordable energy to meet the continuing growth in demand. Our approach to investing, which emphasizes responsible ownership, transition, and asset creation across the energy spectrum, inherently seeks to address these objectives. We believe that a fully integrated approach to responsible investing leads to building better businesses.

Given the volatile geopolitical and energy price environments over the past 18 or so months, it is unsurprising that public debate on this issue has intensified. Although the objective – an absolute reduction in GHG emissions – is clear, the pathways to achieving the objective are varied, highly complex, and involve difficult tradeoffs. As a matter of governance, Stonepeak considers our balanced and transparent risk and opportunity assessment as being central to our investment and asset management activities – the TCFD framework's objectivity and flexibility serves this end well.

Looking to the next 12 months and beyond, we will continue to take a proactive approach seeking to enhance the resilience of our portfolio companies in the face of climate-related challenges and opportunities, while also emphasizing responsible oversight and management of climate-related risks at a firm-level. We believe that these principles play an important role as we position our assets to shape and benefit from enduring global trends.

This year's publication builds on our inaugural report while remaining structurally similar, in keeping with the TCFD's disclosure recommendations across four thematic areas – governance, strategy, risk management, and metrics and targets. We look forward to continuing the dialogue on this vital matter with our stakeholders.

Our climate commitment journey

We invest in sectors and assets where the tailwinds are strongest and where we expect performance to improve with investment duration.

Assets Under Management[3]

$55.7bn AUM

Capital committed[4]

$35+bn

Total investments[5]

50

Total investors[6]

240+

2022 highlights

Over the course of this year, we've continued to adapt and refine our approach to sustainability and advance climate-focused initiatives across all of our major investment sectors – energy and energy transition, transport and logistics, and communications and digital infrastructure.

In 2022, Stonepeak:

- Prioritized transparency and responsiveness in communicating with our investors and external stakeholders around our management of climate-related risks and opportunities
  - Joined the Principles for Responsible Investment ("PRI") infrastructure advisory committee (January 2022)
- Formed new internal groups and processes to oversee the coordination and execution of the Firm's ESG and climate change strategy
- Invested into climate-related initiatives within both existing and new energy and energy transition assets
  - **Announced investment into InterEnergy Group** – one of the largest diversified clean energy companies in Latin America and the Caribbean – to accelerate its transition in line with Paris Accord principles (October 2022)
- Took an increasingly tailored approach to the continued engagement and education of portfolio companies and Stonepeak personnel on how to best optimize climate-related strategies and disclosures
  - **euNetworks**, a bandwidth infrastructure company, had its SBTs approved (March 2022)
  - **Digital Edge**, a Pan Asia data center platform, commits to carbon neutrality by 2030 (April 2022)
  - **Rinchem**, a chemical management solutions provider, commits to SBTs by May 2024 (May 2022)
  - **Cologix**, a provider of carrier and cloud neutral hyperscale edge data centers and services across North America commits to becoming carbon neutral by 2030 (August 2022)

TCFD Index

TCFD aims to develop accurate and dependable climate-related financial risk disclosures. Its requirements apply to four thematic areas – governance, strategy, risk management, and metrics and targets – and its recommended disclosures are outlined here.

Governance

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

- Describe the board's oversight of climate-related risks and opportunities (page 8).
- Describe management's role in assessing and managing climate -related risks and opportunities (page 9).

Strategy

Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

- Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term (page 11).
- Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning (page 20).
- Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario (page 14).

Risk management

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

- Describe the organization's processes for identifying and assessing climate-related risks (page 42).
- Describe the organization's processes for managing climate-related risks (page 43).
- Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management (page 46).

Metrics and targets

Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

- Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process (page 47).
- Disclose Scope 1, Scope 2, and – where appropriate – Scope 3 GHG emissions, and the related risks (page 48).
- Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets (page 49).

Governance

Stonepeak is an independent Firm, with established governance around climate-related risks and opportunities. In this section we explain how this governance works at the board and management levels within our Firm and portfolio companies.

Board oversight

Stonepeak
Our governance and risk framework enables us to identify and review climate-related risks and opportunities. As illustrated by our governance structure, on page 9, Stonepeak's Executive Committee is responsible for key strategic decisions, such as the consideration of climate-related risks and opportunities within the context of the Firm's investment, asset management, and fundraising strategies. The Executive Committee also champions and promotes ESG risks and considerations Firmwide.

Our portfolio companies
The oversight and management of climate-related risks and opportunities of Stonepeak's portfolio companies is exercised in each instance by the relevant company's Board of Directors' or equivalent body ("Board of Directors") and senior management team members. In some cases, the portfolio company's Board of Directors oversight of climate-related risks and opportunities is augmented by the establishment of sustainability or ESG subcommittees or working groups which report periodically to the Board of Directors. As detailed in the 'Risk management' section, Stonepeak investment team members are accountable to the Executive Committee for the ESG performance of the relevant portfolio companies.

Management's role

Climate-related risks and opportunities are governed at multiple levels of our organization, with different aspects being managed by different functional groups. Each committee and team has clear accountability and reporting line.

Governance and risk discussions, including ESG and climate-related considerations, are an ongoing conversation between the Firm's management and staff in the ordinary course of business operations. This happens in addition to structured processes detailed in the 'Risk management' section on page 42.

Ongoing integration

In keeping with our approach of enhancing the integrated management of ESG and climate change risks and opportunities, we formed the Sustainability Implementation Group ("SIG") in mid-2022. The SIG is comprised of members of our Sustainability, Investor Relations, and Corporate Communications teams – whose role is to oversee the coordination and execution of the Firm's ESG and climate change strategy and provide periodic updates to the Sustainability Council ("SC"). The SC is comprised of Executive Committee as well as other senior members from across the Firm's Investment, Investor Relations, Operations, and Legal and Compliance functions. The SC is a forum for idea generation, discussion of key sustainability issues impacting our business, knowledge sharing, and dissemination of best practices which we believe – given its cross-functional membership – enhances our climate change risk management.

Our governance structure

Strategy

Stonepeak invests in essential infrastructure and real assets, and climate change presents tangible and appreciable risks and opportunities for our business. Our major sectors of investment are energy and energy transition, transport and logistics, and communications and digital infrastructure; additionally, the Firm has dedicated real estate investment and credit strategies.

In this section, we set out:

Our strategy
How we approach climate risks and opportunities

Scenario analysis
How we approach modelling different future scenarios that enable us to identify climate risks and opportunities

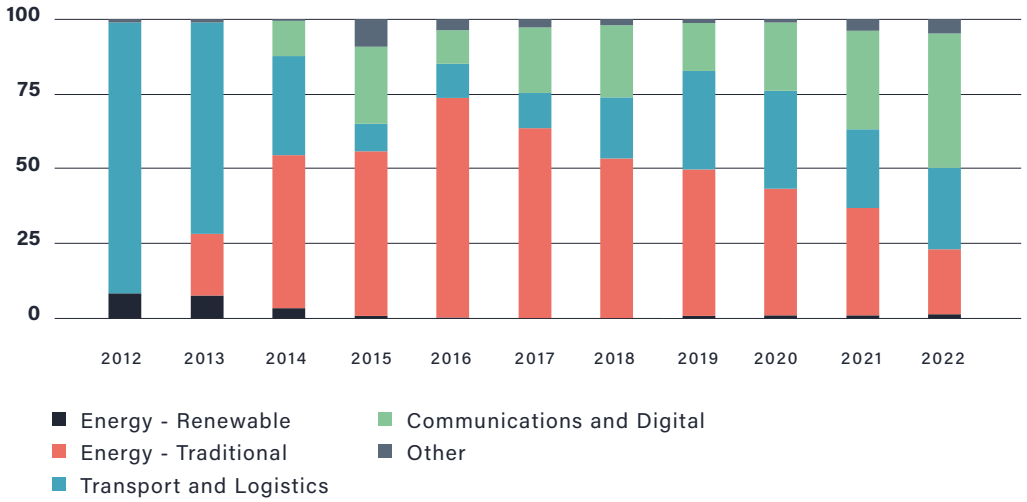
Risks and opportunities
How we approach identifying risks and opportunities, and their impacts on our business

Our strategy

Stonepeak is an active and opportunistic investor, investing where we believe risk-adjusted returns are favorable and where – in partnership with our management teams – our capital and operating expertise can unlock or accelerate changes that we believe could improve financial returns while also seeking to improve business sustainability. Incorporating climate risks and opportunities into our strategy is a natural consideration to deliver favorable returns to our investors. Our evolving sector contribution between energy and energy transition, transport and logistics, and communications and digital infrastructure – measured by cumulative fund capital deployment – reflects the diverse nature of the Firm's investment activities.

Stonepeak fund only cumulative net invested capital since inception

By subsector (% of total, as of June 30th 2023)



Our strategic approach to managing climate risk and opportunity – which applies across investment strategies and subsectors – is summarized in the framework below.

Goal

Deliver strong financial performance while aligning with Paris-climate goals of reducing carbon output consistent with limiting global warming to no more than 1.5°C from pre-industrial levels across our business by 2050

Business operations

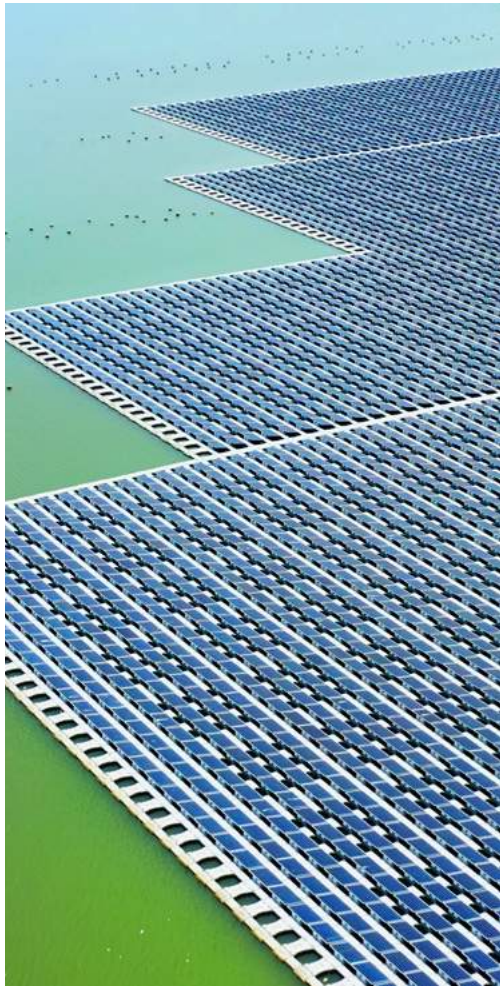
- Leading by example and advocating for climate change risk management
- Disseminating information and training employees, investment partners, and other stakeholders on risks and opportunities related to climate change
- Participating in appropriate industry bodies and working groups
- Providing transparent and robust reporting
- Seeking out and incorporating feedback from key stakeholders with respect to the Firm's evolving climate change strategy

Investment management

- Utilizing our governance rights to set measurable carbon intensity goals for our investees, and aligning management team partner compensation to the achievement of those targets (or business actions which assist in achieving those targets), where relevant
- Being a responsible owner of traditional energy assets by operating with a 'brown to green' mindset in recognition of the role traditional energy assets will play in the multidecade global energy transition required to reduce global carbon levels
- Allocating capital and knowhow toward the creation and execution of investment strategies supporting global climate change objectives, such as the $2.75bn Global Renewables Fund

Transparency and disclosure

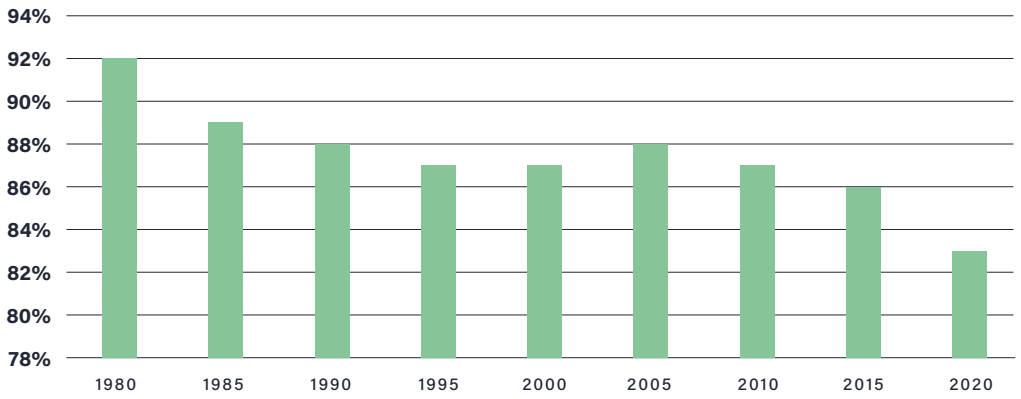
Ensure constant, two-way communication with our stakeholders regarding disclosure activities, progress, risks, and opportunities



Given our investment expertise and experience across the spectrum of traditional, transitional, and renewable energy, we believe that Stonepeak has strong institutional awareness of transitional risks to energy investments, providing us with a balanced and nuanced perspective of both risks and opportunities. While this awareness is most relevant to members of the Firm's energy and energy transition investment team, our transparent investment and review committee processes promote Firmwide awareness of these matters.

For traditional energy assets, transitional risks that may in time increase 'stranded asset' prospects are elevated – particularly in the medium-to-longer-term – as the globally coordinated decarbonization of the energy sector accelerates due to technological, regulatory, and market demand factors. In the near-to-medium term, the world's economic activities remain highly dependent on the ongoing consumption of fossil fuels – as illustrated to the right, approximately 83% of the world's energy consumption is derived from the combustion of fossil fuels from 87% a decade ago, and in absolute terms energy consumption derived from fossil fuels continues to grow (~1% average annual growth over the last decade).

High carbon as a percentage of global energy sources[7]



Stonepeak believes that when applied to traditional energy assets, its strategy is not only consistent with its goals of reducing transitional risks and carbon intensity within its portfolio over time, but can meaningfully contribute to a net-zero future. Emissions savings from responsible ownership of traditional energy assets can be both quickly achieved and significant (potentially even more so than decarbonization operating strategies applied to other less carbon-intensive infrastructure subsectors).

Scenario analysis

Given the continued uncertainty of climate patterns, historical weather data offers limited foresight to future patterns. Using verified scientific models, this uncertainty can be better managed as scientific models allow for accurate prediction of climate change at an asset-by-asset level that can be examined anywhere on the Earth's surface. With this information it is possible to analyze the resiliency, or vulnerabilities, of infrastructure and therefore better inform maintenance plans, upgrade requirements, the specification of new equipment, and ultimately, investment decisions. Following this method it is possible to increase reliability and reduce downtime caused by acute (i.e., extreme weather events, such as storms and wildfires) and chronic (i.e., rising temperatures, changing precipitation patterns, or sea level rises) weather events.

Utilizing best-in-science solutions for climate-related risk analyses, we seek to:

- Identify and quantify the impacts of unaddressed risk from climate hazards across portfolios, multiple emissions scenarios, and various time horizons;
- Inform risk forecasts based on the financial impacts of the failure (temporary or long-term) of these assets;
- Create strategies for both resilience engineering and capital investment to effectively strengthen and retrofit existing assets; and
- Optimize site planning and design decisions for new assets.

Climate risks

Using scientific models, both chronic risks and acute risks are evaluated. The primary peril metrics included in our analyses are:

Wind	Flood	Precipitation	Convective Storm
Wind speed at six key return periods (10, 20, 50, 100, 200, and 500-year) Annual avg and max wind speed	Water depth and nearby flooding at six key return periods Annual tidal inundation depth	Daily rainfall at six key return periods Annual, monthly precipitation	Days/year with significant hail possible Days/year with high thunderstorm probability
Heat	**Cold**	**Wildfire**	**Drought**
Days/year >35°C, 38°C Days/year >hist 99th pct Annual cooling deg. days Days/year with high, dangerous wet bulb globe temp. Absolute, relative heat waves Annual avg, max; monthly avg	Days/year < 0°C, -10°C Annual heating deg. days Absolute, relative cold waves	Annual fire count within 1 sq km	Local, total water stress Months/year of extreme Standardized Precipitation Evapotranspiration Index

Additionally, each of the primary peril metrics can be modelled using multiple temperature rise scenarios and time horizons.

Scenario approach

The temperature rise scenarios we analyze include:

- Best-case scenario (climate pathway RCP2.6)[8], where the global average temperature increases by less than 2°C from pre-industrial levels, and;
- Intermediate scenario (climate pathway RCP6.0)[8], where temperatures increase between 2°C and 3.7°C by the end of the century from pre-industrial levels.

Multi-source, data-driven analysis

We believe that the better our analysis, the better our investment decision making process. We draw upon various data and insights for our risk and opportunity analysis, depending on the materiality of the risks and specifics of the transaction, including:

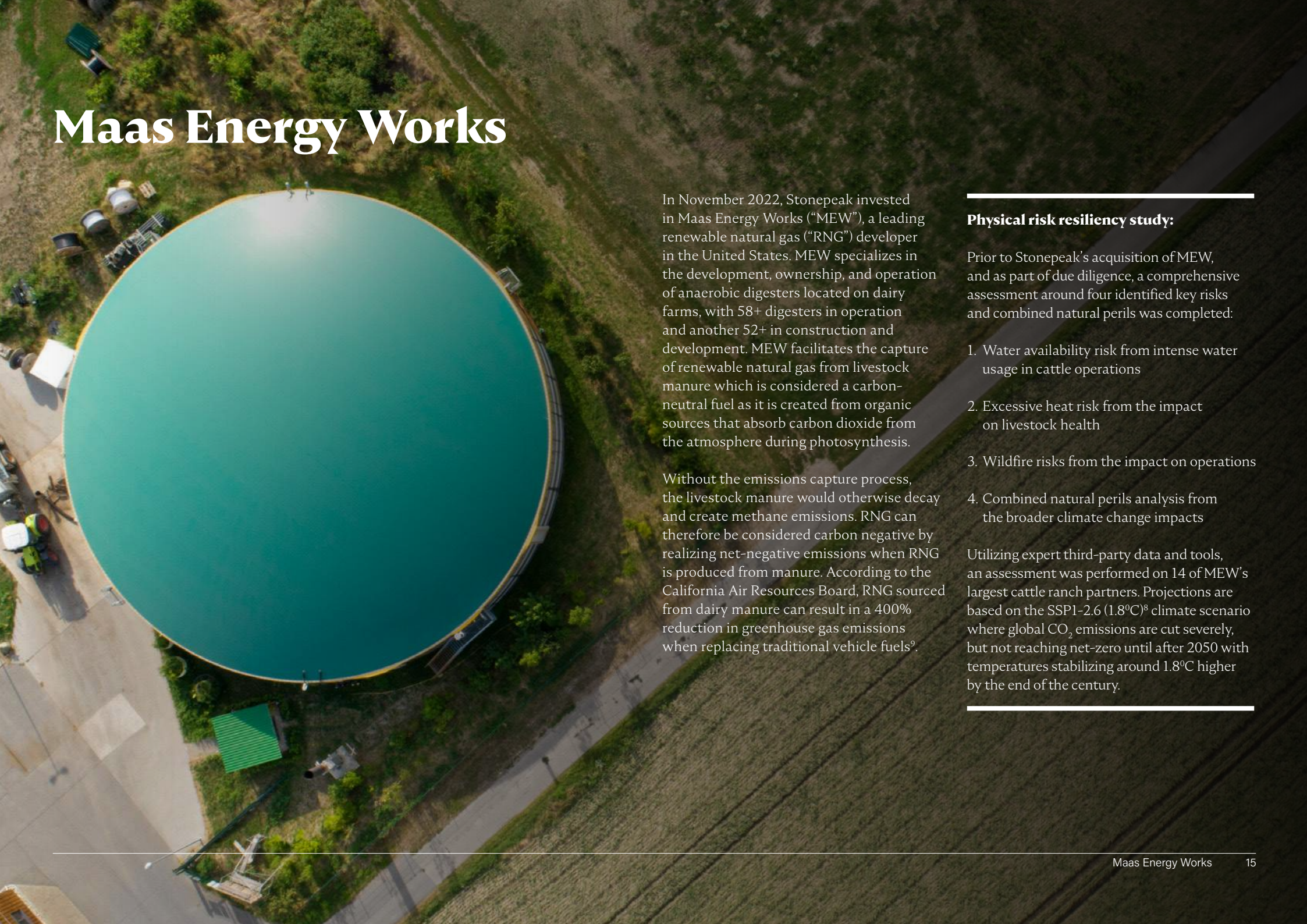
- **Physical:** Third-party consultant reports, external geospatial physical risk assessments, reviews of company insurance policies with respect to key hazards, reviews of analyses (such as environmental assessments and engineering studies) undertaken during governmental development approval processes, reviews of company physical asset registers (including maintenance and physical condition reports and historical weather-related incidents), on-site inspections, and management interviews.
- **Transitional:** Potential demand curves under various policy scenarios (particularly for traditional energy), understanding technological changes, resource availability, and asset exposure within an industry's cost curve (particularly for energy-related assets), the underlying contractual structure of investment (for example, offtake agreements and creditworthiness of contracted counterparties), opportunities for feedstock transition, and reviews of regulatory and policy developments.

Scenario analysis informing asset-level decisions

As well as informing strategic decisions, the results of our analyses can be used to adjust model valuation drivers in the construction and operational phases of an asset.

Where material, we evaluate the physical climate risk of our assets and adjust our approach accordingly. This analysis is a quantitative assessment that is focused on specific asset locations that are at direct physical risk from climate change impacts. This allows us to project how an individual asset may be affected by climate change: the perils it may be exposed to, the vulnerable segments and locations, and how that risk may change over time and across varying carbon emissions scenarios – all factors that drive resilience investment planning.

Maas Energy Works



In November 2022, Stonepeak invested in Maas Energy Works ("MEW"), a leading renewable natural gas ("RNG") developer in the United States. MEW specializes in the development, ownership, and operation of anaerobic digesters located on dairy farms, with 58+ digesters in operation and another 52+ in construction and development. MEW facilitates the capture of renewable natural gas from livestock manure which is considered a carbon-neutral fuel as it is created from organic sources that absorb carbon dioxide from the atmosphere during photosynthesis.

Without the emissions capture process, the livestock manure would otherwise decay and create methane emissions. RNG can therefore be considered carbon negative by realizing net-negative emissions when RNG is produced from manure. According to the California Air Resources Board, RNG sourced from dairy manure can result in a 400% reduction in greenhouse gas emissions when replacing traditional vehicle fuels[9].

Physical risk resiliency study:

Prior to Stonepeak's acquisition of MEW, and as part of due diligence, a comprehensive assessment around four identified key risks and combined natural perils was completed:

1. Water availability risk from intense water usage in cattle operations
2. Excessive heat risk from the impact on livestock health
3. Wildfire risks from the impact on operations
4. Combined natural perils analysis from the broader climate change impacts

Utilizing expert third-party data and tools, an assessment was performed on 14 of MEW's largest cattle ranch partners. Projections are based on the SSP1-2.6 (1.8^0C)[8] climate scenario where global CO_2 emissions are cut severely, but not reaching net-zero until after 2050 with temperatures stabilizing around 1.8^0C higher by the end of the century.

1. Water Availability

The primary hazard metric – drought – is evaluated using modelled Standardized Precipitation-Evapotranspiration Index ("SPEI") data. The SPEI is a drought index based on climatic data which is used to determine the onset, duration, and magnitude of drought conditions with respect to normal conditions. Modelled findings concluded that:

- Only 2 of the 14 facilities are considered to have elevated drought risk; and
- Other facilities, including those in current drought areas of California and Texas, are predicted to remain consistent between now and 2050.

Drought – Standardized Precipitation Evapotranspiration Index (SPEI)[10]

SSP1-2.6 (1.8°C)	Year			
Location	**2020**	**2030**	**2040**	**2050**
Brodhead, WI	0.2	0.2	0.2	0.2
Lancaster, PA	0.2	0.2	0.2	0.2
Pixley, CA	0.1	0.1	0.1	0.1
Corcoran, CA	0.1	0.1	0.1	0.1
Tipton, CA	0.1	0.1	0.1	0.1
Shelby, NE	0.1	0.2	0.2	0.1
Porterville, CA	0.1	0.1	0.1	0.1
Hanford, CA	0.1	0.1	0.1	0.1
Riverdale, CA	0.1	0.1	0.1	0.1
El Nido, CA	0.1	0.1	0.1	0.1
Chowchilla, CA	0.1	0.1	0.1	0.1
Merced, CA	0.1	0.1	0.1	0.1
Quitman, GA	0.1	0.1	0.1	0.1
Boerne, TX	0.1	0.1	0.1	0.1
	0.1			0.2

2. Excessive Heat

The secondary risk from excessive heat is defined as 3-day periods where the high temperature >35°C and low temperature <24°C. Projecting forward to 2050, heatwave potential was evaluated for the same 14 facilities. Modelled findings concluded that:

- 4 of the 14 facilities are expected to move from a moderate to an elevated rating by 2050, nearly doubling in some instances; and
- 2 of the 14 facilities are expected to move from a low to a moderate rating by 2050.

Heatwave – 3-day periods high temperature >35°C and low temperature <24°C[10]

SSP1-2.6 (1.8°C)	Year			
Location	**2020**	**2030**	**2040**	**2050**
Corcoran, CA	7.1 (+0.00%)	9.5 (+35.0%)	10.3 (+45.9%)	12.1 (+72.1%)
Tipton, CA	6.2 (+0.00%)	8.5 (+37.0%)	9.2 (+48.2%)	10.9 (+75.4%)
Boerne, TX	6.2 (+0.00%)	7.2 (+16.4%)	9.7 (+56.5%)	10.4 (+68.4%)
Pixley, CA	6.0 (+0.00%)	8.3 (+38.2%)	9.0 (+48.9%)	10.6 (+76.1%)
Hanford, CA	5.1 (+0.00%)	6.9 (+37.0%)	7.7 (+51.9%)	9.2 (+82.5%)
Porterville, CA	4.5 (+0.00%)	6.4 (+41.5%)	6.9 (+52.9%)	8.3 (+82.7%)
Riverdale, CA	2.5 (+0.00%)	3.4 (+36.7%)	3.9 (+59.4%)	5.3 (+116.2%)
Quitman, CA	0.9 (+0.00%)	1.6 (+78.0%)	2.6 (+184.3%)	2.6 (+189.1%)
Chowchilla, CA	0.3 (+0.00%)	0.8 (+134.4%)	0.9 (+175.2%)	1.4 (+345.5%)
El Nido, CA	0.3 (+0.00%)	0.7 (+145.4%)	0.8 (+186.3%)	1.4 (+370.0%)
Merced, CA	0.1 (+0.00%)	0.4 (+374.7%)	0.4 (+446.8%)	0.8 (+896.2%)
Shelby, NE	0.0 (+0.00%)	0.1 (+221.9%)	0.2 (+381.3%)	0.6 (+1,693.8%)
Brodhead, WI	0.0 (+0.00%)	0.0 (+0.00%)	0.0 (+0.00%)	0.0 (+0.00%)
Lancaster, PA	0.0 (+0.00%)	0.0 (+0.00%)	0.0 (+0.00%)	0.0 (+0.00%)
	0.0			12.1

3. Wildfire

Wildfires are unplanned fire burning in natural or wildland areas causing significant damage to crops and useable land. The assessment shows the number of wildfires expected in a 1 sq km grid cell (over 1,000 years). Modelled findings concluded that:

- Only one facility is in an elevated wildfire area (Riverdale, CA). This facility's wildfire rating is consistent through 2050; and
- Only one other facility was found to be in a moderate zone (Corcoran, CA) with no real change expected through 2050.

Fire – Number of wildfires expected in a 1 sq km grid cell (over 1,000 years)[10]

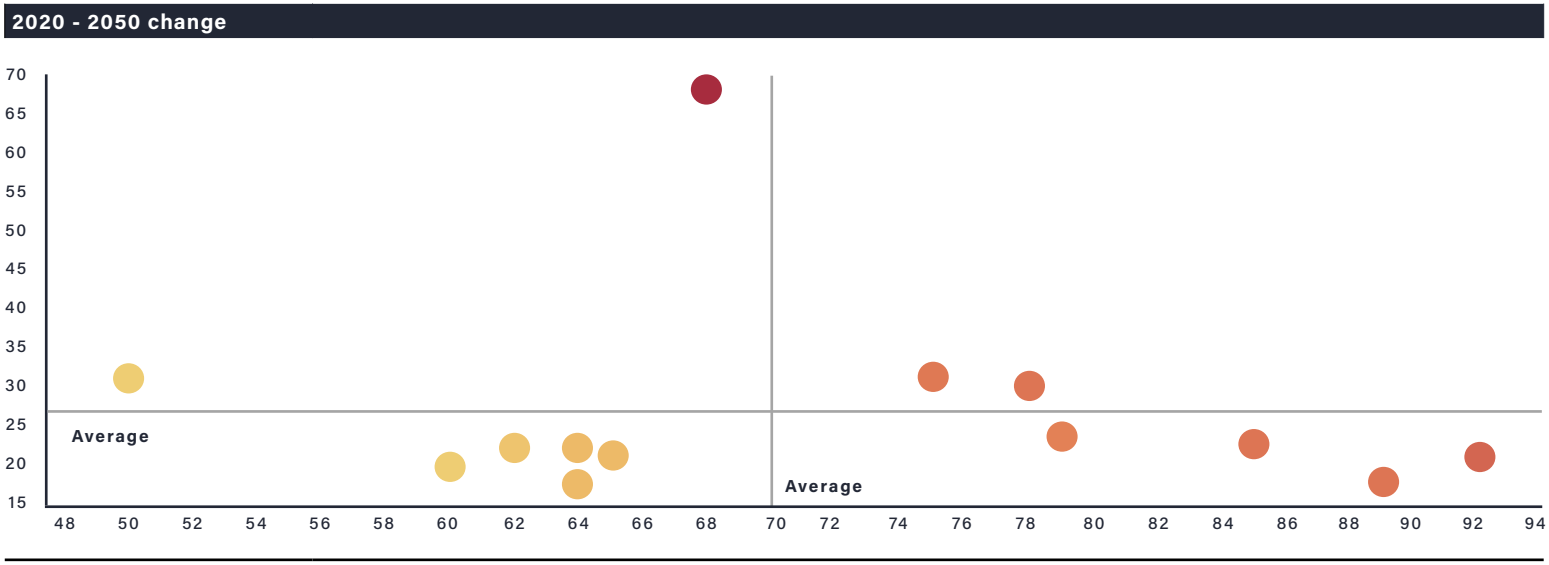
SSP1-2.6 (1.8°C)	Year			
Location	**2020**	**2030**	**2040**	**2050**
Riverdale, CA	53.5 (+0.00%)	54.1 (+1.1%)	55.1 (+3.1%)	53.8 (+0.6%)
Corcoran, CA	30.6 (+0.00%)	30.8 (+0.6%)	31.4 (+2.9%)	30.8 (+0.9%)
El Nido, CA	25.0 (+0.00%)	25.3 (+1.5%)	25.8 (+3.2%)	25.2 (+0.9%)
Tipton, CA	24.2 (+0.00%)	24.4 (+0.6%)	24.9 (+2.8%)	24.4 (+0.7%)
Chowchilla, CA	21.3 (+0.00%)	21.6 (+1.3%)	22.0 (+3.1%)	21.5 (+0.8%)
Merced, CA	20.8 (+0.00%)	21.1 (+1.5%)	21.4 (+2.9%)	21.0 (+1.2%)
Pixley, CA	20.8 (+0.00%)	20.9 (+0.6%)	21.3 (+2.7%)	20.9 (+0.6%)
Porterville, CA	15.9 (+0.00%)	16.0 (+0.6%)	16.3 (+2.7%)	16.0 (+0.4%)
Hanford, CA	14.9 (+0.00%)	15.0 (+0.7%)	15.4 (+3.0%)	15.0 (+0.7%)
Boerne, TX	4.5 (+0.00%)	4.6 (+3.4%)	4.7 (+3.8%)	4.7 (+5.4%)
Quitman, GA	2.9 (+0.00%)	2.9 (+0.2%)	3.3 (+12.3%)	3.0 (+4.1%)
Shelby, NE	1.6 (+0.00%)	1.6 (- 0.9%)	1.8 (+13.2%)	1.9 (+21.6%)
Brodhead, WI	1.2 (+0.00%)	1.2 (- 2.0%)	1.4 (+11.0%)	1.3 (+7.4%)
Lancaster, PA	0.3 (+0.00%)	0.3 (+10.9%)	0.4 (+24.6%)	0.3 (+13.7%)
	0.3			55.1

4. Combined Natural Perils Hazard Score

The analysis also calculates the complex interactions between expected changes in sea levels, surge, storm intensity, land and sea surface temperatures, and pressure and precipitation patterns. The score represents an average of the year 2020 risk score and the 30-year (2050) change score, considering all climate hazards (unequally weighted) under a 2-3˚C warming scenario. Modelled findings concluded that:

- Only one facility (Boerne, TX) scored in the elevated range, due to an expected sharp increase in heatwaves and severe thunderstorms; and
- Other facilities were scored in a moderate range with no significant changes expected through 2050 from a 2020 baseline year.

Present Day Hazard Score[10]

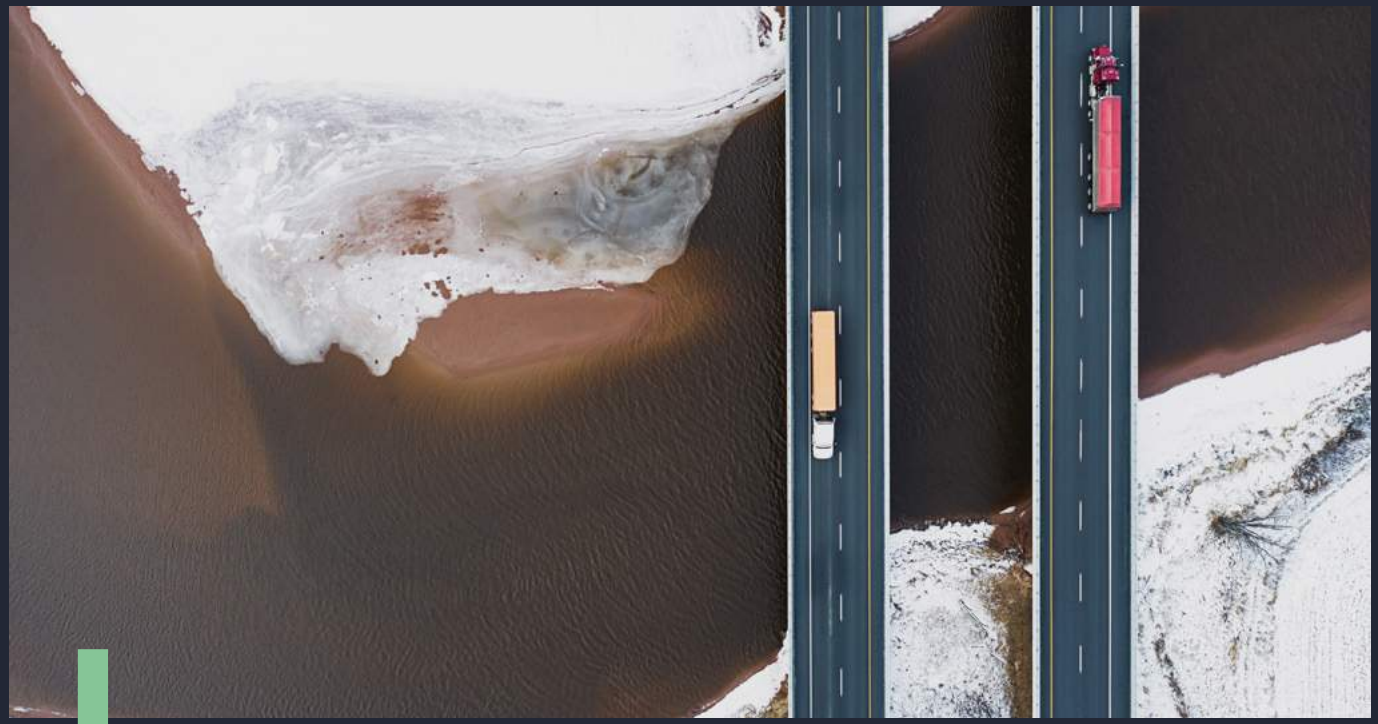


Conclusion

Utilizing science-based modelling solutions throughout Stonepeak's due diligence provided, in our view, the assurances needed that the natural peril exposure to target assets were adequately evaluated and quantified, and ultimately contributed to the decision to move forward with an investment in Maas Energy Works. Looking forward, we expect to utilize this toolset to assess future expansions and acquisitions by MEW which will allow for a better understanding of potential vulnerabilities which seeks to drive resilience investment planning.

Risks and opportunities

Climate change presents risks and opportunities for both Stonepeak's operations and in the sectors in which we operate – energy and energy transition, transport and logistics, and communications and digital infrastructure.



Business operations

The majority of climate-related risks and opportunities pertain to our investment operations; however, as a Firm employing over 200 individuals located in multiple offices across several countries, Stonepeak faces climate-related risks common to office-based businesses.

These risks pertain primarily to physical impact risks – such as hurricanes or floods – which may, for example, temporarily impede office access, trouble our IT systems, or hinder our ability to perform necessary business travel. We believe these risks – should they occur – are likely to be transitory, and we are somewhat diversified from physical risk by office diversification (noting the concentrated physical risk exposure of our New York City office, from which the majority of our staff works). Further, the Firm's ability to operate in a remote working environment, as successfully proven during the COVID-19 pandemic when all staff worked remotely for a prolonged period, demonstrates the Firm's resilience to physical risks which may impact office access.

Physical and transitional risks per sector

Our approach to identifying, assessing, and managing these risks and capturing opportunities is detailed in the aforementioned Strategy section. In the following, we expand on the risks and opportunities in each sector and what proactive actions our portfolio companies are taking.

The Firm also faces regulatory risks due to increased reporting and disclosure requirements pertaining to climate change disclosures, which are managed in an integrated manner as discussed throughout this report. Additionally, we believe reputational and market factors present measurable risk given the Firm's investment focus areas. However, we do see opportunity to benefit from climate change-related market forces utilizing our investment expertise in assets and sectors where decarbonization and energy transition are a primary focus.

Investment sectors

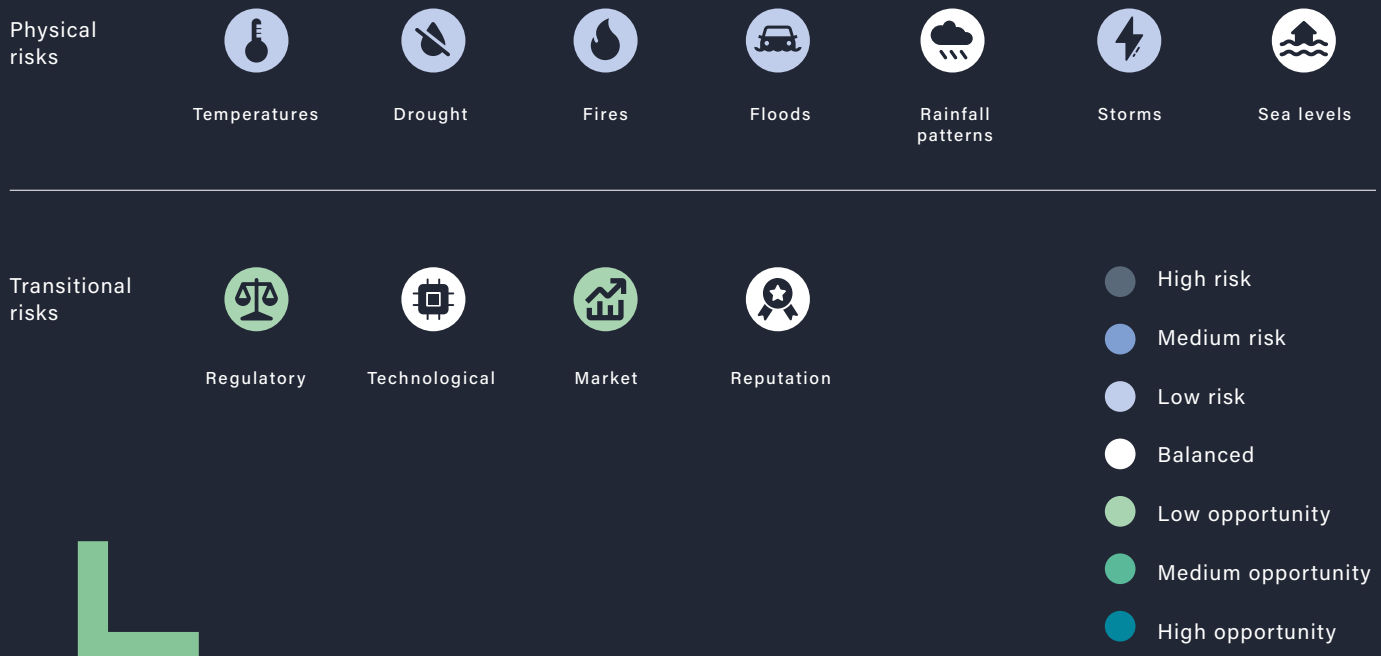
In addition to the risks associated with our business operations, each investment across Stonepeak's focus sectors presents unique risks and opportunities stemming from physical and transitional climate-related effects.

Communications and digital infrastructure

Our communications and digital infrastructure holdings break down into:

- Data centers (Cologix, Digital Edge, Cirion, and CoreSite)
- Other communications – small cells, underground fiber, and consumer internet connectivity (Extenet, euNetworks, Astound, Xplore, Delta Fiber)

Communications and digital infrastructure risks and opportunities



Data centers

Risks

Data centers are power- and water-intensive assets as they need to power and cool servers, and thus are susceptible to extreme weather impacting energy supplies, either by interrupting the supply or increasing price volatility, and diminishing rainfall or drought, which may affect the price or supply of water. They are also vulnerable to policy or regulatory changes (e.g., the raising of prices to regulate energy and water consumption).

Geographical factors help to mitigate these risks. Cirion, CoreSite, Cologix, and Digital Edge benefit from geographical diversification, which limits the impact of isolated extreme weather events. Cologix's 40+ data centers are spread across 11 markets in the USA and Canada (with Canadian assets benefiting from temperate weather and hydropower grid energy supply), and Digital Edge's 17 data centers are spread across six countries in the Asia-Pacific region.

Cirion's operations span 20 countries, and include 87,000 km fiber, 16 cable landing stations, and 18 data centers, while CoreSite's portfolio spans across 28 data centers, totaling over 4.7 million square feet, in 10 strategic markets across the U.S.

Data center operators may also pass on power costs directly to customers via contractual arrangements in certain instances, limiting the impact of volatile power prices.

In the data center market, customer demands for both greater computing power and reductions in supply chain carbon intensity mean operators need to focus on operational efficiency. Not investing appropriately could lead to a competitive disadvantage or technological obsolescence.

Opportunities

Data centers provide mission-critical services to their customers, which are increasingly looking at the carbon emissions from their supply chains, of which data centers form a part. This makes investing in reducing the carbon intensity of their services a growth opportunity.

Proactive actions

All four businesses seek opportunities to manage climate risk as it relates to their data centers, from construction to operation and maintain up-to-date emergency action plans in case significant weather events interrupt operations.

Cologix

Cologix has an integrated energy management, GHG emissions and company sustainability strategy, with key elements including:

- Achieve carbon neutrality in Scope 1 and 2 emissions by 2030, confirmed through Science-Based Target setting;
- Convert all Cologix facilities to 100% renewable energy by 2030;
- Certify that 80% of all Cologix supplier contracts include environmental responsibility requirements by 2025; and
- Partner with suppliers to quantify Scope 3 emissions by 2025 based on SBT setting, with the aim to reduce Scope 3 carbon emissions 50% by 2030.

Approximately 50% of Cologix's power consumption in 2022 was derived from renewable sources (increasing from ~45% in 2020 and ~47% in 2021) and the company has spent approximately $20M on environmental capital expenditure projects since 2016. The company deploys advanced energy management – including high-efficiency cooling, free air cooling via ambient air, LED lighting, and retrofitting of key equipment – and prioritizes cooling systems that limit or eliminate the use of water and maximize free cooling to reduce water demand.

When planning new and large developments, the company proactively engages with relevant grid authorities to ensure adequate supply of electricity will be available.

Digital Edge

As with Cologix – Digital Edge maintains an integrated energy management, GHG emissions and company sustainability strategy. Key elements thereof include:

- Target to be carbon neutral by 2030, which it aims to achieve by sourcing at least 50% of its power from renewable or carbon-free resources by 2025 – this target is supported by the company's science-based targets (to reduce Scope 1 and Scope 2 GHG emissions 42% by 2030 from a 2020 base year and to measure and reduce its Scope 3 emissions) with SBTs approved in early 2023;
- Pursuing best-in-class green building standards – including minimum LEED Silver certification, and 1.25 or better PUE (at 70% load) – for all new greenfield constructions; and
- Aiming to achieve a water usage effectiveness ("WUE") target of 1.4 or less, as part of the company's focus on energy efficiency – complemented by design measures such as onsite rainwater collection facilities and water treatment programs to minimize water withdrawal and waste, as well as advanced monitoring across all facilities (particularly given the company operates in certain locations with high water stress, such as Beijing and Seoul).

In 2022, Digital Edge spearheaded a process to track water withdrawal and consumption across their footprint, outlining key opportunities for water management processes and implementing water management technologies in key sites for the future. Two current geographic locations – Beijing and Seoul – are in high or extremely high baseline water-stressed regions, where it will be even more important to monitor and decrease our water usage. As we move forward, Digital Edge intends to implement additional data tracking processes to fully calculate water usage effectiveness.

Proactive actions

Cirion
Stonepeak completed its acquisition of Cirion in August 2022, and since then has been working closely with management to define and embed its climate risk and carbon management framework into the business. Key initiatives completed since acquisition include:

- Establishing standalone company tracking of key environmental sustainability KPIs such as electricity consumption, onsite generation, and recycling;
- Completing the newly standalone company's GHG baseline, for the year 2022; and
- Implementing actions across the portfolio to increase renewable energy consumption (~38% in 2022).

Cirion expects to define its medium-term sustainability goals – including climate-related risks and opportunities, and GHG targets – in conjunction with its underway inaugural ESG report.

CoreSite
Stonepeak completed its acquisition of a minority equity interest in CoreSite in August 2022, and has worked with CoreSite management to advance its longstanding and integrated sustainability and climate risk strategy, elements of which include:

- Accounting for local geographic climates within facility design in order to take full advantage of dry, humid, cold or hot environments when calculating how best to deliver customer power and cooling requirements;
- Embedding physical risk considerations – such as major flooding – into business continuity management procedures (e.g., raising critical data center equipment off ground floor for sites identified within 100-year flood plains);
- Ongoingly upgrading facility features such as HVAC, chiller, and generator systems to drive efficiency and reduce per unit energy consumption; and
- Reducing water usage and improving water recycling where possible, particularly in areas prone to droughts (for example, in 2021, CoreSite's Coronado Stender Campus in Santa Clara, CA, consumed ~42MM gallons of recycled water).

Other communications – small cells, underground fiber, and consumer internet connectivity

Risks

Communications infrastructure maintained below ground, such as fiber, forms the backbone of consumer broadband services. Being underground, these assets tend to face reduced physical risks from weather events; however, there are still risks to network services from power interruptions or damage caused to interconnecting data centers, or service crews being unable to access and restore damaged sites.

Geographical factors help to mitigate these risks. A portion of Delta Fiber's network is exposed to flooding due to its location in low-lying areas of the Netherlands. However, as a standard business practice, the business's network is waterproof and all key network layers feature redundancy, with multiple locations able to maintain the service should one fail.

Xplore owns a portfolio of approximately 800 towers throughout rural Canada and leases another ~1,600 – these may be impacted by severe weather, particularly extreme cold.

To the extent that regulations and customer demands evolve to require Scope 3 (supply chain) emissions reductions, connectivity - based communications infrastructure businesses would be at risk given the general difficulty in substituting materials required for network deployment. These businesses typically maintain automobile service or installation fleets and may face increased electricity prices, or increased costs from a requirement to decarbonize or replace their fleets.

Opportunities

As with data centers, market forces are demanding that suppliers lower their carbon intensity, so businesses with better-than-average performance may gain a competitive advantage.

Proactive actions

Our companies in this sector are at different stages of maturity in terms of climate-risk management.

euNetworks

- Committed to being net-zero carbon by 2040 and has set 1.5˚C-aligned SBTs across Scopes 1, 2, and 3, which were accepted by SBTi in March 2022;
- Executed a program to complete the transfer to materially all renewable power in 2022 and as a signatory to The Climate Pledge, the company aims to be 100% renewable powered in 2023; and
- Continued to validate progress with external targets by:
  - Becoming a signatory to the UN Global Compact, formalizing commitment to operate in ways that meet fundamental responsibilities in the areas of human rights, labor, environment and anti-corruption
  - Reporting emissions data to the CDP
  - Joining the SME Climate Hub
  - Winning the 'Showstopper of the Year: Strides in Sustainability', Microsoft Supplier Prestige Award in 2022

Delta Fiber

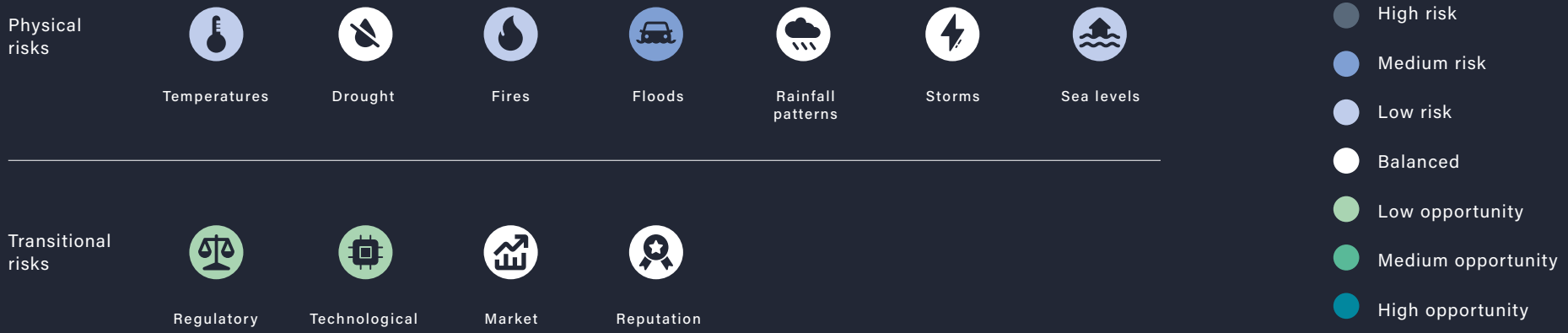
- Committed to being net-zero carbon by 2045 across Scopes 1, 2, and 3
- Ratifying SBTs to help set further steps to become a zero-carbon company
- Minimized footprint in 2022 by reducing energy consumption, use of critical raw materials and:
  - Achieved carbon neutrality;
  - Used 100% renewable energy;
  - Committed to order electrical company cars only, resulting in a completely electric vehicle company fleet in 2028; and
  - Reduced gas consumption of head office by 29%.

Extenet, Xplore and Astound

As of year-end 2022, Extenet and Xplore were finalizing their inaugural carbon baselining projects and – subject to the findings of the analysis – expect to work on establishing mid- and longer-term carbon-related targets by the end of 2023. Astound has completed its inaugural GHG baseline in early 2023 and following its assessment is working to establish longer-term carbon goals.

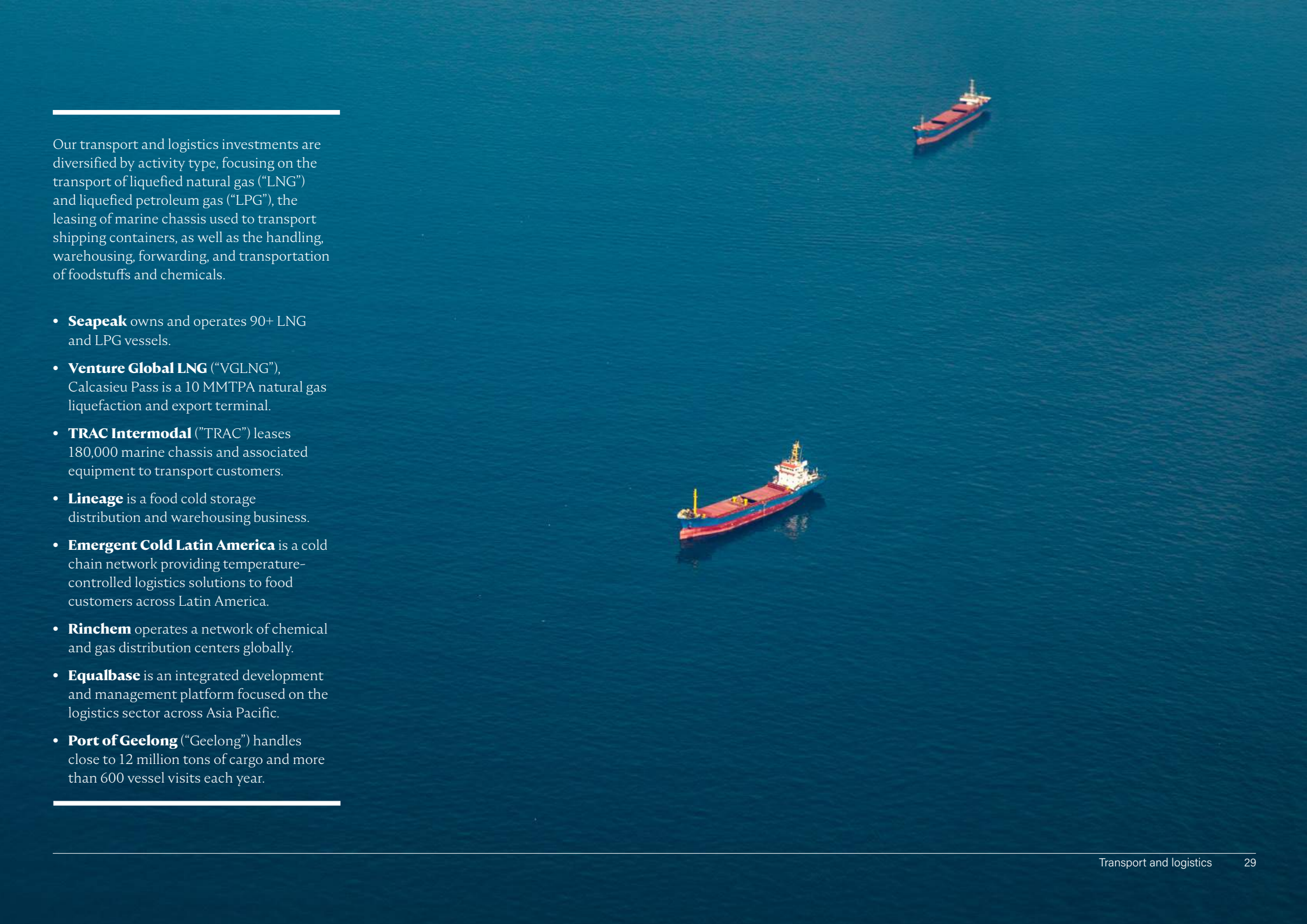
Transport and logistics

Transport and logistics risks and opportunities



Our transport and logistics investments are diversified by activity type, focusing on the transport of liquefied natural gas ("LNG") and liquefied petroleum gas ("LPG"), the leasing of marine chassis used to transport shipping containers, as well as the handling, warehousing, forwarding, and transportation of foodstuffs and chemicals.

- **Seapeak** owns and operates 90+ LNG and LPG vessels.
- **Venture Global LNG** ("VGLNG"), Calcasieu Pass is a 10 MMTPA natural gas liquefaction and export terminal.
- **TRAC Intermodal** ("TRAC") leases 180,000 marine chassis and associated equipment to transport customers.
- **Lineage** is a food cold storage distribution and warehousing business.
- **Emergent Cold Latin America** is a cold chain network providing temperature-controlled logistics solutions to food customers across Latin America.
- **Rinchem** operates a network of chemical and gas distribution centers globally.
- **Equalbase** is an integrated development and management platform focused on the logistics sector across Asia Pacific.
- **Port of Geelong** ("Geelong") handles close to 12 million tons of cargo and more than 600 vessel visits each year.



Risks

Increasingly extreme and unpredictable weather events present the most pressing risks, both in terms of service disruption and faster asset degradation for Lineage, Rinchem, Seapeak, and TRAC. These businesses are energy-intensive to varying degrees and are susceptible to rising energy prices. The cost of oil-based fuels impacts fleet operating costs, especially for Emergent Cold LatAm, Seapeak, Rinchem and Lineage, and power prices particularly affect electricity-intensive warehousing operations, such as Emergent Cold LatAm and Lineage's cold storage facilities.

VGLNG is located on the coast of Louisiana, an area highly susceptible to hurricanes, floods, and storm surges. This was accounted for in the project's design, which includes a 31.5-foot-high storm surge wall and a 6-foot-high armored embankment on the west perimeter, designed to protect the site even in the event of a 1-in-500 year storm surge. As an additional protection, the site is purposely set back from the shoreline, in an effort to protect it from long-term erosion caused by rising sea levels.

All of Seapeak and VGLNG businesses center on the transport of natural gas, which faces appreciable medium-to-long-term transitional risks as the world moves to low-carbon energy sources and the market demand for hydrocarbons gradually declines.

Opportunities

The opportunities from climate change for our transport businesses come largely in the areas of diversification – using existing assets and expertise to service new, fast-growing areas of the economy, such as Seapeak acquiring Evergas increasing the focus of its operations on the shipment of ethane – a greener global fuel source relative to LNG leading to cost savings achieved either through efficiency initiatives or switching to green energy, both of which can reduce carbon intensity and operating costs over time.

Proactive actions

Our portfolio companies operate in different areas of the transport and logistics sector, seeking to take the most appropriate measures to manage climate risk given the unique nature and geography of their business.

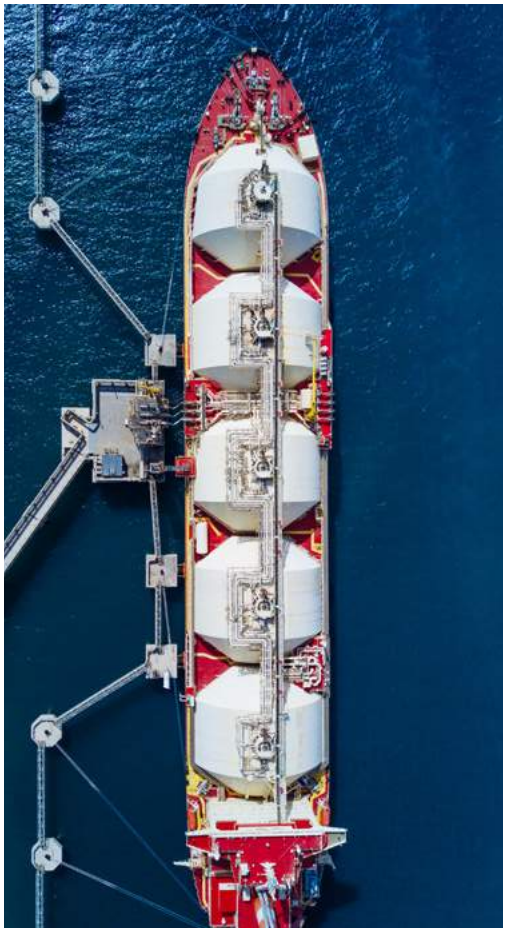
Seapeak

Seapeak remains committed to the International Maritime Organization's (IMO) emissions reduction targets of reducing fleetwide GHG emissions intensity by 40% per ton-mile by 2030, and reducing total GHG emissions by 50% by 2050, compared to a 2008 baseline. This includes working on vessel fleet modernization for more efficient operations, continued focus on LNGs to transition to greener energy, improving the Energy Efficiency Operational Indicator, improving air quality and marine ecological impact through sulfur oxide (SOX) reductions, among other initiatives.

Seapeak mitigates the physical risks of faster fleet degradation by maintaining hull and machinery insurance, and through its maintenance and repair program.
It also contractually mitigates the potential declining market demand for gas – at the time of Stonepeak's acquisition, Seapeak had approximately $8 billion of contracted backlog, with an average of 10 years of remaining tenor in take-or-pay contracts to creditworthy counterparties.

Seapeak is also capitalizing on synergies realized from the acquisition of Evergas, a leading seaborne transporter of petrochemical gases and natural gas liquids, the world's largest marine fleet running on ethane gas (a greener and cleaner global fuel source). Along with a cleaner running fleet, Evergas brings innovative technology. Seapeak is partaking in an exciting new project with the installation of a carbon capture technology on one vessel co-financed by the Assessing low-Carbon Transition (ACT) initiative and several other partners. The project's objective is to demonstrate the EverLong CO_2 capture and liquefaction technology can efficiently work onboard LNG-fueled vessels. Evergas also has a platform that is developing the shipment of carbon dioxide as part of a carbon capture utilization and storage (CCUS) value chain, for which they received a grant award from the European Union Innovation Fund.

Beyond continuing to work to meet its fleet emissions targets, Stonepeak and Seapeak are exploring how to diversify the fleet toward marine assets servicing the offshore renewable energy industry, such as offshore wind projects as well as ancillary supply chain and transport needs.



Venture Global LNG

VGLNG's physical risks are mitigated by the project's design, both in construction and, as already discussed, contractually. VGLNG's production is contracted under 20-year take-or-pay tolling arrangements with creditworthy counterparties. Additionally, VGLNG announced in May 2021 its plans to capture and sequester an estimated 500,000 tons of carbon per year from its Calcasieu Pass and neighboring Plaquemines liquefaction sites, by compressing carbon dioxide at its sites and then transporting and injecting it deep into subsurface saline aquifers, where it will be permanently stored.

TRAC Intermodal

TRAC recently completed a baseline GHG emission assessment of their operations and developed a carbon emission reduction plan that received approval for SBTs. TRAC's climate-risk mitigation efforts focus on increasing efficiencies that reduce carbon intensity and build commercial resilience. TRAC recycles approximately 20 million pounds of metal chassis each year, reducing the need for new steel production – a highly carbon- intensive activity. By converting its chassis fleet to LED lighting and radial tires, energy use and tire drag is reduced, which in turn reduces the fleet's energy consumption and carbon footprint. Similarly, TRAC recycles approximately 70,000 tires per year, reducing the need for new tire production, another highly carbon intensive process. In 2022, TRAC finalized a major recycling project involving chassis axles, a by-product of its fleet modernization and chassis upgrade initiative. Nearly 20,000 axles were removed from remanufactured chassis, with each axle weighing 2,000 pounds, resulting in 33 million pounds of recycled metal.

Lineage

Lineage's cold storage facilities provide mission-critical services to its customers – an increasing percentage of which are setting sustainability and decarbonization goals with respect to their own supply chains. Lineage helps its customers achieve these goals by focusing on energy efficiency, renewable energy procurement, and decarbonization. Lineage is strategically engaged in this mission and considers climate change and sustainability as offering more opportunities than challenges. Some of the Lineage 2022 progress included:

- Signed The Climate Pledge—committing to achieve net-zero carbon emissions across global operations by 2040;
- Became more sustainable and energy efficient than ever, with investments in renewables, bringing 108 MW of solar generating capacity across U.S. network as of Q4 2022; and
- Continued to leverage innovation (including applying for its 50th patent) to redesign and improve its temperature controlled solutions.

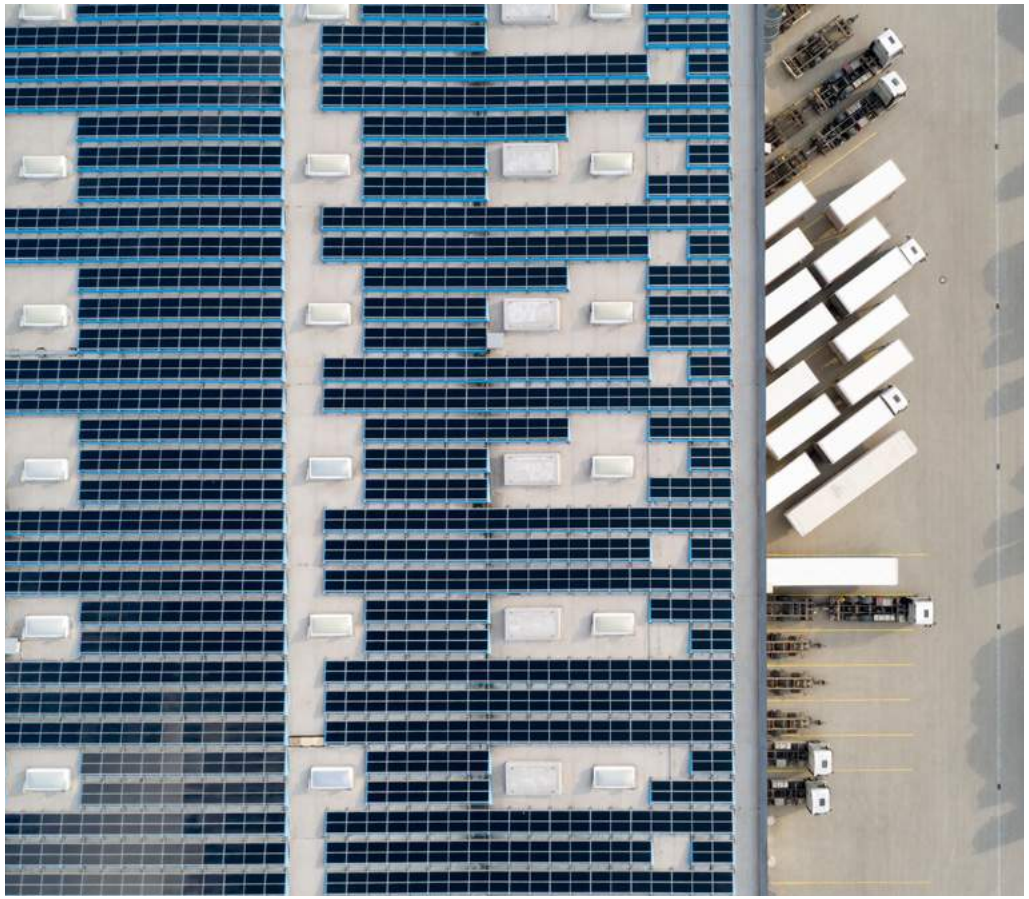
Emergent Cold LatAm

Having launched as a standalone platform in 2021, Emergent Cold LatAm continues to develop its operations and benefits from Lineage (a cornerstone investor) bringing to the platform its operating expertise with respect to energy and emissions management.

Rinchem

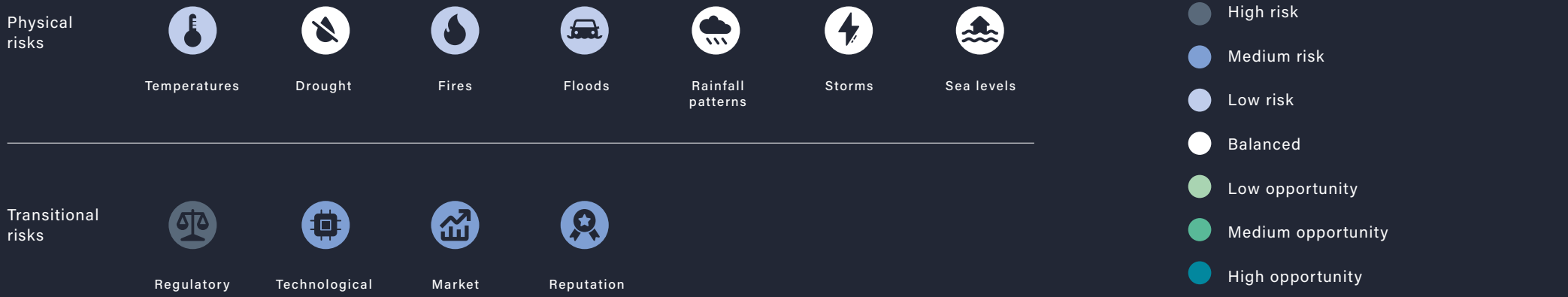
In 2022, Rinchem completed a baseline GHG emission assessment of their operations and developed a carbon emission reduction plan that has received SBT approval. Further, in efforts to improve its emissions profile, Rinchem has updated its fleet to be 85% electric powered, updated 19 facilities with LED and motion-sensored lights, and installed solar panels at its Marlborough, Massachusetts location.

Rinchem continues to take the steps to integrate sustainability considerations deeper into its everyday operations.



Energy transition – traditional

Energy transition – traditional risks and opportunities



Stonepeak maintains majority or co-controlling investments in:

- **Evolve Transition Infrastructure LP** (NYSE: SNMP), a publicly-traded limited partnership that owns oil and natural gas gathering systems, natural gas pipelines, and a natural gas processing facility

- **West Texas Gas ("WTG")**, which consists of three businesses, including a gas gathering and processing business, a gas transmission and local distribution business, and a convenience store and fuels distribution business.

Stonepeak maintains minority noncontrolling investments in Plains All American Pipeline ("PAA") and MPLX, the midstream subsidiary of diversified refiner, marketer, and transporter Marathon Petroleum. Additionally, Stonepeak maintains a minority investment in Plains Oryx Permian Basin, a joint venture with respect to Oryx's and PAA's Permian Basin assets.

All these investments process, transport, and distribute crude oil, refined petroleum, or natural gas products, primarily by aboveground pipeline systems located across North America, with a focus on the hydrocarbon producing basins in Texas and New Mexico.

Stonepeak additionally maintains a minority investment in InterEnergy, one of the largest diversified energy companies in Latin America and the Caribbean which operates electric power generation plants in the Dominican Republic, Panama, Jamaica, Chile, and Uruguay, with a total installed, available and developing capacity of 2.1GW.

Risks

Given the similarity in activities and geographical locations of each company, there is significant overlap in the physical risks faced by each business. The key direct physical risks to above-ground pipeline systems include floods, wildfires, hurricanes, and extreme cold events, which in severe cases (for example, winter Storm Uri in February 2021) may lead to pipeline freeze-offs, gas compressor station malfunctions, and temporary power interruptions.

Further, the development and construction of new hydrocarbon pipeline transport systems within the USA, particularly on federal lands, has generally become more difficult in recent years due to regulatory and public opposition.

Midstream companies also face increasing risks in the medium- to long-term from market demand and technology due to global decarbonization policies and preferences for reducing the consumption of hydrocarbon energy products over time. In the shorter-term, the demand for oil and gas products is relatively inelastic and steady. Longer-term risks also include underlying resource availability, as hydrocarbons are finite and – without sufficient investment to maintain output in a given basin – volumes and midstream system revenues may decline. Stonepeak performs reserve analysis forits volumetrically exposed midstream investments.

Similarly, InterEnergy faces medium- to long-term technological or obsolescence risks to certain of its hydrocarbon-fired facilities from competing renewable power sources (such as wind and solar), as well as regulatory risks related to airborne emissions regulations and policies which seek to reform energy system carbon intensity in support of GHG reduction targets. Longer-term risks also include underlying resource availability of gas and oil, which some of InterEnergy's facilities are reliant on to generate power.

Gas transport and processing systems face heightened regulatory and reputational risks pertaining to vented or fugitive methane, as governments pledge or legislate (e.g., the U.S. Methane Emissions Reduction Action Plan) to significantly reduce methane emissions in recognition of methane's role as a potent greenhouse gas (with a 100-year global warming potential many times that of other pollutants, such as CO_2).

Additionally, the ever-present idiosyncratic risks for some of our energy businesses pose significant challenges that need to be acted upon. The high levels of emissions being released into the atmosphere due to flaring, leaks, and venting of natural gas, pose significant reputational and financial risks which can result in fines, expanded regulatory oversight and temporary halts to business operations. Stonepeak regularly engages with and provides resources to our high emitting businesses in order to mitigate these challenges.

Opportunities

While midstream companies may face increasingly challenging conditions over the medium- and long- terms due to the transitional risks outlined previously, this dynamic potentially increases the in-ground value of existing pipelines and favors the development of systems within jurisdictions, such as Texas, that are less exposed.

Low carbon intensity fuels, such as renewable natural gas, renewable diesel, and sustainable aviation fuels, are unique drop-in fuels that are immediately consumable by existing engines or pipeline systems, and reduce carbon emissions compared with traditional hydrocarbons. These drop-in fuels are in increasingly high demand and are supported by favorable regulatory developments, presenting opportunities for traditional oil and gas businesses to leverage their expertise and existing asset footprint.

Thermal power units may benefit from blending in lower carbon fuel sources (such as hydrogen) as well as carbon abatement technologies (such as carbon capture). These technologies are generally nascent and feasibility varies depending on the asset.

Proactive actions

Pipeline operators typically maintain multifaceted emergency response systems and business continuity plans to respond to physical risks, including backup power generation, emergency shutoff systems, and on-site fire retardants or control systems.

Each midstream system operator in which Stonepeak maintains an investment responds to the risks and opportunities presented by climate change according to the facts and circumstances of its business operations.

Stonepeak engages with its controlled midstream investees to:

(i) Identify decarbonization and energy transition opportunities;

(ii) Enhance transparency regarding GHG tracking and reporting; and

(iii) Protect against physical risks by monitoring for system performance and emergency readiness.

Evolve Transition Infrastructure LP

Stonepeak has worked with Evolve's management over the past two years to bolster its operations and reporting capabilities, as well as seeking to capture energy transition opportunities. Beginning in 2022, Evolve has reported on the majority of applicable EIC / GPA midstream environmental KPIs, established its 2021-2022 GHG baseline (Scope 1 and 2) emissions, and expects to establish medium- to long-term GHG targets.

West Texas Gas

Since completing the acquisition of WTG in 2021, Stonepeak has worked closely with its management across various business-critical initiatives designed to improve the overall environmental performance of the business.

Reducing methane leaks is an industry-wide imperative, given the damaging warming effects of leaked or vented methane. Shortly after acquisition, 5,000 miles of pipelines – more than 90% of the system – were aerially surveyed using infrared-enabled equipment to detect and repair gas leaks and reduce flaring incidences. As of mid-2023, WTG continues to evolve its approach to systemwide methane detection utilizing orbital satellites (OSK) to further analyze exposure areas.

Since Stonepeak's investment, within WTG's Midstream segment, the company has conducted onsite optical gas imagery methane leak surveys at plants and compressor stations, deployed SOOFIE real-time leak detection systems, and installed over pressure protection control devices at producer locations, which in aggregate have led to a marked reduction in fugitive leaks relative to system performance. Further, the successful in-servicing of new gas processing plants has reduced systemwide pressures and flaring. Benefitting from data-driven and more frequent monitoring of emissions, the company has finalized its Scope 1 and 2 GHG baseline and is in the process of establishing its medium- to long-term emissions goals.

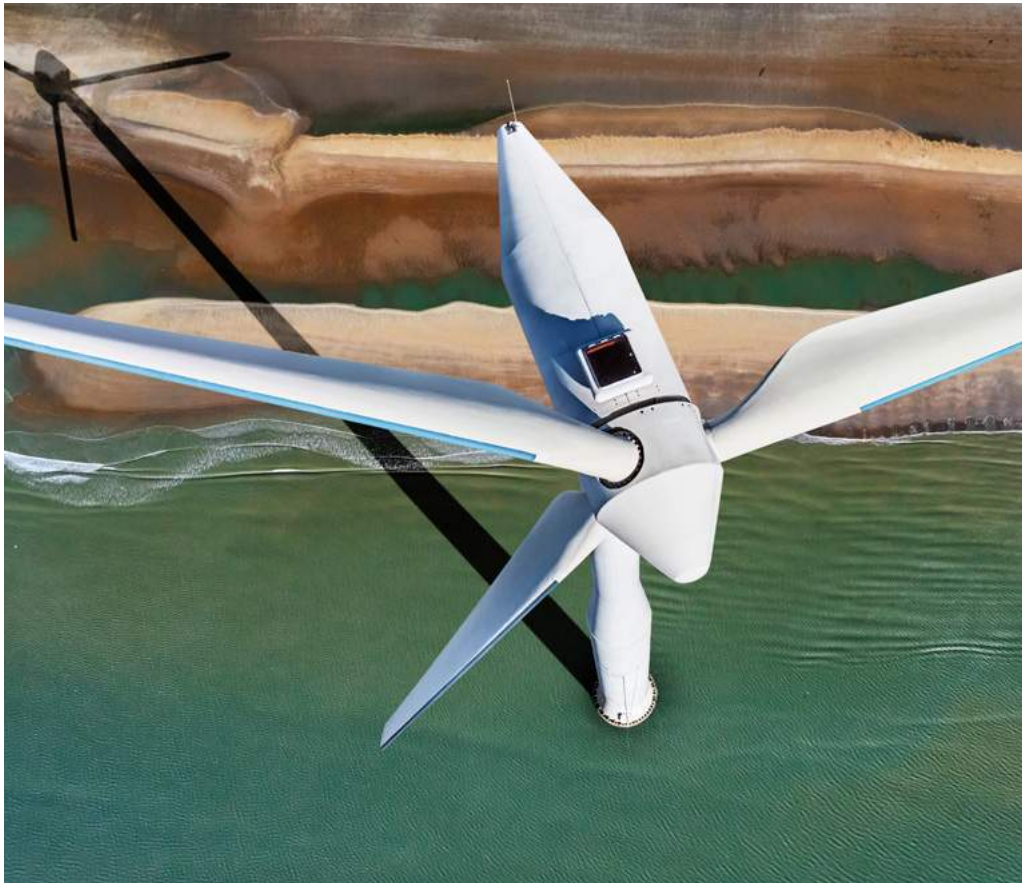
To mitigate long-term transitional risks within its Downstream segment, WTG has sourced renewable natural gas. As of June 2023, the Downstream segment was connected to seven facilities with peak gas flow rates in aggregate of ~18 million cubic feet per day and had three additional sites under contract. This dairy renewable natural gas feedstock reduces carbon intensity system-wide and captures dairy methane emissions that otherwise would have been released into the atmosphere. These dairy sites produced ~5 million cubic feet per day on average throughout 2022.

Proactive actions

Minority non-control investments (MPLX, PAA, and InterEnergy)
In March 2020, Marathon Petroleum, the parent entity to MPLX, became the first independent refiner in the USA to establish a company-wide GHG emissions intensity reduction target, aiming for a 30% reduction in Scope 1 and 2 GHG intensity levels by 2030 from 2014 levels. In February 2022, MPLX established a new 2030 target to reduce methane emissions intensity by 75% below 2016 levels – the reduction target applies to MPLX's natural gas gathering and processing operations and represents an expansion to the company's pre-existing 2025 target to reduce methane emissions intensity by 50% below 2016 levels.

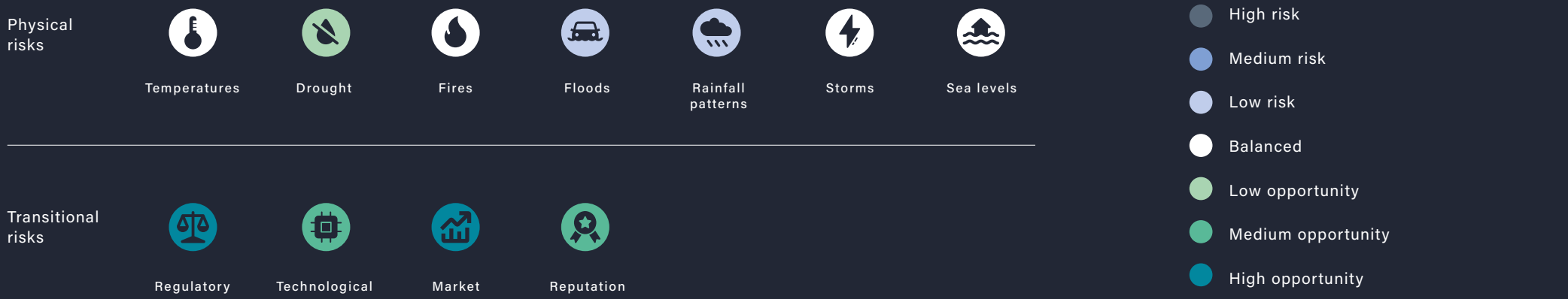
In 2021, PAA reported its Scope 1 and 2 emissions for the first time and is working on aligning its reporting to TCFD-based recommendations. The company is also collaborating on the American Petroleum Institute's climate-related reporting template.

In conjunction with Stonepeak's minority investment into InterEnergy, the company committed to adherence to the carbon reduction objectives of the Paris Agreement via specific GHG intensity reduction targets of (i) 40% by 2025, (ii) 60% by 2030, and (iii) net-zero by 2050. Meeting these goals will among other things require a combination of decommissioning or repowering certain legacy assets, acquiring new thermal equipment capable of using a high percentage of sustainable fuels, and aggressive renewables deployment targets. Other integral pieces of the carbon reduction program memorialized via the transaction include stringent GHG reporting and benchmarking, as well as implementing innovative clean technologies, where practicable.



Energy transition – renewables

Energy transition – renewables risks and opportunities



Stonepeak's renewables investments focus on developing and operating solar and offshore wind farms as well as transitioning from fossil fuel energy to renewables.

Peak Energy develops, owns, and operates utility-scale solar projects in South Korea and Japan, with 128-megawatt ("MW") of installed, operational solar energy generating capacity.

GreenPeak develops, owns, and operates utility-scale solar projects in Taiwan, with 24MW project under construction and expected to reach Commercial Operation Date in December 2023. Once complete, this asset is expected to generate 35,865MWh per year, displacing an estimated 25.4 kt of CO_2e. Further, GreenPeak also has a second asset under construction expanding its solar capacities.

Synera develops, owns, and operates utility-scale offshore wind projects in Taiwan and Japan. Currently, Synera has 7.1-gigawatt ("GW") of offshore wind projects in operation, in development, or under construction.

Maas Energy Works is a renewable natural gas ("RNG") developer which currently operates 58+ digestors across the U.S. with another 52+ under construction or in development.

Stonepeak Island Transition platform was created in 2022 to enhance access to sustainable, reliable, and affordable electricity generation across the Caribbean and Central America through investment in renewable energy solutions.

Risks

Alongside the impact of extreme weather events on installations, the main physical climate-related risk is variation between the projected energy generation from solar and wind, and the realized performance during operations as material differences between the two may have commercial impacts. Transitional risks primarily relate to technological advancement, with new technologies potentially being more efficient than older technologies – this risk is mitigated by generally growing market demand for renewable power.

Particularly for utility-scale renewable energy developments, the physical risks inherent to a site's location, such as flooding and storms, are examined during the development and permitting process, such that site design and construction incorporates physical risk considerations. Estimates of resource availability, for example, wind or solar energy, are typically performed by third-party experts during a project's development, with reference to historical averages. The project performance may be impacted if the actual resource availability deviates materially from estimates due to changes in weather patterns from climate change.

Opportunities

Generally, renewable energy development businesses benefit from more opportunities than risks, due to factors including:

- Technological developments that have improved the cost competitiveness of renewable energy relative to conventional energy;
- Favorable regulatory and policy developments seeking to support and accelerate the development of renewable energy resources; and
- A broad-based increase in market demand for low-carbon energy, seeking to mitigate climate change and its associated impacts.

Proactive actions

The growth opportunities of renewables are being acted on in the normal course of business. Managing the risk of variation between the projected and actual energy generation is a continually improving process.

Risk management

Our risk management process focuses on protecting our business and our clients from climate-related risks while ensuring we are well-positioned for the opportunities. In this section, we describe how we identify, assess, manage, and integrate climate-related risks into our overall risk management.

Identifying and assessing climate risks and opportunities

Given the asset classes that we invest in, identifying and assessing climate-related risks and opportunities is a core part of our investment process.

Identification

Identification begins at the due diligence stage. Beginning in 2019, potential investments complete an extensive ESG questionnaire before a final investment decision is made. This questionnaire includes an assessment of emissions, climate-related risks, and potential opportunities. We consider the quality of the data, not just the responses given, and may require expert third-party technical diligence, engagement with key stakeholders such as management, as well as consultation with industry experts.

The identification of risks is focused on issues that include the following, guided by materiality to the relevant company:

- The business's maturity with respect to measurement and management of GHGs;
- Whether GHG emissions are material to the business;
- The impact of laws and regulations pertaining to GHG emissions and climate- related risks;
- The business's governance with respect to climate-related risks and opportunities;
- Whether the business has existing targets or objectives for the reduction or management of GHGs; and
- The maturity of GHG and climate-related risk management relative to that of competitors.

Assessment

Both Stonepeak's investment team and third-party consultants evaluate the climate-related risks exposures identified during due diligence. We treat climate considerations like any other material factor in decision-making, requiring robust evidence and with risks and opportunities being subject to debate and informed by data. Where applicable, climate considerations are included in Investment Committee decision-making and are embedded in deal documents, corporate governance, and post-acquisition management plans, on a case-by-case basis according to the materiality of these risks to the underlying business. Opportunities are generally rejected if we feel that we do not have a fulsome understanding of, and ability to manage, the inherent material risks of an asset.

Managing climate risks and opportunities

Stonepeak

In addition to the details set out in the Governance and Strategy sections on how we manage climate-related risks, we manage risks internally in an integrated manner through:

1. Day-to-day risk management, enabled by firmwide awareness and understanding of climate-related risks, with such risks being a part of the overall risk management definition.

2. Oversight from our Legal and Compliance team, which monitors for material regulatory changes related to sustainability and climate risks as applicable to the Firm.

3. ESG monitoring and insights from our Sustainability team, which monitors ESG risks and performance and brings the latest thinking and knowledge into the business to improve performance.

We formally report annually through our ESG report and deliver additional transparency through our TCFD and PRI reporting. Additionally, we report to investors through our Quarterly Investor and Limited Partnership Advisory Committee updates.

Portfolio companies

In controlled portfolio companies, we establish, reinforce, or enhance board-level oversight of key ESG considerations at the outset of an investment. There is a clear commitment to drive the ESG approach and performance, recognizing that aligned and empowered management teams deliver the best results. Other key management activities include:

- Carbon inventories: We require only those controlled portfolio companies for whom emissions is a material sustainability item to establish the carbon intensity and absolute emissions of their operations, which provides a baseline for benchmarking and ongoing measurement against decarbonization goals.

- Decarbonization pathways: We are in the process of establishing baseline metrics and decarbonization pathways for controlled portfolio companies, with most controlled portfolio companies now reporting Scope 1 and 2 GHG inventories annually.

- Monitoring and reporting: We monitor ESG performance through several channels to ensure completeness:

  1. Investment team portfolio monitoring and Board meeting attendance;
  2. Quarterly portfolio reviews; and
  3. Regular and ad hoc oversight meetings with senior portfolio company executives and sustainability staff.

Managing climate risk in hydrocarbon energy combustion or transport assets

Midstream or thermal power assets are an important part of our portfolio and critical role to play – they supply >80% of world's energy needs[7]. They also generally face higher medium- to long-term transitional risks, such as, risks from global decarbonization policies and technology advancements as the world moves to decarbonize. One way we manage these risks is through commercial factors, such as:

Contract structure
Hydrocarbon transport or midstream assets may have very long-term take-or-pay contracts with creditworthy counterparties at either fixed or indexed prices. These contracts seek to protect cash flows and asset values, even if the underlying commodity experiences decline in market price or demand.

Resource availability and cost viability
Midstream systems service hydrocarbon production within basins or areas that – primarily for geological reasons – experience differing break even costs. As hydrocarbon usage gradually declines over the medium to long-term, production within high break-even cost basins will be the first to become economically marginal, leading to falls in production. Conversely, hydrocarbon production within low break-even cost basins is more resilient against transitional risks.

Expanded analysis
For hydrocarbon assets, stranded asset risk is a key consideration. Stonepeak operates 'hold-to-maturity' and 'next buyer' financial return projections to sense-check return expectations. Alongside this, analysis is conducted for scenarios in which Stonepeak may be unable to realize its investment successfully according to the base case operating plan.

Integrating climate risks into our overall risk management

Below, we show how climate-related risks and opportunities are incorporated into the Firm's investment life cycle and thus integrated into our overall risk management approach.

Investment lifecycle

Diligence & acquisition

Initial Deal Review

A Stonepeak senior deal team member reviews potential opportunity to determine whether it warrants further consideration

Allocation of resources to undertake initial assessment of opportunity

The majority of deals do not proceed past this step

Review Committee

Deal is presented to the relevant fund's Review Committee to seek approval to proceed with the diligence process, including the use of third parties and incurrence of deal costs

All members of the Investment, Investor Relations, Legal and Compliance, and Finance and Operations teams are invited to participate in the discussion

Committee Updates

Live transactions are regularly reviewed at Review Committee to discuss key risks as the due diligence process develops

Investment Committee

Deal is presented to the relevant fund's Investment Committee for final approval to proceed with the transaction and enter into final investment documentation

All members of the Investment, Investor Relations, Legal and Compliance, Sustainability Team and Finance and Operations teams are invited to participate in the discussion

Management & monitoring

Ongoing active management

Day-to-day management of and responsibility for operating and financial performance of investments remains with investment team that underwrote and consummated the transaction

Ongoing and frequent engagement between Stonepeak deal teams and investee company management teams, in addition to governance rights exercised via formal channels (e.g., Board of Directors)

Quarterly Portfolio Review

Deal teams present detailed operational and financial updates for all fund assets to Investment Committee each quarter

ESG-related performance reviewed via same process in standalone forum

Diligence related to climate risks and opportunities

Review exposure to physical risks through management team interviews, reviews of third-party physical risk assessments data, and business operating plans and in-place mitigants (e.g., insurance)

Transition and regulatory risks discussed and debated at Investment Committee qualitatively, using deal team and operating partner sector-specific expertise, third party industry specialists, and consultants where relevant

Climate-related risks incorporated into financial underwriting through downside scenario analysis; introduced climate change underwriting template in mid-2022 for core infrastructure strategy, given explicit targeting of Science Based Targets

Management of climate-related risks and opportunities

Ongoing engagement with management teams to (i) measure GHG footprint with respect to all controlled portfolio companies for whom GHG emissions is a material item (see page 44), (ii) implement decarbonization pathways aligned to recognized frameworks, (iii) continuously review risks and opportunities resulting from regulatory and transitional changes, and (iv) support execution of business strategies to capture opportunities and mitigate risks

Cross-portfolio sharing of best practices, and ESG team leading internal training and dissemination of best practices

Metrics and targets

Stonepeak uses a materiality-driven approach focusing on those factors most relevant to each of our businesses. In this section, we disclose and describe the metrics and targets we use to direct and measure the management of our climate-related risks and opportunities.

Targets, commitments and metrics

Climate risks and opportunities have a material impact on our investments. Our goal is to manage these risks while seeking to deliver investment returns. With many regulators, investors, customers, and industries aligning to net-zero emissions by 2050, achieving our goal means delivering strong financial performance while aligning with Paris-climate goals of reducing carbon output consistent with limiting global warming to no more than 1.5°C from pre-industrial levels across our business by 2050.

This directs us to reduce our own contribution to climate change, and reduces our exposure to transitional risks, such as regulatory changes, by working in line with best practices pertaining to climate-related risk monitoring, management and disclosures. With the PRI having adopted TCFD requirements into its reporting and assessment framework, and a growing proportion of our investor partners having also adopted TCFD disclosures, we view TCFD as the logical framework through which to disclose our own carbon and climate change-related risk management.

Stonepeak

For Stonepeak's operations, our commitments span Scopes 1, 2, and 3 GHG emissions. We are committed to:

- Reducing our total emissions intensity from a 2019 baseline; and
- Reporting on our climate performance and financial risks, in line with TCFD, for both our own operations and our investment portfolio.

Portfolio companies

We believe that credible and achievable paths to the climate goals of the Paris Agreement need to be tailored for the circumstances, challenges, and opportunities unique to each region and sector. Given the uniqueness of each investment, we believe that using Science Based Targets, where applicable, a framework with over 2,000 organizations grounded in climate science, allows us to define and promote best practices in emissions reductions and set net-zero targets. Utilizing SBTs represents a comprehensive rubric and robust third-party verification of credible emissions reductions pathways in line with the Paris Agreement and a 1.5°C Net Zero future. We intend to utilize SBTs as the standard for all of our controlled portfolio company emissions reduction plans, where feasible and available, and are in the process of rolling out SBTs across our current portfolio.

Metrics and emissions

Stonepeak

Throughout 2019 and 2020, we set our operational carbon baseline (encompassing across Scopes 1, 2, and 3) and have continued to measure it annually. We offset our 2019 and 2020 emissions by purchasing certified offsets produced by a landfill gas capture project.

Since 2020, Stonepeak's operations absolute carbon emissions have increased every year from the baseline assessment. This increase is mainly attributed to business growth (e.g., the doubling of our workforce between 2020 and 2022) and the Covid-19 pandemic impacting normal business activities during baseline year calculations in 2020 (e.g., the abnormal suppression of business activities and travel). Further, we believe when looking at the emissions intensity per employee basis, this increase does not warrant concern but rather underscores our effective management of the emissions created from our business operations.

	2020 (tons of CO_2 equivalent)	2021 (tons of CO_2 equivalent)	2022 (tons of CO_2 equivalent)
Scope 1 emissions	767	1,422	2,119
Scope 2 emissions	123	166	183
Scope 3 emissions	868	779	1,697
EMISSIONS TOTALS	1,758	2,367	3,998
Emission intensity per employee (tCO_2e/employee)	16.1	14.5	18.2
Purchased offsets	1,758	0	0
NET EMISSIONS	0	2,367	3,998

Portfolio companies

In cases where Stonepeak owns the majority of the equity in its portfolio companies, and especially where those portfolio companies are undertaking construction activities, the Firm seeks to maintain routine dialogue with portfolio company management and other engineering, procurement, and construction partners on climate change concerns, especially those for whom GHG emissions represent a material item. For investments in which Stonepeak maintains Board representation, we seek to utilize our Board representation to actively engage with, influence, and monitor the ESG environment and flow of information with the portfolio company.

We recognize that climate change affects each of our managed portfolio companies differently, and the maturity of each company's strategy to manage climate change may vary considerably. Our materiality-based engagement approach with our management team partners focuses on five interrelated and overlapping steps, being (i) educating, (ii) inventorying, (iii) planning and target setting, (iv) implementing, and (v) monitoring.

1. **Educating:** For our businesses that have nascent or no climate change strategy, Stonepeak focuses on educating portfolio company management in the fundamentals of climate change, energy and GHG emissions management, as well as relevant capital markets and regulatory concepts.

2. **Inventorying:** The next step focuses on completing a bottoms-up GHG inventory assessment prepared in line with appropriate standards (such as the World Resources Institute), with the expectation being that companies for whom GHG emissions are a material sustainability matter embed GHG inventorying into their ongoing annual reporting cycle.

3. **Planning and Target Setting:** Once GHG emissions have been baselined, Stonepeak works with portfolio companies to establish credible medium and long-term emissions intensity reduction targets, which – where feasible – align with market or industry sector relevant "net zero 2050" or Paris Accord ambitions.

4. **Implementing:** Stonepeak provides capital and strategic guidance to portfolio companies to execute on specific projects necessary to achieve dual aims of improved business performance and reduced emissions intensity. Key projects may include energy efficiency initiatives, renewable energy sourcing, and reducing fugitive emissions.

5. **Monitoring:** Ongoing progress toward targets is routinely monitored against, with a focus on continuous improvement underpinned by ongoing identification and execution of business projects which both reduce emissions intensity and improve business performance.

As of the publishing of this report, the majority of our businesses either already had, or were in the process of developing, their inaugural GHG baselines for FY22. Based on data for those businesses which had developed GHG inventories at the time of this report, a summary of scope 1 and 2 emissions intensity (represented as Scope 1 and 2 emissions (tCO_2) per $M revenue) is represented below:

	Scope 1 and 2 emissions (ton CO_2/$M revenue)
Energy - Traditional	**2,758.91**
Transport	**623.17**
Communications and Digital	**43.55**

While significant variability exists between assets (even within investment subsectors), the analysis demonstrates that energy-intensive businesses within the transport and traditional energy sectors are most GHG-intensive (in terms of earnings per unit of emissions per earnings). Further, Stonepeak acknowledges that Scope 3 emissions may be material – particularly for traditional energy businesses – and to that end encourages these businesses to, where possible, define and report their Scope 3 emissions.

Data for specific portfolio companies can be found in the Appendix.

Looking forward

As we look forward into the next 12 months, our key portfolio management priorities are:[11]

Deeper climate-risk capabilities
Across our internal operations, our focus is to further embed climate change risk and opportunity analysis across key aspects of our business by:

- Increasing and expending use of both internally developed and external tools, such as GHG and decarbonization underwriting templates, and expert third-party analysis for physical risk assessments;
- Continuing to build firmwide awareness of best practice carbon underwriting and decarbonization frameworks, such as Science Based Targets and Paris Accord-aligned decarbonization pathways;
- Taking staff performance with respect to ESG and climate change matters into account during employee appraisals and goal-setting, where appropriate;
- Where appropriate, taking GHG and climate matters into account when developing new products; and
- Using internal reporting to track portfolio and asset-level progress toward key milestones or targets.

More comprehensive data
Achieving 100% Scope 1 and 2 carbon footprint inventory coverage across controlled portfolio companies by the end of 2024 (excluding immature assets or where GHG emissions are immaterial to operations – for example, renewable energy developers).

More net-zero aligned business plans
Increasing the number of controlled portfolio companies with developed net zero-aligned business plans and, where possible, having these net zero decarbonization business plans accepted by Science Based Targets or similar science-based, industry specific decarbonization framework.

Appendix: Portfolio specific data

Communications and digital infrastructure

Cologix

- Calculated 2020 market-based Scope 2 emissions based on electricity consumption
- Retrieved and utilized utility-specific emission factors, where available

euNetworks

- Retrieved 2021 Scope 1, market-based Scope 2, and Scope 3 emissions from euNetworks 2022 Sustainability report

Transport and logistics

Lineage Logistics

- Scope 2 GHG emissions and natural gas consumption provided by Lineage management
- Calculated 2020 Scope 1 GHG emissions from natural gas consumption
- Normalized 2020 Scope 1 and 2 GHG emissions by revenue

TRAC Intermodal

- Received 2019 and 2020 natural gas consumption data as well as fuel consumption and mileage for TRAC's company vehicles to calculate Scope 1
- Received electricity consumption data and square footage of TRAC's facilities to calculate Scope 2
- Received natural gas and motor gasoline consumption to calculate Scope 3

VGLNG

- Retrieved GHG emissions in short tons from final environmental impact statement for Venture Global Calcasieu Pass, LLC and TransCameron Pipeline, LLC Calcasieu Pass Project, table 4.11.1.4-1 and converted to metric tons
- Emissions came from the following construction activities:
  - Off-road construction equipment
  - Off-road vehicles
  - Marine vessels
  - Concrete batch plants
  - Construction year 1, including construction of terminal site
  - Construction year 2, including construction of terminal site and pipeline

Energy transition - traditional

MPLX

- Obtained 2019 and 2020 Scope 1, Scope 2, and Scope 3 Category 11: Use of Sold Products emissions data from Marathon Petroleum Corporation Sustainability Report 2020 Environmental Performance table, pages 67 – 68
- Assumed market-based Scope 2 emissions
- Used most conservative Scope 3 Category 11 emissions results

PAA

- Obtained 2019 and 2020 Scope 1 and 2 emissions data from Plains 2020 Sustainability Report
- Assumed market-based Scope 2 emissions

Oryx

- 2019 and 2020 Scope 1 and 2 internally calculated with purchased electricity and vehicle mileage data

Evolve Transition Infrastructure

- Scope 1 emissions from oil and natural gas pipeline transportation include natural gas combustion from running compressor engines, turbines, and process heaters, plus methane and CO_2 from operating equipment, flaring, venting, and other processes common to oil and natural gas systems
- Received quarterly volumes of gas or oil transported via Catarina and Carnero pipelines, quantified annual (2019 and 2020) totals, and converted to barrels of oil equivalents ("BOE")
- Estimated Scope 1 emissions by applying 2019 and 2020 Stonepeak portfolio-specific Scope 1 emissions intensity factors (tCO_2e/sales of millions of barrels of oil ("MMBbl")) to volumes of oil or gas transported each year
- Received monthly electricity use for 2019 and 2020
- Quantified market-based Scope 2 emissions with the understanding electricity is received from Co-ops in Electric Reliability Council of Texas
- Green-e® residual emission factor used for the market-based Scope 2 emissions assessment

Whistler/WTG

- Quantified 2020 Scope 1 and 2 GHG emissions from the construction of the Whistler Pipeline Project
- Construction did not begin until 2020 and lasted through mid-2021
- Confirmed duration via the Whistler Pipeline Project Environmental and Social Management and Monitoring Plan
- No construction or emissions in 2019
- Whistler Pipeline Project includes the development of a 448-mile, 2.0 billion-cubic-feet-per-day natural gas pipeline mainline, a 50-mile Midland Lateral pipeline, and four compressor stations
- Estimated emissions from the construction of the two pipelines based on a length-based GHG intensity factor ($lbCO_2e$/ft-pipeline) retrieved from Technical Paper comparing the carbon footprints of steel versus concrete pipelines
- Estimated emissions from the construction of the four compressor stations based on the average GHG emissions from the construction of compressor stations at a recently developed comparable pipeline, the Mountain Valley Project. Data retrieved from Mountain Valley Project Environmental Impact Statement
- Allocated GHG emissions to 2020 based on the portion of construction completed in 2020

End notes

As of December 31, 2022

1 Stonepeak Partners, LP (excluding its portfolio companies of Stonepeak managed funds, "Stonepeak" or the "Firm")

2 https://ourworldindata.org/emissions-by-sector - Source: Climate Watch, WRI (2020), using 2016 data

3 Stonepeak's AUM calculation provided herein is determined by taking into account (i) unfunded capital commitments of Stonepeak funds and any other vehicles or accounts managed by Stonepeak as of December 31, 2022, (ii) the gross asset value of such funds, vehicles and accounts, plus any feeder fund level cash with respect to such funds and vehicles as of March 31, 2023, and (iii) capital commitments of certain of such funds and such other vehicles or accounts managed by Stonepeak accepted between January 1, 2023 and March 31, 2023. The AUM figure differs from the amount of assets under management reported for regulatory purposes and is based on gross asset values that are estimated and unaudited

4 As of December 2022

5 As of December 2022, includes investments that are signed pending close

6 This represents the aggregate number of investors in Stonepeak funds as of December 31, 2022

7 Energy Institute Statistical Review of World Energy, 2023

8 California Air Resources Board: "LCFS Pathway Certified Carbon Intensities" (Source: https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities)

9 Climate pathway representative concentration pathway ("RCP") refers to the greenhouse gas concentration (not emissions) trajectory adopted by the IPCC to be used for climate modeling as established in the IPCC's fifth Assessment Report (AR5) in 2014

10 Data provided by Jupiter Intelligence

11 Looking forward goals are aspirational and Stonepeak can make no assurances that all of portfolio management priorities will be met

Unless otherwise noted herein, this TCFD Report is presented for calendar year 2022. Accordingly, the portfolio companies referenced in this TCFD Report include those companies in respect of which Stonepeak-managed vehicles had a beneficial equity ownership interest as of December 31, 2022.

As used herein, the term "controlled portfolio companies" refers to any portfolio company in respect of which (i) ownership by Stonepeak fund(s) exceeds 50% (in the aggregate) of such portfolio company and/or Stonepeak has the ability, through robust governance, to exercise control with respect to the operations of such portfolio company, or (ii) a representative of Stonepeak maintains at least one board seat on the portfolio company board.

Important information

This report is provided for discussion and informational purposes only to provide background information with respect to Stonepeak Partners LP (together with its affiliates, "Stonepeak") and its investment activities and is not an offer to sell or the solicitation of an offer to buy an interest in any current or future vehicle, account, product, or fund sponsored or managed by Stonepeak (each a "Fund"). The distribution of this report in certain jurisdictions may be restricted by law. This report does not constitute an offer to sell or the solicitation of an offer to buy in any state of the United States or other U.S. or non-U.S. jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such state or jurisdiction.

This report is not intended to form the basis of any investment decision for sale of an interest in a Fund, and you agree and acknowledge that you are not relying on the information contained in this report as the basis for any such investment decision you may make in the future. Any offer or solicitation with respect to a Fund will only be made pursuant to the final confidential private placement memorandum issued with respect to such Fund, which qualifies in its entirety the information set forth herein and which should be read carefully prior to any investment in such Fund for a description of the merits and risks of such an investment.

As used herein, references to "impact" are not a financial performance metric, are often subjective and may change over time, and are not intended to be an indication of investment return, but are intended to measure potential or actual positive social or environmental impact of an investment. Stonepeak's assessment of "impact" is informed by third-party standards, guidelines and metrics as Stonepeak deems relevant from time to time. Certain reported impacts expected to be provided by third parties may be estimates that have not been verified by a third party and are not necessarily reported according to any particular established standards or protocols, and therefore Stonepeak does not guarantee the accuracy, adequacy or completeness of such information. There may be certain investment scenarios in which Stonepeak modifies its impact measurement methodology with respect to an investment. There may also be other metrics relevant to assessing "impact" that are not considered by Stonepeak. Any reference contained in this report to transactions or experience of Stonepeak personnel includes the tenure of such personnel at other firms before joining Stonepeak.

While ESG is only one of the many factors the Stonepeak will consider in making an investment, there is no guarantee that Stonepeak will successfully implement and make investments in companies that create positive environmental, social or governance impact while enhancing long-term shareholder value and achieving financial returns. To the extent that Stonepeak engages with companies on ESG-related practices and potential enhancements thereto, such engagements may not achieve the desired financial, social and environmental results, or the market, society or investors may not view any such changes as desirable. Successful engagement efforts on the part of Stonepeak will depend on Stonepeak's skill in properly identifying and analyzing material ESG and other factors and their impact-related value, and there can be no assurance that the strategy or techniques employed will be successful. Considering ESG qualities when evaluating an investment may result in the selection or exclusion of certain investments based on Stonepeak's view of certain ESG-related and other factors, which view could ultimately prove to be incorrect, and creates a risk that a Fund may underperform other funds that do not take ESG-related factors into account (or that do take such factors into account, but not to the same extent as Stonepeak) or, conversely, could underperform specialized funds that are largely or exclusively focused on sustainable investing principles.

Consideration of ESG factors may affect Stonepeak's exposure to certain companies, sectors, regions, countries or types of investments, which could negatively impact a Fund's performance to the extent there is underperformance in the area of such exposure. Applying ESG goals to investment decisions is qualitative and subjective by nature, and there is no guarantee that the criteria utilized by Stonepeak or any judgment exercised by Stonepeak will reflect the beliefs or values of any particular investor or group of investors. In evaluating a company, Stonepeak is dependent upon information and data obtained through voluntary or third-party reporting that may be incomplete, inaccurate or unavailable, which could cause Stonepeak to incorrectly assess a company's ESG practices and/or related risks and opportunities. In addition, Stonepeak makes investment decisions based on circumstances as they exist at the time the investment is made, and developments that take place subsequent to the investment, where such developments are outside Stonepeak's control, may not conform to Stonepeak's expectations around ESG (for example, but not by limitation, concerning a portfolio company's pivot in its use of technology or its changes to its business plan). ESG-related practices differ by region, sector and issue and are evolving accordingly, and a company's ESG-related practices or Stonepeak's assessment of such practices is likely to change over time. Moreover, the consideration of ESG factors in connection with a Fund's investment activities could be expected to increase the overall amount of investment-related fees, costs and expenses that are incurred by the Fund and, indirectly, its investors.

In considering case studies and investment performance information contained in this report, prospective investors should bear in mind that past or projected performance and past investment activity information is not necessarily indicative of future results and there can be no assurance that a Fund will achieve comparable results, that it will be able to implement its investment objectives or that targeted, projected or underwritten returns, cash yields or asset allocations will be met.

Certain information contained herein constitutes "forward-looking statements" regarding future events, targets or expectations regarding a Fund or its strategies. Due to various risks and uncertainties actual events or results or actual performance of a Fund or any investments described herein may differ materially from those reflected or contemplated in such forward-looking statements. As a result, a prospective investor should not rely on such forward-looking

statements in making their investment decisions. No representation or warranty is made as to future performance or such forward-looking statements. In addition, with respect to the market information, outlook and trends set forth in this report, there can be no assurance that such information, outlooks and trends will continue or that such information will remain accurate based on current and future market conditions. Statements contained herein (including those relating to current and future market conditions, trends and expected financial performance of the portfolio companies described herein) that are not historical facts are based on current expectations, estimates, projections, opinions and/or beliefs of Stonepeak. Such statements are subject to a number of assumptions and involve known and unknown risks, uncertainties and other factors, and should not be relied upon. Unless otherwise noted, the information provided herein is based on matters as they exist as of the date of the preparation of this report and not of any future date.

Further information regarding the assumptions underlying such statements is available from Stonepeak upon request. Investment highlights reflect Stonepeak's subjective judgment of the primary features that may make investment in the relevant sector attractive. They do not represent an exclusive list of features and are inherently based on Stonepeak's opinion and belief based on its own analysis of selected market and economic data and its experience generally. Qualitative statements regarding regulatory, market, and economic environments and opportunities are based on Stonepeak's opinion, belief, and judgment.

Further details can be provided upon request. No representation or warranty is made as to the reasonableness of the assumptions made or that all assumptions used have been stated or fully considered. Actual performance may differ substantially from the forecasted performance presented. Changes in the assumptions may have a material impact on the forecasted performance presented. The data presented represents the assumptions and estimates of Stonepeak and is believed by Stonepeak to be reliable; however, Stonepeak does not guarantee or give any warranty as to the accuracy, adequacy, timeliness or completeness of such assumptions. Nothing contained herein may be relied upon as a guarantee, promise or forecast or a representation as to the future.

Certain information in this report relates to portfolio companies of the Funds and their operations and/or financial condition (including information in respect of Stonepeak's valuation of such portfolio companies). They are intended to provide insight into Stonepeak's investment strategy. They are not representative of all investments that will be made by a Fund, and it should not be assumed that a Fund will make equally successful or comparable investments. Past performance is not indicative of future results. Moreover, the actual investments to be made by a Fund will be made under different market conditions and differ from those investments presented or referenced in this report. Information relating to a Fund's portfolio companies and their operations and/or financial condition is commercially sensitive and highly-confidential. While Stonepeak believes the statements made herein with respect to current and future operating performance and financial condition of such portfolio companies are reasonable under the circumstances, there can be no guarantee of future performance of such portfolio companies, which is difficult to predict and subject to a number of uncertainties and risks (both known and unknown). There can be no assurance that the conditions upon which such Stonepeak's assumptions are based will materialize. Prospective investors acknowledge that the valuations and other information set forth herein relating to portfolio companies and their operations are, unless historical facts, preliminary estimates based on current information available to Stonepeak and its beliefs regarding their valuation and performance.

Certain information contained in this report (including certain forward-looking statements and information) has been obtained from sources other than Stonepeak. In addition, certain information contained herein may have been obtained from companies in which investments have been made by Stonepeak. Although such sources are believed to be reliable, none of Stonepeak, any Fund, or any of their respective directors, officers, employees, partners, members, shareholders, or their affiliates, or any other person, assumes any responsibility for the accuracy or completeness of such information and each Fund is under no obligation to update or keep current such information. This report is not intended to, and does not, include all information necessary to make the statements herein not misleading.

"Operating Partners" and "Senior Advisors" are not employees or affiliates of Stonepeak and are often compensated by Stonepeak, its Funds, or its portfolio companies. The nature of the relationship varies considerably; compensation can include retainers and expense reimbursements, such as for travel. Payments to Operating Partners and Senior Advisors are not deemed paid to or received by Stonepeak and do not offset the management fee or any other fee paid to a Fund's investment advisor. From time to time, Stonepeak adds additional Operating Partners and Senior Advisors who were not acting as such, and thus were not named in offering documents, at the time of a Fund's offering.

Stonepeak