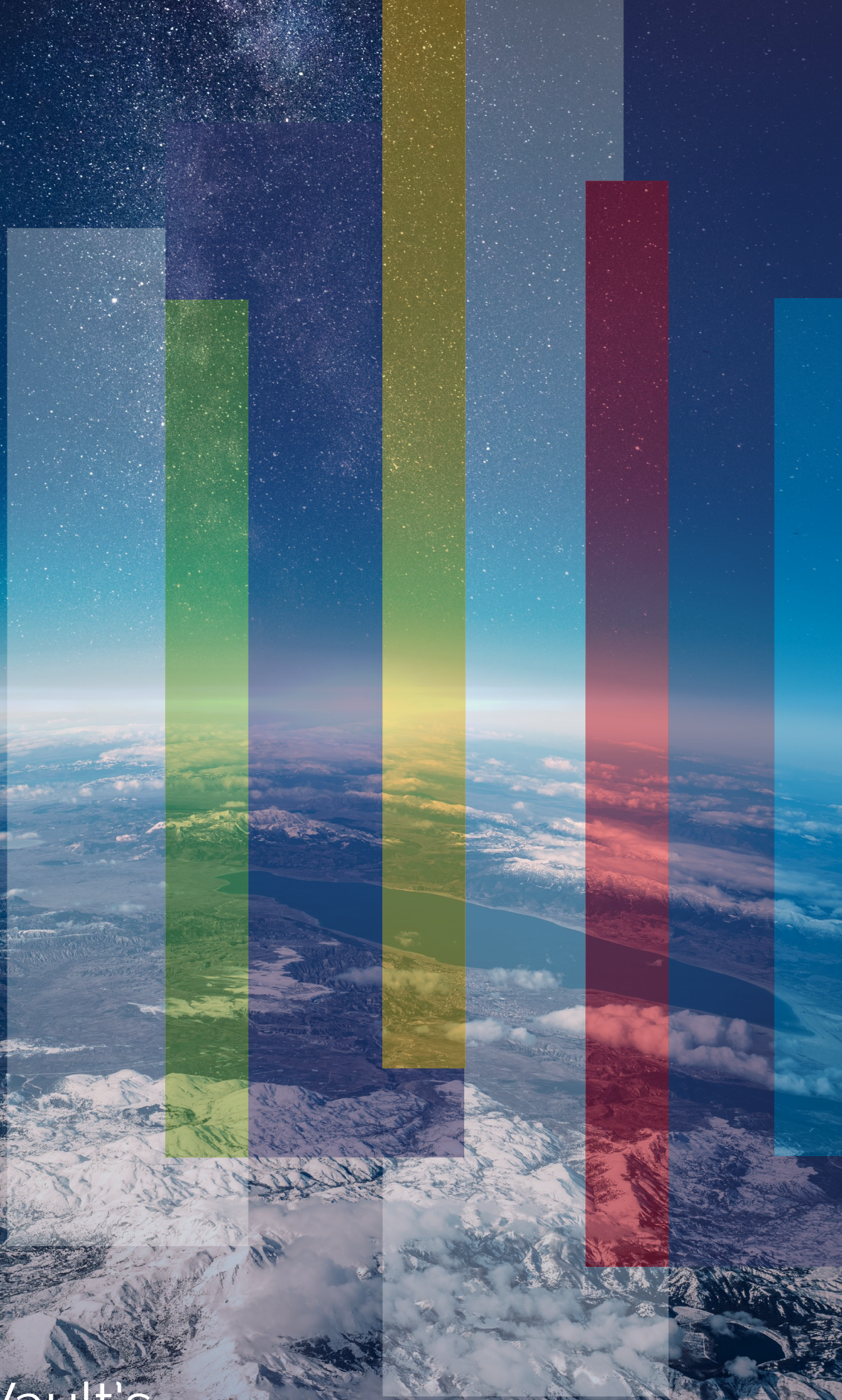




**ENERGY VAULT®**  
Enabling a Renewable World



# Energy Vault's TCFD Report

# Overview

At Energy Vault, we exist to enable a sustainably energized world. We realize the urgency that is required to transition to a low-carbon economy<sup>1</sup> to prevent the worst impacts of climate change. While our first energy storage solutions are only just going online, Energy Vault remains rooted in our sustainable values of creating a lasting positive impact on the environment and for future generations. As a next step in our journey, we have prepared this TCFD Report.

This report is intended to communicate our efforts and progress towards implementing the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Over the last year, Energy Vault made a concerted effort to better understand the potential climate-related risks that could impact our organization and how those risks change in terms of likelihood and impact under different climate scenarios. Conducting a climate scenario analysis is a relatively new and rapidly expanding area for many organizations, including Energy Vault. As a result, while we feel confident in the outcomes of our climate analysis, we also expect data, methodology, and scenarios to continuously evolve.

As we continue to develop our sustainability strategy and business operations, we look for opportunities to further integrate sustainability into our day-to-day decision-making. We understand that our energy storage solutions are our best opportunity to support the transition to a low-carbon economy and are committed to continuing product innovation and technology development to support this transition.

## The Task Force on Climate-related Financial Disclosures (TCFD) Recommendations

The TCFD recommendations, published in 2017, are designed to help organizations publish consistent and comparable climate-related risks and opportunities for both internal and external stakeholders. The TCFD is made up of four pillars:

- I. Governance
- II. Strategy
- III. Risk Management
- IV. Metrics and Targets

Each of these pillars contains its own set of recommendations to support effective and transparent disclosure. The TCFD framework, ultimately, looks to help businesses assess, manage, and improve the risks and opportunities related to climate change. This includes how organizations execute strategy, how their risk management process identifies potential challenges, and how organizations govern their operations to both mitigate and adapt to risks identified while using metrics and targets to track progress.

With the publication of the IFRS Sustainability Disclosure Standards by the International Sustainability Standards Board (ISSB), companies applying IFRS S1 and IFRS S2 will meet the TCFD recommendations and do not need to apply TCFD recommendations additionally. This change is meant to streamline the numerous sustainability-related financial disclosure standards into a global disclosure. The IFRS Sustainability Disclosure Standards are separated into two parts. The IFRS S1 provides disclosure requirements meant to enable companies to communicate better with their investors about specific sustainability-related risks and opportunities over the company's defined short-, medium-, and long-terms. The IFRS S2 relays specific climate-related disclosures and is designed to be used in tandem with IFRS S1.

<sup>1</sup> In this context, and throughout this report, low-carbon economy is an economy based on energy sources that produce low levels of greenhouse gas (GHG) emissions. Similarly, 'carbon' refers to carbon dioxide, a GHG, which is a major contributor to climate change.

Based on the guidance provided by IFRS, we plan to identify the gaps between the disclosure requirements of the TCFD recommendations and the two IFRS standards to determine whether additional disclosures are warranted.

We have provided information, to the best of our ability, on all four pillars of the TCFD based on our current efforts. As the landscape surrounding sustainability continues to evolve, Energy Vault will update our reports and processes annually.

## Governance

### Board Oversight

Both the Board and the Executive Leadership Team have their own roles and responsibilities in overseeing Energy Vault's sustainability efforts, which includes Energy Vault's climate strategy. The Board, which meets quarterly, takes responsibility for providing oversight on sustainability initiatives, including climate-related issues at least annually. The Board reviews sustainability initiatives, like the TCFD report and climate scenario analysis, and provides guidance to the Sustainability Team on how to best integrate these across the company's business strategy. The Board is advised by various committees, such as the Audit Committee and Compensation Committee. In 2023, overseeing the sustainability strategy was added to the Audit Committee's responsibilities. The committee is responsible for assessing risks across the organization, including sustainability and climate-related risks. The Audit Committee also supports the Sustainability Team in evaluating and fulfilling the sustainability-related targets that have been set for the organization.

### Management Oversight

The Executive Leadership Team meets monthly to review initiatives related to Energy Vault's operations, which includes sustainability projects and climate-related initiatives. The Executive Leadership Team provides the Sustainability Team with feedback related to any new or ongoing projects on ways in which they may intersect with Energy Vault's business and operations. They also help to implement corporate and divisional key performance indicators (KPIs) that allow the implementation and success of a project to be tracked.

The Sustainability Team, sponsored by the Chief Marketing Officer, develops projects, co-creates KPI's to monitor and track, and provides functional oversight on sustainability projects and initiatives, including those related to climate, that they take both to the Executive Leadership Team and the Board for further review and approval. The Sustainability Team also works in tandem with the Product Development Team to foster strategic alignment with the goal of transitioning to a low-carbon economy.

A Sustainability Task Force was created to further enhance the sustainability-related responsibility of each department by evaluating company operations, monitoring operational, financial, and technical data, reporting progress, and embedding sustainability at the center of Energy Vault's culture. Each department has elected at least one representative for the task force that reports directly to an Executive Leadership Team member and is responsible for tracking specific KPIs related to sustainability for that department. The Executive Leadership Team then reports that information to the Board for their review. The individuals making up the task force are responsible for driving the progress of supporting goals within Energy Vault's sustainability plan, ensuring that goals and KPIs remain relevant, and collecting and monitoring data, metrics, and pertinent information related to strategic goals.

The Executive Leadership Team, Sustainability Team, and the Sustainability Task Force discuss any questions, concerns, or requests from their respective departments, and help to approve action items, deliverables, and related policies, before looking for guidance and/or approval from the Board.

# Strategy

Energy Vault was founded to be the preeminent, purpose-driven energy storage company. Our core areas of impact – Purpose, Product, and Partnership – are directly linked to our clean energy transition goals. At Energy Vault, we use Purpose with the aim to embed sustainable business management strategies across departments of our organization. For Product, the Sustainability team implements an environment-first approach aiming to execute on opportunities to improve the environmental and social impacts, and circularity capabilities, of our products. Lastly, for Partnership, we understand the importance and value of global and inclusive partners to push the transition to clean energy in the right direction, prioritizing sustainable business plans and strategies that support responsible procurement.

As an outcome of our climate scenario analysis, we are striving to tie opportunities to both adapt and mitigate our climate risks to our core impact areas.

## Climate Scenario Analysis

Climate scenarios, prepared by our consultant 3R Sustainability, allow us to explore different global warming futures, the assumptions those scenarios depend on, and the courses of action that could bring those scenarios to fruition. Climate scenarios are not predictions of what will happen, but rather projections of what can happen under various circumstances and allow us to view how different types of climate-related risks and opportunities can unfold and impact an organization.

Energy Vault's climate scenario analysis used two different sets of climate scenarios: the Shared-Socio-economic Pathways (SSPs) and the Representative Concentration Pathways (RCPs). The RCPs were explicitly designed to explore the effects of different GHG concentration trajectories through the year 2100 and were published by the Intergovernmental Panel on Climate Change (IPCC) in the Fifth Assessment Report (AR). Energy Vault used the RCPs to analyze physical risks. The SSPs offer a way to explore possible socioeconomic futures to mitigate and adapt to climate change and were published by the IPCC in the Sixth Assessment Report. SSP scenarios include aspects like population, education, energy use, and technology. The SSPs were used to assess Energy Vault's transition risks.

For both transition and physical risks, Energy Vault used a well-below 2°C scenario, a middle-of-the-road scenario that assumes some mitigation efforts, and a business-as-usual scenario that assumes no mitigation efforts<sup>2</sup>. The SSPs were used to assess Energy Vault's transition risks due to the close alignment between the inclusion of other influences on GHG emissions (e.g., population, technological advancements, etc.) and the transition risks published by the TCFD. The RCPs were used to assess Energy Vault's physical risks as a result of industry best practices.

As a first step in this climate scenario analysis, we determined timescales for short-, medium-, and long-term time horizons, that could be applied to both transition and physical risks. In the case of Energy Vault, the following thresholds were used:

- **Short-term:** 0-5 years
- **Medium-term:** 5-10 years
- **Long-term:** 10+ years

By having a timescale that looks beyond a decade, Energy Vault can better account for chronic physical risks that might not show up in a short-term analysis, like sea level rise or changes in precipitation or temperature patterns.

To determine which risks Energy Vault should assess within the climate analysis, Energy Vault leveraged the TCFD framework. In addition to the TCFD, Energy Vault also referenced the CDP Climate Questionnaire of peers.

<sup>2</sup> For more information on the specific scenario projections used in Energy Vault's climate analysis refer to the Appendix.

Typically, a pattern or trend can be witnessed within the two types of risks, transition and physical, which were assessed within this climate analysis. Transition risks are expected to have a higher likelihood (probability of an event) and a higher impact under scenarios that look to curb warming to well below 2°C and a lower likelihood and impact when compared to scenarios that maintain business-as-usual (i.e., higher warming scenarios) trajectories. Physical risks are expected to have a higher likelihood and a higher impact under scenarios that do not reduce emissions as quickly and maintain a business-as-usual trajectory.

The climate scenario analysis looked to identify:

- ✓ Energy Vault's key transition risks.
- ✓ Energy Vault's key facilities that are more likely to be notably impacted by physical risks.
- ✓ Energy Vault's opportunities to address identified climate-related risks spanning both transition and physical.

### Transition Risks

The TCFD includes four categories within transition risks: Policy and Legal, Technology, Market, and Reputation. Within each of these categories, Energy Vault assessed specific risks to the organization and determined whether the risk was applicable based on the likelihood and impact. The following table includes Energy Vault's highest-ranked transition risks based on a well-below 2°C scenario or SSP1-2.6, and how these same transition risks change under two higher warming scenarios<sup>34</sup>.

Risk	Climate Scenario Ranking			Impact to Energy Vault
	SSP1-2.6	SSP2-4.5	SSP5-8.5	
<b>Policy and Legal</b>				
Increased pricing of GHG emissions	Medium	Medium	Low	Several of the countries Energy Vault operates in have passed both carbon pricing mechanisms and reporting requirements, which will increasingly have an impact on Energy Vault
Enhanced emissions-reporting obligations	Medium	Medium	Low	It is likely that as more climate-related policies are enacted to support a reduction in emissions and a shift towards a low-carbon economy, some of the materials that Energy Vault uses in products (e.g., cement and steel) could be limited due to their environmental impact and GHG contribution. However, Energy Vault has already begun working to find sustainable alternatives to these materials, so while the likelihood of this risk might be high, the impact could be lower given the R&D already taking place to mitigate these risks.
Mandates on and regulations of existing products and services	High	High	Low	
<b>Technology</b>				
Unsuccessful investment in new technologies	Medium	Medium	Low	The most likely risk facing Energy Vault identified in terms of technology is the cost of transitioning to a lower emissions technology. This will range from Energy Vault's storage facilities and direct operations to sourcing materials. While the opportunities for these strategies are generally expected to reduce costs for Energy Vault over time, there will be an up-front financial investment that is needed. In order to maintain a lower warming scenario, Energy Vault will need to prioritize the projects that support this transition to more efficient processes, which could be risky, especially if the technology is newer and/or does not yet exist
Cost to transition to a lower emissions technology	Medium	Medium	Low	

3 These risks took the probability of the event and magnitude of impact under each of the SSP scenarios. Low, medium, and high was then assigned based on several factors including industry trends, raw material accessibility, and peer/supplier insights. The data supporting this table is from Energy Vault's climate analysis.

4 The complete list of transition risks and their associated likelihood and impact can be found in the appendix.

Risk	Climate Scenario Ranking			Impact to Energy Vault
	SSP1-2.6	SSP2-4.5	SSP5-8.5	
<b>Market</b>				
Uncertainty in market signals	High	Medium	Low	Energy markets are vulnerable to both the impacts of climate change and the strategies put in place to reduce GHG emissions. While a low-warming scenario will require more renewables or other alternative energy technologies to be brought online, it will also require infrastructure to be updated to support the use of such energy. As a result, shortages could be faced and/or downtime could be experienced as infrastructure is updated to support this increase. This could therefore increase the cost of energy, which would have a financial impact on Energy Vault. Under a higher warming scenario, infrastructure could max out on its ability to meet the energy demands from the increase in both population and energy-intensive lifestyles, also resulting in higher costs associated with consumption and unreliability.
Increased cost of raw materials	High	Medium	Low	Due to limited raw materials, some of Energy Vault's products could start to become more expensive to manufacture as well as have longer lead times. Specifically, lithium, cobalt and copper, materials used in batteries and are increasing in demand from the transition of renewables and electric vehicles, will likely become more expensive. Moreover, because the majority of the supply of these materials is located in China, any geo-political conflicts between the US and China could cause an increase in cost of these materials and could affect Energy Vault's business operations.

### Physical Risks

TCFD includes two types of physical risks: acute and chronic. Acute risks are event-driven and generally independent of one another. In this climate analysis, the acute risks we assessed included drought, flood, freeze, severe storm, tropical cyclone (hurricane), wildfire, and winter storm. Chronic risks are the result of longer-term climatic shifts. In this climate analysis, the chronic risks we assessed included sea level rise, changing temperature, changing precipitation, water stress, and air quality. The following table<sup>5</sup> shows Energy Vault's location with the highest likelihood and impact of acute physical risks as well as the most impactful chronic risks<sup>6</sup>. These values were ranked on a scale ranging from one to five and then averaged, where one is the least likely and least impactful and five is the most likely and most impactful.

Risk	Location	Ranking
Acute	Texas, USA	3.48
	Arbedo-Castione and Lugano, Switzerland	2.75
	California, USA	2.48
	Virginia, USA	2.45
	Victoria, Australia	2.25
Chronic	Texas, USA	2.95
	Victoria, Australia	2.75
	Arbedo-Castione and Lugano, Switzerland	2.3
	Virginia, USA	1.55
	California, USA	1.2

5 These risks took the average of the probability of the event and the magnitude of impact across all four RCP warming scenarios. These rankings are based on a scale of one through five and how each of these risks change under that specific warming scenario, one being the least likely and least impactful and five being the most likely and most impactful. The data supporting this table is from Energy Vault's climate analysis.

6 The complete ranking of physical risks, both acute and chronic, for each location can be found in the appendix.

Both acute and chronic physical risks look to have the largest likelihood and impact at our Texas facility under the different warming scenarios. Several of these physical risks will likely build on one another. As a result, when looked at independently, these risks may not seem as critical. However, when compounded upon one another, Energy Vault could be at risk of facility shutdowns, a decrease in product output and revenue, and increased risk to employee safety.

**Climate-related Opportunities**

The opportunities identified in this climate analysis look to either mitigate identified risks or help Energy Vault adapt to these risks. For the identified risks, covering both transition and physical, a potential opportunity was created. Several of these opportunities have already been identified in our Sustainability Plan. Where opportunities were already agreed upon internally, a status was recorded in the climate analysis of where the project currently stands. For any new opportunities identified, a connection was made with an existing project within Energy Vault that could be further enhanced to address the identified risk.

Some of the opportunities will address multiple risks that we identified. This is due to the interrelatedness of climate change and the compounding effects climate change has across risks. A large focus area for Energy Vault is already reducing energy consumption, which in turn will help reduce any risks associated with financial carbon pricing mechanisms as well as reduce our risk associated with uncertainty in market signals, specifically for energy markets. The following table highlights the various opportunities that were identified as a mitigation or adaption strategy for the climate-related risk, the status of the opportunity, and the timescale for the opportunity.

Category	Potential Risk	Energy Vault's Opportunity for Mitigation/Adaption	Status
Policy and Legal	Increased pricing of GHG emissions	Voluntarily purchase RECs and/or offsets or participate in an internal carbon pricing program for Energy Vault.	Not started
		Implement projects and new technologies to reduce GHG emissions and reduce risk if additional pricing requirements are put into place or if RECs and carbon offset costs increase.	Completed
	Enhanced emissions-reporting obligations	Create a centralized data system that allows for continual monitoring of data throughout the year. This will allow Energy Vault to respond in a timely manner to any customer requests as well as identify any trends in data on a more regular basis to help Energy Vault identify further opportunities for improvement (e.g., energy efficiency).	Completed
		Work with customers, suppliers, and investors to be able to understand the data Energy Vault needs to track in order to improve data availability and accuracy. Continue publishing an annual sustainability report to showcase Energy Vault's sustainability progress. Continue to monitor reporting requirements and understand when and whether Energy Vault is required to report.	In progress
	Exposure to litigation	Continue to track both climate-related risks and opportunities and report on emissions and metrics/targets regularly. Look at having any claims (e.g., carbon neutrality) verified by a third-party where possible.	In progress
		Conduct a deeper analysis on facilities with onsite hazardous materials and the physical risks that have been identified for that location to understand if Energy Vault has an increased chance of contamination or pollution (should a flood happen, for example).	In progress

Category	Potential Risk	Energy Vault's Opportunity for Mitigation/Adaption	Status
Technology	Substitution of existing products and services with lower emissions options	Continue to look into innovative solutions to become a market accelerator for production and innovation of green steel and concrete.	In progress
		Engage and form relationships with organizations from different geographic regions and industries to advance technological development through a variety of global partnerships.	In progress
		Invest in materials or products that allow Energy Vault to use waste as a byproduct for inputs for other products. Such as, utilizing scrap metal to use in storage solutions.	In progress
	Cost to transition to a lower emissions technology	Implement more renewable energy on site to power existing facilities and office spaces.	Not started
		Research potential carbon capture mechanisms (for end-of-life and/or fugitive emissions) that Energy Vault can either have onsite or offer to customers.	In progress
		Localize sourcing of materials to reduce scope 3 emissions associated with both upstream and downstream transportation and distribution of materials and products.	In progress
Market	Changing customer behavior	Continue to track and report GHG emissions in order to support customer or other requests.	Completed
		Continue to invest in new revenue streams and product offerings that support the transition to a low-carbon economy, like use battery solutions for energy storage systems with alternatives to lithium-ion batteries.	In progress
	Uncertainty in market signals	Implement energy efficiency projects (including onsite solar) to reduce Energy Vault's GHG emissions, which will reduce the amount of electricity needed and any volatility in pricing, through energy audits to strategically prioritize areas within Energy Vault's operations that consume more energy.	Not started
		Continue to track and report GHG emissions and reduction measures to proactively prepare for any future ESG clauses within debt agreements and other financial mechanisms.	In progress
	Increased cost of raw materials	Seek our third-party partners or solutions that can work with Energy Vault to reduce emissions.	In progress
		Determine, through LCAs, and end-of-life emissions if there is an opportunity to replace material inputs with other materials (e.g., recycled materials) to move away from virgin materials and towards a circular economy.	In progress
Reputation	Shift in consumer preferences	Continue to be a market leader in sustainability and innovative solutions to support any current and future shifts towards more sustainable options for customers to help them meet their own sustainability goals by conducting LCAs on major product lines to identify opportunities for GHG emissions reductions and to be able to showcase those reductions to customers (e.g., offering supplier-specific emission factors).	In progress
	Stigmatization of sector	Diversify suppliers and seek out suppliers who have an association with reputable standards/frameworks, such as Responsible Minerals Initiative (RMI) and Responsible Cobalt Initiative (RCI).	In progress
		Continue to share Energy Vault's sustainability story and the efforts being made through sustainability reports and other publications. Consider committing to third-party standards/frameworks that are supportive of a low-carbon economy to continue to showcase Energy Vault's commitment to reducing emissions.	In progress
	Increased stakeholder concern or negative stakeholder feedback	Integrate an annual climate risk analysis into Energy Vault's risk management process to proactively manage any potential risks. Continue to increase transparency through annual sustainability report, CDP disclosure, and EcoVadis submission.	In progress
		Given that most of Energy Vault's peers do not have GHG reduction targets, there is an opportunity to be a leader in the industry by setting targets now (such as what Energy Vault has done with SBTi) and working to achieve them while also sharing the impact they have on reducing their customers' GHG emissions.	In progress



Category	Potential Risk	Energy Vault's Opportunity for Mitigation/Adaption	Status
Acute physical	Drought	Integrate additional climate-related physical risks into ERM/risk management processes, including facility risk assessments.	Not started
	Flood		
	Freeze		
	Severe Storm	Develop a business continuity plan that is implemented across facilities in order to create resiliency in case of climate-related impacts.	
	Tropical Cyclone (Hurricane)		
	Wildfire	Work with insurers to confirm that each facility is reasonably covered in the case of natural disasters.	
	Winter Storm		
Chronic physical	Heat Stress	Build climate risks into the due diligence process for any mergers and acquisitions.	Not started
	Water Stress		
	Temperature variability	Depending on the region-specific risks identified for each facility, consider implementing adaption projects to help alleviate the impact of identified natural disasters.	
	Precipitation and/or hydrological variability		
	Sea level rise		
	Coastal erosion		

## Risk Management

Energy Vault understands that climate change is a global issue and presents numerous risks to our organization and, more broadly, to society. We continue to look for ways to improve our knowledge and analysis of climate-related risks, which includes working to integrate these risks into the broader risk management process. This will include establishing a more formalized process that engages several departments across the organization, as well as continuing to establish the role that both management and the Board maintain in reviewing identified climate-related risks and approving mitigation and adaption strategies.

To create this analysis and assess the impacts of climate change across the organization, Energy Vault leveraged several different resources and publicly available datasets to help analyze each climate-related risk that was identified.

### Transition Risks

Energy Vault went through each transition risk category, as published in the TCFD framework (Policy and Legal, Technology, Market, and Reputation), and identified specific risks based on Energy Vault's business operations and our industry.

Our risks were mapped to the following:

- Increased pricing of GHG emissions
- Enhanced emissions-reporting obligations
- Mandates on and regulation of existing products and services
- Exposure to litigation
- Substitution of existing products and services with lower emission options
- Unsuccessful investment in new technologies
- Cost to transition to lower emissions technology

- Changing customer behavior
- Uncertainty in market signals
- Increased cost of raw materials
- Shift in consumer preferences
- Stigmatization of the sector
- Increased stakeholder concern or negative stakeholder feedback

Where available, Energy Vault reviewed public CDP submissions across our industry to identify additional risks for potential consideration. Once the feedback was integrated into each risk, we used the Shared Socio-economic Pathways (SSPs) to map the different transition risks against the probability of the event and the magnitude of impact. These rankings were based on the projected outcomes of each scenario and what would likely happen to support that future. For example, under a well-below 2°C scenario (SSP1-2.6), climate policy and legislation would likely have a high probability of occurring, and the magnitude of impact would be higher to Energy Vault due to a potential financial mechanism (e.g., a carbon tax) being implemented as part of that climate policy. Additionally, these rankings took into account market trends and raw material availability based on the different warming scenarios.

## Physical Risks

### Acute Risks

Energy Vault utilized the publicly available datasets (published by NOAA and GFDRR) for acute risks. We used available data from the past 42 years that documented different acute risks per state. From there, we determined the different mean annual temperatures over the same 42-year period to calculate how many acute weather events could happen within one year. Energy Vault used a regression analysis to determine how the probability of the event changed with each RCP scenario.

The magnitude of impact was determined using the financial impacts from those same acute events identified. NOAA classifies events that caused at least one billion dollars in damages to be impactful. Similar to determining the probability of the event, an average was calculated to determine the cost per individual acute event and then applied across the different RCPs. While this isn't a direct reflection of cost for Energy Vault, it is likely that as the damage cost per acute event increases, it will also increase the impact felt by the organization. The likelihood ratings, while based on historical data, are also typically at a state or regional level, which could differ from the specific area of Energy Vault's facilities. This combination of data inputs helped create a more accurate qualitative assessment.

The acute physical risks Energy Vault assessed within the climate analysis included:

- Drought
- Flood
- Freeze
- Severe storm
- Tropical cyclone (hurricane)
- Wildfire
- Winter storm

### Chronic Risks

Chronic risks were determined based on different RCPs used in the IPCC Working Group (WG1) World Atlas and the operating locations of Energy Vault. Based on the available data from agencies such as the Environmental Protection Agency (EPA), NOAA, and several additional data sources, we determined the expected long-term impacts for each scenario. For each chronic risk, a relevant metric was utilized to determine the rate of change for each scenario.

These metrics included:

- Sea Level Rise:
  - % of total land area expected within the tidal zone
- Changing Precipitation:
  - % change in heavy precipitation
- Changing Temperature:
  - # of days with maximum temperature greater than 90°F
- Water Stress:
  - % change in Water Stress Index (based on WRI Aqueduct)
- Air Quality:
  - Change in air pollution concentration

As the impacts of climate change have become more prominent, many governments are beginning to address climate-related impacts to improve climate resiliency and reduce the impacts of chronic risks. Utilizing data on actions taken by state and local government agencies, a location-based level of preparedness was assigned to each potential risk. The combined ranking of the probability of event and magnitude of impact for chronic risks considers both the expected rate of change for each potential risk and the level of preparedness at each location. While the risk may not directly reflect the impact of chronic risks for Energy Vault, the impact will likely be influenced by the preparedness and resiliency of surrounding ecosystems, infrastructure, and policies.

### Management Approach

The Audit Committee for the Board is responsible for overseeing the management of risks associated with Energy Vault's financial reporting, accounting, and sustainability, including Energy Vault's risk assessment and risk management process. With climate-related risks identified, Energy Vault can collaborate and engage with various teams and departments throughout our company on actionable steps to mitigate or adapt to these risks.

Energy Vault is already implementing strategies to adapt to physical risks. Much of our workforce has the capability of being remote and our business operations are well integrated. If an office is shut down due to an acute climate risk, employees can work from home. If a region (larger than just our office) is impacted, those responsibilities can be shifted to employees outside of that area for the continuance of our business operations. This allows Energy Vault to reduce the negative impact and potential loss of revenue that could be realized if these types of strategies were not implemented.

By completing our first climate scenario analysis, Energy Vault plans to tie the identified risks and opportunities to our broader, company-wide sustainability goals. With the help of our newly established Sustainability Task Force, Energy Vault plans to embed sustainability across the company. Each department has selected Sustainability Champions who will lead sustainable business management practices within their department and help the employees at Energy Vault understand the required actions to mitigate and adapt to climate-related risks as well as encourage the implementation of climate-related opportunities.

## Metrics and Targets

As we work to integrate the findings from the climate scenario analysis into our broader risk management process, we will determine to what extent we should use additional metrics to measure and monitor climate-related risks across our operations.

### Greenhouse Gas (GHG) Emissions

In 2020, Energy Vault established the baseline GHG emissions inventory for scopes 1 and 2. Over the last 4 years of measuring our emissions, Energy Vault has continued to work to better understand and reduce our environmental impact. We have disclosed our GHG emissions intensity per full time employee annually in our sustainability report. In 2023, our scope 1 emissions were 68.5 MT CO<sub>2</sub>e, and our market-based scope 2 emissions were 89.1 MT CO<sub>2</sub>e.

In 2021, we started to measure our scope 3 emissions and in 2022 identified five scope 3 categories most relevant to our business operations to focus on. Of these categories, purchased goods and services (category 1) was the largest source of our scope 3 emissions. Business travel and capital goods (category 6 and 2) were the next highest categories. The Scope 3 categories we monitor may change over time as our Scope 3 emissions are expected to evolve and increase as we deliver major products. We've implemented various procedures and systems to track these changes.

While our annual emissions continue to increase with our rapidly growing company and expanding global footprint, we've focused our efforts on understanding the emissions of our product, knowing that the delivery of major energy storage systems in the coming years will become the majority of our company emissions. Specifically in the design of our products, we track the year-over-year emissions reductions resulting from design changes through our various software and models. To better understand the environmental impact of our products, we completed Life Cycle Assessments (LCAs) for all our energy storage systems. This helps us assess the resource use and quantify the impacts across all product lifecycle stages. As an outcome, we use LCA data as a benchmark and to look for opportunities to increase product efficiency and decrease environmental impact. We set internal product specific LCA targets that allow us to align our product decarbonization efforts with those of our company. These product LCA targets are a joint collaboration between our Sustainability and Engineering teams as well as key external partners. In 2023 alone, we saw 10% reduction in our G-VAULT emissions from our use of ultra-high strength materials. More on our LCA progress and product decarbonization targets can be found in our 2023 corporate sustainability report.

In 2023, Energy Vault was proud to join the global climate action effort by setting its own Science Based Targets through SBTi. Energy Vault Holdings, Inc. commits to reduce scope 1 and scope 2 GHG emissions 42% by 2030 from a 2022 base year, and to measure and reduce its scope 3 emissions. Energy Vault's near term, 1.5°C target was approved using a streamlined target validation route exclusive to small and medium-sized enterprises (SMEs).

Energy Vault has also set a net-zero goal for 2050. While not yet approved by the SBTi, we are committed to seeking validation when the SME route allows.

## Forward-Looking Strategy

Conducting our first climate analysis and integrating TCFD into our sustainability reporting for the first time has been incredibly valuable to Energy Vault. The information in this section looks to satisfy the TCFD recommendations to the best of our abilities, based on our current efforts. We have been able to gain further understanding into our risks and opportunities related to climate change and how those identified risks change under different warming scenarios. To continue the progress that has been made, Energy Vault is working on integrating the identified climate-related risks into regular review processes across the organization. This will require us to engage multiple individuals and departments on what climate-related risks are, their importance, and how climate scenarios help us understand the potential impacts.

# Appendices

## Complete Transition Risk Table:

Category	Potential Risk	Energy Vault's Specific Risk	SSP1-2.6 Below +2°C warming relative to 1850-1900 by 2100		SSP2-4.5 Approximately +2.7°C relative to 1850-1900 by 2100		SSP5-8.5 Approximately +4.4°C relative to 1850-1900 by 2100	
			Probability of Event	Magnitude of Impact	Probability of Event	Magnitude of Impact	Probability of Event	Magnitude of Impact
Policy and Legal	Increased pricing of GHG emissions	Implementation of a carbon tax or emissions/cap and trade system	High	Low	High	Low	Medium	Low
	Enhanced emissions-reporting obligations	US SEC Climate-related Disclosures	Medium	Medium	Medium	Medium	Low	Low
		Climate Corporate Accountability Act	Medium	Low	Medium	Low	Low	Low
		Australia Climate-related Financial Disclosures	High	Medium	High	Medium	Medium	Low
	Mandates on and regulation of existing products and services	Increasing regulations on materials like steel, concrete/cement, and lithium batteries	High	Medium	High	Low	Medium	Low
		Hazardous materials regulations	High	Medium	High	Medium	Medium	Low
		Green hydrogen production and transportation process regulations	Medium	Low	Medium	Low	Medium	Low
	Exposure to litigation	Increase in environmental contamination (soil, groundwater, surface water) investigations based on the potential increase of physical risks (e.g., floods)	Medium	Low	Medium	Low	Low	Low
		Greenwashing litigation – making claims without data to support such as net zero or emission reduction targets	Medium	Low	Medium	Low	Medium	Low
	Technology	Substitution of existing products and serves with lower emissions options	As Energy Vault seeks out lower-emitting alternatives to steel and concrete used, there is a risk of not having the same performance and functionality caliber as traditional steel and concrete	Low	Low	Low	Low	Low

Category	Potential Risk	Energy Vault's Specific Risk	SSP1-2.6 Below +2°C warming relative to 1850-1900 by 2100		SSP2-4.5 Approximately +2.7°C relative to 1850-1900 by 2100		SSP5-8.5 Approximately +4.4°C relative to 1850-1900 by 2100	
			Probability of Event	Magnitude of Impact	Probability of Event	Magnitude of Impact	Probability of Event	Magnitude of Impact
Technology	Unsuccessful investment in new technologies	Investing money into alternative steel/ concrete materials that do not hold the same financial value	Medium	Medium	Medium	Low	Low	Low
	Cost to transition to lower emissions technology	Replacing current facility operations and building systems with more efficient technologies that reduce energy and emissions	Medium	Medium	Medium	Medium	Low	Low
		Increased financial spend on localizing sourcing to reduce scope 3 emissions associated with upstream and downstream transportation of materials and products	Medium	Medium	Medium	Medium	Low	Low
Market	Changing customer behavior	Accelerated demand from customers for ESG or climate-related data and information	High	Medium	High	Medium	Medium	Medium
	Uncertainty in market signals	Market still heavily influenced by government demand for fossil fuels, leading to little incentives for renewable energy. If IRA credits/ incentives were to be overturned by new government or not adopted this could inhibit ability to expand operations	Medium	High	Medium	Medium	Medium	Low
		Competition around value of land in terms of energy output – there is a risk of increased preference for solar or wind farms and not energy storage systems since you receive a direct energy output from solar and wind, whereas gravitational energy needs an energy source to provide the initial power	Low	Medium	Low	Medium	Low	Low

Category	Potential Risk	Energy Vault's Specific Risk	SSP1-2.6 Below +2°C warming relative to 1850-1900 by 2100		SSP2-4.5 Approximately +2.7°C relative to 1850-1900 by 2100		SSP5-8.5 Approximately +4.4°C relative to 1850-1900 by 2100	
			Probability of Event	Magnitude of Impact	Probability of Event	Magnitude of Impact	Probability of Event	Magnitude of Impact
Market	Uncertainty in market signals	Geo-political conflicts between China and the US could cause increase in cost of materials (lithium, cobalt, copper) and/ or change the supply availability	High	Medium	High	Medium	Medium	Low
		Not being able to obtain "green" steel and concrete materials due to an increase in demand	Medium	Medium	Medium	Medium	Low	Low
		Inability to source domestically or reach certain requirements to qualify for IRS incentives, it could increase cost of operations	Medium	Medium	Medium	Medium	Low	Low
		Increased cost of carbon offsets and renewable energy credits to cover Energy Vault's own operations as there is a continued increase in demand from organizations looking to meet sustainability targets	Medium	Medium	Medium	Medium	Medium	Low
		Abrupt and unexpected shifts in energy costs, potentially increasing operational costs	Medium	Low	Medium	Low	Medium	Medium
	Increased cost of raw materials	High	Medium	Medium	Medium	Medium	Low	
	Reputation	Shift in consumer preferences	Market demand for Energy Vault's products becomes too high to maintain production and inventory which may cause customers to go to competitors	Medium	Medium	Medium	Medium	Low
Risk of increased negative concern due to peers having negative sustainability related news			Medium	Medium	Medium	Medium	Low	Low



Category	Potential Risk	Energy Vault's Specific Risk	SSP1-2.6 Below +2°C warming relative to 1850-1900 by 2100		SSP2-4.5 Approximately +2.7°C relative to 1850-1900 by 2100		SSP5-8.5 Approximately +4.4°C relative to 1850-1900 by 2100	
			Probability of Event	Magnitude of Impact	Probability of Event	Magnitude of Impact	Probability of Event	Magnitude of Impact
Reputation	Shift in consumer preferences	Peers/competitors being more transparent about sustainability efforts and transition to a low carbon economy and/or can offer products with lower emissions	Low	Low	Low	Low	Low	Low
	Stigmatization of sector	Not being able to guarantee that Energy Vault clients are using a clean energy source to power their storage system	Low	Medium	Low	Medium	Low	Low
	Increased stakeholder concern or negative stakeholder feedback	Not disclosing plan for contributing to a decarbonized future and communicating risks and opportunities relating to climate change	Low	Low	Low	Low	Low	Low
		Not being transparent on the success of energy storage systems work and projected/anticipated growth	Low	Medium	Low	Low	Low	Low
		Not being able to keep pace with peers/competitors in terms of disclosing and mitigating environmental impact	Low	Low	Low	Low	Low	Low
		Not being able to provide life cycle emissions for the battery storage technology	Low	Low	Low	Low	Low	Low

Complete Acute Physical Climate Risk Table:

Location	Physical Risks	Scenario							
		RCP2.6 Below +2°C warming relative to 1850-1900 by 2100		RCP4.5 Approximately +2.7°C relative to 1850-1900 by 2100		RCP6.0 Approximately +3.4°C relative to 1850-1900 by 2100		RCP8.5 Approximately +4.4°C relative to 1850-1900 by 2100	
		Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact
California	Drought	4	5	5	5	5	5	5	5
	Flood	3	4	3	4	3	4	3	4
	Freeze	1	1	1	1	1	1	1	1
	Severe Storm	1	1	1	1	1	1	1	1
	Tropical Cyclone	1	1	1	1	1	1	1	1
	Wildfire	5	5	5	5	5	5	5	5
	Winter Storm	1	1	1	1	1	1	1	1
Texas	Drought	4	5	5	5	5	5	5	5
	Flood	5	5	5	5	5	5	5	5
	Freeze	1	1	1	1	1	1	1	1
	Severe Storm	5	5	5	5	5	5	5	5
	Tropical Cyclone	2	4	2	4	2	4	2	4
	Wildfire	3	4	3	4	3	4	3	4
	Winter Storm	2	2	2	2	2	2	2	2
Virginia	Drought	2	3	2	3	3	3	3	3
	Flood	2	2	2	2	2	2	2	2
	Freeze	3	1	3	1	3	1	3	2
	Severe Storm	3	2	3	2	3	3	3	3
	Tropical Cyclone	4	3	4	3	4	3	4	3
	Wildfire	1	1	1	1	1	1	1	1
	Winter Storm	3	3	3	3	3	3	3	3
Arbedo-Castione and Lugano, Switzerland	Drought	2	3	3	3	4	4	5	4
	Flood	3	3	3	3	4	3	5	4
	Freeze	4	3	3	3	2	1	1	1
	Severe Storm	3	3	3	3	4	4	5	4
	Tropical Cyclone	1	1	1	1	1	1	1	1
	Wildfire	2	3	2	3	3	4	3	4
	Winter Storm	4	2	4	2	3	1	2	1

Location	Physical Risks	Scenario							
		RCP2.6 Below +2°C warming relative to 1850-1900 by 2100		RCP4.5 Approximately +2.7°C relative to 1850-1900 by 2100		RCP6.0 Approximately +3.4°C relative to 1850-1900 by 2100		RCP8.5 Approximately +4.4°C relative to 1850-1900 by 2100	
		Probability	Impact	Probability	Impact	Probability	Impact	Probability	Impact
Victoria, Australia	Drought	3	1	3	2	3	3	4	3
	Flood	2	2	3	2	3	3	4	3
	Freeze	1	1	1	1	1	1	1	1
	Severe Storm	3	3	3	3	4	3	4	4
	Tropical Cyclone	1	1	1	1	2	1	2	1
	Wildfire	3	3	4	3	4	3	5	4
	Winter Storm	1	1	1	1	1	1	1	1

**Complete Chronic Physical Climate Risk Table:**

Location	Chronic Physical Risks	Scenario			
		Likelihood/Impact			
		RCP2.6	RCP4.5	RCP6.0	RCP8.5
California	Sea Level Rise	1	1	1	1
	Changing Precipitation	1	1	1	1
	Changing Temperature	1	1	1	1
	Water Stress	1	1	1	1
	Air Quality	1	2	2	3
Texas	Sea Level Rise	2	2	2	2
	Changing Precipitation	2	3	3	4
	Changing Temperature	4	4	5	5
	Water Stress	3	3	4	5
	Air Quality	1	1	2	2
Virginia	Sea Level Rise	2	3	3	3
	Changing Precipitation	1	1	2	2
	Changing Temperature	1	1	1	2
	Water Stress	1	1	1	1
	Air Quality	1	1	1	2

Location	Chronic Physical Risks	Scenario			
		Likelihood/Impact			
		RCP2.6	RCP4.5	RCP6.0	RCP8.5
Arbedo-Castione and Lugano, Switzerland	Sea Level Rise	1	1	1	1
	Changing Precipitation	2	3	3	4
	Changing Temperature	2	3	4	5
	Water Stress	1	1	2	2
	Air Quality	1	2	3	4
Victoria, Australia	Sea Level Rise	3	4	4	5
	Changing Precipitation	1	2	2	3
	Changing Temperature	2	2	3	4
	Water Stress	3	3	3	4
	Air Quality	1	2	2	2

**Climate Scenarios:**

Shared Socio-economic Pathways (SSPs)	
SSP1-2.6	Assume temperatures stay below 2°C warming relative to 1850-1900 with implied net-zero CO2 emissions in the second half of the century.
SSP2-4.5	Assumes CO2 emissions remain around current levels until the middle of the century. Current social, economic, and technological trends continue; global and national institutions make slow progress toward achieving sustainable development goals
SSP5-8.5	Assumes a high-warming scenario with no additional climate policy. CO2 emissions roughly double from current levels by 2050. There is an emphasis on economic growth and technological progress through the use of fossil fuels. Global adoption of resource and energy intensive lifestyles with a lack of environmental awareness and/or progress.
Representative Concentration Pathways (RCPs)	
RCP2.6	This is in line with the Paris Agreement's stated 2°C limit, aiming for 1.5°C. This RCP is consistent with an ambitious reduction of GHG emissions, which would peak around 2020, then decline on a linear path and become net negative before 2100.
RCP4.5	This is an intermediate-emissions scenario, consistent with a future with relatively ambitious emissions reductions and GHG emissions increasing slightly before starting to decline (before 2040). Despite such relatively ambitious emissions reduction actions, RCP4.5 falls short of the 2°C limit agreed on in the Paris Agreement. It is aligned broadly with the GHG emissions profile that would result from implementation of the 2015 Nationally Determined Contributions (NDCs) out to 2030, followed rapidly by peaking and then reducing global emissions by 2080.
RCP6.0	This is a high-to-intermediate emissions scenario where GHG emissions peak around 2060 and then decline through the rest of the century.
RCP8.5	This is a high-emissions scenario, consistent with a future with no policy changes to reduce emissions, and characterized by increasing GHG emissions that lead to high atmospheric GHG concentrations. It is aligned broadly with a Current Policies or Business-As-Usual scenario.

## Glossary:

<b>Intergovernmental Panel on Climate Change (IPCC)</b>	The IPCC is an intergovernmental body of the United Nations responsible for advancing knowledge on human-induced climate change. The IPCC provides regular assessments on the specific basis of climate change, its impacts and future risks, and options for adaptation and mitigation.
<b>Magnitude of Impact</b>	The level of significance an impact has on an organization at the corporate level. This could include operational, financial, or strategic effects that undermine the entire business or part of the business.
<b>Nationally Determined Contributions (NDCs)</b>	NDCs are at the heart of the Paris Agreement and the achievement of long-term goals. NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change. The Paris Agreement requires each Party to the Agreement to prepare, communicate, and maintain successive NDCs that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.
<b>Physical Risks</b>	Physical risks from climate change stem from periodic event-driven natural disasters (acute) as well as chronic, long-term changes to climate patterns. These risks can lead to reduced resilience and significant financial loss.
<b>Probability of event</b>	The likelihood or chance of an event occurring.
<b>Representative Concentration Pathways (RCP)</b>	A Representative Concentration Pathway (RCP) is a greenhouse gas concentration trajectory adopted by the IPCC. Four pathways were used for climate modeling and research for the IPCC Fifth Assessment Report in 2014.
<b>Shared Socio-economic Pathways (SSP)</b>	Shared Socio-economic Pathways (SSPs) are scenarios of projected socio-economic global changes up to 2100. They are used to derive greenhouse gas emissions scenarios with different climate policies. The SSPs were used in the IPCC Sixth Assessment Report on climate change, published in 2021. The difference between SSPs and RCPs, is that SSPs set the stage on which reductions in emissions will, or will not, be achieved based on several factors, including climate policies, socio-economic development, technology, etc.
<b>Task Force on Climate-related Financial Disclosures (TCFD)</b>	The Financial Stability Board (FSB) created the TCFD to develop recommendations on the types of information that companies should disclose to support investors, leaders, and insurance underwriters in appropriately assessing and pricing a specific set of risks related to climate change.
<b>Transition Risks</b>	Transition risks are business-related risks that follow societal and economic shifts towards a low-carbon and more climate-friendly future. These risks can include policy and regulatory risks, technology risks, market risks, and reputational risks.

## Important Notes About This Report

This report contains forward-looking statements within the meaning of the federal securities laws. All statements other than statements of historical facts contained in this report, including statements regarding our future results of operations or financial condition, business strategy and plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties, and other important factors that are in some cases beyond our control and may cause our actual results, performance, or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements. In some cases, you can identify forward-looking statements because they contain words such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will” or “would” or the negative of these words or other similar terms or expressions.

You should not rely on forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this report primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and operating results. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors described in the Risk Factors and elsewhere in our Annual Report on Form 10-K and subsequent filings. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this report. The results, events and circumstances reflected in the forward-looking statements may not be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements.

Additionally, our discussions of ESG assessments, goals and relevant issues herein or in other locations, including elsewhere on our corporate website, are informed by various ESG standards and frameworks (including standards for the measurement of underlying data), and the interests of various stakeholders. References to “materiality” in the context of such discussions and any related assessment of ESG “materiality” may differ from the definition of “materiality” under the federal securities laws for SEC reporting purposes. Moreover, given the uncertainties, estimates, and assumptions required to make some of the disclosures in this report, and the timelines involved, materiality is inherently difficult to assess far in advance. Certain statements herein are also based on hypothetical scenarios and various projections which rely on a range of possible factors that may not occur or may differ significantly from actual events, and as such should not necessarily be viewed as being representative of current or actual risk or forecasts of expected risks. Furthermore, much of this information is subject to assumptions, estimates or third-party information that is still evolving and subject to change. For example, we note that standards and expectations regarding GHG accounting and the processes for measuring and counting GHG emissions and GHG emissions reductions are evolving, and it is possible that our approaches both to measuring our emissions and any reductions may be at some point, either currently or in future, considered not in keeping with best practices. We also reference various standards for our disclosures; however, while we aim to align with certain standards, we cannot guarantee, and any language of “alignment” or similar should not be interpreted to mean, strict adherence to these standards. In addition, our disclosures based on any standards may change due to revisions in framework requirements, availability or quality of information, changes in our business or applicable government policies, or other factors, some of which may be beyond our control.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based on information available to us as of the date of this report. While we believe that information provides a reasonable basis for these statements, that information may be limited or incomplete. Our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely on these statements.

As a final note, website and document references in this report are provided for convenience and are expressly not incorporated by reference into this report.