



ENERGY VAULT[®]
Enabling a Renewable World

Sustainability Report 2022

START ▶

Contents

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

- Climate Change
- Energy Trilemma
- Clean Energy Transition
- Energy Market
- Energy Storage Mix
- Market Accelerators
- Positive Externalities

SOLUTIONS

- Long Duration Storage
- Short Duration Storage
- Ultra-Long Duration Storage
- Software Solutions

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

- ESG Philosophy & Roadmap
- Sustainability Department
- Structure & Initiatives
- Sustainability Task Force

APPROACH & ACTIONS

- SDG Alignment
- Standards & Initiatives
- Sustainability Tools
- Materiality Assessment
- Research & Development
- Life Cycle Assessment
- Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

- Data Collection & Reporting
- GHG Emissions
- Energy Consumption
- Waste & Water Management

SOCIAL

- People & Culture
- Workforce
- Health & Safety

GOVERNANCE

- Executive Leadership
- Board of Directors
- Strategic Advisory Board
- Policies & Commitments

CONCLUSION | Looking forward

APPENDIX | GRI Content Index

Company Introduction

Our Company

Energy Vault develops utility-scale energy storage solutions designed to aid in the global transition to a clean energy future. Our company's comprehensive offerings include proprietary gravity, battery, and green hydrogen energy storage solutions, supported by Energy Vault hardware technology-agnostic energy management and integration software. We incorporate a customer-centric, solutions-based approach toward helping utilities, independent power producers, and large industrial energy users significantly reduce energy costs while maintaining power reliability.

As we transition to an economy powered by intermittent renewable energy, the ability to provide clean and affordable electricity to a growing global population will depend heavily on the ability to store and distribute energy at the right time. At Energy Vault, we envision a planet where science and deep respect for our natural resources inspire technological advancements in energy storage and the solutions needed to deliver clean, sustainable, and affordable energy.

2022 Global Presence



- ◆ Energy Vault Entities
- ◆ Energy Vault R&D

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

CEO Message

At Energy Vault, we exist to enable a sustainably energized world.

When we started Energy Vault, our co-founders set out to create the preeminent, purpose-driven energy storage company with sustainability embedded into the core of our business and product design. Our sustainability directive is to enable a renewable world through the implementation of sustainable business practices that will ultimately yield a net-positive impact on the environment.

Climate change is the greatest and most urgent challenge facing the world today. Our mission is to provide energy solutions to accelerate the transition to renewable energy. The growth of renewable energy sources has brought about new challenges, such as intermittency and variability, which can disrupt the stability of the power grid. Energy storage solutions, such as those offered by Energy Vault, are critical in addressing these challenges by enabling the grid to balance supply and demand and ensure a reliable and stable electricity supply.

At Energy Vault, we understand that our success is directly tied to our ability to listen and respond to evolving market demands and growing customer needs for sustainable products and responsible business solutions. It is our customer-centric mindset that sets us apart from the competition and enables us to drive innovation and deliver exceptional value to our clients.

Energy Vault is strategically focused on supporting renewable technology development in regions with the highest human-caused emissions. Increasing global demand for renewable energy technology combined with significant volatility in fossil fuel prices is driving demand for innovative storage technologies that will support the clean energy transition. We are meeting this demand head on in a challenging environment, through COVID shutdowns, building the world's first commercial EVx™ gravity-based

energy storage system in China, supporting their 30/60 goal. We are developing innovative gravity, battery, and hybrid green hydrogen energy storage projects in established and emerging markets alike.

As the market demand for energy storage continues to grow, we remain agile and responsive to the needs of our customers. Our team has worked tirelessly to develop cutting-edge technologies to provide our customers with the flexibility and customization they require through both hardware and software innovation.

We envision a future where nature and humankind coexist in harmony. We execute on our vision by delivering unique and comprehensive offerings of energy storage technologies designed to advance the industry in sustainable design and production. We enforce our vision by adopting a circular economy approach throughout the manufacturing, operations, and end of life of our technologies across our entire portfolio of short, long and ultra-long duration storage solutions.

I am very proud to release our inaugural Sustainability Report in our first year as a public company. 2022 was transformational as we formalized our Sustainability Team and integrated our ESG Philosophy, strategy, and reporting structure into our business operations. Our commitment to sustainability is reflected in our innovations, our transparency in disclosures, and our partnerships. We understand our current environmental impacts will have lasting effects that ripple through the fabric of life and time.

Our sustainability strategy incorporates awareness and alignment with the globally recognized United Nations Sustainable Development Goals in our pursuit to advance clean and affordable energy for all. We aligned our sustainability reporting with the Global Reporting Initiative (GRI) standards and created a framework for achievement including strategic alignment with governing standards.

In 2022, Energy Vault became certified through the International Organization for Standardization for our quality management systems (9001) and our environmental management systems (14001). In 2023, we are focused on evaluating and creating disclosures for the purpose of alignment with the Task Force on Climate-related Financial Disclosures (TCFD). In 2024, we are committed to alignment with the Science Based Targets initiative (SBTi).

We are champions of sustainable energy with a shared passion to combat climate change. We are working to pioneer a faster journey towards solving the demanding requirements of a clean energy future. Our expanded team has helped us to offer better support and services to our customers, partners, and stakeholders around the world. We are grateful to our employees and shareholders for their unwavering support and commitment to Energy Vault. Your trust in our vision and dedication to building a sustainable future for all is what drives us forward every day.

We are proud of the progress we have made so far, and we know there is still much more work to be done. With our sustainable business design focus and the support of our shareholders, we are confident that we can continue to push the boundaries of what is possible in the energy storage industry and help build a more sustainable future for generations to come.




Rob Piconi
Chairman, Co-Founder
and CEO, Energy Vault

In The Vault

Enabling A Renewable World™

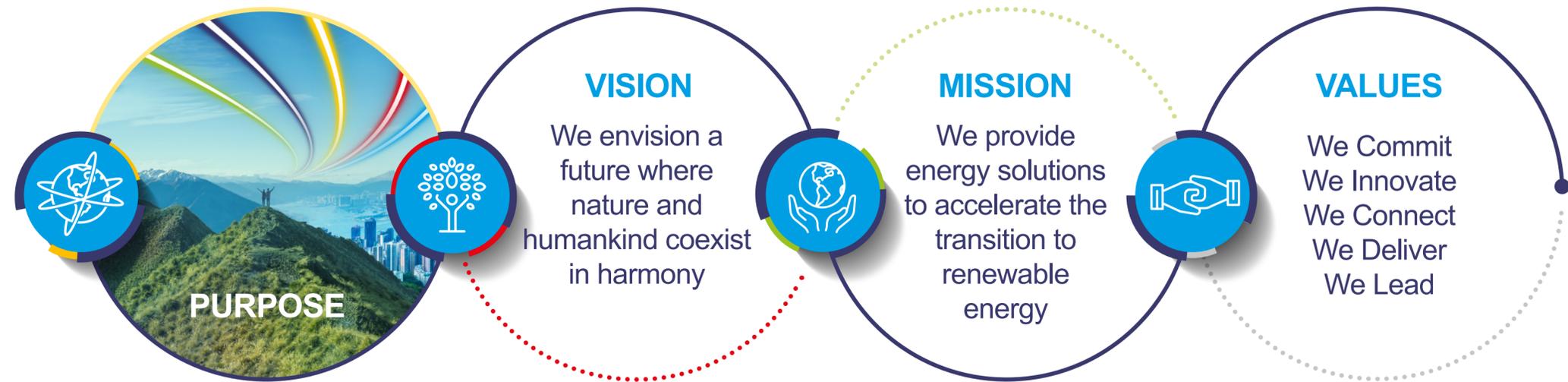
We are a team of energy industry experts and passionate sustainability professionals working to pioneer a faster journey to the decarbonization of our planet by delivering valuable, grid-scale energy storage solutions designed to reduce the cost to dispatch abundant clean energy and efficiently solve the demanding requirements of a clean energy future. As a newly public company, Energy Vault recognizes 2022 as our benchmarking year for Corporate Sustainability Reporting and is committed to providing transparency to internal evaluations of our rapidly growing company, our product solutions, and our business operations. This report is designed to provide visibility and accountability to this early-stage data as we work to develop the sustainability infrastructure, systems, protocols, and metrics from which our organization will measure future success.

Our Purpose

At the core of our existence, lies the sense of urgency to meet the energy demands of the present, while enabling prosperity for future generations. We are driven by our respect and commitment for the balanced well-being of the three sustainability pillars: environment, society and the economy. Our commitment is to continuously develop cutting edge energy storage solutions, powered by renewable resources.

We exist to enable a sustainably energized world.

We strive to create a world powered by renewable resources.



Climate Change

Global Warming

Climate change poses an existential threat to humanity. Decreasing human generated greenhouse gas (GHG) emissions is among the world's most pressing challenges today. Since the industrial revolution, human activities have been the main driver of climate change; the long-term shift in global temperatures and weather patterns. Global warming results from increased planetary greenhouse gas concentrations that cause additional heat to be trapped within the earth's atmosphere, also known as the 'greenhouse effect'. There is ample physical evidence that shows carbon dioxide (CO₂) is the single most climate-relevant greenhouse gas in the Earth's atmosphere.¹

The Energy Trilemma

The Energy industry accounts for 73.2% of annual global carbon emissions. Burning fossil fuels contributes to global warming by releasing carbon dioxide (CO₂) and nitrous oxide (N₂O) greenhouse gases into the atmosphere.² The Energy Trilemma recognizes sustainability, equity, and security as the three most pressing issues facing the energy sector today.

Sustainability of Energy Production

Global Carbon Emissions

Though renewable energy is a focus of new electricity infrastructure development, 84.2% of our global primary energy mix is still made up of fossil fuel generation.³ Global emissions of CO₂ from fossil fuel generation (production of electricity, heating, transportation, and industrial activities) reached over 37 billion tons in 2021.⁴ Energy storage supports reduction of GHGs in the energy sector by increasing efficiency of existing energy generation and supporting increased renewable energy integration.

Equity of Energy Demand

Preparing for Global Population Growth

Population growth directly contributes to global energy demand and consumption. The latest United Nations projections suggest that the world's population could grow to approximately 9.7 billion in 2050.⁵ If current policy and technology trends continue, global energy consumption and energy-related CO₂ emissions due to economic and population growth are expected to increase through 2050 and beyond.⁶

Security of Energy Independence

Safeguarding the Clean Energy Future

Energy Security measures nations' capacity to meet energy demand and to withstand energy service disruption due to climate related or political events. The clean energy transition is viewed as an avenue for nations to secure both energy independence, by reducing dependencies on foreign oil from fossil fuel rich countries, and by building infrastructure to support future resilience against climate driven disasters to combat the looming challenges of climate change.



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

Climate Change

Energy Trilemma

Clean Energy Transition

Energy Market

Energy Storage Mix

Market Accelerators

Positive Externalities

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Market Overview

The Clean Energy Transition

Energy Vault was founded to aid in the clean energy transition through the development of energy storage, management, and integration technologies. Energy providers around the world have publicly stated carbon emissions reduction targets to support the clean energy transition. Key drivers of the renewable energy storage market include necessity to diminish growth of harmful CO₂ emissions by decreased reliance on fossil fuels and accelerated shift to an electrical grid powered by renewable resources.

The growth of the energy storage market that we address is primarily driven by the decreasing cost of renewable power generation sources, government mandates, financial incentives to reduce CO₂ emissions, and increasing geopolitical pressures driving energy independence goals. These dynamics are in turn driving demand for additional renewable power generation and increased capacity and storage duration in energy storage solutions.

While solar and wind power generation have become increasingly cost-competitive with fossil fuels, adoption is economically constrained by the inherent intermittency of renewable generation.⁷ The continued growth of solar and wind power generation as an economically viable alternative to fossil fuels depends on better energy storage solutions.



Solar power technologies convert sunlight into electrical energy through photovoltaic (PV) panels or through mirrors that concentrate solar radiation.



Wind power technologies turn propeller-like blades of a turbine around a rotor, which spins a generator that creates electricity.

Renewable Energy

Renewable energy presents environmental advantages over fossil fuels in terms of finite natural resource usage and carbon emission profile. Renewable energy is defined as energy created from naturally occurring sources that do not deplete or can be replenished when used. Solar and wind power generation are considered variable renewable energy (VRE) technologies because they rely on natural energy sources that are intermittent or “variable” in availability.

Balancing Variable Renewable Energy Intermittency

Variable renewable energy generation from wind and solar is dependent upon solar exposure and wind patterns, which vary greatly at any given time or location around the world. Historically VRE intermittency was managed by the flexibility of networked transmission systems and natural gas plants.⁸ In recent years, VRE generation technologies have become more advanced and more affordable, increasing the amount of VRE on the electrical grid. Energy storage is required to balance the production intermittency and the circadian cycles of the more abundant and ever increasing VRE technologies supporting our current and future clean-energy infrastructure. Energy storage, management, and integration solutions complement VRE generation technologies by storing surplus energy during periods of high generation then distributing stored energy to meet demand requirements.



Market Overview

Clean Energy and Energy Storage Demand

Clean energy demand is growing rapidly, with renewable energy expected to supply nearly two-thirds of the world's electricity demand by 2050.⁹ Global energy storage additions are on track to grow at a 23% compound annual growth rate through 2030,¹⁰ with cumulative storage deployments expected to reach 500 gigawatts (GW) by 2031.¹¹ Since 2009, the estimated global levelized cost of electricity (LCOE) has steadily declined, with a slight rise in recent years attributed to increases in the cost of materials, freight, fuel and labor.

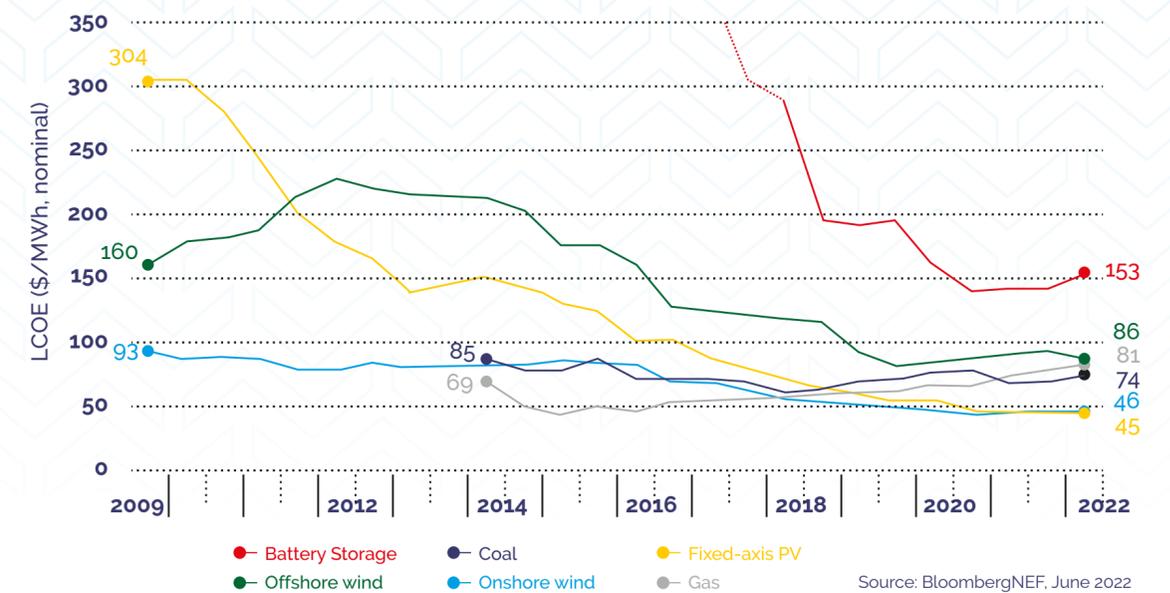
Managing Aging Infrastructure to Meet Increasing Global Demand

Transmission systems are aging and simultaneously facing increasing demand due to electrification of major sectors such as building, industrial, and transportation. Upgraded transmission systems are needed to support development of additional renewable energy generation to support the capacity of our growing energy demand. Over the next decade, renewable developers face hurdles in establishing interconnection agreements that require costly upgrades to aging transmission systems. Co-locating energy storage with renewables can act as a bridge for developers to build out the demanded generation with current infrastructure as storage can hold demanded capacity that exceeds the interconnection capability, then balance distribution of that stored energy on-demand. Energy demand fluctuations can occur quickly (in a matter of seconds), necessitating highly sophisticated, cybersecure software to manage responsive dispatch of stored energy and to provide the flexibility needed for grid operations reliability.

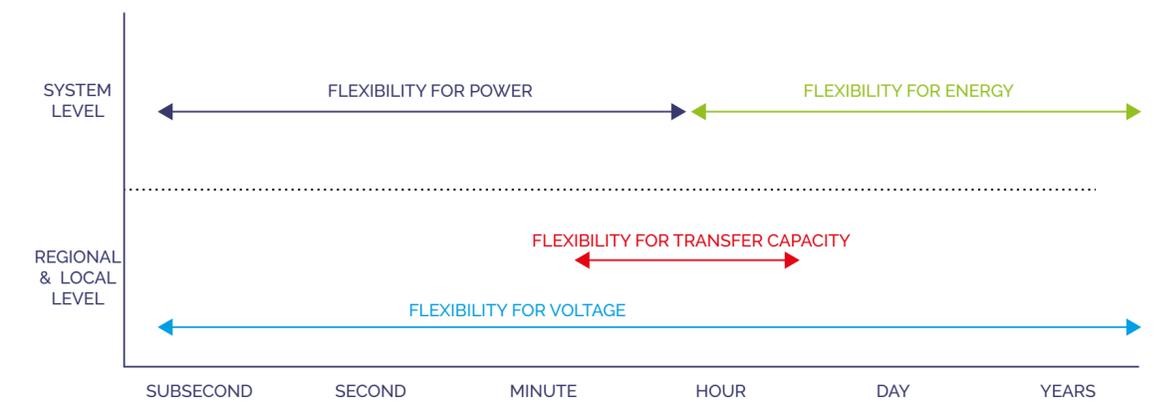
Supporting Ancillary Services & Wholesale Market Operators

In addition to storage enhancing the capacity potential for renewable projects, wholesale market operators have evolved market design to discretely price the flexibility that is needed to reliably operate the grid. Revenue streams for ancillary services, such as frequency regulation and fast ramping capabilities, alongside energy shifting and capacity payments have helped create the economic case for energy storage.

Global Levelized Cost of Electricity Benchmarks



Flexibility Needs from Spatial and Temporal Perspective



Source: CIGRE, June 2022

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

Climate Change

Energy Trilemma

Clean Energy Transition

Energy Market

Energy Storage Mix

Market Accelerators

Positive Externalities

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Energy Storage Technology Market Mix

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

Climate Change

Energy Trilemma

Clean Energy Transition

Energy Market

Energy Storage Mix

Market Accelerators

Positive Externalities

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX



Energy storage technologies are needed to support the clean energy transition for both grid-scale long duration energy storage and localized shorter duration energy storage applications. The current mix of energy storage solutions on the market today include mechanical, electrochemical, chemical, and thermal technologies.

The most common form of energy storage, **Pumped Hydroelectric Storage (PHS)**, currently accounts for over 90% of existing global energy storage. Pumped hydroelectric storage is challenged to meet the expected market demand growth due to the limitations of required land topography and the significant environmental impact of altering the earth's naturally occurring water systems.

Other **Mechanical** energy storage systems harness the physics principles of kinetic and potential energy (motion) or gravity to store and release energy. Built upon the underlying principles of pumped hydro, Energy Vault's **gravity-based energy storage** solution uses both motion and gravity to achieve higher round-trip efficiency than **PHS**, while eliminating geographic constraints and disruptive impact to water systems.

Battery energy storage technologies store energy via an electrochemical process utilizing different battery chemistries. Battery energy storage market demand continues to grow as the leading technology for short duration applications. Energy Vault's B-VAULT™ AC solution is designed to increase up-time and to provide economic advantages in equipment/installation costs compared to traditional battery systems.

Hydrogen is the most abundant element in the universe and can be stored as a liquid or gas to support energy storage applications. Hydrogen technologies store energy through the chemical process of converting excess electricity into hydrogen via electrolysis. Green Hydrogen is produced using non-fossil-fuel feedstocks and emits zero or an insignificant amount of greenhouse gases on a lifecycle basis. Energy Vault offers proprietary hybrid energy storage solutions that integrate green hydrogen with stationary energy storage technology providing unique support for microgrid applications.

Thermal energy storage systems can store heat or cold to be used later, under varying conditions in temperature, place or power. In thermodynamics, thermal energy is the energy associated with microscopic forms of energy. Thermal energy storage converts electric energy from the grid into thermal energy that is stored via inexpensive materials and is obtained by heating and cooling the system.

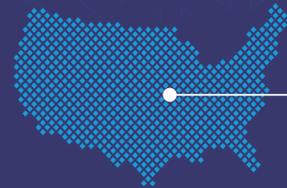
Market Accelerators

Policy Drivers | National Incentives

Government policy drivers act as market accelerators to reduce cost and increase adoption of energy storage. The resulting improved economics are expected to reduce the cost to implement storage within the domestic market and may amplify and accelerate the adoption of energy storage systems for shorter, longer, and extended duration use cases, like those offered by Energy Vault. In addition to the major initiatives listed below, many countries, regions, and corporations have also established aggressive decarbonization targets that will encourage market acceptance of energy storage technology development.

Social Drivers | Energy Independence & Security

Social unrest of conflicting nations can have a profound impact on national security as well as neighboring global energy systems. In 2022, the gas shortages tied to the Russian invasion of Ukraine resulted in high fossil fuel prices and contributed to a continental cost-of-living crisis in Europe and other dependent nations. Renewable Energy is viewed as an avenue for nations to secure energy independence, reducing dependencies on foreign oil from fossil fuel rich countries by building new clean infrastructure to support grid resilience in times of future political unrest and unforeseen climate catastrophes.



UNITED STATES: The 2021 Bipartisan Infrastructure Law (“BIL”) spurred 2022 investment in battery materials supply chains, manufacturing, and recycling. During 2022, the United States Congress passed the Inflation Reduction Act (“IRA”). The IRA provides incentives for the domestic manufacturing of key components of energy storage solutions as well as the construction of standalone energy storage projects.



EUROPEAN UNION: The Green Deal aims to reduce net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels, with a goal of reaching climate neutrality by 2050. The energy objectives include diversifying the EU’s sources of energy, including renewables to ensure energy security.



CHINA: In January of 2022, China published the 14th Five-Year Plan for New Energy Storage Development Implementation identifying energy storage as a key element of the decarbonization of the energy sector and a critical asset to support energy security. The plan calls for the development of pilot schemes and an enhancement of the involvement of the academic and research world on the issue.



AUSTRALIA: The Powering Australia Plan, passed by the Australian Government in 2022, is focused on creating jobs, cutting power bills and reducing emissions by boosting renewable energy. The Powering Australia Plan includes a commitment of \$224.3 million in funding over four years in the 2022-23 budget to deploy four hundred community battery systems across the country.

Positive Externalities

Enabling Renewable Energy Adoption

We believe energy storage is a critical factor to the expansion of the clean energy sector as we transition to variable renewable energy sources like wind and solar. A market shift into energy storage is expected to lower the cost barriers of current and developing technologies and drive continued evolution of market parameters for fully integrated renewable generation resources, regulation, permitting, and land use. The growing market of energy storage is anticipated to have positive effects on the utilization of our electrical distribution and transmission infrastructure, as well as job creation in the clean energy, construction, and manufacturing sectors.

Accelerating Green Technology Innovation

Advancement of clean energy technologies can accelerate demand for green technology innovation. This report highlights areas where Energy Vault sustainable production design can support the demand for green technology innovation. With EVx™ gravity energy storage project deployments, Energy Vault intends to push demand for early stage adoption of low carbon steel and concrete. Development of our battery end-of-life strategies can support the advancement of battery recycling techniques and processes.



Technology Solutions

Energy Vault Storage & Management Solutions

Energy Vault set out to solve one of the greatest challenges facing our planet today, how to store renewable energy in both an economical and sustainable way to end the world's reliance on fossil fuels. Our energy storage and software solutions enable utilities, independent power producers, and large energy users to manage their energy asset portfolios. We provide turnkey energy storage solutions that meet the demands of the market for shorter duration and longer duration storage needs. In addition, our hybrid systems that incorporate other energy storage mediums, such as green hydrogen, address demand for extended duration energy storage. Our agile, technology agnostic energy management system platform orchestrates management of various storage mediums and underlying generation assets to harmonize power delivery for multiple use cases.

Our energy storage solutions are designed to accommodate a wide variety of renewable power sources and to achieve an attractive levelized cost of energy relative to fossil fuels. Collectively, these abilities greatly broaden the use cases and time duration scenarios that can be addressed by certain sources of renewable power, and thereby drive a faster transition to more pervasive renewable power.



Flexible

Long-term success of any energy storage project lies in the ability to adapt to everchanging market realities, use cases, and grid conditions.

Energy Vault develops energy storage and energy management solutions with a future-proof framework, designed to support performance for decades to come.



Economical

Technology-neutral, energy system integration software helps ensure delivery of the most cost-effective energy storage options to meet the precise needs of each customer.

Energy Vault couples a proprietary energy storage portfolio with complementary technologies to reduce up-front and lifetime costs.



Sustainable

Supporting the energy transition means developing solutions that reduce disruptive impact to the environment.

Energy Vault engages stakeholders to optimize supply chain management and support the circular economy through sustainable production design and planned end-of-life solutions.



Responsible

Establishing a truly responsible business requires the daily commitment and active engagement of all employees, customers and suppliers.

At Energy Vault, we work to be good stewards of our planet and responsible partners to our stakeholders, our suppliers, and to the customers we serve around the world.

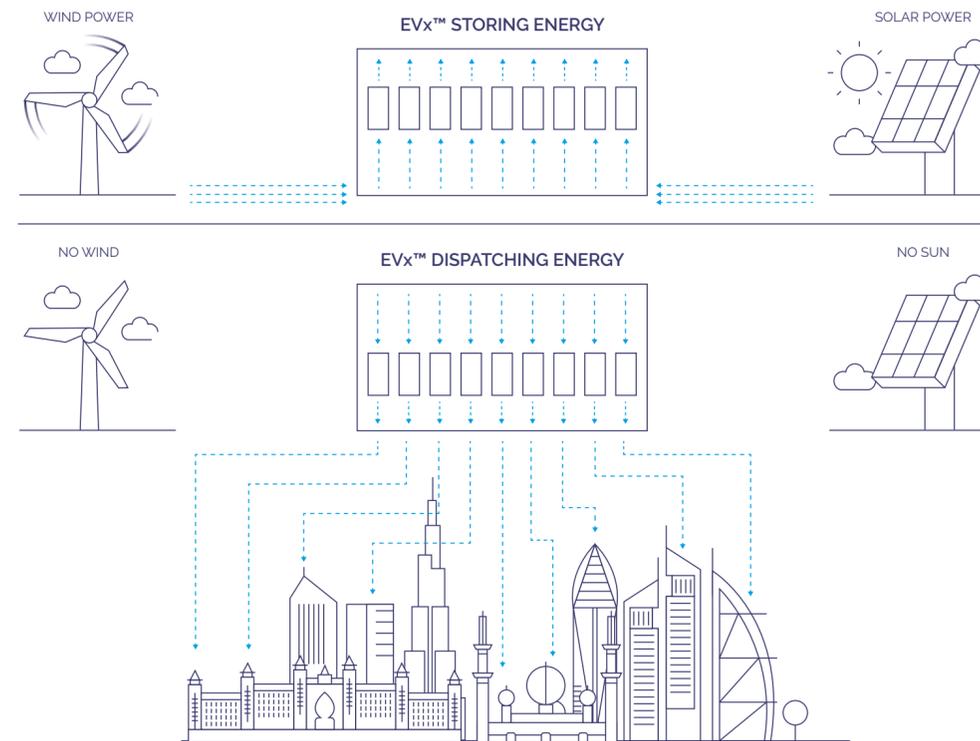
Long Duration Storage

Gravity Energy Storage System | EVx™

Energy Vault long duration energy storage solutions are based on our proprietary gravity energy technology. Ideally suited for use cases that require four or more hours of storage capacity, the EVx™ gravity energy storage technology utilizes a patented mechanical process of lifting and lowering composite blocks to store and dispatch electrical energy to support grid reliability and enable renewable energy integration.

Built upon the underlying principles of pumped hydroelectric storage (PHS), EVx™ eliminates the topographic constraints and disruptive impact of traditional PHS by replacing water with proprietary composite blocks that can be made from local soil and waste materials. The EVx™ fixed frame building incorporates a leveled flooring structure and a system of trolleys and elevators to achieve horizontal and vertical movement of heavy composite block as mobile masses.

Gravity Energy Storage | How It Works



When energy generation is higher than needed to supply grid demand, EVx™ uses surplus electricity to power the trolley and elevator system to lift heavy composite blocks from a lower-level floor to a higher-level floor of the structure.

Potential energy is stored as a factor of the elevation gain of the composite block when these mobile masses are elevated then placed in a fixed position on the higher-level floor of the EVx™ structure.

The EVx™ system is fully charged when the maximum number of composite blocks are positioned on the higher floors of the structure.

When energy generation is needed to supply grid demand, the EVx™ system releases the stored potential energy by engaging the elevator system to lower the composite blocks back down to a lower level of the structure under controlled resistance and added kinetic benefits of gravitational force.

Long Duration Storage

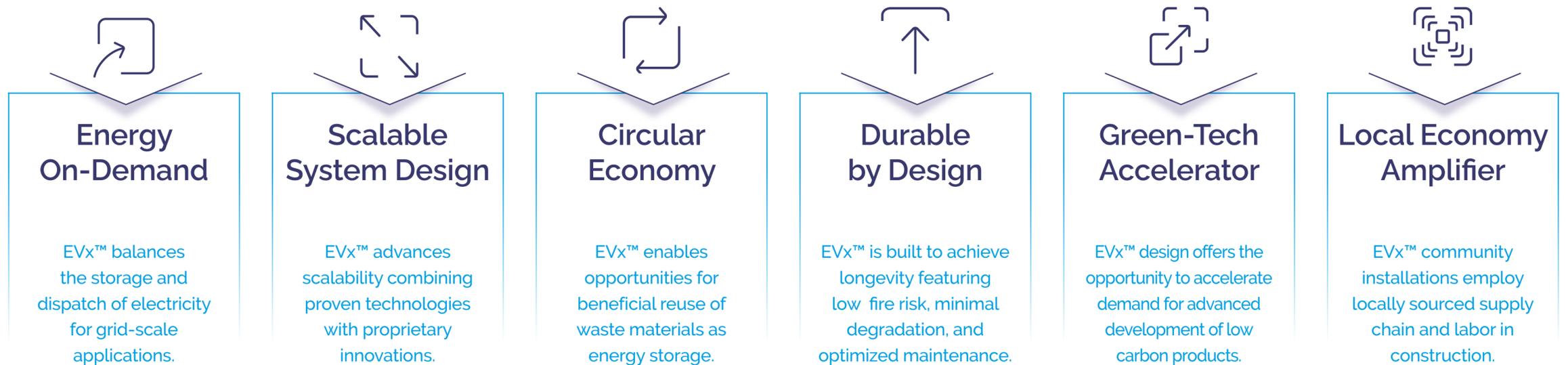
Gravity | EVx™

History of Design Development

The first-generation gravity-based energy storage solution developed by Energy Vault was a six-arm crane tower design. In July 2020, Energy Vault completed mechanical construction of the first-of-its-kind, commercial demonstration unit located in Arbedo-Castione, Switzerland. The system was connected to the Swiss national electricity grid and was utilized for testing and software improvements until it was decommissioned in September 2022. Following the successful commercial scale deployment of the Commercial Demonstration Unit, Energy Vault announced the launch of the optimized EVx™ gravity energy storage design. EVx™ platform is designed to be a scalable

modular product line ranging from multi-MWh to multi-GWh to address grid resiliency needs in shorter durations while supporting longer duration and power needs in the event of power outages or powering industrial processes over long periods. While developing the EVx™ platform, Energy Vault worked with several of the largest utilities and energy companies in the world to optimize the gravity energy storage system for improved flexibility and to address potential customers' evolving needs for storage duration and operational characteristics. The construction and operation of the EVx™ platform uniquely offers a highly attractive opportunity for significant local, regional, and domestic economic participation, primarily in the form of labor and materials.

Environmental & Economic Value



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

Long Duration Storage

Short Duration Storage

Ultra-Long Duration Storage

Software Solutions

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Long Duration Storage

Gravity | EVx™

Product End-of-Life Strategy

Energy Vault continually evaluates products using Life Cycle Assessments under the ISO 14040 criteria to evaluate and improve environmental impacts. Nearly 100% of EVx™ components are made from materials that are either reusable, recyclable or available for energy recovery. End-of-life for each component will be evaluated against a waste management hierarchy (reduce, extend life, recycle, energy recovery, disposal) during the procurement phase. Environmentally, our goal is to divert 100% of EVx™ end-of-life material from landfill and prioritize reuse and recycling. Recycled material has significantly lower GHG emissions compared to virgin material and its associated GHG emissions from extraction and manufacturing.

Steel is 100% reusable or recyclable with potential for financial gain attributed to the sale of the material commodity.

Composite block material can be returned to the ground, used to produce replacement bricks, or sold as base material for new concrete and granular fill.

Motors and other electromechanical equipment have existing recycling chains that provide financial value, jobs and enforce our circular economy strategy.

The EVx™ **fixed frame** can be converted to house any standard multilevel building or evaluated for on case-by-case bases and specific to the local site conditions and demands.

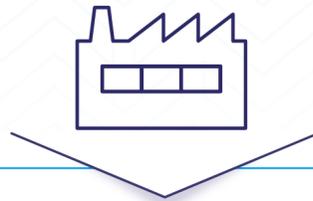


Long Duration Storage

Gravity | EVx™

Positive Externalities | Green Technology Innovation

Energy Vault EVx™ was designed to establish positive externalities for the environment by accelerating the demand for low carbon materials. Energy Vault is committed to working with thought leading industry partners to accelerate decarbonization for two of the most used and largest emitting materials on the planet by creating demand through early adoption of low carbon steel and concrete. Energy Vault has a unique opportunity to become a market accelerator for the production and innovation of green steel and concrete. Our sustainable production design supports the cleanest and most energy efficient green steel and concrete products in the construction of gravity energy storage structures.



Steel Innovation

Supporting Sustainable Steelmaking | With 75% of steel production running on coal, ramping up renewable energy will be a key driver in the reduction of CO2 emissions in the steel making process. Energy Vault EVx™ supports the transition to clean energy production through our energy storage and energy management solutions.

Impacting the Entire Life Cycle | When measured through the entire project life cycle, the use of green steel in Energy Vault EVx™ construction reduces environmental impact due to the inherent material traits of durability, low carbon production, and high recyclability that supports the circular economy.

100% recyclable | Steel is the most recycled material in the world. At end-of-life, EVx™ structural steel elements can be removed from the building then refabricated for use in new structures and the remaining scrap elements can be captured for recycling.



Concrete Innovation

Decarbonization of Electricity | Cement producers aim to limit fossil-fuel use at every point in supply and production chains by decarbonizing the electricity used at both cement plants and in concrete production. Energy Vault EVx™ supports this transition through energy storage and energy management solutions.

Life Cycle Resiliency | Concrete is an abundant and cost-effective building material that can be locally sourced and made from waste materials that might otherwise be landfilled. Concrete is resistant to fire and has strength properties that are resilient in the instance of natural and climate change related disasters.

Supports the Concrete Circular Economy | Energy Vault EVx™ technology supports advancement in concrete material science and the circular economy through the development of capabilities to repurpose on-site coal combustion residuals, decommissioned wind blades, and other waste materials in mobile mass manufacturing.

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

Long Duration Storage

Short Duration Storage

Ultra-Long Duration Storage

Software Solutions

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

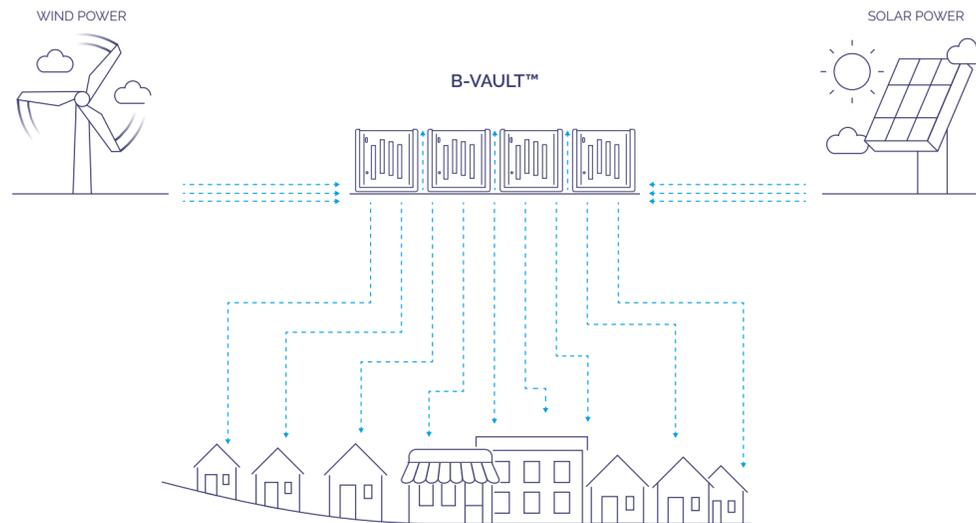
Short Duration Storage

Battery | B-VAULT™

Energy Vault focuses on maximizing deployment of energy storage solutions that serve infrastructure demand. Electrochemical battery energy storage (inclusive of lithium-ion, flow, metal air, and other battery chemistry technologies) is currently the most widely accepted and fastest growing technology for short duration energy storage applications.

B-VAULT™ meets shorter-duration energy storage needs in the range of one to four hours. B-VAULT™ is designed to utilize a purpose-built battery and inverter system with an innovative architecture that lowers cost, improves performance, and promotes the highest level of project safety.

Battery Energy Storage | How It Works



Scalable Energy On-Demand | B-VAULT™ is optimized for industrial and utility-scale deployments through our proprietary AC block architecture designed to maximize site energy density.

System Design | B-VAULT™ incorporates proprietary modular inverter architecture for optimized site installation and deployment while guaranteeing high system availability and enhanced reliability with best-in-class project performance. This flexible system architecture is built for long-term asset resiliency to account for the continually changing grid conditions and evolving market parameters.

Safety Leadership | B-VAULT™ provides an industry-leading suite of 24/7 preventative system monitoring, diagnostic and safety software together with best-in-class fire detection and suppression equipment to reduce the risk of a single point of failure.

Short Duration Storage

Battery | B-VAULT™

Sustainable Delivery

Energy Vault is committed to sustainable product delivery as reflected in our supply chain responsibility strategy. Energy Vault recognizes the challenges in the sourcing of raw materials for batteries and actively seeks out suppliers who have association with the Responsible Minerals Initiative (RMI) and Responsible Cobalt Initiative (RCI).

Supply Chain

We are actively involved in the key elements of our global, domestic, regional, and local supply chains that support our battery product solutions. Through our supply chain procurement process, we deliver vetted sources of integrated components to support our customers' energy storage needs. Given our technology-agnostic approach, we can procure equipment from a variety of top-tier global suppliers without reliance on a single-source company or geography.

The market our suppliers serve is highly impacted by government legislation. As such, we continue to proactively monitor planned and/or enacted legislation in the countries and regions that we serve. When new legislation is enacted, we seek to find ways to utilize the legislation to reduce our cost to obtain energy storage components. This includes the recent IRA that was passed in the United States for manufacturing and project incentives, and the potential legislation to follow in response elsewhere in the world.



Short Duration Storage

Battery | B-VAULT™

Product End-of-Life Strategy

Energy Vault evaluates the value chains of our developing partner relationships to create the infrastructure to recycle installed battery systems at end-of-life through local resources. Battery recycling technology is advancing rapidly. Utility-scale lithium-ion battery recycling is an early stage industry and several emerging leaders have established recycling and manufacturing hubs worldwide in the highest demand locations. Energy Vault recognizes that many nations and reliant industries are working vigilantly to reduce the environmental impact of battery technologies at end-of-life. Energy Vault has begun to develop relationships with these organizations and continuously evaluates opportunities to advance the development of the underlying processes through global partnerships.

Positive Externalities | Battery Recycling Accelerator

Energy Vault is focused on accelerating the demand for advanced battery recycling solutions, working in collaboration with leading battery recycling innovators to advance initiatives focused on but not limited to the following process.



Hydrometallurgical Process

Recycling via hydrometallurgy produces significantly lower CO₂ emissions compared to traditional heat-intensive recycling that leads to high energy consumption.



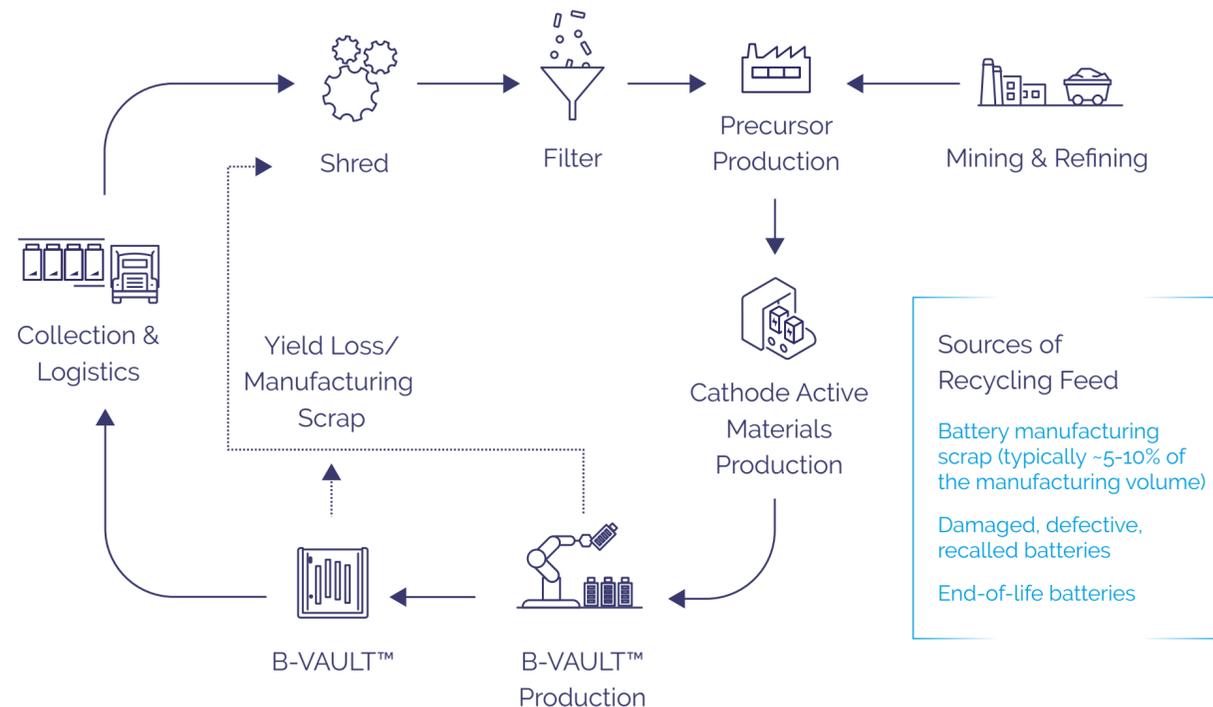
Material Recovery

Up to 90% of the materials in batteries can be recovered during the recycling process. For every 10kg batteries recycled, 9kg of usable commodity material is captured.



Metal Purity Recovery

The hydrometallurgical process boasts a 99% material purity in recovered finite resource materials such as cobalt, nickel, and lithium.



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

Long Duration Storage

Short Duration Storage

Ultra-Long Duration Storage

Software Solutions

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Ultra-Long Duration Storage

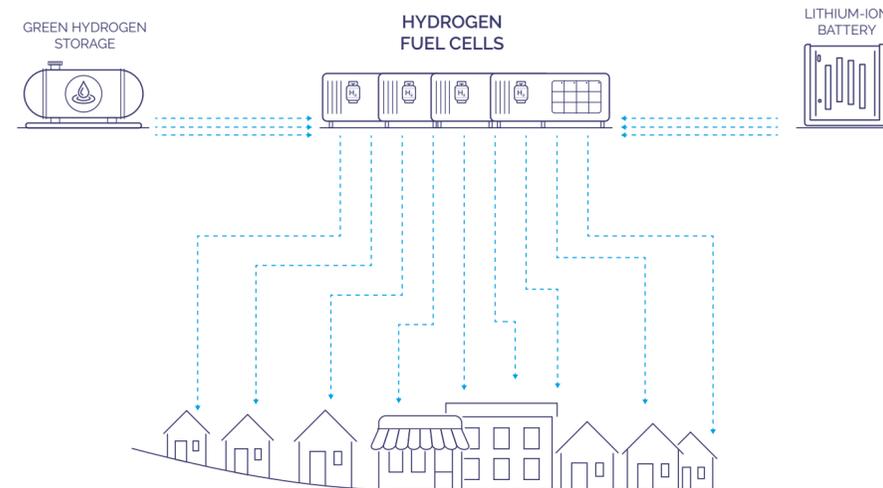
Hybrid Solutions | Hydrogen + B-VAULT™

Hydrogen is the most abundant element in the universe and can be produced without emitting greenhouse gases as a biproduct. Hydrogen technologies store energy through the chemical process of converting excess electricity via electrolysis. Green Hydrogen is produced using non-fossil-fuel feedstocks and emits zero or an insignificant amount of greenhouse gas emissions on a lifecycle basis.

Hybrid Energy Storage with Green Hydrogen Integration

Energy Vault offers hybrid energy storage solutions including systems that integrate green hydrogen. For example, green hydrogen combined with B-VAULT™ battery energy storage technology can fulfill ultra-long duration energy storage needs and provide black start and grid forming capabilities for communities supported by microgrids or other critical infrastructure.

Hybrid Hydrogen + Battery | How It Works



Safeguard Power Disruption | Hybrid solutions are designed to power microgrid infrastructure requiring ultra-long duration storage that typically ranges from 12 hours duration to more than 96 hours on a single liquid system fill. Recharging can be performed within a day to prolong or reinstate operations.

Transitioning from Fossil Fuels | Hybrid solutions are ideally suited to replace fossil fuel back-up generation but can also support green-field microgrid applications for communities seeking to increase their energy resilience. Systems can be economically scaled to provide reliable generation from 2MW to greater than 50MW.

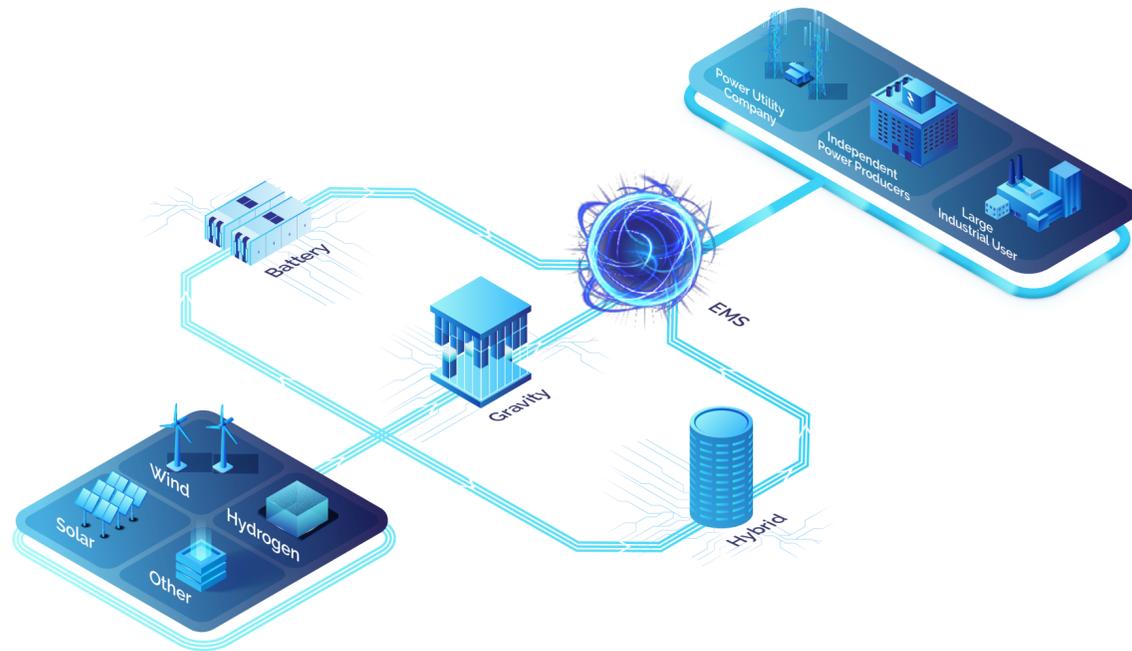
Microgrid Support | Hybrid solutions are designed to provide carbon-free electricity to microgrid supported local communities and energy service customers for a period of at least 48 hours without refueling and have the potential to support projects requiring up to 700MWh capacity.

Software Solutions

Energy Management & Integration

Energy Vault uniquely offers proprietary, technology-agnostic energy management system and integration software solutions designed to maximize the financial and environmental value of our customers' energy assets. The Energy Vault solutions software ecosystem incorporates artificial intelligence, predictive analytics, and software optimization algorithms to provide customers with efficient and profitable power system operations. Commercially, Energy Vault offers software as a service or bundled under license with the sale of energy storage assets. Energy Vault technology-neutral software solutions are designed to support real-time remote monitoring, operational control, and AI-enabled dispatch optimization across an array of energy storage and energy generation assets.

Software | How It Works



At the site level, the Energy Vault Energy Management System (EMS) software coordinates all equipment controls to provide a cohesive operational systems view and to facilitate continuous data collection and analysis. The EMS monitors and controls all generation equipment including inverters, batteries, and balance of plant to ensure the site operates safely and efficiently. The EMS platform orchestrates the management of one or multiple energy generation assets including storage to optimize delivery of power.

Secure cloud-based monitoring and performance optimization can be applied at a single site or across an asset portfolio of multiple sites to enable virtual power plant and fleetwide control. Integrated smart bidding software utilizes machine learning algorithms to match node-specific data with real-time weather and asset performance information to generate tailored load, generation, dispatch, and price forecasting across all assets. Energy Vault incorporates a future-proofed design to safeguard asset management and to help ensure developing technologies blend seamlessly into existing solutions; protecting customer's current investments well into the future.

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Responsible Business

Energy Vault is committed to sustainability as reflected in our core mission, our focus on sustainable business management practices, and our dedication to sustainable production design and supply chain management.

Energy Vault respects our business relationships and works to be a good responsible partner to our suppliers and customers around the world. Our responsible business practices apply to all employees, customers and suppliers and is reflected in our company Code of Conduct.

Sustainability

Economics

Energy Vault employs an agile business model that allows for continued capital redistribution to accelerate deployment of bespoke technology solutions for our customers. Economic sustainability is both a key measure of financial success and a core focus of corporate responsibility as we work to enable a sustainably energized world.

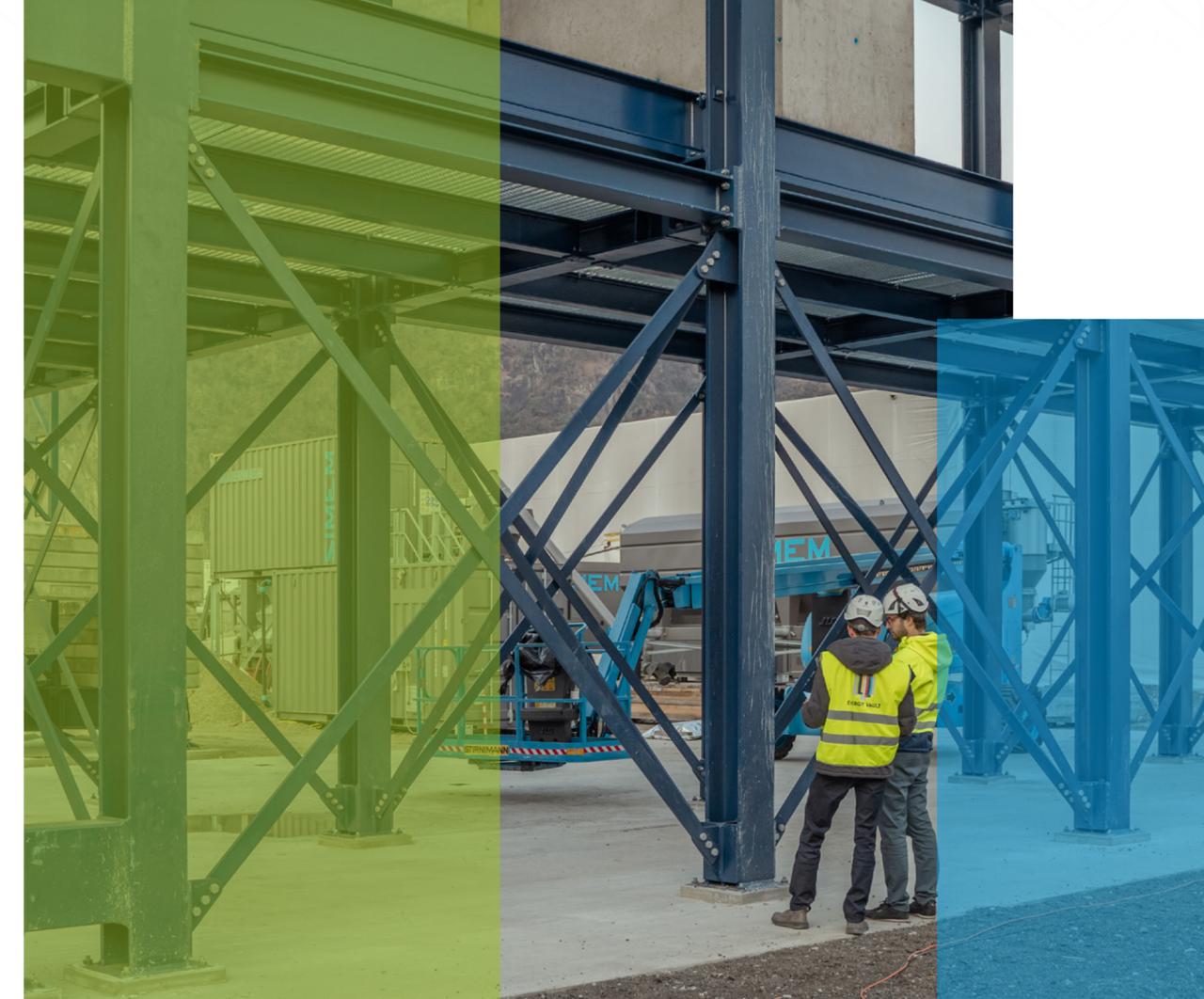
In 2022, Energy Vault was able to generate approximately 40% of gross margin driven by our licensing and royalty model for our proprietary EVx™, gravity-based energy storage system. The licensing and royalty model benefits are twofold as it enables countries to deploy a technology that accelerates renewable adoption and simultaneously spur local economic development using local labor and supply. We will look to replicate this model globally as demonstrated by similar agreements in Europe & the Middle East.

In the United States, we will work to support the onshoring of domestic manufacturing capabilities, utilizing locally sourced materials and labor to strengthen domestic supply chain and create local jobs. Our technology-agnostic approach provides flexibility to our customers and enables us to source supply from ethically focused regions of the world.

We believe that as our energy storage technologies reach scale and mass adoption, we will be able to leverage economies of scale to be the industry-leaders in accelerating demand for materials such as green steel and concrete – driving the decarbonization of other industries beyond energy.

Our software capabilities overlay and connect our unique energy storage technology hardware deployments and provides a high-margin, recurring revenue stream that helps support the growth of the business and the deployment of energy storage technologies that are crucial for the energy transition.

Our business lines are uniquely positioned to create demand for a thriving green economy, and we remain committed to achieving financial results that enables the investment required to reach a carbon-free economy.



Strategy

ESG Philosophy Focused on Core Areas of Impact

Our foundational Environmental, Social, Governance Philosophy is centered around the three most critical levers of our company's impact - Purpose, Product, & Partnership.



Purpose

Energy Vault Purpose Champions embed sustainable business management strategies into every department within the organization and infuse our ESG Philosophy into all aspects of business operations, product development and accountability reporting. Our Sustainability Task Force empowers Purpose Champions to co-create departmental sustainability strategies based on core subject matter expertise and enable the central Sustainability Team to focus on market driven innovation and develop sustainability strategies centered on company growth and long-term changes.



Product

Adopting an environment-first approach to product design, development, and deployment is the most crucial factor toward establishing Energy Vault as a sustainable organization. Early product analysis empowers all business units to refine and improve upon sustainable production design, environmental impact, community integration, and circular economics. As a new company, Energy Vault is in a unique position to measure our impact at all stages of product development and with each project delivered.



Partnership

Energy Vault understands that securing a clean energy future will require global and inclusive partnerships. We proactively foster partnerships that share our passion for sustainability, responsibility, and the urgent need to address climate change. We actively support, encourage and expect sustainable business plans and strategies within partnerships that support responsible sourcing, supply chain management, and environmental impact. We collaborate to achieve sustainable business practice standards with our partners, in alignment with our corporate sustainability goals.

Strategy

Sustainability Roadmap

As a newly public company, 2022 was a benchmarking year for Energy Vault starting with an internal evaluation of our rapidly growing company. To effectively demonstrate Energy Vault's sustainability profile, certain protocols, metrics and benchmarks must first be established from which we can measure success. It started with an internal evaluation of the company, its products, and operations. This early-stage audit created broader internal awareness of sustainability considerations in how we achieve our goals and clearly established accountability metrics upon which future progress can be measured. From this data, Energy Vault established our current position and designed a foundational roadmap to achieve a greater level of sustainability in the future. Energy Vault's sustainability roadmap includes every department and business function to establish performance and accountability as measurable actions. This benchmark

creates accountability and transparency on the road to meaningful and long-lasting sustainable performance; empowering our team to integrate sustainability considerations into every core business system. Success of the approach is dependent upon the understanding, familiarity, and acceptance of this process. Several established metrics are available to benchmark, disclose and then monitor progress. Engagement of personnel in each department is important in establishing an acceptance of the process but more importantly an interest. A Champion of sustainability in each department plays a role in successfully achieving and maintaining Energy Vault's sustainability goals. Energy Vault then introduces mechanisms that integrate sustainability considerations into core business systems.



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

ESG Philosophy & Roadmap

Sustainability Department

Structure & Initiatives

Sustainability Task Force

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Strategy

Sustainability Department

Reinforcing Energy Vault's commitment and binding its purpose to our growth and vision, Energy Vault established a dedicated Sustainability Department to inform, influence, and collaborate across all core business systems. Creation of the Sustainability Department was a foundational action taken by Energy Vault as an early-stage company to enable a focus on sustainability and take action to address a complex and ever-changing environment.

The Sustainability Team designs sustainable business management strategies for the organization through the evaluation of company operations and implementation of monitoring and reporting systems to track and improve all areas of impact. To support our core initiatives, the Sustainability Team works in tandem with the Product Development Team to support ongoing product development activities with focused attention on environmental impact analysis and implementation of sustainable product design strategies.

The Sustainability Team works directly with the Executive Committee to implement an "environment first" approach to key operational processes including reporting and disclosure frameworks, environmental policy compliance, professional education, and other key supporting processes of innovation and responsible development. Operational, financial, and technical data collection and analysis provide the framework to set corporate strategic goals.

For reporting purposes, Energy Vault utilizes the financial control consolidation approach as defined by the GHG Protocol. All indicators disclosed in this report utilize this reporting boundary.



Laurence Alexander
Chief Marketing Officer
Executive Sponsor



Michael Van Parys
Director of Sustainability



Edward Johnson
Sustainability and ESG Analyst



Annamarie Piccioni
Marketing Director
Communications Lead

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

ESG Philosophy & Roadmap

Sustainability Department

Structure & Initiatives

Sustainability Task Force

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

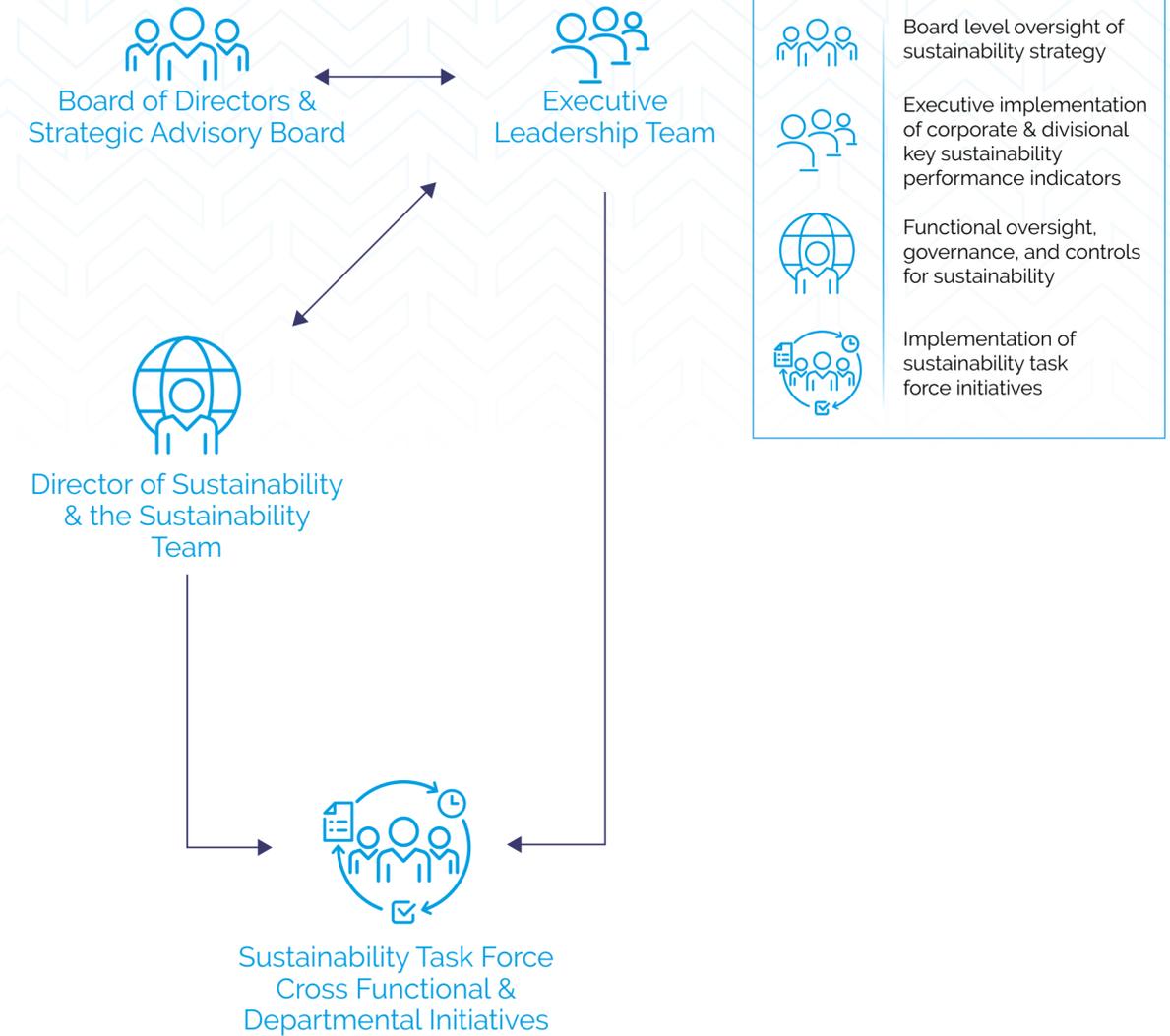
Strategy

Sustainability Governance Structure

Energy Vault established our preliminary Sustainability Governance Structure by initiating a comprehensive materiality assessment and adopting globally recognized standards in social and environmental practices. Energy Vault implemented ISO 26000 guidelines, became certified under ISO 9001 & 14001 as an organization and performed a screening Life Cycle Assessment of our EVx™ using an ISO 14040 framework.

Sustainability Process Initiatives

- Implement "environment first" approach
 - Energy usage: corporate offices
 - Carbon neutrality
 - Sustainable corporate operations
 - Environmental footprint
- Sustainability as a strategic corporate element
- Training staff & stakeholders
- Evaluation and reporting
 - Disclosure frameworks
 - Environmental profit and loss
 - Environment & social impact investment
- Compliance with state & federal environmental policies
- Supporting other processes: innovation & responsible investment



Strategy

Sustainability Task Force

Recognizing the need for cross-functional collaboration, Energy Vault established our Sustainability Task Force to embed sustainability into the nucleus of employee behavior. Each department identified Sustainability Champions who are empowered to optimizing sustainable business management practices within their internal departments and explore sustainable business partnerships with external stakeholders.



CHAMPIONS



Identify, measure and report progress on sustainability, environmental, social and governance efforts for their specific department. Ensure alignment with sustainability frameworks, regulations and commitments to policies.



Discover and highlight sustainable business practice opportunities and challenges through department interactions to ensure an environment-first mindset is always present in daily operations.



Provide insight and focus on relevant departmental and market driven innovation that will support sustainable products and responsible business strategies for company growth and long-term impact.

Energy Vault is committed to providing all employees with the resources, support, and training to be an effective Sustainability Champion to support our purpose and to support our planet.

Approach & Actions

SDG Alignment

Sustainable Development Goals

Our sustainability strategy incorporates attention to all seventeen globally recognized, United Nations Sustainable Development Goals in our pursuit to advance clean and affordable energy for all. We understand that today's business landscape is complex and ever changing. With focused alignment on our core areas of impact, we are committed to actively developing industry innovation and infrastructure in a way that evolves responsible consumption in the production of our products.

In addition to our core areas of impact, our SDG alignment strategy incorporates clear line of sight to the sustainable development goals that are directly affected by the development of our solutions. In our efforts to provide clean and affordable energy for all, we are committed to exploring opportunities to nurture these identified SDGs by creating decent work and economic growth, facilitating reduced inequities resulting from energy poverty, improving sustainable cities and communities, progressing climate action, supporting peace and justice through efforts to support energy security, and fostering the partnerships required to explore these opportunities in a sustainable way.

We also recognize that utilizing the United Nations Sustainable Development Goals framework, with awareness of all potential areas of impact, we can better understand the full picture of our sustainable business operations and the greater impact our organization can have on global development.



Approach & Actions

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Standards & Initiatives

Established Global Alignment | Reporting & Standards

Energy Vault is building a well-defined governance, compliance and ethics program and believes it begins with alignment and engagement with the most widely recognized governing bodies for transparent sustainability reporting. Energy Vault will continue to support standards that bring accountability and transparency to our fight against climate change in our pursuit to build a more sustainable future.

Global Reporting Initiative | 2022 Focus

In 2022 Energy Vault adopted the [Global Reporting Initiative Standards](#) for transparency of our corporate sustainability framework. The Global Reporting Initiative is an international independent standards organization that helps businesses, governments and other organizations understand and communicate their impacts on issues such as climate change, human rights, and corruption. The Global Reporting Initiative framework is one of the most widely used sustainability reporting standard and is designed to help companies identify, gather and report this information in a clear and comparable manner.

S&P Global's Corporate Sustainability Assessment | 2022 Focus

The S&P Global Corporate Sustainability Assessment (CSA) enables Energy Vault to benchmark our company's performance on a wide range of industry specific economic, environmental and social criteria that are relevant to the growing number of sustainability focused investors and financially relevant to our corporate success. The CSA enables Energy Vault to leverage the unique expertise and the proprietary methodology and database underlying the world's most renowned sustainability indices, the Dow Jones Sustainability Indices (DJSI), for our internal processes and external communication.

Planned Global Alignment Initiatives

Energy Vault is in a unique position to track, measure, and set ambitious goals in these early years of our company development. We understand the importance of collecting measurable data from which we can set, manage, and track our progress and have outlined a strategic approach toward alignment with global standards and initiatives.

2022

Corporate Sustainability Assessment (CSA) | Global Reporting Initiative (GRI) | International Organization for Standardization (ISO)

2023

Task Force on Climate-related Financial Disclosures (TCFD) | Science Based Targets Initiative (SBTi) | United Nations Global Compact (UNGC)

2024

Establish Net-Zero Goal | ESG Disclosure Audit

Approach & Actions

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

ISO Standards | Initiated 2022

The International Organization for Standardization is the independent, non-governmental international organization comprising a membership base of over 160 national standards bodies, coordinated by the ISO Central Secretariat (ISO/CS) in Geneva, Switzerland. ISO and members bring together a network of experts to share knowledge and develop International Standards.

Energy Vault adopted a companywide management system compliant with ISO 9001:2015 standard, as we believe that customer satisfaction, meeting the expectations of stakeholders, combined with an effective and efficient relationship with suppliers, determines and leads to the success of the company in achieving its objectives. Additionally, as a green energy storage solution provider, we recognize the need to carry out our mission in the most environmentally friendly manner possible; therefore, we have also ensured our management system is compliant with ISO 14001:2015 and our products undergo a life cycle analysis compliant with ISO 14040:2009.



Energy Vault is committed to maintaining ISO 9001 certification to ensure customers and stakeholders of our globally recognized quality assurance and management system.



Energy Vault is committed to maintaining ISO 14001 certification to validate our commitment to environmental performance through more efficient use of resources and reduction of waste, gaining a competitive advantage and the trust of stakeholders.



Energy Vault is committed to conducting business in a socially responsible way, utilizing ISO 26000 guidelines shape principals of social corporate responsibility and to implement socially responsible effective actions and best practices globally.

Approach & Actions

Sustainability Tools

Energy Vault leverages technology to assist in our sustainability efforts. Below are some of the technologies we implemented in our inaugural year.

Business Analysis | Management & Reporting Software

To kickstart our Environmental, Social and Governance reporting journey, Energy Vault partnered with Metrio to help streamline processes across data collection and reporting. This multi-year agreement with Metrio allows our company to centralize data for global real-time access and visibility of key information, and to progressively customize and optimize our reporting mechanisms for anticipated future growth.

Product Analysis | Life Cycle Assessment Software

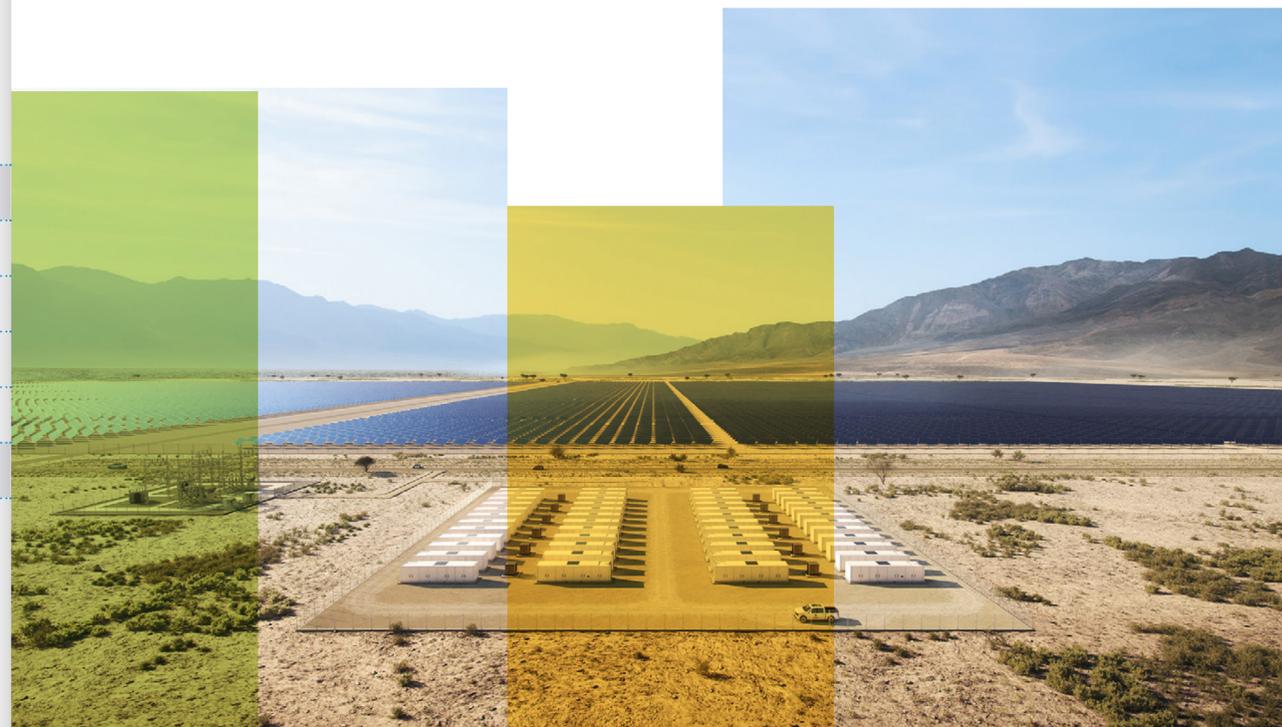
Energy Vault collaborated with Sphera using GaBi Envision software to conduct a screening Life Cycle Assessment (LCA) on our EVx™. This LCA helped the company assess and manage the environmental performance of our EVx™. from a life cycle perspective through quantifying resource use and impacts across all stages of the products life.

Building Information Modeling - BIM

Energy Vault implemented Building Information Modeling (BIM) as an early-stage technology deployment to support sustainability goals in our Energy Storage Systems (ESS). BIM provides a digital representation of our ESS to be used throughout the lifecycle of a project, by a variety of different stakeholders from designers, engineers, procurement teams, contractors, operators and maintenance teams. The implementation of BIM has enabled the following sustainable business design strategies:

1. **Material Selection** | Evaluate the environmental impact of different materials used and their embodied energy.
2. **Energy Modeling** | Analyze and optimize energy performance.
3. **Life-Cycle Analysis** | BIM models allowed for material type and quantity analysis in screening LCA. Primary data during construction, operation and end-of-life can be uploaded for LCAs.
4. **Maintenance & Operation** | Models can be used for the efficient operation of ESS over their lifecycle, including recording copies of maintenance, changes to the project physically, logs of equipment changes and more content in a timeline of work.
5. **Demolition & Decommissioning** | BIM models can be used to plan for the safe and efficient end-of-life of a building to minimize its environmental impact.

Overall, BIM provides a comprehensive solution for planning and maintaining the life cycle analysis of our ESS. By providing a digital representation of our ESS that can be used to monitor performance over its lifecycle, BIM enables stakeholders to make informed decisions about the design, construction, and operation of buildings to help control their environmental impact.



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Approach & Actions

Materiality Assessment

In 2022, our first year as a public company, Energy Vault conducted its first comprehensive materiality assessment to identify the relevance and priority of sustainability topics for the organization and to understand their potential effect on regulatory compliance and performance. To initiate this process, Energy Vault partnered with a consultant to conduct virtual interviews with its Management Team. Interviewees were questioned on the six ISO 26000 topics, and thirty-five sub-topics, ranging from human rights to biodiversity protection. Simultaneously, a survey was distributed to the full Energy Vault staff and several key external stakeholders. Internal and external survey responses were analyzed in conjunction with the results of the Energy Vault Leadership Team interviews in order to identify key material issues within the organization and in the broader stakeholder community.

This initial materiality assessment highlighted fourteen material issues as key material issues for the organization and its stakeholders. All topics with an average medium level of relevance were considered. A graphical representation of the relevance of all ISO 26000 topics, is reported in the following materiality matrix.

CLUSTER	N.	TOPIC
Human Rights	1	Due Diligence
Human Rights	2	Human rights risk management
Human Rights	3	Discrimination and vulnerable groups
Human Rights	4	Civil and political rights
Human Rights	5	Economic, social and cultural rights
Human Rights	6	Fundamental principles and labour rights
Labor Practices	7	Employment and labour relationships
Labor Practices	8	Working conditions and social protection
Labor Practices	9	Social dialogue and collective bargaining
Labor Practices	10	Occupational health and safety
Labor Practices	11	Training and professional development
Environment	12	Pollution prevention
Environment	13	Sustainable resource use
Environment	14	Climate change
Environment	15	Biodiversity protection
Fair Operating Practices	16	Anti-corruption
Fair Operating Practices	17	Responsible political involvement
Fair Operating Practices	18	Fair competition
Fair Operating Practices	19	Promotion of social responsibility in the value chain
Fair Operating Practices	20	Respect of property rights
Consumer Issues	21	Fair marketing, factual and unbiased information, fair contractual practices
Consumer Issues	22	Protecting customers' health and safety
Consumer Issues	23	Sustainable consumption
Consumer Issues	24	Customers service, support, complaint, dispute resolution
Consumer Issues	25	Customer data protection and privacy
Consumer Issues	26	Access to essential services
Consumer Issues	27	Education and awareness
Community involvement and development	28	Community involvement
Community involvement and development	29	Education and culture
Community involvement and development	30	Employment creation and skills development
Community involvement and development	31	Technology development and access
Community involvement and development	32	Wealth and income creation
Community involvement and development	33	Access to essential services
Community involvement and development	34	Public health
Community involvement and development	35	Social investment

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX



Approach & Actions

Materiality Assessment Results

With the results of our initial materiality assessment, Energy Vault compared relevant topics to identified partner companies as well as other players operating in the green energy sector. Common topics among the materiality assessment outcomes of Energy Vault and other identified companies include health and safety, climate change mitigation, pollution prevention and fair operating practices. Similarly, there are also some divergent topics, which are related to the specific features of each company. Overall, a third-party analysis shows how Energy Vault material topics are generally consistent with the relevant issues identified by other companies operating in the same sector.

Cluster Key

- Human Rights
- Labor Practices
- Environment
- Fair Operating Practices
- Consumer Issues
- Community Involvement & Development



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Approach & Actions

Materiality Assessment / Topics

List of Categories



Human Rights

Due Diligence, Human Rights Risk Management, Discrimination/Vulnerable Groups, Civil/Political Rights, Economic/Social/Cultural Rights, and Fundamental Principles/Labor Rights



Labor Practices

Employment/Labor Relationships, Working Conditions/Social Protection, Social Dialogue/Collective Bargaining, Occupational Health/Safety, and Training/Professional Development



Environment

Pollution Prevention, Sustainable Resource Use, Climate Change Mitigation, and Biodiversity Protection



Fair Operating Practices

Anti-Corruption, Responsible Political Involvement, Fair Competition, Promotion of Social Responsibility in the Value Chain, and Respect for Property Rights



Consumer Issues

Fair Marketing/Contractual Practices, Protecting Customer Health/Safety, Sustainable Consumption, Customer Service/Support/Complaint/Dispute Resolution, Customer Data Protection/Privacy, Access to Essential Services, and Education/Awareness



Community Involvement and Development

Community Involvement, Education/Culture, Employment Creation/Skills Development, Technology Development/Access, Wealth/Income Creation, Access to Essential Services, Public Health, and Social Investment

List of Material Topics

- 13 Sustainable resource use
- 10 Occupational health and safety
- 12 Pollution prevention
- 14 Climate change mitigation
- 22 Protecting customers' health and safety
- 23 Sustainable consumption
- 8 Working conditions and social protection
- 11 Training and professional development
- 16 Anti-corruption
- 7 Employment and labor relationships
- 25 Customer data protection and privacy
- 24 Customer service, support, complaint, dispute resolution
- 19 Promotion of social responsibility in the value chain
- 31 Technology development and access

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Approach & Actions

Double Materiality Assessment

The initial materiality view was then integrated with a double materiality perspective, where generated social & environmental impacts and perceived financial impacts were further assessed. This financial materiality assessment was conducted on key topics to identify matters that have the potential to create or erode company value, which may influence the company in the short-, medium- or long-term. EFRAG conceptual guidelines for standard-setting were utilized as a technical reference, to further develop the analysis of financial materiality assessment process. For this double materiality assessment, the two most relevant ISO 26000 sub-topics from each category as identified by internal and external stakeholders in the single materiality assessment were used.

The significance of these sub-topics was determined by how company leadership assigned the relevance level of each topic as well as the category classification as either neutral or negative. Impact classifications were based on existing studies, sector analysis, or public information and comments are captured to provide context for any topics identified under a negative classification.

Assessment of financial value creation triggers were considered under two main impact clusters (1) continuation of use or access to resources by the company, and (2) reliance of the company on existing assets. Financial triggers can relate to financial, natural, intellectual, human, social and relationship capitals. Identified financial triggers assessment are considered a starting point on the "capitals" of the organization, even when the identified triggers are not systematically recognized in financial statements. Based on the management engagement survey, the main internal factors contributing to Energy Vault's business success were identified as the company's innovative vision, its inspired leadership, and its passionate, result driven team. Significant external factors contributing to Energy Vault's business success were identified as current and future regulatory framework, market demands, and environmental challenges.



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Approach & Actions

Value Chain Assessment

Developing a strong value-chain was identified as a crucial aspect of Energy Vault business success as reflected in the survey results of most interviewees. Pricing and Margins, Resource Market/Supply/Degradation/Useful Life, Policy/Regulatory Constraints, and Existing Risks are among the measures that will determine Energy Vault's ability to utilize the resources required for business sustainability and success. In the initial value chain assessment, the following classification range concerning resource use was applied.

Energy Vault will continue to gather different stakeholder perspectives including customers, trade associations, suppliers, and local communities to analyze the company's ability to continue to rely on current production process relationships or if company practices could trigger an adverse reaction. The classification listed here provides visibility to the adopted range utilized to represent the outcomes of the assessment in terms of reliance of the company on existing assets.

Once the key impacts were identified according to the relevance assigned by Energy Vault stakeholders and financial materiality assessment, the double materiality level was assigned as a combination of both perspectives based on priority levels (High, Medium, & Low).

	Impossible in the long term, very costly/unavailable in the short term
	Possible but costly in the short term, very costly or lacking in the medium term, impossible in the long term
	Possible in the short term, costly in the medium term, very costly in the long term
	Possible in the short term, medium term and long term
	Without consequence in the short, medium and long term
	Strong adverse reaction currently or very likely near future
	Adverse reaction currently, strong adverse reaction likely in the near future
	Negative reaction currently, adverse reaction likely in the future
	Signs of negative reaction currently or in the future
	Neutral/no reaction currently and likely in the future

	HIGH	Priority 1
	MEDIUM	Priority 2
	LOW	Priority 3

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Approach & Actions

Double Materiality Evaluation Outcomes

Table reporting the evaluation outcomes in terms of double materiality, plus their graphical representation in terms of priority level.

ISO 26000 Topic	ISO 26000 Sub-topics	Generated impact	Type of impact	Significance of the impact	Financial materiality		Double materiality	Assessed subject
					Resource use impact	Reliance impact		
Human rights	Fundamental principles and labor rights	Human rights issues in the battery supply-chain	Negative	High relevance	●●●	●●●	●●●	Human rights in the supply-chain
Human rights	Due diligence	Supply chain security and disruption	Neutral	Medium-high relevance	●●●	●●	●●	Suppliers and contractors due diligence
Labor practices	Occupational health and safety	Health and safety	Neutral	High relevance	●●	●	●●	Workers' health and safety
Labor practices	Training and professional development	Worker retention and security	Neutral	Medium-high relevance	●●●	●●	●●	People development
Environmental	Sustainable resource use	Raw materials scarcity and environmental impacts	Negative	High relevance	●●●	●●●	●●●	Raw materials usage and availability
Environmental	Pollution prevention	Health issues related to air quality	Negative	Medium-high relevance	●●●	●●	●●	Non-recyclable waste
Fair operating practices	Anti-corruption	Business continuity and brand	Neutral	High relevance	●	●	●	Corruption prevention
Fair operating practices	Respect for property rights	Supply chain disruption	Neutral	Medium-high relevance	●	●	●	Property rights compliance
Fair operating practices	Promotion of social responsibility in the value chain	Supply chain disruption	Neutral	Medium-high relevance	●●●	●	●	Positive impact in the value chain
Consumers	Customer data protection and privacy	Privacy and security	Neutral	High relevance	●	●	●	Data protection and privacy regulation compliance
Consumers	Customer service, support, complaint, dispute resolution	Reliability and customer satisfaction	Neutral	Medium-high relevance	●	●	●	Customer grievance management
Community involvement and development	Technology development and access	Quality of life and access to clean reliable energy	Neutral	High relevance	●●	●	●●	Technology innovation
Community involvement and development	Employment creation and skills development	Loss of jobs in the traditional power and automotive sectors	Negative	Medium-high relevance	●	●	●	Job creation

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX



Approach & Actions

Double Materiality Graph



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX



Approach & Actions

Research & Development

Energy Vault is committed to continual technology innovation in the pursuit of solving one of the largest global problems facing the planet today, how to store renewable energy in both an economical and sustainable way to end the world's reliance on fossil fuels. A shared commitment to a clean energy future drives every effort in technology research and development. To support the company's primary directive, Energy Vault has established foundational locations and partnerships in sustainable production, design innovation, advanced materials science development, and proprietary machine-vision software testing.

Energy Vault continues to develop advanced energy storage solutions to meet the needs of the ever-evolving global power market. These solutions span electrochemical (battery), mechanical, and hybrid approaches to energy storage. Environmental impacts, social justice, raw material sourcing, labor benefits, and economic opportunity are some of the considerations in the evaluation of new storage technology platforms and within our product development processes.



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Approach & Actions

Research & Development

Energy Vault collaborates with research and development partners to continually evaluate use, reduction, and impact of materials in alignment with our product development sustainability targets for responsible consumption and production.

Materials Science | Gravity Energy Storage

Paramount to the sustainable product design of our long duration, gravity based energy storage solution, Energy Vault established early-stage partnerships with material science industry leaders for innovation of environmentally friendly composite block material for mobile mass production.



Research and development testing conducted includes:



Coal Combustion Residuals (CCR) testing for beneficial reuse in gravity energy storage system composite blocks.



Recycled wind blade materials testing for beneficial reuse in gravity energy storage system composite blocks.



Tests to minimize cement use and to optimize performance of composite blocks for durability and environmental impact.



Tests to leverage and innovate civil engineering to optimize material use in EVx™ fixed frame.

Topical Optimization Studies | Gravity Energy Storage

Energy Vault conducted topographical optimization studies (TOS) in collaboration with the California Institute of Technology (Caltech), University of California San Diego, and the University of California Berkeley. TOS analysis utilizes mathematical equations to optimize structural performance, to remove material not participating in load factors paths, utilization of performance-based load factors, and ultra-high performance concrete, with the objective to improve the material and structural efficiency.

From this research, Energy Vault developed a first-generation gravity energy storage system utilizing significantly less infrastructure materials (concrete and steel) than traditional structural systems. The design philosophy is anchored in next generation design codes, (such as the Model Code 2010) providing performance-based design criteria that fully utilizes the aforementioned advances in R&D. Energy Vault is working vigilantly to further reduce construction materials and costs.

Approach & Actions

Modelling Details | Life Cycle Assessment Framework

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Reason for conducting the study

Determination of scope and system boundaries

Data Collection

Modelling and analysis

Analysis of inputs and outputs

Translation of environmental impacts



Interpretation

- Implications of assumptions
- Sensitivity analysis
- Uncertainty analysis

Defined by ISO 14040 and 14044 standards



Approach & Actions

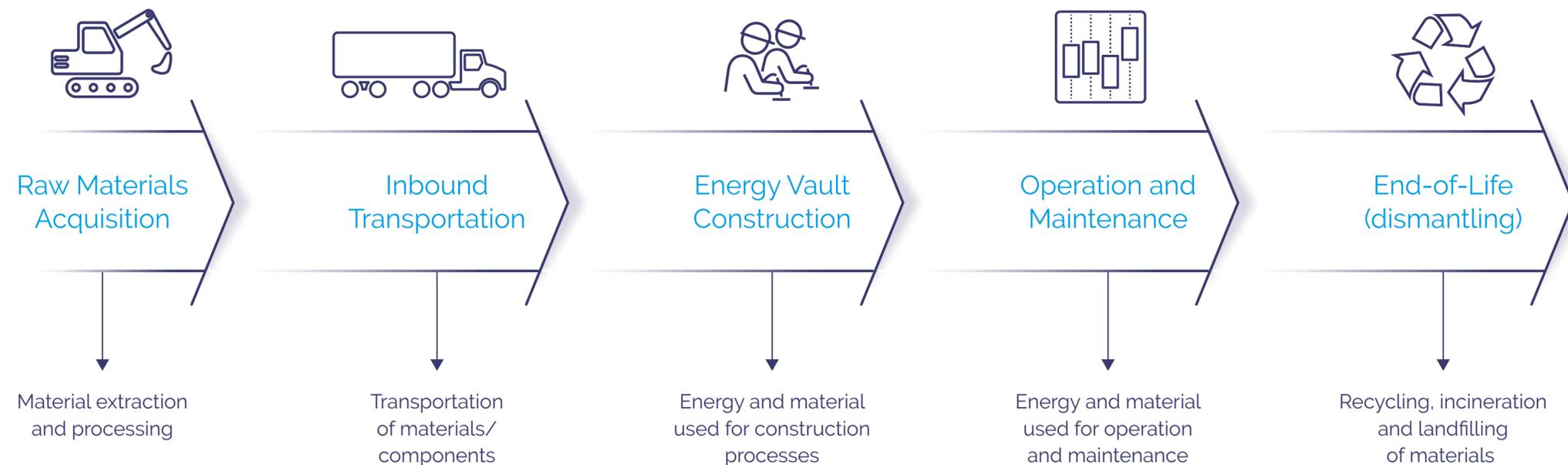
Life Cycle Assessment & Modelling

In 2022, Energy Vault conducted both a Life Cycle Assessment (LCA) and a Life Cycle Impact Assessment on its long duration gravity energy storage system in conjunction with leading LCA consultants. This cradle-to-gate LCA analysis was conducted in accordance to ISO 14040/14044 and with the goal to understand the potential environmental impacts of Energy Vault EVx™. This analysis also incorporated comparative metrics of the EVx™ to alternative energy storage systems based on publicly available information. Data was collected covering EVx™ Bill of Materials (BOM), construction, operation, maintenance, and end-of-life management. Creating the LCA model in this early stage of EVx™ deployments allows for initial benchmarking of data to implement continual improvements and refinement to Energy Vault EVx™ system design. We aim to incorporate robust primary data into the model as Energy Vault constructs EVx™ systems worldwide. Life cycle environmental impact data is expected to inform design stage decision-making and support potential future environmental claims.

The LCA study of Energy Vault EVx™ accounts for the full life cycle of the system. The BOM, construction, and utility information collected by Energy Vault was used to model the construction, use, and decommissioning of the system. Assumptions and proxy data were used to fill in data gaps and have been documented. The different building components were modelled using material information from the BOM provided by Energy Vault. The model based on this information established the base of the tool that will allow Energy Vault to continually evaluate EVx™ design and perform 'what-if' scenarios as needed.

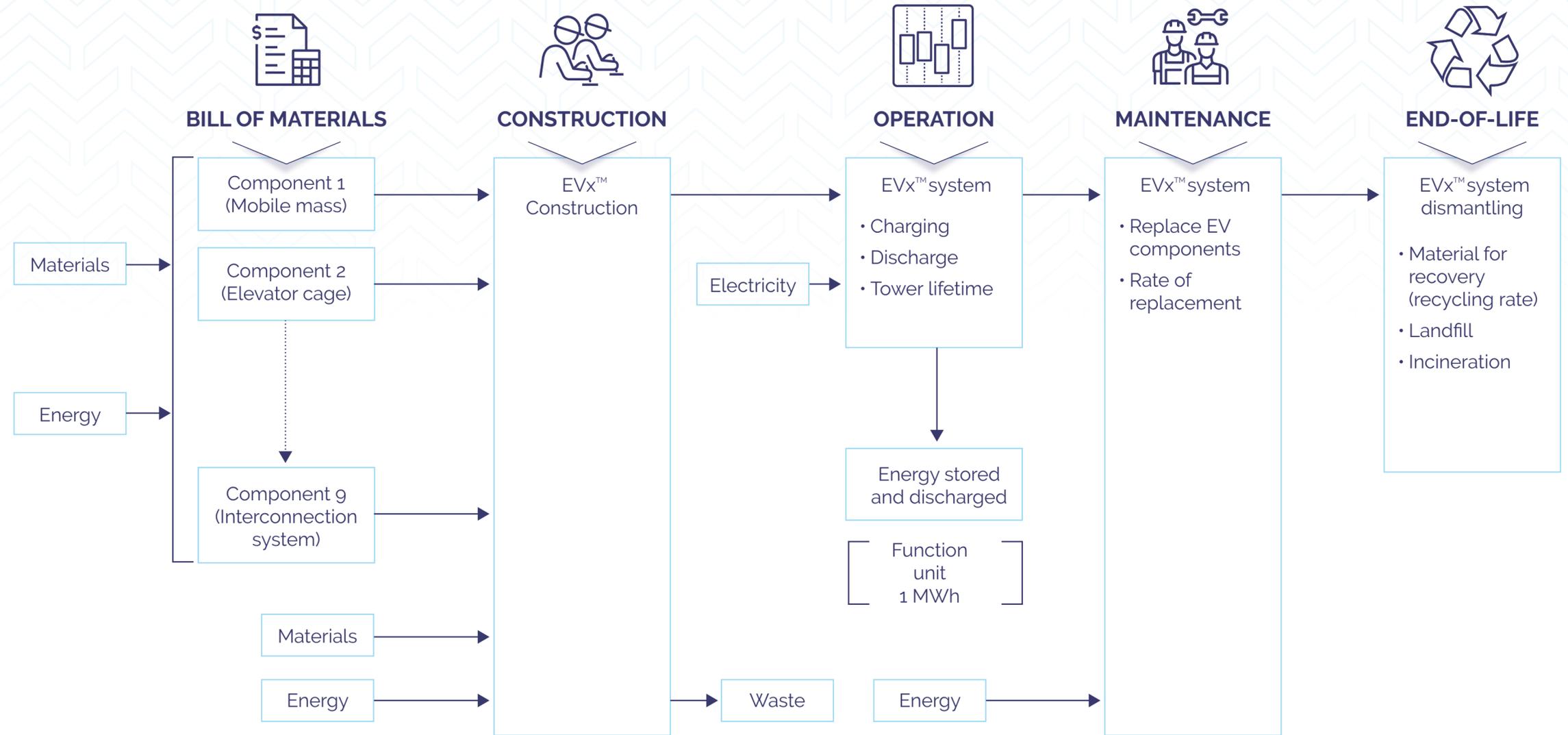
Life cycle impacts were assessed across seven different categories: Global Warming Potential, Acidification Potential, Eutrophication Potential, Photochemical Ozone Creation Potential, Ozone Depletion Potential, Human Toxicity Potential, and Primary Energy Demand.

LCA Project Scope



Approach & Actions

LCA Model Structure



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Supply Chain

Supply Chain Management

Energy Vault is committed to enhancing the sustainability and transparency of its global supply chain. Acknowledging our early stage in supplier ESG evaluation, we are committed to mapping our supply chain to better understand the challenges we face and to develop solutions. Our global procurement organization and strategically placed team members allow for increased effectiveness in supplier management and localized supplier quality performance.

Energy Vault Product Environmental Data Roadmap

The accurate collection of product environmental data is critical to Energy Vault's own product environmental impact calculations and reporting of Scope 3 emissions. Product and material data feeds directly into our LCA models and is crucial to accurately assessing product environmental impact. Without the accurate collection of this data, Energy Vault will not properly calculate and understand the impacts of the products we are creating and selling.

At a most basic level, the collection of product weights allows Energy Vault to estimate the environmental impact of materials through industry standard material emission estimates. These estimates can be refined with additional data collection looking at supplier facility energy use, waste intensity, and upstream transport of goods. To become an industry leader in this space, Energy Vault will request all critical suppliers develop and submit third-party verified Environmental Product Declarations (EPDs). Use calculated impact data from these EPDs will improve the accuracy of Energy Vault's LCAs and allow for the increased precision of impact assessments and overall goal setting.



Supply Chain

Responsible Sourcing Roadmap

Our responsible sourcing roadmap highlights the long-term benefits of supplier partner collaboration, including increased innovation, strengthened supplier relationships, economic value through industry adoption, enhanced health & safety, and compliance with global standards frameworks.



Stage 1: Sustainability Requirement

Energy Vault suppliers will sign a Code of Conduct commitment letter, outlining our expectations for the supplier relationships and identifying all critical sustainability considerations. A sustainability assessment survey is provided to enable suppliers to share known ESG data, policies, and commitments. Responses to the supplier-assessment are utilized to compare suppliers based on relevant ESG metrics. Energy Vault evaluates perspective suppliers for ESG, supplier diversity, health and safety, and regulatory compliance. Suppliers are then requested to provide any calculated product environmental data on environmental impact of the goods requested by Energy Vault.



Stage 2: Risk Assessment

After the self assessment survey is completed, Energy Vault engages a third-party software to streamline supplier risk assessment. The process utilizes supplier self-disclosed information as well as publicly available data for the evaluation. This comprehensive supplier assessment is designed to address many topics including ESG, health and safety, regulatory compliance, and financial health.



Stage 3: Validation

Following risk assessment, Energy Vault reviews and assesses the data collected and the assessment of risk. Suppliers will be afforded the opportunity to validate the data with the proper documentation and verification. Energy Vault also reserves the right to audit supplier data with representative site visits and additional verification as needed.



Stage 4: Improvement

Following review and risk assessment of supplier data, Energy Vault will collaborate with suppliers to baseline environmental impact and set targets for improvement.



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

SDG Alignment

Standards & Initiatives

Sustainability Tools

Materiality Assessment

Research & Development

Life Cycle Assessment

Supply Chain

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Accountability

Principles Framework

Energy Vault was created with the vision to accelerate the decarbonization of our planet, by introducing the most advanced and economical energy storage technologies. To create a broader perspective of business value, which we believe will be increasingly important to the success of any company going forward, Energy Vault is implementing a Triple Bottom Line framework to develop product design, operations, and end-of-life strategies. A Triple Bottom Line framework accounts for social, environmental and financial consideration to estimate the potential financial, social and environmental value for the company's energy storage and management solutions.

Energy Vault has adopted a company-wide management system compliant with [ISO 9001:2015](#) standard, as we believe that customer satisfaction and meeting the expectations of stakeholders, combined with an effective and efficient relationship with suppliers, determines and leads to the success of the company in achieving its objectives. As a renewable energy storage solution provider, we recognize the need to carry out our mission in the most environmentally friendly manner possible. Therefore, we have also pursued certification under [ISO 14001:2015](#) and our products undergo a life cycle analysis compliant with [ISO 14040:2009](#).

Our organization is committed to protecting the environment by applying the following principles to all aspects of our business:



Promote the reduction of GHG emissions through the development, design, and deployment of energy storage systems that support our global transition from fossil fuels to clean and renewable energy technologies.



Reuse/Recycling/Upcycling of waste materials built into our sustainable production design to create a circular economy within the energy sector.



Efficient rational use of natural resources including innovative exploration of beneficial reuse of energy waste materials such as coal combustion residuals and decommissioned wind blades.

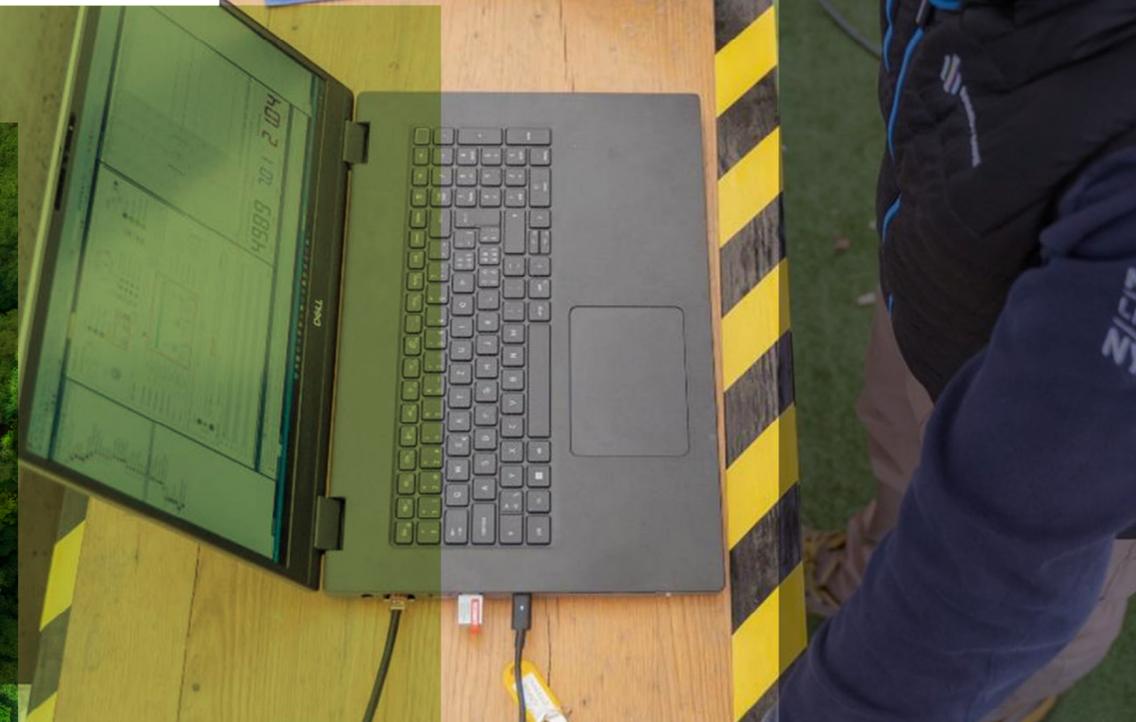
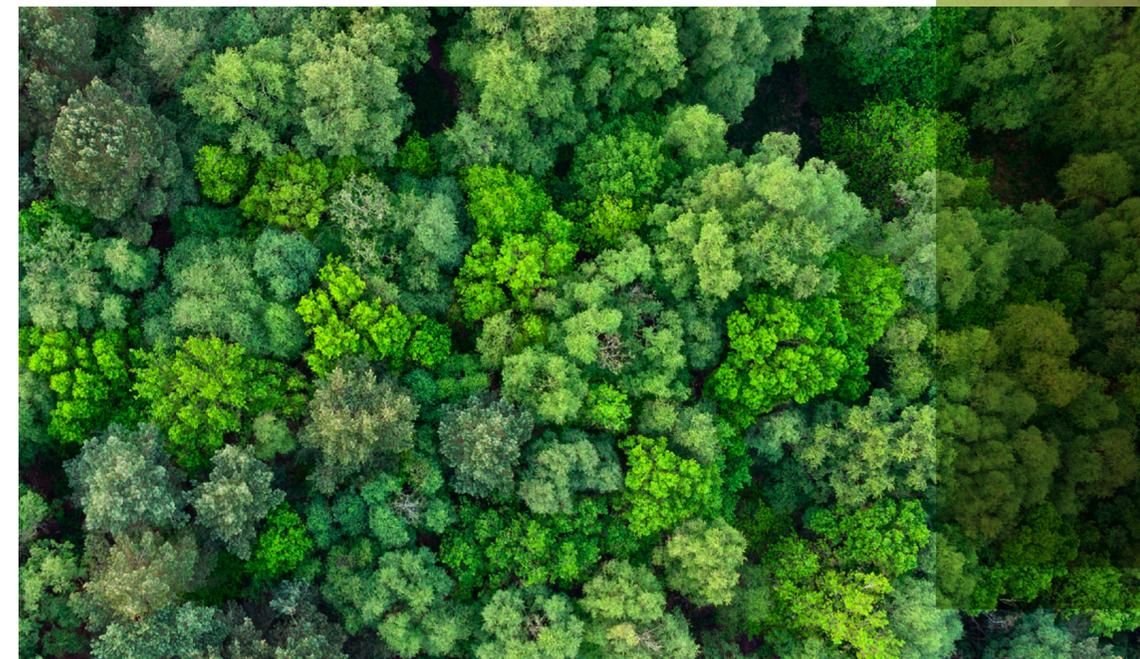
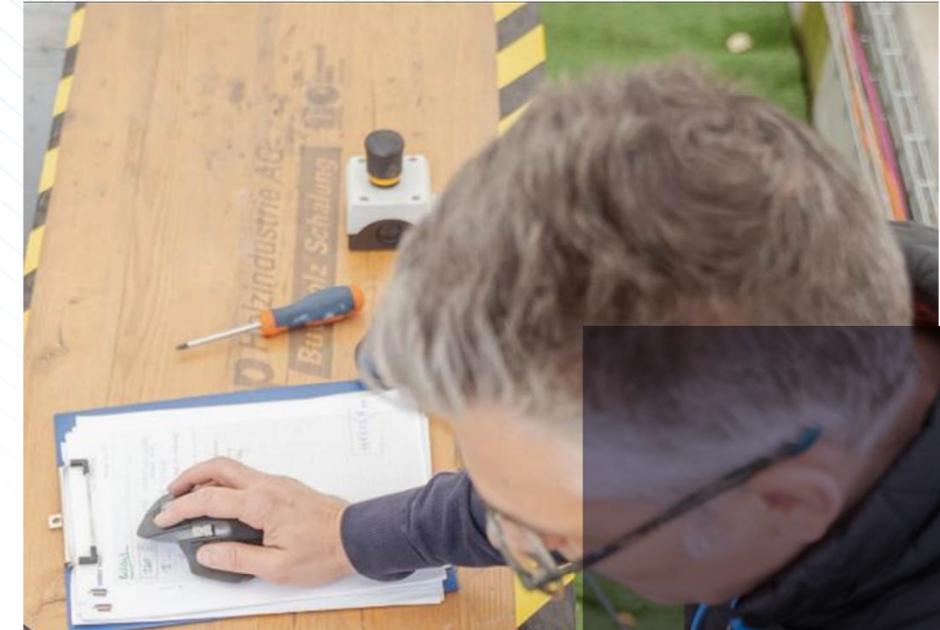


Promote a sustainability mindset culture among our employees, customers and partners and encourage use of renewable energy resources for business operations.

Environmental

Data Collection & Reporting

Energy Vault is committed to the accurate collection and reporting of our environmental impact data. In the company's early stages, research and development at our site in Arbedo-Castione, Switzerland accounted for the majority of greenhouse gas emissions, energy consumption, and waste generation. As we now transition into the execution of our initial projects, we expect the deployment of our energy storage facilities to account for the significant portion of company emissions. Utilizing a carbon accounting software, we have collected and tracked primary environmental data where possible. This data was then supplemented with various industry standard assumptions using verified emissions factors. We have also identified areas of improvement within these various categories of environmental data. This initial sustainability report is just a starting point in Energy Vault's journey of data collection, reporting, and goal setting.



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

Data Collection & Reporting

GHG Emissions

Energy Consumption

Waste & Water Management

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Greenhouse Gas Emissions

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

Data Collection & Reporting

GHG Emissions

Energy Consumption

Waste & Water Management

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Greenhouse gas emissions are calculated based on guidance from the GHG protocol. Energy Vault has used a financial control consolidation approach to properly segment and categorize company emissions. These initial calculations have helped to identify the areas of significant emissions within Energy Vault and play a crucial role in the development of policies and procedures that will limit our environmental impact.

Environmental Data

Greenhouse Gas Emissions Data

Scope 1

Scope 1 (direct) emissions arise from two sources in Energy Vault's operations. The first source is at Energy Vault's R&D facility in Arbedo-Castione, Switzerland. At the R&D facility, liquid fuel (such as diesel) is used in the operation of machinery and heating of R&D spaces. Diesel consumption is tracked monthly and emissions are estimated using a diesel emission factor from the GHG Protocol. The second source is through the use of natural gas at both Energy Vault offices located in the United States (California and Virginia). Natural gas consumption in both offices is estimated using CBECS natural gas intensity figures for office spaces. CO2 emissions from the use of natural gas are estimated using industry standard emissions factors.

Scope 2

Scope 2 (indirect) emissions arise from purchased electricity at Energy Vault's offices worldwide. Actual electricity consumption is tracked on a monthly basis for Energy Vault's Arbedo-Castione office/facility, while electricity consumption is estimated at the other three offices using CBECS electricity intensity figures for office spaces. Electricity is used for standard company operations such as lighting, HVAC, and plug loads. Indirect CO2 emissions are calculated using grid average emissions intensities of the location-based method. Scope 2 emissions cover electricity use at all four leased offices.

GHG Emissions Intensity (Scope 1 + Scope 2)

The table on the right utilizes the above Scope 1 and Scope 2 emissions figures to estimate the GHG emissions intensity of Energy Vault per full-time employee.

Scope 3

Scope 3 (other indirect) emissions are generated throughout Energy Vault's operations and supply chain. In this initial reporting year, we utilized a spend-based calculation methodology to identify the significant scope 3 categories and estimate their corresponding emissions. We selected five of the fifteen scope 3 categories as material in 2022. Selected categories are as follows:

- Category 1 – Purchased goods and services
- Category 2 – Capital goods
- Category 4 – Transportation and distribution
- Category 5 – Waste generated in operations
- Category 6 – Business travel

Categories 1, 2, 4, & 6 are calculated with spend-based emission factors and information from our consolidated financial statement. Category 5 is calculated with waste type-specific and waste treatment-specific emission factors. Energy Vault implemented a travel booking software in 2022 that will allow for the more accurate tracking of category 6 emissions. The tool uses flight class and haul specific mileage emission factors for estimation of air travel emissions. Scope 3 emissions are expected to increase significantly as we deliver large-scale energy storage systems.

In 2022, Energy Vault operated four leased office spaces:

- **Westlake Village**, CA, USA - (Electricity + Natural Gas)
- **Vienna**, VA, USA - (Electricity + Natural Gas)
- **Arbedo-Castione**, Switzerland - (Electricity + Diesel)
- **Lugano**, Switzerland - (Electricity)

Year	Scope 1 Emissions (mtCO ₂ e)	Scope 2 Emissions (mtCO ₂ e)	Scope 1+2 Emissions (mtCO ₂ e)/FTE
2020	35.2	24.5	2.5
2021	23.6	29.6	.73
2022	37.4	49.5	.51

Year	Cat 1 (mtCO ₂ e)	Cat 2 (mtCO ₂ e)	Cat 4 (mtCO ₂ e)	Cat 5 (mtCO ₂ e)	Cat 6 (mtCO ₂ e)
2021	n/a	n/a	340.9	n/a	278.4
2022	3,987.5	610.2	357.6	175.5	1,938.9

Environmental Data

Energy Consumption

Tracking energy consumption throughout our company value chain is essential to us achieving our corporate goal, enabling a renewable world. As we look to accelerate the clean energy transition globally, we too must understand our own corporate energy consumption, so we are able to set an example by transitioning to clean energy.

Of Energy Vault's four offices, primary energy consumption data is only available for the office/R&D facility in Arbedo-Castione. We have estimated purchased electricity and natural gas for the additional three office spaces using office square footage and CBECS office facility type figures. Electricity consumption is divided based on publicly available and location-specific data on electricity generation by source.^{12,13} Implementing infrastructure for the primary data collection of office consumption is a priority for 2023 and moving forward.

Total energy consumption from renewable & non-renewable sources:

Year	Total Consumption (GJ)	Non-Renewable Source %	Renewable Source %
2020	5,556	93.9%	6.1%
2021	3,732	81.1%	18.9%
2022	5,230	88.5%	11.5%

Total energy consumption type:

Year	Electricity (GJ)	Natural Gas (GJ)	Diesel (GJ)
2020	661	241	4,654
2021	1,192	241	2,299
2022	1,217	381	3,632

Energy Intensity

The below table utilizes the energy consumption data to estimate the energy consumption of Energy Vault per full-time employee.

Year	Energy Consumption (GJ) / FTE
2020	231.5
2021	51.1
2022	30.7



Environmental Data

Waste Management

Accurately tracking waste generation is essential to understanding the impact of our corporate activities. In 2022, the only significant waste generation occurred at Energy Vault's R&D facility. Data is collected on a monthly cadence with waste-hauls that include waste type and end-of-life management. Waste is site-separated before being re-used, recycled, or disposed of. In 2022, significant waste generation occurred due to the decommissioning of the EV1 tower. Waste generated by this decommissioning has been identified below—steel and copper from EV1 was recycled, while concrete (in block form) was reused locally.

The typical end-of-life management of our various waste streams in Switzerland are as follow:

- Mixed waste (waste-to-energy), Paper (recycled), Wood (recycled), Glass (recycled), Iron (recycled), Special (waste-to-energy), Organics (waste-to-energy). Concrete (EoL varies), Copper (recycled)
- Waste data is not currently collected at our three other offices (Westlake Village, Vienna, Lugano), but we are looking to implement primary data collection procedures for office waste soon.

WASTE GENERATION (mt)

YEAR	TOTAL WASTE	MIXED	PAPER	WOOD	GLASS	IRON	SPECIAL	ORGANIC	CONCRETE	COPPER	HAZARDOUS
2021	5.8	.42	.52	3.5	.06	1.2	.12	0	0	0	0
2022	3,108.5	.14	.76	4.7	0	570.6*	0	.7	2,520*	11.5*	0

*signifies waste generated by the decommissioning of the EV1 tower

END-OF-LIFE MANAGEMENT (mt)

YEAR	TOTAL WASTE	LANDFILL	RECYCLING	REUSE	WASTE-TO-ENERGY	OTHER
2021	5.8	0	5.3	0	.54	0
2022	3,108.5	0	587.6	2,520	.84	0

WASTE DIVERTED

YEAR	% WASTE DIVERTED FROM LANDFILL	% WASTE DIRECTED TO LANDFILL
2021	100%	0%
2022	100%	0%

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

Data Collection & Reporting

GHG Emissions

Energy Consumption

Waste & Water Management

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Water Management

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

Data Collection & Reporting

GHG Emissions

Energy Consumption

Waste & Water Management

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

Water use continues to be an important internal metric to Energy Vault, but the accurate collection of water use data is not currently available. Water use remains a key focus in the discussions surrounding our offices and product delivery, and we plan to accurately report on our corporate water consumption and water use management in future sustainability reports.

Social

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

People & Culture

Workforce

Health & Safety

GOVERNANCE

CONCLUSION

APPENDIX



OUR PURPOSE

We exist to enable a sustainably energized world

We strive to create a world powered by renewable resources. At the core of our existence, lies the sense of urgency to meet the energy demands of the present, while enabling prosperity for future generations. We are driven by our respect and commitment for the balanced well-being of the three sustainability pillars: environment, society and the economy. Our commitment is to continuously develop cutting edge energy storage solutions, powered by renewable resources.



Social

- INTRODUCTION
- OUR COMPANY
- CEO MESSAGE
- IN THE VAULT
- OVERVIEW
- SOLUTIONS
- SUSTAINABILITY
- RESPONSIBILITY
- ECONOMICS
- STRATEGY
- APPROACH & ACTIONS
- ACCOUNTABILITY
- PRINCIPLES FRAMEWORK
- ENVIRONMENTAL
- SOCIAL**
 - People & Culture
 - Workforce
 - Health & Safety
- GOVERNANCE
- CONCLUSION
- APPENDIX



OUR VISION

We envision a future where nature and humankind coexist in harmony

The fates of humanity and nature are intertwined. The future we are working towards is one in which human aspirations, earth's natural resources and technological advancements are innately intertwined and mutually beneficial to one another. This inspiring vision serves as our guiding light in disrupting the status quo, pushing the limits of our thinking, and developing innovative energy storage solutions.

Social



INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

People & Culture

Workforce

Health & Safety

GOVERNANCE

CONCLUSION

APPENDIX



OUR MISSION

We provide energy solutions to accelerate the transition to renewable energy

Our investors, clients and employees have a shared mission to innovate energy storage technologies for the global transition to renewable energy. We provide a diverse technology portfolio of turnkey energy storage platforms, including proprietary gravity, battery, and green hydrogen energy storage hardware technologies, orchestrated by our trademark energy management system software and integration platform. Our team of energy industry experts are providing short and long duration grid scale energy storage solutions to help utilities, independent power producers and large industrial energy users reduce the cost of abundant clean energy while maintaining power reliability.

People & Culture

Values | The Energy Vault Way

We Commit to Building a Better Future for Earth and all Its Beings | We are bonded in our passion to make the world a better place. Each and every one of us, contributes to the well-being of our planet and all its beings. We are earth-conscious and human-centric not only in our products and solutions, but in our everyday decisions and operations.



We Innovate Cutting Edge Solutions to Accelerate the Unique Energy Aspirations of Our Clients | We bring our unique talents, skills and experiences to ideate and innovate transformative technologies for our clients. We are motivated and driven by the big questions and challenges that lead to transformative solutions. We look at challenges from a fresh, positive perspective and turn them into opportunities.



We Connect to Build Genuine Relationships | We believe in the value of meaningful connections; amongst ourselves, with our clients, and all our stakeholders. To care, connect, and collaborate is our overarching 'way of showing up' with others and for others; regardless of whether they are an immediate team member, a colleague from a different part of the organization, a client, a shareholder or a member of the community.



We Deliver Going Above & Beyond by Being Fast & Nimble | We are working in an industry where time is of essence. The world and our clients are in need of urgent solutions; solutions that will transform not only the future of their businesses but also the future of our world. We carry the responsibility of creating innovative products and solutions, as well as delivering these products and solutions to clients with unique needs through effective project delivery. We are focused on creating a solid foundation of products and solutions, combined with nimble and efficient business processes.



We Lead with Authenticity and Purpose | We choose to lead with purpose and authenticity rather than title and hierarchy. Whether we are leading a project meeting or leading the entire Energy Vault organization, we believe authenticity is at the core of how we lead talented people in a ground-breaking industry. As leaders, we encourage and empower our people; we ignite the collective power of our teams. Our ultimate role is to create the clarity, conditions and culture that will enable our great talent to commit, innovate, connect, and deliver. We lead the way by embodying and modelling all that we expect from our people.



Workforce

Full-Time Employee Workforce Data

Energy Vault considers the following measures of our workforce metrics. The results of our internal audit are as follows:

WORKFORCE: Gender breakdown

Year	Total Employees	Total Male	Total Female
2021	73	57	16
2022	170	134	36

NEW HIRES: Gender breakdown

Year	Total Hires	Total Male	Total Female
2021	53	41	12
2022	120	96	24

EMPLOYEE TURNOVER: Gender breakdown %

Year	Rate	Male Rate	Female Rate
2021	8.2%	n/a	n/a
2022	18.9%	15.6%	3.3%

*Prior to 2022, employee turnover was only tracked as a single company-wide number

WORKFORCE: Global breakdown

Year	US	UK	Switzerland	Germany
2021	55	2	15	1
2022	143	3	22	2

NEW HIRES: Global breakdown

Year	US	UK	Switzerland	Germany
2021	48	1	4	0
2022	108	1	9	2

EMPLOYEE TURNOVER: Global breakdown %

Year	US	UK	Switzerland	Germany
2021	n/a	n/a	n/a	n/a
2022	16.46%	0%	2.47%	0%

WORKFORCE: Age group breakdown

Year	Under 30	30-50	Over 50	Unknown
2021	10	43	19	1
2022	25	103	42	0

NEW HIRES: Age group breakdown

Year	Under 30	30-50	Over 50	Unknown
2021	8	28	14	3
2022	18	72	30	0

EMPLOYEE TURNOVER: Age group breakdown %

Year	Under 30	30-50	Over 50	Unknown
2021	n/a	n/a	n/a	n/a
2022	2.47%	9.88%	6.58%	0%

WORKFORCE: Race/Ethnicity breakdown

Year	Asian	Black/African American	Hispanic	Native Hawaiian/Other Pacific Islander	White	Multiple (2 or more)	Not Disclosed
2021	9	1	0	0	40	1	22*
2022	28	4	5	1	102	3	27*

*Ethnicity/Race data is only collected for US-based employees

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

People & Culture

Workforce

Health & Safety

GOVERNANCE

CONCLUSION

APPENDIX

Workforce

Training & Development

Energy Vault invest time and resources in continuous improvement of the systems that directly impact the quality of our products and services. Staff training and monitoring of internal procedures support:

- Planning skills
- Personnel technical skills
- Product and utilized resources quality
- Customers' contract terms compliance
- R&D activities and sustainable development, aimed at improving the environment in which we live and characterized by a fair use of natural resources
- Compliance with applicable statutory and regulatory requirements
- Contractual Clause Compliance
- Continuous analysis of the economic, environmental, and strategic context, both internal and external, with analysis of risks and opportunities

Energy Vault requires that all employees take a Sexual Harassment Prevention Training on bi-annual basis. As a benchmark we have only considered auditable trainings under the employee development disclosure. There has been significant internal training since the inception of Energy Vault, but time spent on employee development was not specifically tracked. Energy Vault is implementing a Learning Management System (LMS) in 2023 that will track internal employee training and development.

Employee Development

AVG Training Program by gender

Year	Avg. hours male	Avg. hours female
2021	n/a	n/a
2022	.81	.87

AVG Training Program by employee category

Year	Avg. hours – below director level	Avg. hours – director level and above
2021	n/a	n/a
2022	.79	1

*Required training – 2hrs for managers and higher, 1 hr for all other employees

Discrimination and Harassment

Total number of reported incidents

Year	Number of reported incidents
2021	0
2022	0

Health & Safety

Occupational Health & Safety

Energy Vault believes that no task is so urgent that it must be performed in a dangerous manner. No Energy Vault employee will be required to do a job that they consider unsafe. The company complies with all statutory, regulatory, and industry workplace safety and health requirements and maintains occupational safety and health standards that equal or exceed the best practices in the industry.

Energy Vault values different perspectives. A safety committee consisting of management and employee representatives will be established to identify hazards and unsafe work practices, remove obstacles to accident prevention, and help evaluate the company's effort to achieve an accident-and-injury-free workplace.

Energy Vault meets the requirements of U.S. Federal OSH law; specifically, 29 CFR 1910 and 29 CFR 1926. Energy Vault intends to meet ISO 45001 requirements in pursuit of certification.

Health & Safety Data

Energy Vault recognizes the safety and health of our employees, including contractors and other individuals working under our supervision, is one of our most important business considerations.

Energy Vault began tracking employee and contractor hours worked beginning in 2022. While these totals were not tracked previously, Energy Vault had no previous work-related injuries. All rates are calculated based on 200,000 hours worked.

Rate of fatalities as a result of work-related injuries

Year	Employees	Contractors
2020	0	0
2021	0	0
2022	0	0

Rate of high-consequence work-related injuries

Year	Employees	Contractors
2020	0	0
2021	0	0
2022	0	0

Rate of recordable work-related injuries

Year	Employees	Contractors
2020	0	0
2021	0	0
2022	0	12.09*

*A single workplace injury occurred to a contractor in June of 2022.

Total number of hours worked

Year	Employees	Contractors
2020	n/a	n/a
2021	n/a	n/a
2022	241,168	16,539

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

People & Culture

Workforce

Health & Safety

GOVERNANCE

CONCLUSION

APPENDIX

Health & Safety

Energy Vault Safety Pledge

Energy Vault pledges to do the following:

- Strive to achieve the goal of zero accidents and injuries.
- Provide mechanical and physical safeguards wherever they are appropriate.
- Conduct routine safety and health inspections to find and eliminate unsafe working conditions, control health hazards, and comply with all applicable safety and health requirements.
- Provide initial and recurring training to all employees in safe work practices and procedures.
- Provide employees with necessary personal protective equipment and train them to use and care for it properly.
- Enforce company safety and health rules and require employees to follow the rules as a condition of employment.
- Investigate accidents to determine the cause and prevent similar accidents.

All employees share responsibility for a safe and healthy workplace.

- Management is responsible for preventing workplace injuries and illnesses and will consider all employee suggestions for achieving a safer, healthier workplace.
- Management also will keep informed about workplace safety-and-health hazards and regularly review the company's safety and health program.
- Supervisors are responsible for supervising and training workers in safe work practices.
- Supervisors must enforce company rules and ensure that employees follow safe practices while working.
- Employees are required to participate in safety and health program activities including immediately reporting hazards, unsafe work practices, and accidents to supervisors; inspecting, caring for, and correctly wearing required personal protective equipment; and participating in and supporting safety and health programs and improvement initiatives.



Governance

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

Executive Leadership

Board of Directors

Strategic Advisory Board

Policies & Commitments

CONCLUSION

APPENDIX

Leadership

Energy Vault's business is conducted by the company's employees, managers, and officers, under the direction of the Company's CEO and the oversight of the Board, to enhance the long-term value of the Company and seek the best interests of its stockholders. Energy Vault stakeholders and employees share a passion to combat climate change through innovation in energy storage technologies. With our vast global network in leadership, management, and contribution, Energy Vault is well positioned to meet the large and currently unmet demand for sustainable and economical energy storage for renewable energy generation worldwide.

We are honored to have established strong governance that will allow us to best serve customer needs while accelerating adoption and deployment of the technology. Our global management team is focused on accelerating the adoption and deployment of our technology in order to provide flexibility to deploy, at scale with customized solutions for our identified target customers.



Robert Piconi
Chairman, Co-Founder &
Chief Executive Officer



Andrea Pedretti
Co-Founder &
Chief Technology Officer



Gonca Icoren
Chief People
Officer



Laurence Alexander
Chief Marketing
Officer



Jan Kees van Gaalen
Chief Financial
Officer



Josh McMorrow
Chief Legal
Officer



Chris Wiese
Chief Operations
Officer



Marco Terruzzin
Chief Product &
Commercial Officer



John G. Jung
President
EVS™



Akshay Ladwa
Chief Engineering
Officer EVS™



Kevin Keough
Senior Vice President
Corporate Development



E.B. Jensen
Senior Vice President
Project Delivery

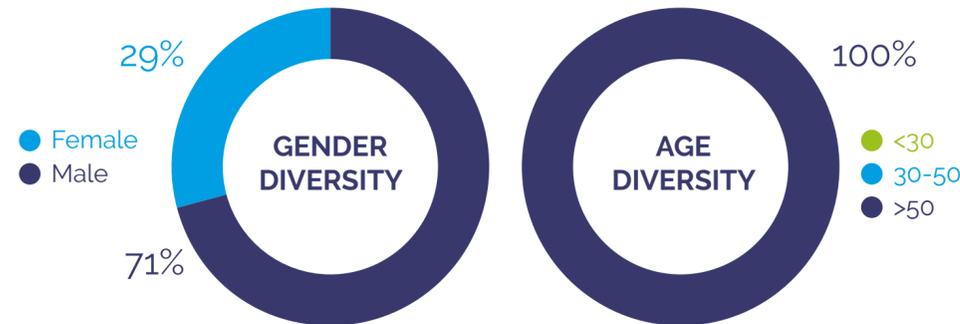
Board of Directors

Energy Vault Board of Directors is elected by the stockholders to oversee management in its duties. In fulfilling their responsibilities, both management and the Board are informed by their fiduciary duties under applicable law. Both the Board and management recognize that the long-term interests of stockholders are advanced by responsibly addressing the concerns of other stakeholders and interested parties including employees, recruits, customers, suppliers, communities, government officials, and the public at large.

- > [Corporate Governance Guidelines](#)
- > [Charter of the Audit Committee of the Board of Directors](#)
- > [Charter of the Nominating and Corporate Governance Committee of the Board of Directors](#)
- > [Compensation Committee Charter](#)

Compensation Committee

The purpose of the Compensation Committee of the Board of Directors of Energy Vault Holdings, Inc. is to assist the Board with its oversight of the forms and amount of compensation for the Company's executive officers, to administer the Company's incentive plans for employees and other service providers, including the Company's equity incentive plans. The published Charter sets forth the composition, authority, and responsibilities of the Committee.



Audit Committee

Energy Vault Board of Directors Audit Committee oversee the management of risks associated with the Company's financial reporting, accounting, and auditing matters, including the Company's guidelines and policies with respect to risk assessment and risk management. Such oversight includes reviewing the Company's cybersecurity and other information technology risks, controls and procedures, including the Company's plans to mitigate cybersecurity risks and to respond to data breaches. The Committee also reviews with management any specific cybersecurity issues that could affect the adequacy of the Company's internal controls. In 2023 ESG will be added to the Audit Committee's oversight and management responsibilities.



Robert Piconi
Chairman,
Co-Founder & CEO



Bill Gross
Co-Founder
& Director



Mary Beth Mandanas
Director



Thomas Ertel
Director



Zia Huque
Director



Theresa Fariello
Director

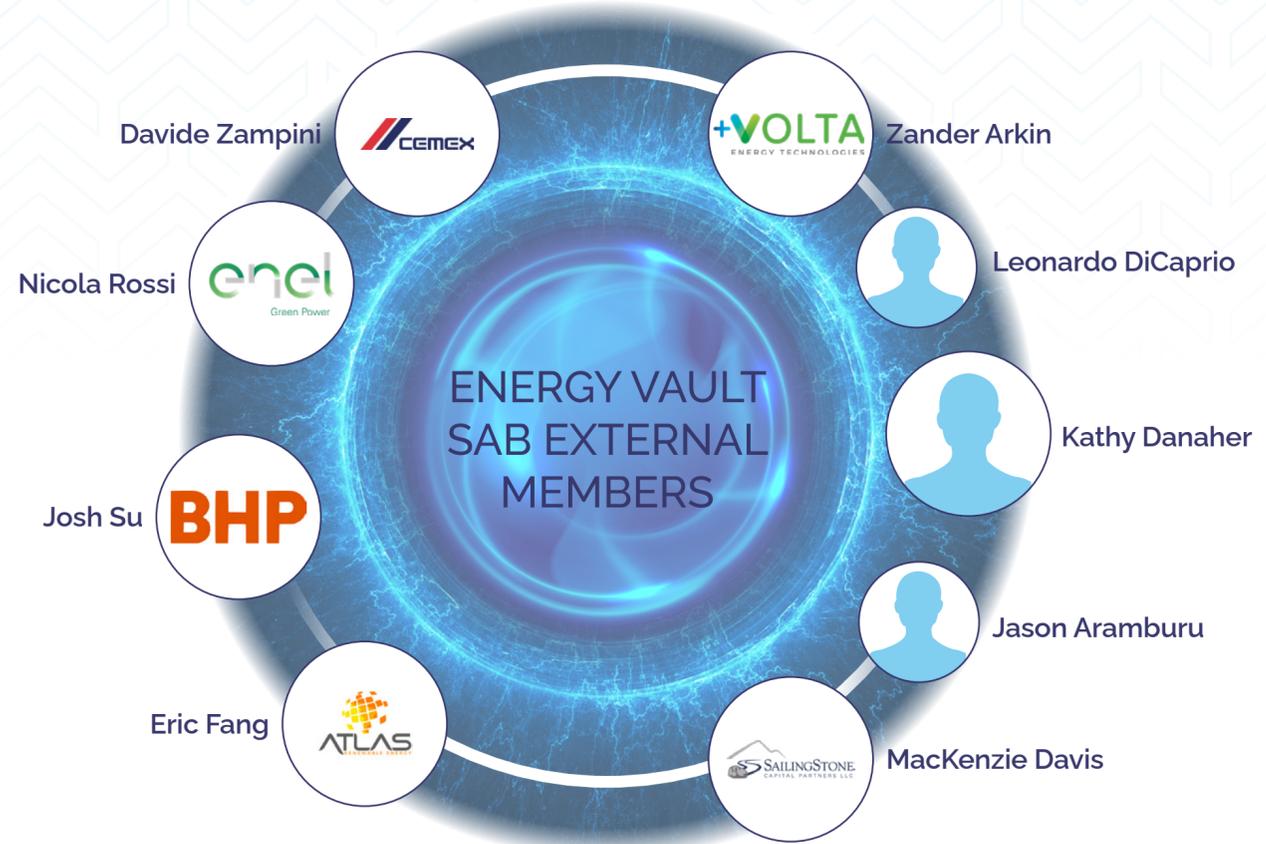


Larry Paulson
Director

Governance

Strategic Advisory Board

- INTRODUCTION
- OUR COMPANY
- CEO MESSAGE
- IN THE VAULT
- OVERVIEW
- SOLUTIONS
- SUSTAINABILITY
- RESPONSIBILITY
- ECONOMICS
- STRATEGY
- APPROACH & ACTIONS
- ACCOUNTABILITY
- PRINCIPLES FRAMEWORK
- ENVIRONMENTAL
- SOCIAL
- GOVERNANCE**
 - Executive Leadership
 - Board of Directors
 - Strategic Advisory Board
 - Policies & Commitments
- CONCLUSION
- APPENDIX



INTERNAL MEMBERS

- Rob Piconi
Chairman, Co-founder, & Chief Executive Officer
- Kevin Keough
SVP Corporate Development & SAB Team Leader
- Andrea Pedretti
Chief Technical Officer & Head of Innovation
- Marco Terruzzin
Chief Product & Commercial Officer
- John Jung
President, Energy Vault Solutions
- Laurence Alexander
Chief Marketing Officer
- Josh McMorrow
Chief Legal Officer



CADENCE

Bi-annual, in-person, all members in attendance meetings.
Quarterly one-on-one calls with Energy Vault's Strategic Advisory Board team leader.



MEMBER BENEFITS

Bi-lateral exchange of valuable insights from senior leadership across diverse domains within the sustainable energy marketplace.

Governance

Strategic Advisory Board

Energy Vault's Strategic Advisory Board (SAB) will advance our mission to accelerate global decarbonization through deployments of our scalable, economical, and environmentally sustainable energy storage and software technologies.

Energy Vault announced the formation of our Strategic Advisory Board in February 2022. The Strategic Advisory Board consists of respected industry leaders from the company's existing strategic investor and customer base who bring relevant domain experience, deep knowledge of the evolving technology landscape and a proven track record of shareholder value creation.

The inaugural Strategic Advisory Board includes leaders from CEMEX Ventures (NYSE: CX), BHP Ventures (NYSE: BHP), Saudi Aramco Energy Ventures (TADAWUL: SAUDI ARAMCO), Enel Green Power (ENELMI), PlusVolta, Pickering Energy Partners, Ark Energy Corporation Pty Ltd, a wholly owned subsidiary of Korea Zinc (KRX 010130), a strategic investor in Energy Vault, and Atlas Renewable and existing investor, actor, and environmentalist, Leonardo DiCaprio.

The SAB meets formally every quarter to review the most relevant technology and market trends, and the intersection of these trends with Energy Vault's own technology and strategic roadmap in order to optimize the Company's energy storage solution focus and longer-term strategic evolution.



Expanding the use of renewables is imperative to tackling the climate crisis and achieving the goals of the Global Climate Action Plan announced at COP26. I am proud to join Energy Vault on its mission to accelerate decarbonization of our planet."

Leonardo DiCaprio

Actor/Environmentalist/Energy Vault Investor & Strategic Advisory Board Member



This is an exceptional group representing some of the leading global energy and industrial companies in the world who uniformly share our passion and urgency to decarbonize the planet. It is an honor to have the opportunity to work with such an esteemed group of leaders as investors and partners as we focus on customer execution globally and our mission of advancing Energy Vault's technology to combat global climate change."

Robert Piconi

Chairman, Co-Founder, & CEO of Energy Vault

Policies & Commitments

Sustainability at Energy Vault has been standardized and managed through specified policies & commitments, management processes and practices which are reinforced by the Sustainability Task Force. Beginning with our Code of Conduct, we define common rules for responsible business for all our employees and project those same values to our stakeholders. The policies & commitments that set the boundaries for responsible business are aligned with our materiality assessment. Our Quality & Environmental Policy defines the direction that guides our product impact and quality. Our policies on Human Rights, Equal Opportunity, Discrimination & Harassment create a safe and secure place for our employees and partners to work. Energy Vault recognizes and supports the laws set out by the the International Labor Organization Standards, United Nations Universal Declaration on Human Rights, the International Labor Organization Standards, the ten principals of the UN Global Compact and Organization for Economic Co-operation and Development (OECD). Energy Vault strives to comply with all local laws and regulations for the countries in which we operate. The following chart outlines the list of Energy Vault's completed policies and commitments as well as targets set for the near future.



Policy Type	Status
ENVIRONMENTAL	
Quality & Environmental Policy	Public
Environmental Management Plan (ISO 14001)	Public Certificate
Biodiversity Commitment	2024
No Deforestation Commitment	Q3 '23
Net-Zero Commitment	Q1 '24
Construction Management Plan	Private
Site Construction and Management Plan	Private
Waste Management Plan	Q3 '23
Product End-of-Life Management Plan	2024
SOCIAL	
Discrimination and Harassment	Code of Conduct p.13
Human Rights Commitment	Code of Conduct p.15
OHS Policy	Public
OHS Management Plan	Private
GOVERNANCE	
Board Diversity Policy	2024
Justice, Equity, Diversity & Inclusion	2024
Code of Conduct	Public
Corruption and Bribery Policy	Code of Conduct p.07
Supplier Code of Conduct	Public
Conflict Minerals	Q3 '23
Quality Management Plan (ISO 9001)	Public Certificate
Quality Assurance Program Manual	Private

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

Executive Leadership

Board of Directors

Strategic Advisory Board

Policies & Commitments

CONCLUSION

APPENDIX

Conclusion

Closing Statement

Our first ever annual sustainability report marks a milestone in Energy Vault's commitment to transparency and accountability in our fight on climate change and our focus on the energy transition. We are very proud to have initiated our first year as a public company with strong focus on governance and building the infrastructure needed to track, manage, and report on efforts for a more just and sustainable future.

Highlights from our 2022 benchmarking year include:

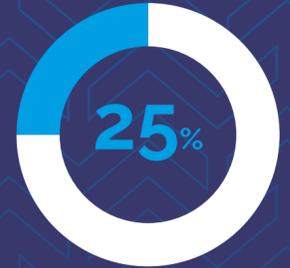
- Built a strong (long and short term) **sustainability strategy** and governance structure reaching the highest level of decision making, the Board of Directors, reinforced by the foundations of our company, the people that work here.
- Completed our first materiality and double **materiality assessment** to help focus our efforts on the issues that will have the greatest impact to our stakeholders while understanding the resources and efforts needed to address them.
- Completed a 3rd party evaluation of our corporate environmental management system with **ISO 14001 certification**.
- Completed a screening **lifecycle assessment** of our patented gravity energy storage solution and laid the groundwork and resources for a continuous analysis of our products.
- Implemented an **ESG management and reporting** software to collect, track and improve on all aspects of ESG, especially material issues. The software and management structure allows alignment with major global sustainability frameworks and facilitates 3rd party assurance of our data.
- Collected scope 1 & 2 **greenhouse gas emissions** for the past 3 years including 5 categories of scope 3 emissions for 2022.
- Partnerships are essential to achieve sustainability in the clean energy transition. We have made collaboration a top priority for Energy Vault, creating **a supplier code of conduct** and a strategy to expand our sustainability standards throughout our value chain.

Looking forward, 2023 is going to be another exciting year for Energy Vault in our renewed purpose to enable a sustainably energized world. We have set ambitious goals to continue improving our transparency and alignment with global frameworks which include the Task Force on Climate-related Financial Disclosures and becoming an active member of the UN Global Compact. We will strengthen our partnerships and create new ones, aligning our goals and promoting our culture of creating a just and sustainable world. In 2023 the Sustainability Task Force will be in full operation, endeavoring to embed directives into each function of the company and creating cross functional collaborations to break down silos and pave the way for further innovation.

While we are proud of the work we have accomplished in 2022, we are committed to dedicated action in 2023 and continued improvement in years to come. We are committed to fostering partnerships, lowering our product resource use, ensuring health & safety, and improving every community we touch.

- Our Engineering Team is vigilantly working to lower cement and other material resource use in our products.
- Our Procurement Team supplier code of conduct mandates human rights compliance and encourages scope 3 emissions tracking.
- Our Project Delivery and Execution Team has set ambitious goals to track and improve environmental impacts during construction and operation of our energy storage systems.
- Our Sustainability and Leadership Teams are building the framework to link incentive based compensation to ESG metrics.

As a company we are prepared for the new regulations expected from the United States Securities and Exchange Commission (SEC) and those established by the Corporate Sustainability Reporting Directive (CSRD). We are prepared to face the difficult and complex challenges ahead with confidence that leading with our environment first approach and providing encouragement and support in global partnerships will help us in our mission to provide energy solutions to accelerate the transition to renewable energy. This report was prepared with support from 25% of company employees and 100% of the Executive Leadership Team. The entire company has been called upon to support the global transition from fossil fuels through the development and deployment of sustainable energy storage solutions.



25% of Energy Vault staff participated in this report



100% of Energy Vault Executive Leadership Team participated in this report



Michael Van Parys, AIA, LEED AP
Director of Sustainability
mvp@energyvault.com

Appendix: GRI Content Index

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

GRI Content Index

References

Disclosures

STATEMENT OF USE	Energy Vault Holdings, Inc. has reported the information cited in this GRI content index for the period from January 1, 2022 to December 31, 2022 with reference to the GRI Standards.
GRI 1 USED	GRI 1: Foundation 2021

GRI STANDARD	DISCLOSURE	LOCATION
GRI 2: General Disclosures 2021	2-1 Organizational details	2-1 a) Energy Vault Holdings, Inc. 2-1 b) Publicly traded company & incorporated entity 2-1 c) Westlake Village, California 2-1 d) See 10k 
GRI 2: General Disclosures 2021	2-2 Entities included in the organization's sustainability reporting	2-2 a) Energy Vault, Inc. and all subsidiaries 2-2 b) Indicators cover all activities consolidated for financial reporting purposes. See Strategy
GRI 2: General Disclosures 2021	2-3 Reporting period, frequency and contact point	2022, annually, mvp@energyvault.com
GRI 2: General Disclosures 2021	2-5 External assurance	This inaugural report has been verified internally and we plan to conduct a voluntary third-party audit in 2023. All future reports will be assured through a similar process
GRI 2: General Disclosures 2021	2-6 Activities, value chain and other business relationships	See Market Overview Energy Vault Solutions - additional information can be found on our Solutions section in the 10-K 
GRI 2: General Disclosures 2021	2-7 Employees	See Workforce
GRI 2: General Disclosures 2021	2-9 Governance structure and composition	See 10-K 
GRI 2: General Disclosures 2021	2-10 Nomination and selection of the highest governance body	See 10-K 
GRI 2: General Disclosures 2021	2-11 Chair of the highest governance body	See 10-K 
GRI 2: General Disclosures 2021	2-12 Role of the highest governance body in overseeing the management of impacts	See Sustainability Division
GRI 2: General Disclosures 2021	2-14 Role of the highest governance body in sustainability reporting	Internal review of CSR content and metrics progresses through review with subject matter experts, the legal team, and the executive committee, with final sign off from the board of directors. See Sustainability Division
GRI 2: General Disclosures 2021	2-15 Conflicts of interest	See Energy Vault Code of Conduct . Additional guidance in 10-K 

Appendix: GRI Content Index

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

GRI Content Index

References

Disclosures

GRI STANDARD	DISCLOSURE	LOCATION
GRI 2: General Disclosures 2021	2-22 Statement on sustainable development strategy	See CEO Message
GRI 2: General Disclosures 2021	2-23 Policy commitments	See Energy Vault Code of Conduct 
GRI 2: General Disclosures 2021	2-26 Mechanisms for seeking advice and raising concerns	See Energy Vault Code of Conduct and Safety Statement & Goals 
GRI 2: General Disclosures 2021	2-27 Compliance with laws and regulations	Energy Vault had no instances of non-compliance with laws and regulations prior to or in 2022.
GRI 2: General Disclosures 2021	2-28 Membership associations	See ESG Philosophy Research & Development and Energy Vault About Us page 
GRI 3: Material Topics 2021	3-1 Process to determine material topics	See Materiality Assessment
GRI 3: Material Topics 2021	3-2 List of material topics	See Materiality Assessment
GRI 3: Material Topics 2021	3-3 Management of material topics	See Materiality Assessment
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	See 10-K 
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	Current financial risk assessments are published in our 10-K and through our preliminary double materiality assessment (see Materiality Assessment). We plan to publish a full climate change risk assessment in conjunction with our TCFD statement in future reports. 
GRI 302: Energy 2016	302-1 Energy consumption within the organization	See Energy Consumption
GRI 302: Energy 2016	302-3 Energy Intensity	See Energy Consumption
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	See Greenhouse Gas Emissions
GRI 305: Emissions 2016	305-2 Energy indirect (Scope 2) GHG emissions	See Greenhouse Gas Emissions
GRI 305: Emissions 2016	305-3 Other indirect (Scope 3) GHG emissions	See Greenhouse Gas Emissions

Appendix: GRI Content Index

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

GRI Content Index

References

Disclosures

GRI STANDARD	DISCLOSURE	LOCATION
GRI 305: Emissions 2016	305-4 GHG emissions intensity	See Greenhouse Gas Emissions
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	See Waste
GRI 306: Waste 2020	306-2 Management of significant waste related impacts	See Waste
GRI 306: Waste 2020	306-3 Waste generated	See Waste
GRI 306: Waste 2020	306-4 Waste diverted from disposal	See Waste
GRI 306: Waste 2020	306-5 Waste directed to disposal	See Waste
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	See Workforce
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	See Health & Safety
GRI 403: Occupational Health and Safety 2018	403-3 Occupational health services	See Health & Safety
GRI 403: Occupational Health and Safety 2018	403-5 Worker training on occupational health and safety	See Health & Safety
GRI 403: Occupational Health and Safety 2018	403-9 Work-related injuries	See Health & Safety
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	See Workforce
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	See Governance
GRI 406: Non-Discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Energy Vault had no reported instances of discrimination in 2022.
GRI 417: Marketing and Labeling 2016	417-3 Incidents of non-compliance concerning marketing communications	Energy Vault had no instances of non-compliance concerning marketing communications in 2022.

Appendix: References

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

GRI Content Index

References

Disclosures

Endnotes

1. Lacic, A. A., Schmidt, G. A., Rind, D., & Ruedy, R. A. (2010). HYPERLINK "<https://science.sciencemag.org/content/330/6002/356>" Atmospheric CO2: Principal control knob governing Earth's temperature. *Science*, 330(6002), 356-359.
2. University of California Regents (2022). Burning of fossil fuels. [online] Understanding Global Change. Available at: <https://ugc.berkeley.edu/background-content/burning-of-fossil-fuels/>.
3. Our World in Data. (n.d.). Which sources does our global energy come from? How much is low-carbon? [online] Available at: <https://ourworldindata.org/sources-global-energy#:~:text=In%202020%2C%20the%20global%20primary%20energy%20mix%20was>.
4. Ritchie, H. and Roser, M. (2020). CO2 and Greenhouse Gas Emissions. Our World in Data. [online] Available at: <https://ourworldindata.org/co2-emissions#global-co2-emissions-from-fossil-fuels-global-co2-emissions-from-fossilfuels>.
5. United Nations (2022). World population to reach 8 billion on 15 November 2022. [online] United Nations. Available at: <https://www.un.org/en/desa/world-population-reach-8-billion-15-november-2022>.
6. www.eia.gov. (n.d.). International Energy Outlook - 2021 - U.S. Energy Information Administration (EIA). [online] Available at: <https://www.eia.gov/outlooks/ieo/narrative/introduction/sub-topic-01.php>.
7. Jaeger, J. (2021). Explaining the Exponential Growth of Renewable Energy. www.wri.org. [online] Available at: <https://www.wri.org/insights/growth-renewable-energy-sector-explained>.
8. Power system flexibility: A review. (2020). *Energy Reports*, [online] 6, pp.101–106. doi:<https://doi.org/10.1016/j.egy.2019.11.048>.
9. IEA (2021), Net Zero by 2050, IEA, Paris <https://www.iea.org/reports/net-zero-by-2050>, License: CC BY 4.0
10. BloombergNEF. (2023). 1H 2023 Energy Storage Market Outlook. [online] Available at: <https://about.bnef.com/blog/1h-2023-energy-storage-market-outlook/>.
11. Mackenzie, W. (2022). Global energy storage market to reach 500GW by 2031. [online] www.woodmac.com. Available at: <https://www.woodmac.com/press-releases/global-energy-storage-market-to-reach-500gw-by-2031/> [Accessed 4 May 2023].
12. IEA. (n.d.). Switzerland - Countries & Regions. [online] Available at: <https://www.iea.org/countries/switzerland>.
13. US EPA, O. (2015). Power Profiler. [online] US EPA. Available at: <https://www.epa.gov/egrid/power-profiler#/>.

Sources & References

- BloombergNEF. (2022). Global Energy Storage Market to Grow 15-Fold by 2030. [online]
- BloombergNEF. (2022). Cost of New Renewables Temporarily Rises as Inflation Starts to Bite. [online] (p.6)
- California Energy Storage Alliance. (n.d.). Why Storage. [online]
- Energy.gov.au. (2020). | energy.gov.au. [online]
- EUROPEAN COMMISSION (2022). REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition. [online] European Commission. (2023). European Electricity Review 2023. [online]
- GREEN HYDROGEN COALITION. (n.d.). About Green Hydrogen. [online]. LDES Technologies | LDES Council. [online]
- IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp.
- Myllyvirta, L. (2023). Russia–Ukraine war has not led to increased fossil fuel consumption in the EU. [online] Centre for Research on Energy and Clean Air. National Security and the Threat of Climate Change. [online]
- Office of Energy Efficiency & Renewable Energy (n.d.). How Do Wind Turbines Work? [online] Office of Energy Efficiency and Renewable Energy. Battery Energy Storage Market Size, Share | Global Report, 2027. [online]
- SEPA. (n.d.). Utility Carbon-Reduction TrackerTM. [online] IEA. (n.d.). Grid-Scale Storage – Analysis. [online]
- Solar Energy Technologies Office (2022). How Does Solar Work? [online] Energy.gov.
- The White House (2022). FACT SHEET: One Year into Implementation of Bipartisan Infrastructure Law, Biden-Harris Administration Celebrates Major Progress in Building a Better America | The White House. [online] The White House.
- United Nations (n.d.). What is Climate Change? [online] United Nations.
- University of California Regents (2022). Burning of fossil fuels. [online] Understanding Global Change.
- Vizzuality (n.d.). 14th Five-Year Plan for New Energy Storage Development Implementation Plan - China - Climate Change Laws of the World. [online] climate-laws.org.
- World Energy Council (2019). World Energy Trilemma Index | World Energy Council. [online] World Energy Council.

Disclosures

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. State and federal level regulation may also create certain additional compliance costs and barriers in the future. 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 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. In addition, given the inherent uncertainty of the estimates, assumptions, and timelines contained in this report, we may not be able to anticipate in advance whether or the degree to which we will or will not be able to meet our plans, targets, or goals. Furthermore, much of this information is subject to assumptions, estimates or third-party information that is still evolving and subject to change. Policy developments with respect to the energy markets are unpredictable. For example, our disclosures based on any standards may change due to revisions in framework requirements, availability 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.

INTRODUCTION

OUR COMPANY

CEO MESSAGE

IN THE VAULT

OVERVIEW

SOLUTIONS

SUSTAINABILITY

RESPONSIBILITY

ECONOMICS

STRATEGY

APPROACH & ACTIONS

ACCOUNTABILITY

PRINCIPLES FRAMEWORK

ENVIRONMENTAL

SOCIAL

GOVERNANCE

CONCLUSION

APPENDIX

GRI Content Index

References

Disclosures