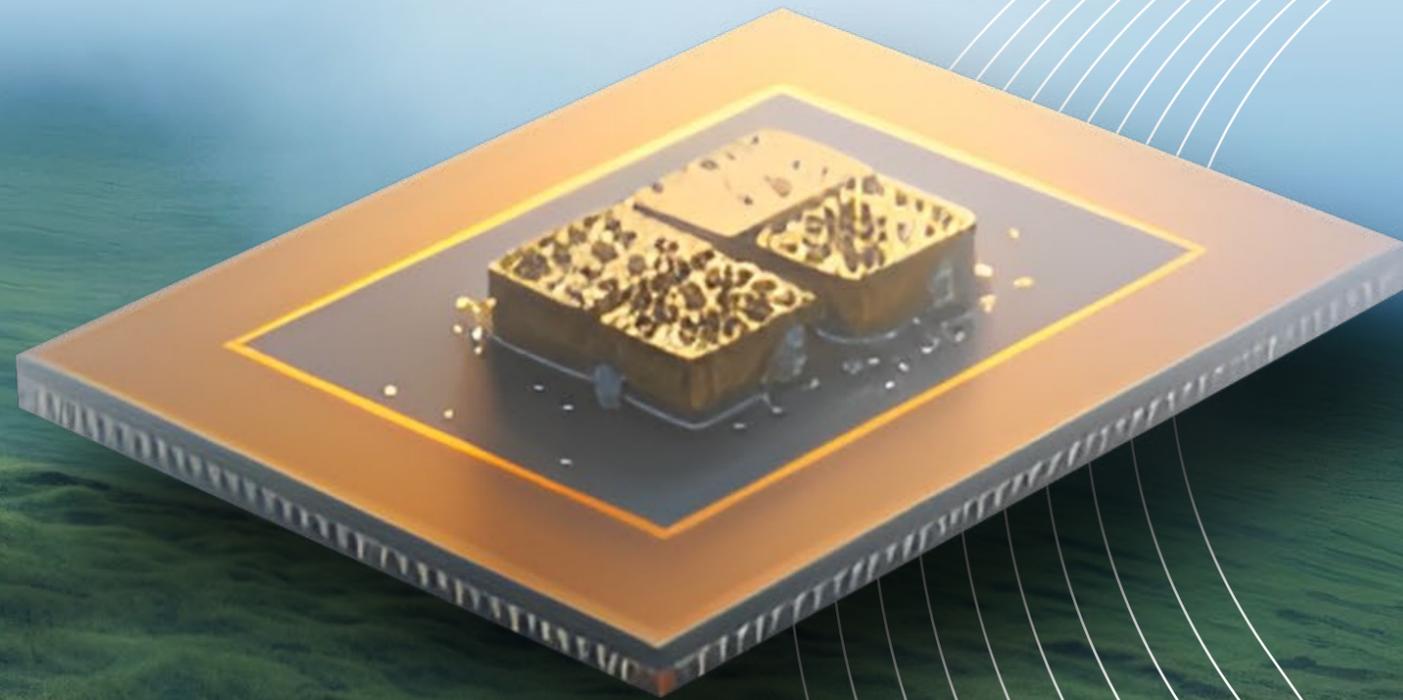


# Impact Report

## 2023



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# Crusoe in 2023

The background features a complex, abstract composition of glowing lines and particles. In the foreground, there are thick, wavy bands of teal and cyan light. Behind these, a dense field of thinner, orange and yellow lines curves and flows across the frame. Scattered throughout are numerous small, bright particles in various colors, including orange, yellow, teal, and purple. The overall effect is one of dynamic energy and digital connectivity.

# Letter from the Founders

In the year since we published our first ESG report, we have seen the world of AI and computing infrastructure transform. Since ChatGPT launched in November 2022, AI capabilities have crossed a threshold of broadening usefulness. Thereafter, AI capabilities began marching up a seemingly exponential improvement curve, which continues today with no end in sight. As a result of this accelerating innovation and improvement, today we already see AI-based products that meaningfully increase efficiency, productivity, and capabilities across industries ranging from software development to creative arts to healthcare, manufacturing, energy, and beyond. AI appears increasingly likely to become the single greatest leap in human innovation during our lifetime.

Crusoe's focus on computing infrastructure for AI workloads, part of the vision since our founding Crusoe, increased in scope in 2023 and will continue to be the center of our strategy in the years to come. In order to support and scale AI sustainably and responsibly, Crusoe remains steadfast in our mission to align the future of computing with the future of the climate. As AI models have grown, so has the demand for the electricity and the infrastructure to power and

support the models. According to a recent report from BCG, electricity consumption at U.S. data centers alone is poised to triple from 2022 levels by 2030.\* Similarly, Goldman Sachs projects a 15% CAGR in data center power demand through 2030, driving data centers to consume 8% of total U.S. electrical power demand by the end of the decade, up from 3% today, resulting in an incremental 47 gigawatts of power generation capacity needed to support data centers.\*\* This growth is running headlong into broadly shared ambitions to reduce emissions from energy consumption to meet climate goals.

We believe it is possible to scale AI in a way that doesn't derail goals to decarbonize or hinder the transition to a clean energy future. To minimize the environmental impacts of computing-led innovation, Crusoe takes an energy-first approach to developing a sustainable and cost-effective AI cloud platform. From expanding our computing infrastructure powered by otherwise flared gas to announcing a major geothermal and hydro-powered AI computing deployment in Iceland to significantly expanding our pipeline of renewables-based data center development sites, Crusoe is leading the way on climate-aligned computing AI infrastructure.



\* BCG "The Impact of GenAI on Electricity: How GenAI is Fueling the Data Center Boom in the U.S." September 13, 2023

\*\* Goldman Sachs "Generational Growth" April 28, 2024

In 2023, following private alpha and beta launches in 2022 and 2023, we formally launched Crusoe® Cloud, our AI cloud computing platform powered by Digital Flare Mitigation® technology and renewable energy. Throughout the year, we significantly expanded the platform's computing capacity, software functionality, and hardware offerings to meet customer needs. Furthermore, we invested heavily in the expansion of our portfolio of sustainable energy sources to continue to grow our AI-focused cloud platform. We also scaled our talent and human resources to further the continued expansion of Crusoe® Cloud and Crusoe's data center infrastructure. Going forward, Crusoe is well-positioned to support our customers in managing the ever-expanding scope and complexity of their computational needs.

Across our Cloud and bitcoin mining businesses, we grew to over 200 MW of deployed capacity in 2023. Approximately one-third of the energy consumed by Crusoe® Cloud in 2023 was powered by DFM™ technology, and two-thirds were powered by 100% renewable energy at third-party data centers. We avoided over 680,000 metric tons of GHG emissions through the scaling of Digital Flare Mitigation® technology, with 12 new project deployments in the U.S. for a total of 33, and prevented over 5.4 billion cubic feet of natural gas from flaring, avoiding over 8,500 metric tons of methane emissions. We generated over 635,000 MWh of electricity by harnessing this stranded energy and used it to power energy-intensive workloads that we removed from the grid.

Over the last year, Crusoe also continued to vertically integrate as an AI infrastructure company by bringing more of the energy, infrastructure, hardware, and software functions in house. Vertical integration is part of Crusoe's vision for delivering to customers a sustainable and low-cost way to train and operate AI models. Illustrative of our vertical integration strategy, we focused and improved our manufacturing capabilities at Crusoe Industries to enable and accelerate Crusoe's AI infrastructure. Specifically, we made the strategic decision to narrow our manufacturing activities to a set of electrical systems and components that are essential to reduce the costs and lead-times of AI data center development. We view our specialized manufacturing capabilities as durable competitive advantages throughout 2024 and beyond.

2023 was no doubt a pivotal year for our business. And as we look to the future, it is clear that 2024 and 2025 will be transformative as well, not just for Crusoe but for the AI industry writ large. We will continue to invest in our employees, the communities in which we operate, and our partners in the pursuit of scaling our business and long-term impact.

Crusoe is transforming the system of computing infrastructure – from the energy that powers it, to the data centers that serve it, to our purpose-built AI computing stack that supports the work of innovators using Crusoe® Cloud. Through our vertically-integrated approach, we are reimagining how large-scale AI computing should operate from the ground up.

None of this would be possible without the lasting commitment and dedication from our employees, our investors, our energy partners, our Cloud customers, and other key stakeholders – many of whom have been with us from the beginning. We cannot begin to express our appreciation enough for the many people working tirelessly to bring our mission to life.

We are deeply grateful for the opportunity to continue to shape and scale the computing industry as we strive to always do more and do better.

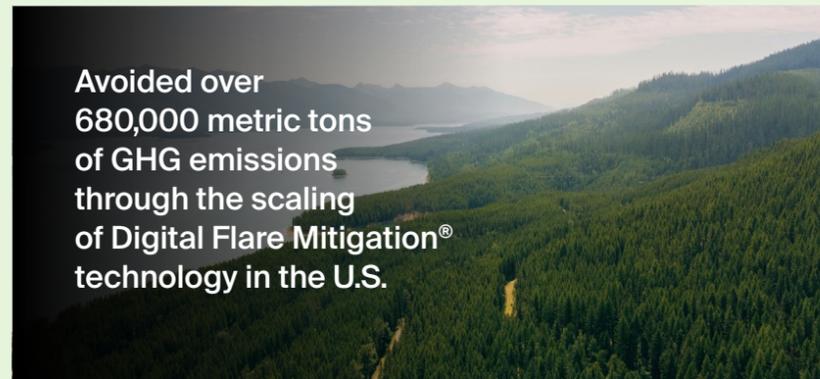
Thank you,  
**Chase and Cully**



2023 was no doubt a pivotal year for our business. And as we look to the future, it is clear that 2024 and 2025 will be transformative as well, not just for Crusoe but for the AI industry writ large.

# Crusoe's 2023 Impact

## Environment



Avoided over 680,000 metric tons of GHG emissions through the scaling of Digital Flare Mitigation® technology in the U.S.

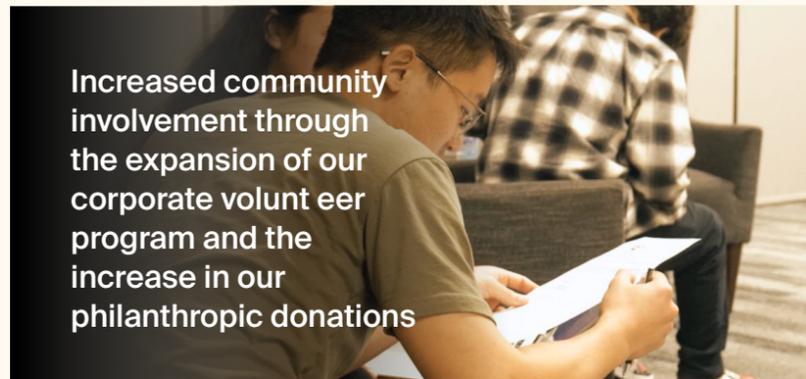
### Expanded to 33 DFM™ sites across 6 states, including 12 new deployments

- ◆ Prevented over 5.4 billion cubic feet of natural gas from being flared and avoided over 8,500 metric tons of methane emissions
- ◆ Generated over 635,000 MWh of electricity by harnessing stranded energy

### Expanded internationally through partnership with Unblock Computing

- ◆ Licensing of Crusoe's DFM™ technology enabled reduction in flaring by over 85 million cubic feet across 2 sites in Argentina

## Society



Increased community involvement through the expansion of our corporate volunteer program and the increase in our philanthropic donations

### Continuously worked to ensure our employees' health and safety

- ◆ Introduced "FOCUS" program on workplace hazard identification and mitigation
- ◆ Maintained low Total Recordable Injuries Rate of 1.56
- ◆ Reached over 3 million safe miles driven by Crusoe employees since tracking began in February 2022

### Invested in upskilling opportunities for our people

- ◆ Inaugurated the "ALPINE" Leadership Training and Peer Group Coaching programs for managers
- ◆ Provided over 1,900 total hours of leadership training

## Governance



Achieved SOC 2 Type 1 and implemented enhanced data security policies and protocols

### Enhanced corporate governance

- ◆ Established an Audit Committee and a Compensation and Talent Committee to assist Crusoe's Board of Directors

### Collaborated with leading global organizations to promote innovation against climate change

- ◆ Became a member of the [World Economic Forum](#)
- ◆ Joined the [Global Methane Initiative](#)

### Sold our first [Sustainable Bitcoin Certificates](#) to sustainability-focused crypto investors

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# Our Mission and Business



# Crusoe's Mission

Crusoe is a vertically-integrated AI infrastructure company whose mission is dedicated to sustainably powering computing.

Since our inception in 2018, we've dedicated ourselves to driving change in advanced computing by utilizing wasted, stranded, and clean energy sources to sustainably power our data centers and AI-focused cloud computing infrastructure.

Global energy consumption is rising at a rapid rate. The energy used for data centers to power artificial intelligence (AI) and cryptocurrency mining are key drivers. The growing need from data centers alone is forecasted to add between 160 TWh to 590 TWh of electricity demand in 2026 as compared to 2022, representing the equivalent of the annual electricity consumption of Sweden at the low end and Germany at the high end ([IEA](#)).

To minimize the environmental impacts of computing-led innovation, Crusoe takes an energy-first approach to providing a sustainable and cost-effective AI cloud platform.

Crusoe® Cloud, a purpose-built AI-cloud platform, offers the latest graphics processing units (GPUs) and central processing units (CPUs), high-performance networking, and storage solutions. With power being a key constraint as well as the single-greatest source of emissions

from scaling AI, we take a different approach. We power our Cloud platform by developing, building, and utilizing a differentiated portfolio of energy solutions that harness wasted, stranded and clean energy sources to minimize the environmental impacts of both energy production and energy-intensive computing.

By utilizing energy that would otherwise go untapped or be wasted to power our digital infrastructure, we maximize resource efficiency and minimize the emissions associated with the energy needed to power the exponential growth in computational demands fueled by the current AI and machine learning (ML) boom. Our business activities also support the clean energy transition by using our computing workloads to incentivize the development and buildout of net new renewable generation assets and innovative clean energy solutions.

Crusoe's first energy solution – our patented Digital Flare Mitigation® system – harnesses and converts flared natural gas, a by-product of oil production that is burned off and wasted when it is stranded and cannot get to market due to limited pipeline capacity, into electricity to power our computing infrastructure. Crusoe is developing and incorporating other clean energy

sources into our portfolio including stranded renewable energy through our Digital Renewable Optimization® approach.

Crusoe Industries, our manufacturing arm, designs and manufactures electrical components and modular data centers, and plays a key role in our deployments.

By vertically integrating our business, we are able to reimagine how computing works from the ground up – from the energy that powers it, to the infrastructure that serves it, to our purpose-built AI computing stack that supports the work of the innovators using Crusoe® Cloud.

Crusoe leverages cutting-edge technology to catalyze human progress across the globe while mitigating the ecological consequences typically associated with large-scale data processing.

As we reflect on the past year and look ahead, our commitment to aligning technological advancement and environmental stewardship has only deepened. Together, we can foster a world where innovation thrives in harmony with the well-being of the planet.

Aligning the future  
of computing with  
the future of the  
climate.™



# Crusoe's Values and Ways of Working

Our five core values are integral to how we work and operate.

01



## Think Like a Mountaineer

Crusoe's operations are like climbing a mountain, where goals are achievable but challenging and require planning and preparedness. We ask our employees to become operational mountaineers through:

- ◆ Intense preparation
- ◆ Prioritizing safety first, second, and third
- ◆ Becoming a master of our tools
- ◆ Enduring the expedition and celebrating hard work done the right way

02



## Cultivate an Idea Meritocracy

We constantly strive to pursue iterative improvements to the status quo and find new ways of unlocking value. We want our team members to:

- ◆ Challenge ideas and respect people
- ◆ Find the best solutions by embracing feedback and remaining vigilant to potential improvements

03



## Relentless Commitment to Resource Efficiency

We are focused on doing more with less and driven to make a material difference when it comes to the human footprint on our environment. One of our main goals is reducing the oil industry's impact on the environment. We aim to:

- ◆ Make oil companies better
- ◆ Find treasure in the trash and opportunity in the margin
- ◆ Kill inefficiency with innovation

04



## Tap into the Collective Genius

We leverage the power of collective knowledge drawn from a diverse set of experiences, skills, and expertise. We solve big problems that have never been solved before by tapping into our collective genius to unlock innovation and new potential. We improve because we:

- ◆ Know the strength of others
- ◆ Level up the team

05



## Be and Become Your Best Self

We challenge our team members to produce their best work, break through to new levels of personal achievement, and grow into the greatest versions of themselves. We champion this personal growth by:

- ◆ Always learning
- ◆ Playing to our strengths
- ◆ Seeking out feedback from others

# Crusoe's Unique Business Approach

Crusoe has developed a multi-industry, vertically-integrated system to enable high-performance computing in a way that lowers the environmental footprint of computing-led innovations.

## Driving Impact through a Vertically-Integrated Approach to AI Infrastructure

### Crusoe® Cloud

A purpose-built AI cloud platform sustainably powering energy-intensive computing workloads

Crusoe® Cloud empowers innovators to solve the world's biggest challenges with climate-aligned computing infrastructure powered by Crusoe's portfolio of sustainable energy solutions. Our systems are optimized for advanced, compute-intensive applications like AI, high-performance computing, and graphics to lower the cost and environmental impacts of computing.

### Managed AI Solutions

Platform as a Service

### AI Cloud Infrastructure as a Service

### Bitcoin Mining

A successful first application for DFM™ systems and enabler of future impact

Cryptocurrency has several features that made it an ideal application to pilot, test, and prove out our DFM™ systems in the oil fields. Crusoe was able to develop our technology and economically unlock the value of stranded energy sources, while helping to secure the Bitcoin network in an environmentally-positive way.

### Data Center Infrastructure for AI

Specially-designed data center infrastructure for Crusoe and third-party hosting

### Crusoe Industries

Manufacturing clean energy and computing products and infrastructure

Crusoe's manufacturing arm, Crusoe Industries, manufactures specialized electrical systems, including modular data centers, electrical systems and switchgear, metal structures, industrial controls, and power distribution systems that enable the growth of climate-aligned power sourcing, modular infrastructure systems, and digital technologies for Crusoe and third-party clients.

## Environmentally-Aligned Power Sources

Harnessing wasted, stranded, and clean energy to reduce energy waste, emissions and environmental impact

### Crusoe Energy Solutions

#### Digital Flare Mitigation®

Utilizing wasted flared natural gas in the oil field



Crusoe's DFM™ systems capture natural gas from the oil field and use it to power advanced, modular data centers co-located onsite. These systems are deployed to assets where pipeline capacity is limited or unavailable to mitigate the environmental impacts of oil production by reducing flaring and methane emissions.

#### Digital Renewable Optimization®

Utilizing stranded and surplus renewable energy



Crusoe's DRO™ solution brings data center loads behind-the-meter to renewable generators, reducing the need for long-distance transmission and distribution losses and minimizing curtailment of renewable power. We contribute to the enablement of the clean energy transition by bringing demand to the site of generation and creating alternative stable revenue streams for renewable assets.

#### Clean Energy Innovation

Driving climate-aligned energy solutions beyond DFM™ & DRO™



Crusoe believes we need a diversified clean energy strategy that embraces new technologies and harnesses available resources to power the growth of advanced computing without harming the planet. We continue to explore and pursue new clean energy solutions in support of our mission, including landfill gas, carbon capture, utilization and sequestration (CCUS), and nuclear power.

### Third-Party

#### Co-Location

Partnering with sustainable data center providers



Crusoe works with third-party partners using 100% renewable energy to co-locate Crusoe GPUs. Our co-location strategy places a great importance on partnering with entities that share Crusoe's commitment to the environment and demonstrate strong ESG practices.

# Crusoe® Cloud – Sustainably Powering the Future of AI

Crusoe purposefully built and developed our Crusoe® Cloud service to provide sustainable infrastructure for AI innovations.

High-performance cloud computing is fundamental to accelerating innovations in areas spanning AI, ML, inference, and graphics. These advancements bring exciting new innovations with the potential to catalyze human progress across the globe.

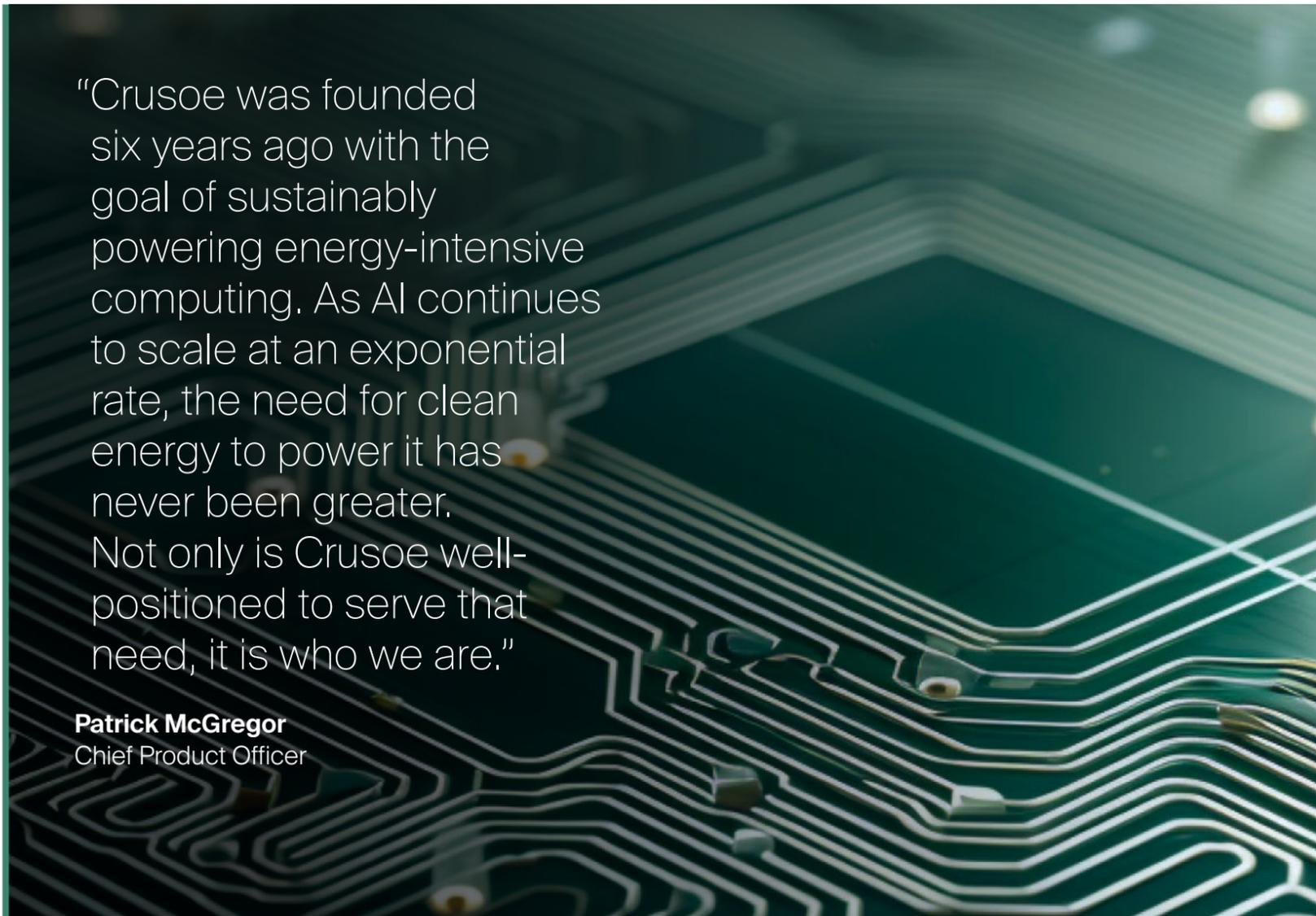
Computing hardware, energy, and data center infrastructure have emerged as key inputs to sustain the momentum of technological progress. The global electricity required to power data centers has the potential to double by 2026 compared to 2022 ([IEA](#)) as data center capacity, driven by AI workloads, triples over the next six years ([Synergy Research Group](#)).

In response to these evolving dynamics, Crusoe remains steadfast in its commitment to data center innovation and a more sustainable AI cloud platform. In 2023, we formally launched our Crusoe® Cloud service powered by our DFM™ technology and renewable energy after private alpha and beta launches in 2022 and 2023.

In the past year, Crusoe® Cloud has expanded its capacity, software functionalities, and

hardware offerings to meet customer needs. Simultaneously, Crusoe is actively investing to expand our portfolio of sustainable energy solutions to grow and scale our cloud platform. We also invested in talent and resources to power the continued growth of our Cloud service and data center infrastructure to support our customers in managing the ever-expanding scope and complexity of their computational needs.

Crusoe's first computing application was cryptocurrency mining, unlocking the value of stranded energy sources to secure the bitcoin network in a new and environmentally-aligned way. Crusoe is strategically leveraging our energy and digital infrastructure experience and expertise to propel the next frontier of accelerated computing. The foundational principles underlying cryptocurrency mining, namely the necessity for stable yet flexible baseload computing power, also addresses unique challenges that are associated with AI: both require immense computational power and specialized physical and digital infrastructure to process complex algorithms and datasets efficiently and consistently.



“Crusoe was founded six years ago with the goal of sustainably powering energy-intensive computing. As AI continues to scale at an exponential rate, the need for clean energy to power it has never been greater. Not only is Crusoe well-positioned to serve that need, it is who we are.”

**Patrick McGregor**  
Chief Product Officer

## Increasing Access to AI

The need for reliable and cost-effective computing solutions has increased exponentially as advancements in AI and ML have significantly increased the computing intensity of workloads. In a survey conducted by [Harvard Business Review](#) in 2022, 81% of respondents said that cloud was extremely important to their organization's strategy and 47% said AI-enabled analytics in the cloud were a focus and investment area over the next two years.

To reduce the barriers to entry for individuals and companies training and refining models and building AI applications, Crusoe is dedicated to making our Cloud platform affordable and accessible. We believe that the democratization of AI, rather than the concentration of this new technology in the hands of large enterprises, will promote greater innovation, drive productivity gains, and enable broader gains in human prosperity.

By offering cloud computing capacity at competitive price points, Crusoe makes it possible for businesses of various sizes, from new startups to large, established enterprises, to run their workloads sustainably. Crusoe® Cloud is used by customers like Jua, [Together](#), and [MIT](#) to operate a wide range of applications, from training large language models across thousands of GPUs to deploying models for generative AI and scientific visualization workloads processing expansive datasets in real-time.

### Case Study

Jua

## Training Weather & Climate Predictions Models on a Climate-Aligned Cloud

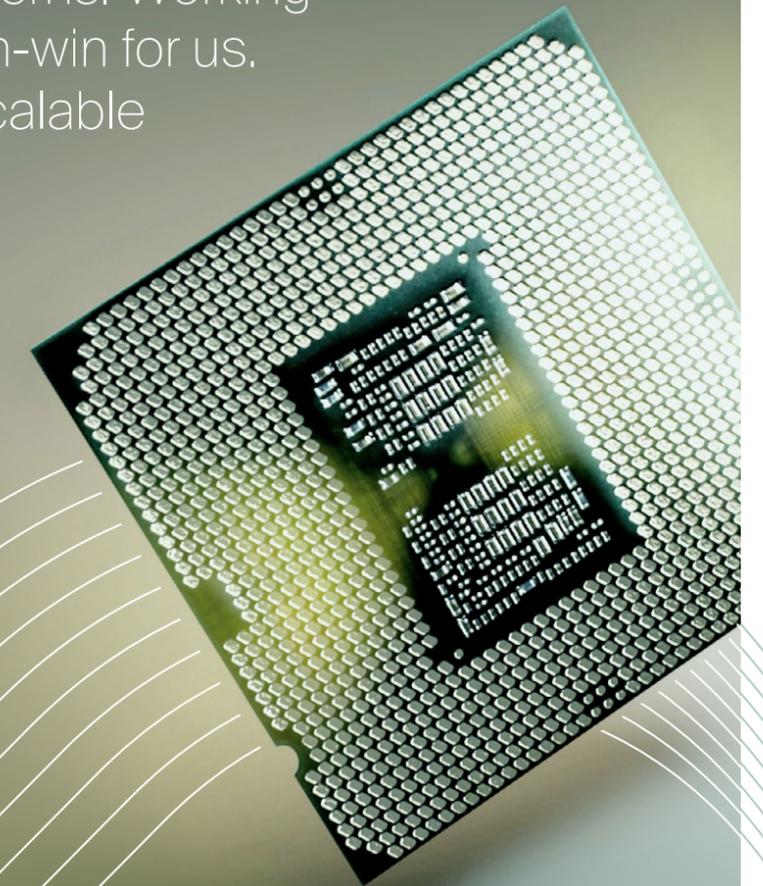
Jua is a seed stage climate tech start-up that is creating foundational weather and climate pattern prediction models to optimize the renewable energy trade and more effectively address the climate risks associated with climate change. Jua is leveraging Crusoe® Cloud to train their large physics model to more accurately predict global weather patterns on a reliable, efficient, and scalable platform.

Jua utilizes Crusoe® Cloud's NVIDIA HGX H100 8-GPU servers and S1A instances to train their AI models. NVIDIA H100s can train models at 5x the speed compared to NVIDIA A100 Tensor Core GPUs, increasing efficiency and reducing energy consumption. They have the ability to control their files and large data sets with high throughput connections with Infiniband networking within their own private cloud, reducing latency and further increasing the efficiency of model training.

Crusoe believes in providing access to businesses of all sizes to run their compute workloads sustainably to continue innovations and advancements in the industry without having to harm the environment. Together, Jua and Crusoe are addressing climate change using the power of compute and AI.

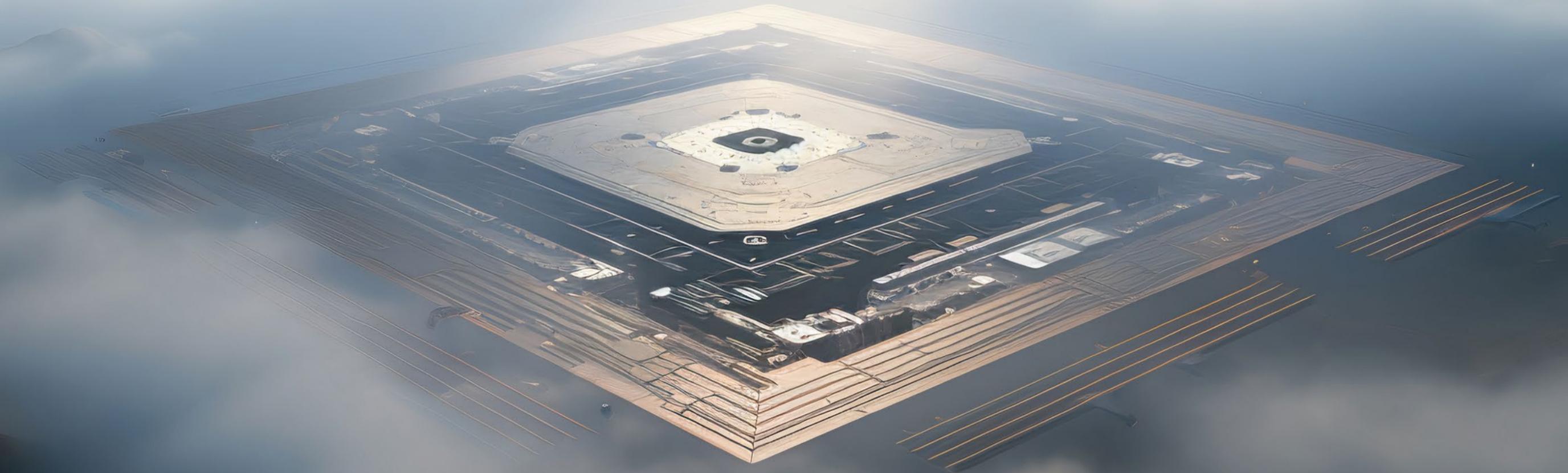
“Our mission at Jua is to help humanity live in harmony with the climate by creating the first AI ‘Large Physics Model’ to accurately predict global weather patterns. Working with Crusoe® Cloud is a win-win for us. Their platform is reliable, scalable and price-performant, allowing us to rapidly train and tune our models, while being climate-aligned and sustainable.”

**Marvin Gabler**  
CTO & Co-Founder,  
Jua.ai



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# Our Impact



# Environment

## 2023 Achievements

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**Avoided over 680,000 metric tons of GHG emissions through the scaling of Digital Flare Mitigation® technology in the U.S.**

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**Expanded to 33 DFM™ sites across 6 states, including 12 new deployments**

- ◆ Prevented over 5.4 billion cubic feet of natural gas from being flared and avoided over 8,500 metric tons of methane emissions
  - ◆ Generated over 635,000 MWh of electricity by harnessing stranded energy
- 

**Expanded internationally through partnership with Unblock Computing**

- ◆ Licensing of Crusoe's DFM™ technology enabled reduction in flaring by over 85 million cubic feet across 2 sites in Argentina



# Tackling Climate Change by Mitigating System Emissions

The world's dependence on energy has recently surged due to advancements in computing and AI, the electrification of transportation and heating systems, and other technological innovations. Tackling greenhouse gas emissions from energy consumption is an urgent matter in the fight against climate change.

## Challenges of Energy Consumption

Energy is the largest contributor to global GHG emissions with approximately 80% of the world's energy primarily derived from fossil sources today:

- ◆ Energy consumption resulted in the release of **37.4 Giga tons** (Gt) of GHG emissions, or 78% of global emissions in 2021
- ◆ In the U.S. alone, electricity generation resulted in close to 2 Gt of GHG emissions in 2021, and is expected to increase by 80% between 2023 and 2030

AI is driving significant electricity and data center demand growth:

- ◆ By 2027, AI servers could use between **85 to 134 terawatt hours** (TWhs) annually, similar to what Argentina, the Netherlands, and Sweden each use in a year
- ◆ Data centers are forecasted to require an additional **160 to 590 TWhs** of electricity by 2026 as compared to 2022

If our economy is not powered differently going forward, we risk damage to our planet's ecosystems and a shortage of power that can stifle innovation and impede global growth and development.



## Crusoe's Approach to Powering Computing Workloads

Crusoe is working to address this challenge by seeking out and harnessing wasted and stranded energy resources to power Cloud and AI infrastructure so that we can minimize the loads that we add to the U.S. electricity grid.



### Mitigating Emissions

Reducing energy waste and methane emissions to minimize the emissions associated with the energy needed to power computing infrastructure



### Energy Optimization

Maximizing resource efficiency by utilizing stranded and surplus clean and renewable energy that is already being produced



### Net New Clean Power

Using our load to incentivize the development of net new low-carbon generation assets and technologies



# Sustainable Energy Solutions

No single sustainable energy solution can meet the expected energy demand of computing and AI. Crusoe is pursuing a differentiated portfolio of wasted, stranded, and clean energy sources to power our digital infrastructure via both our own energy solutions and third-party co-location.

## Crusoe Energy Solutions: Using Wasted, Stranded, and Clean Energy

### Digital Flare Mitigation®

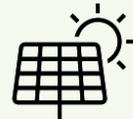
Reduce flaring and methane emissions



DFM™ technology harnesses stranded gas that would otherwise be flared. In the process, Crusoe significantly reduces methane emissions that would have escaped from the incomplete combustion process associated with flaring.

### Digital Renewable Optimization®

Use clean energy more efficiently



DRO™ sources stranded, curtailed, and negatively priced renewable energy through behind-the-meter power purchase agreements with renewable energy generators.

### Clean Energy Innovation

Incentivize net new clean power



Leverage Crusoe's compute workload to support the development and buildout of promising new clean energy solutions (e.g., CCUS, battery storage, clean hydrogen, etc.).

## Scaling with Partners

### Co-Location

Carbon neutral via power purchase agreements and REC purchases

Partner with third-party data center providers with 100% renewably-powered sites. Whenever possible, we seek sites located in clean grids with majority low-carbon power (e.g., geothermal and hydro power in Iceland).



## 2023 Energy Mix

Crusoe is dedicated to improving the way that computing infrastructure is powered so we can meet the growing energy demands of AI innovations sustainably. We strive to reduce the environmental impacts of energy production by minimizing energy waste and utilizing cleaner sources of energy through our DFM™, DRO™, and clean energy innovation projects.

A portion of our infrastructure is co-located at third-party sites that are powered by the grid to meet our business needs. These sites are powered by 100% renewable energy via power purchase agreements (PPAs) and renewable energy certificates (RECs). Crusoe is actively working to build and develop project sites powered by our clean energy solutions and expect grid power and co-location solutions to become a smaller part of our portfolio over time.

In 2023, Crusoe powered Crusoe® Cloud and our cryptocurrency mining operations with a mix of electricity that Crusoe generated from our DFM™ technology and from the grid. Crusoe generated approximately 635 GWh of electricity from flared natural gas. We consumed another approximately 460 GWh at grid-connected locations and third-party sites. Approximately a third of Crusoe® Cloud

was powered by DFM™ technology, and two-thirds were powered by 100% renewable energy at third-party data centers.

We are working on the launch of our first DRO™ site in 2024, which will give us access to more than 100 MW of behind-the-meter wind power. In addition, we are looking at opportunities to build out onsite renewable generation capacities at our sites to support the energy transition and sustainably power our digital infrastructure.

We have also started evaluating how our DFM™ technology could be deployed to other major sources of anthropogenic industrial methane emissions, such as open waste landfills. On the clean energy innovation front, Crusoe has signed term sheets to develop a post combustion carbon capture and sequestration (CCS) and a small modular nuclear reactor project over the coming years in line with our goal to support and accelerate the next generation of climate-aligned energy sources. By providing a clear market signal around the economics of data center offtake, Crusoe can catalyze new clean energy projects and technologies.



## Digital Flare Mitigation®

Carbon dioxide (CO<sub>2</sub>) is the most common GHG resulting from human activities, but in recent years, growing attention has been given to other potent GHGs such as methane (CH<sub>4</sub>).

Methane has a significantly shorter lifespan than carbon dioxide, staying in the atmosphere for 12 to 15 years as opposed to hundreds of years; however, it has 82.5 times the planet warming potential of carbon. Curbing methane emissions in the short term has an outsized benefit to slow the rate of global warming quickly and effectively. Furthermore, reducing methane emissions decreases associated ground-level ozone and particulate pollution, which are harmful to human health and the environment.

According to the **IEA**, more than one-third of global methane emissions result from the production and transportation of fossil fuels. A portion of it originates from natural gas flaring during oil production, a practice that is particularly common in oil fields when alternatives to getting the gas to market, such as pipelines, are unavailable or not cost effective. In addition to being a wasteful practice, as it burns away a natural resource without a beneficial use, **between 2% and 40% of the methane contained in natural gas is not combusted** during routine flaring and leaks directly into the atmosphere.

### Flaring & Methane Emissions: Key Facts

Natural gas flaring is a wasteful practice that results in the release of significant methane emissions

#### Flaring

Nearly **140 billion cubic meters of natural gas was flared in 2022.**



Flared gas is enough to generate approximately 1,700 TWhs of electricity or approximately 40% of all electricity consumed in the U.S. in 2022.

Between **2% and 40%** of the methane contained in natural gas is not combusted during routine flaring and leaks directly into the atmosphere.

#### Methane

Methane is a super pollutant with a global warming potential **82.5x** higher than that of carbon dioxide over a 20-year period.



Methane is responsible for approximately **30%** of observed global warming since pre-industrial times. Methane emissions from venting, leakage, and flaring in the oil and gas sector are currently estimated to be responsible for roughly **25%** of global anthropogenic methane emissions. In the U.S., natural gas and oil extraction systems are the **second largest source of methane emissions.**

## Crusoe's DFM™ Systems Reduce Flaring and Methane Emissions

Crusoe's DFM™ technology harnesses natural gas that would otherwise be flared and converts it into electricity to power computing equipment housed in modular data centers. We manage all aspects of our DFM™ systems, from installation to operation to providing operators with a seamless alternative to flaring. We vertically integrate data center infrastructure, computing hardware, power generation, networking systems, and software.

### Digital Flare Mitigation®

Deploying computing resources at the source of otherwise wasted energy mitigates the energy supply and demand discrepancy.



1.

#### Stranded Gas

Crusoe captures stranded gas that would otherwise be flared. The producer is compensated by Crusoe for the gas.

Harnesses a previously **wasted energy resource**  
**Reduces flaring and methane emissions**, which help to slow climate change

2.



#### Power Generation

Crusoe's DFM™ technology converts the gas into electricity using highly efficient generators.

Gives the gas a **beneficial use** by converting it into electricity

3.

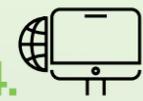


#### Energy-Intensive Computing

The electricity powers on-site modular data centers for advanced computing.

Powers energy intensive computing infrastructure **without using additional energy resources** or connecting to **the grid**

4.



#### Remote Networking

Connect our data centers with fiber to provide high-bandwidth and reliable connectivity solutions in remote locations.

**Reduces the environmental impacts** of energy production and computing



## Emission Reductions through DFM™ Technology

The expansion of Crusoe's DFM™ technology in 2023 helped us to scale our impact.

### 33 DFM™ projects

across 6 states in the U.S. (Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming) and 2 in Argentina

**>635 GWh**

electricity produced

### >5.4 billion cubic feet

flared gas captured

**>680,000 mtCO<sub>2</sub>e**

emissions avoided\*

This brings Crusoe's total cumulative impact from DFM™ technology as of the end of 2023 to:

**>11 billion**

cubic feet natural gas flaring avoided

**>1.4 million**

mtCO<sub>2</sub>e of GHG emissions reduced

\* Based on 20-year GWP for methane, gas composition with 93% methane, and average flaring destruction efficiency of 91.1% based on latest research from University of Michigan (Plant, et.al., Science, Sept 29, 2022)

## Destruction Efficiency

### Routine Flaring



91.1%



### Crusoe



99.9%



Crusoe's DFM™ technology converts the natural gas captured at oil wells and converts it into electricity by leveraging a stoichiometric combustion process, which allows reaching a 99.9% methane destruction efficiency.

Crusoe's DFM™ technology also greatly decreases the emission of air pollutants, with reductions of up to:

99%  
Methane

69%  
CO<sub>2</sub>e

95%  
CO

74%  
NOx

99%  
VOCs



## XCL Resources in the Uinta Basin in Utah

When faced with a pipeline constraint in the Uinta Basin, XCL Resources, an independent oil and natural gas company, turned to Crusoe and our DFM™ technology for a solution to avoid flaring up to 6 million cubic feet of natural gas daily. The deployment of Crusoe's DFM™ technology beneficially uses this excess natural gas by converting it into electricity to power modular data centers that we co-locate directly on XCL's oil well pads. The project brought over 100 short-term construction and long-term operational jobs to the area and is expected to reduce up to 273,000 mtCO<sub>2</sub>e emissions each year, equivalent to taking 60,000 cars off the road for a year.



## Operational Footprint

Crusoe continued our pioneering efforts through the expanded deployment of DFM™ systems into the Uinta and Permian basins in the U.S. and internationally in Argentina.



## Unblock Computing in Argentina's Vaca Muerta Oilfield

Crusoe expanded outside the U.S. for the first time in 2023 through our partnership with Unblock Computing, bringing our DFM™ technology to Argentina. This international expansion marks an important milestone for Crusoe. According to [World Bank](#) data, Argentina is the 12<sup>th</sup> biggest global emitter of methane and the country that increased flaring at the fastest pace between 2016 and 2021, making it a strategic location for our expansion and efforts to mitigate methane emissions. Thanks to Crusoe's technology, Unblock was able to reduce flaring by approximately 85 million cubic feet and generate over 9,300 MWh of power in 2023. This avoided over 1,900 mtCO<sub>2</sub>e of GHG emissions compared to continued flaring, which is equivalent to carbon sequestered by over 2,200 acres of U.S. forests in one year.



Crusoe strategically deploys the DFM™ systems to sites with limited or unavailable pipeline capacity to enable oil companies to reduce flaring and methane emissions from their operations. Beyond offering a cost-effective alternative to flaring, Crusoe's DFM™ technology helps oil and gas operators comply with emerging regulations that target methane emissions.

In December 2023, the U.S. Environmental Protection Agency (EPA) passed its final rule introducing new emissions performance standards for oil and natural gas operations that end routine flaring and require operators to find a beneficial use for stranded gas. In parallel, the Inflation Reduction Act, passed by Congress and signed into law in 2022, created the Methane Emissions Reduction Program, which established a Waste Emissions Charge for methane exceeding statutorily specified thresholds from 2024 onwards.

Crusoe has been supportive of policies to reduce methane emissions. Our technology enables us to help oil and gas operators comply with new methane standards by using flared gas to beneficially power modular data centers and computing infrastructure.

“Crusoe's technology has become a centerpiece of our environmental innovation and ESG strategy at sites with otherwise stranded natural gas.”

**Bruce Larsen**  
President & CEO,  
Kraken Resources



## External Recognition & Awards for Crusoe's DFM™ Technology

Crusoe's DFM™ technology has garnered external recognition with multiple awards. These awards not only validate Crusoe's commitment to excellence, but also serve as a testament to our ongoing dedication to driving meaningful change and shaping a more sustainable future by thinking creatively and turning waste into a valuable resource.



Crusoe received an honorable mention in **Fast Company's 2023 World Changing Ideas Awards** in the Energy and Sustainability category, which recognizes projects contributing to a more sustainable world by

addressing clean power or other creative solutions to reduce emissions. We also received honorable mentions in the Mid-Size Business (100-999 employees) and the On the Rise (0-4 years in business) categories.



Crusoe earned the **2024 Big Innovation Award** in the Energy product category for Digital Flare Mitigation®. The award recognizes products whose innovative approach has caused market disruption.

## Load Displacement

Approximately 60% of electricity on the U.S. grid is still generated from fossil fuels. The growth of renewables has not kept pace with electricity demand, meaning additional load on the grid is usually met by the use of more fossil fuels, particularly during peak demand times, and therefore contributes to increased GHG emissions compared to the baseline.

By using electricity converted from wasted energy sources to power our computing infrastructure and cloud platform off-grid, Crusoe displaces loads from the carbon-intensive U.S. electricity grid.

In 2023, we generated approximately 635 GWh of electricity using flared natural gas, which we estimate helped to avoid the generation of over 230,000 mtCO<sub>2</sub>e of emissions on the grid.

## Fossil Fuel in the U.S. Grid



# 60%

of electricity in the U.S. is still generated from fossil fuels

- ◆ **60%** Fossil Fuels
  - Natural Gas 43.1%
  - Coal 16.2%
  - Other 0.7%
- ◆ **18.6%** Nuclear
- ◆ **21.2%** Renewables
- ◆ **0.2%** Other

# 4,178

Billion kWh

Source: EIA

## Displacing Grid Electricity



Crusoe generated

# >635 GWh

of electricity off grid in the oil fields using a previously wasted energy source - flared gas

## Reduced Emissions



Crusoe helped to avoid

# >230,000 mtCO<sub>2</sub>e

of GHG emissions by displacing the load from the grid\*

\* Based on U.S. average grid emissions factor of 0.375 mtCO<sub>2</sub>e/MWh

## Digital Renewable Optimization®

Renewable energy generation capacity in the U.S. has boomed in the past decade, but new or upgraded transmission infrastructure is required to transport power from the remote areas most suited for generation to areas of dense electricity demand. The slow growth of this necessary infrastructure can lead to negative pricing or forced output reduction (curtailment), which leaves an increasing number of renewable energy installations stranded and underutilized.

Crusoe is extending our experience with otherwise wasted energy capture to renewable energy assets through our DRO™ solution. Our DRO™ solution entails the deployment of data centers next to renewable energy installations in grid regions with generation oversupply, curtailment, or negative pricing challenges. This approach brings reliable demand to the source of excess power.

By running data centers with renewable electricity generated onsite, behind-the-meter, Crusoe reduces transmission loss and supports renewable energy projects economically by providing an alternative revenue stream to curtailed or negatively priced grid sales. Crusoe has made significant progress with renewable energy asset owners and independent power producers (IPPs) and has increased its pipeline of potential projects to ~4GW. Crusoe expects to have our first DRO™ project under construction in 2024.

### Digital Renewable Optimization®



#### 1. Stranded Renewable Energy

Crusoe sources stranded, curtailed and negatively-priced renewable energy through a behind-the-meter power purchase agreement with renewable energy generators.



#### 2. Tap Into Existing Power Substation

Crusoe taps into existing power substation, which enables speed to market and efficient infrastructure utilization.



#### 3. Energy-Intensive Computing

The electricity powers on-site modular data centers for advanced computing.



#### 4. Remote Networking

Connect our data centers with fiber to provide high-bandwidth and reliable connectivity solutions in remote locations.

Crusoe expects to have our first DRO™ project under construction in 2024.

## Third-Party Co-Location

Crusoe's Cloud solutions offer a compelling blend of performance, security, and sustainability, making them an appealing choice for companies seeking to optimize computing price-performance while minimizing their environmental impact. Powering workloads through the use of stranded, wasted, and renewable energy is core to Crusoe's mission. However, our projects and data centers can take time to develop, deploy, and begin operations due to site-sourcing and manufacturing timelines.

Crusoe remains committed to powering customers' workloads with sustainable energy. In 2023, we partnered with third-party service providers to deploy our computing infrastructure at sites powered by 100% renewable energy.

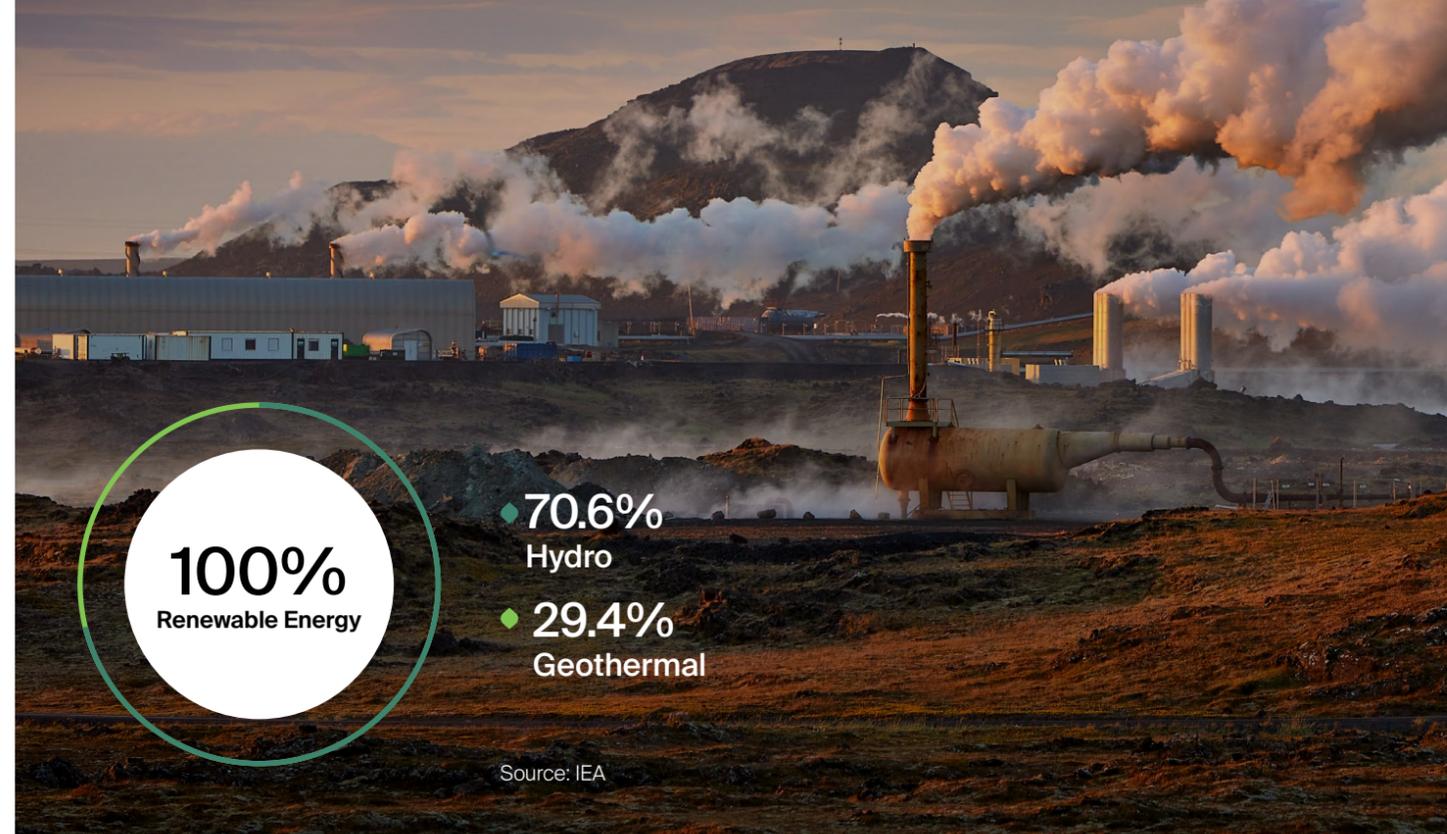
As of December 2023, approximately 65% of the co-location capacity contracted by Crusoe for Crusoe® Cloud is powered directly by renewable geothermal or hydro power plants. The remainder of our contracted capacity is powered by 100% renewable wind energy procured by our partners through wind PPAs or virtual PPAs and Green-e REC purchases.

### Case Study



## atNorth

In search of low-carbon power, Crusoe recently partnered with atNorth, a premier Nordic data center operator. Located in Iceland, atNorth's ICE02 data center is powered entirely by sustainable and locally produced hydropower and geothermal energy. This collaboration aligns with Crusoe's commitment to scaling our operations sustainably to minimize the environmental impact of powering compute. Iceland boasts abundant renewable energy resources and favorable climatic conditions for efficient data center operations. Renewables account for **100%** of Iceland's electricity, making it one of the cleanest grids in the world. We will be deploying our AI computing equipment to this site throughout 2024 to continue the expansion of Crusoe® Cloud.



### Case Study



## Digital Realty

In 2023, **Crusoe partnered with Digital Realty**, the largest global provider of cloud- and carrier-neutral data center, colocation, and interconnection solutions, to leverage its multi-cloud on-ramps and low-latency networks to scale Crusoe® Cloud. Digital Realty exemplifies the type of partner that Crusoe seeks to collaborate with in its mission to drive positive environmental impact. Not only has Digital Realty set an ambitious global carbon reduction target, but they have also committed to matching 100% of their North American sites to renewable electricity. Crusoe's computing equipment is co-located at a Digital Realty data center powered by 100% renewable energy from U.S. wind virtual PPAs and Green-e wind RECs.

# Managing Crusoe's GHG Footprint

To manage Crusoe's GHG footprint, Crusoe measures and transparently reports our emissions footprint on an annual basis, and looks for ways to reduce our emissions.

## Measuring Our GHG Footprint

Crusoe measures our comprehensive GHG footprint – covering Scopes 1, 2, and 3 – annually with the support of our third-party partner, **Emitwise**, who has developed an industry-leading carbon accounting platform. In line with current global best practices, we follow the guidelines set forth by the **GHG Protocol** in its **Corporate Accounting and Reporting Standard** (Corporate Standard) to measure, track, and manage the GHG emissions resulting from our business activities and our value chain.

Crusoe and Emitwise primarily utilized quantity data to calculate our emissions. Where quantity data was not available, such as for portions of waste, business travel, and purchased goods and services, spend data was used. Emissions were modeled for utilities at some of our offices, and for remote working and employee commuting, where primary data was not available. We utilized the most appropriate emissions factor published by organizations including UK BEIS and DESNZ, US EPA, Exiobase, and Ecoinvent, based on the activity type.

## Crusoe's 2023 GHG Footprint

Overall, Crusoe's business approximately doubled in 2023 based on the amount of electricity that Crusoe generated and purchased, and our emissions grew commensurately. However, by reducing flaring and methane emissions through our DFM™ technology and purchasing renewable energy, Crusoe reduced and avoided more emissions than we generated.

### Scope 1

Scope 1, which is direct emissions from fuel consumption, remains the most significant source of emissions for Crusoe due to the combustion of flare gas by our DFM™ systems to generate electricity. The growth in Scope 1 emissions in 2023 is reflective of the expansion of our DFM™ deployments, which help to reduce flaring, methane emissions, and associated air pollutants in the areas where Crusoe operates. We prevented over 5.4 billion cubic feet of natural gas from being flared, approximately 35% more than in 2022.

## Scope 2 and Renewable Electricity Usage

Although Crusoe generates the majority of the power that we use in our operations, in 2023, we used third-party co-location services to meet a portion of our power needs. Our Scope 2 footprint, which is indirect emissions associated with the generation of purchased energy, includes the GHG emissions resulting from our use of third-party data centers to host our GPUs, CPUs, and ASIC miners. This inclusion is aligned with the GHG Protocol that requires companies reporting their GHG emissions based on the operational control approach to account for the energy used in leased assets under Scope 2. It reflects the control we have on the amount of energy used at hosting sites, which is determined by the workloads we run there.

Our co-location service provider utilized a wind VPPA and Green-e wind RECs to provide 100% renewable energy at the data center site where Crusoe co-located our GPUs and CPUs. RECs are a type of market-based instrument used in the U.S. to represent the unique and exclusive claims to the environmental benefits

of renewable energy. They are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy resource and are used to substantiate claims of renewable energy usage.

Since the third-party sites that Crusoe used to host our ASIC miners did not have a similar commitment to use renewable energy, Crusoe purchased and retired Green-e RECs to cover 100% of the electricity that our equipment used in these facilities. We also purchased and retired Green-e RECs to cover all of the electricity used in our offices, warehouses, and manufacturing facilities.

Crusoe's decision to use renewable energy by purchasing RECs in alignment with our commitment to use clean energy and working with partners that use 100% renewable energy lowered our market-based Scope 2 emissions to zero. The market-based approach to reporting Scope 2 emissions, which accounts for the use of renewable electricity, aligns with internationally accepted GHG reporting standards. We also report Scope 2 emissions using the location-based approach, reflecting the emissions had Crusoe purchased average grid electricity.

## Scope 3

Crusoe measures all relevant indirect upstream emissions associated with our business activities. Fuel and energy-related activities (FERA), which includes upstream emissions from purchased fuels and electricity, and transition & distribution loss, is our highest category within Scope 3 since Crusoe consumes a significant amount of natural gas and purchased electricity to power our data centers.

The increase in FERA can be attributed to growth in our DFM™ operations and the use of purchased electricity at third-party co-location sites, as well as an improvement in the data used to calculate FERA-related emissions. In 2023, the IEA released upstream electricity fuel cycle emission factors for the first time so we are now accounting for these upstream electricity emissions. This added over 28,000 mtCO<sub>2</sub>e of emissions, which accounted for over half of our total increase in FERA emissions in 2023.

Other significant Scope 3 categories include emissions from purchased goods and services and capital goods. Emissions from purchased goods and services increased in line with the growth of Crusoe's business in 2023. Emissions from purchased capital goods, on the other hand, fell by nearly 50% due to reduced purchasing of the most carbon-intensive items in comparison to 2022.

## Scope 4 Avoided Emissions

One of Crusoe's objectives in developing our DFM™ technology is to help reduce the emissions associated with energy production and support the decarbonization of our energy system. This is why Crusoe also calculates "Scope 4 Avoided Emissions," which, although not a formal part of the GHG Protocol's Corporate Standard, is nonetheless core to understanding Crusoe's overall impact as a company.

Our DFM™ systems' use of a previously wasted energy resource – flared gas – to generate electricity off-grid helps us to reduce and avoid emissions in two ways:

### 1. It reduces flaring, which reduces methane emissions

Crusoe's use of flared gas resulted in 311,000 mtCO<sub>2</sub>e of Scope 1 emissions. However, it also helped us to reduce approximately 680,000 mtCO<sub>2</sub>e emissions, which would have resulted from flaring in the absence of our technology. This is because of the significantly enhanced destruction efficiency of Crusoe's DFM™ systems compared to just flaring.

Overall, Crusoe was able to reduce over 55% more emissions than we generated as a company in 2023 across our full Scopes 1, 2, and 3.\* As Crusoe continues to grow and scale DFM™ systems, our Scope 1 emissions will grow – but so too will our positive impact and the emissions we are able to help reduce.

➤ See [pages 18-20](#) for more details on how DFM™ technology reduces flaring and methane emissions

### 2. It displaces load that would have been added to the grid, which avoids the emissions associated with generating additional electricity on the grid

By generating electricity using flared gas rather than plugging into the U.S. grid, we help to avoid the addition of more than 230,000 mtCO<sub>2</sub>e of emissions to the atmosphere.

Our ability to avoid grid emissions through the use of waste gas enabled us to continue receiving Upstream Emissions Certificates issued by the German Federal Environmental Agency (Umweltbundesamt) from a multi-site DFM™ project in Montana in 2023.

➤ See [page 23](#) for more details on the impact of load displacement

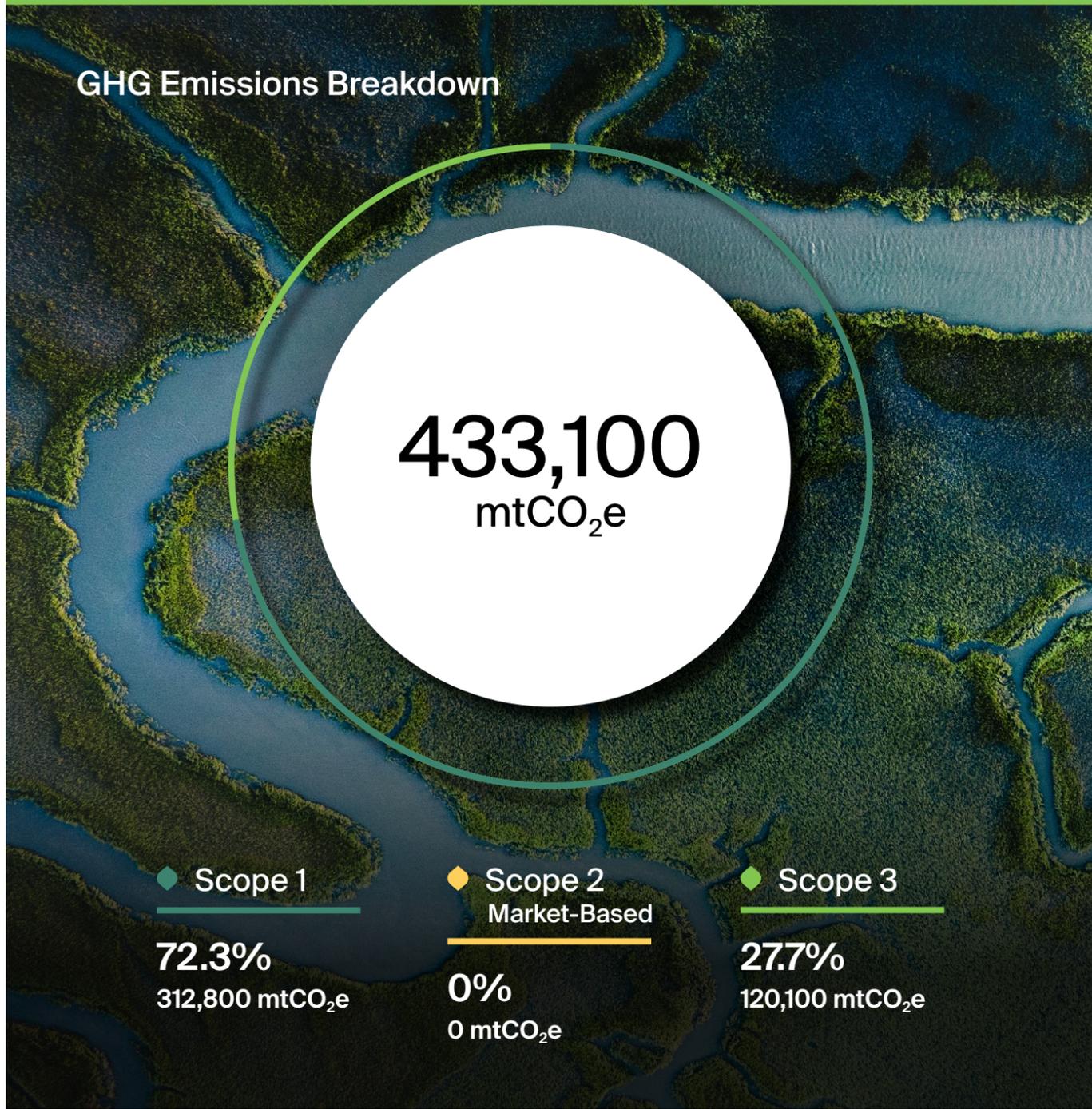
### ◆ Scope 4

**+55%**

**more emissions avoided**  
than Crusoe generated through our operations

\* Based on Scope 2 market-based emissions, to reflect our purchase and use of renewable electricity.





	2021	2022	2023
<b>Scope 1</b>	<b>96,500</b>	<b>234,100</b>	<b>312,800</b>
Stationary Combustion	96,400	232,900	311,300
Mobile Combustion	100	1,200	1,500
<b>Scope 2 Market-Based*</b>	<b>0</b>	<b>0</b>	<b>0</b>
Scope 2 Location Based	1,300	2,700	214,500
<b>Scope 3</b>	<b>32,000</b>	<b>76,000</b>	<b>120,300</b>
Fuel and Energy Related Activities (FERA)	14,700	34,800	83,100
Capital Goods	11,000	25,300	13,300
Purchased Goods and Services	2,600	11,900	18,300
Upstream Transportation & Distribution	3,000	2,100	4,000
Business Travel	400	1,500	1,000
Other	300	400	600
<b>Total (Scopes 1, 2, and 3)**</b>	<b>128,500</b>	<b>310,100</b>	<b>433,100</b>
Scope 4 (Avoided Emissions)***	-210,800	-504,600	-680,500
<b>Total (Scopes 1, 2, 3 and 4)**</b>	<b>-82,300</b>	<b>-194,500</b>	<b>-247,400</b>

\* Scope 2 market-based emissions includes the use of renewable electricity, including RECs  
 \*\* Our total emissions are based on Scope 2 market-based emissions, to reflect our purchase and use of renewable electricity  
 \*\*\* For more information, [see page 27](#). Scope 4 is not a formal part of the GHG Protocol Corporate Standard.

# Environmental Stewardship

Crusoe mitigates its environmental impact through active operational measures.

## Air Permits

Crusoe's operations in the field comply with all relevant federal and state air permits and regulations. Air emissions are monitored, tested and reported in compliance with various performance standards established by the U.S. EPA, such as the standards for new stationary sources and hazardous air pollutants, and equivalent agencies at the state level.

Crusoe's DFM™ technology greatly decreases the emission of air pollutants, with reductions of up to 95% for carbon monoxide, 74% for nitrogen oxides, and 99% for volatile organic compounds (VOCs), thereby improving the air quality in the areas where Crusoe's DFM™ systems are deployed.

## Land, Water, and Biodiversity Management

Crusoe co-locates data centers on existing oil well pads where there is active flaring, minimizing additional land usage and wildlife disturbance. Further, our data centers are primarily air-cooled, which avoids the use of groundwater and chemical refrigerants for cooling.

## Manufactured Waste

Crusoe implements strict waste management and disposal practices in our manufacturing sites. Our non-hazardous waste types (scrap metal, oil, cardboard, pallets, and general landfill) are managed in separate streams. Scrap metal is collected, sorted, and recycled. We also produce a very small quantity of hazardous paint waste, which is properly disposed of through a specialized waste management company. Crusoe continues to investigate ways to reduce waste by optimizing procurement and improving the share of materials that are recycled.

DFM™ technology decreases the emission of air pollutants, with reductions of up to:

**95%** for carbon monoxide

**74%** for nitrogen oxides

**99%** for volatile organic compounds



# Society

## 2023 Achievements

**Increased community involvement through the expansion of our corporate volunteer program and the increase in our philanthropic donations**

**Continuously worked to ensure our employees' health and safety**

- ◆ Introduced "FOCUS" program on workplace hazard identification and mitigation
- ◆ Maintained low Total Recordable Injuries Rate of 1.56
- ◆ Reached over 3 million safe miles driven by Crusoe employees since tracking began in February 2022

**Invested in upskilling opportunities for our people**

- ◆ Inaugurated the "ALPINE" Leadership Training and Peer Group Coaching programs for managers
- ◆ Provided over 1,900 total hours of leadership training



# Investing in Our People

Our workforce is the heart of Crusoe. With over 350 team members globally, we make it our goal to create an inclusive, supportive, and safe work environment.

Crusoe grew significantly in 2023. Maintaining our momentum and growth depends on our ability to attract, develop, protect, and retain a diverse team of individuals with a broad range of skill sets and experience. We are focused on building a future-ready workforce that is inspired by our mission and values.

In line with this vision, Crusoe's people strategy prioritizes:

## Employee Health and Safety



## Employee Attraction and Retention



## Employee Development



# Employee Health and Safety

Crusoe is committed to the protection of our team members across all business streams. Living by the principle of “Safety first, second, and third”, we have developed standards that meet or exceed the U.S. Department of Labor OSHA standards and recordkeeping requirements, which apply to all our employees.

We continuously monitor, assess, and enhance our Health, Safety and Environment (HSE) programs to identify emerging risks and areas for improvement. Our hazard assessment strategy comprises identifying tasks, assessing the associated risks, and determining potential mitigation levers. We maintain a direct line of communication with the field and manufacturing employees throughout the process.

In 2023, we adapted our internal HSE functions, policies, and procedures to manage emerging risks resulting from Crusoe’s expansion into new geographic areas and businesses. We continued enforcing stringent safety training requirements, which differ by job function and are scaled based on the hazards associated with each role.

Our goal is to foster a culture where safety is a shared responsibility. We invest in creating a working environment in which risks are collectively mitigated and our employees follow safety procedures because they understand the importance of adhering to them.

We consistently reinforce safety training and procedures by incorporating safety messaging into company meetings, including operations and monthly company-wide All-Hands meetings.

Each All-Hands meeting includes an HSE topic such as mechanical lifting, incident response, electrical safety, driving safety, and energy isolation, as well as safety updates. We also encourage and reward employees who make safety observations to identify both what is working well as well as unsafe situations or practices that we can remedy to improve everyone’s safety.



“We engage with our frontline workers at a deep level: safety meetings, thoughtful communications, observation meetings, and daily conversations. It is an investment we make in our coworkers because you get out of it what you put into it.”

**Michael Duplantis**  
Senior HSE Director

## FOCUS

In 2023, we introduced our **“FOCUS”** program, which supports the development and implementation of a sustainable and impactful workplace hazard identification and mitigation program for Crusoe’s operations. This program spotlights the most common hazards in our workplace and reminds employees engaged in work activities to reflect on and work to mitigate these hazards prior to starting work.



### Falls / Falling Objects

Stable work platform / stairs; proper ladder or lift use; 3 points of contact; harness / lanyard when elevated; maintain housekeeping; slow down / no rushing.



### Overexertion / Overuse

Mechanical assistance / hands free lift (preferred); team lift; proper lifting techniques; hydration (heat); muscle fatigue or exhaustion.



### Cuts / Caught Between

Machine and tool guards in place; no loose clothing near rotating equipment; hands free operation if possible; cut resistant gloves; hand placement; avoid line of fire; proper cutting tools for the job.



### Uncontrolled Energy

Energy Isolation / LOTO; remove energy / pressure; confirm zero energy state; hearing protection; fire extinguishers; utilize barriers; chemical exposure; spills.



### Struck By / Struck Against

Avoid line of fire; secondary retention on equipment; utilize barriers; proper mechanical lifting procedures; impact gloves; hard hat; safety footwear.

Additionally, we have proactive protection measures for our fleet vehicles, which have a GPS-tracking system to monitor seat belt use, acceleration, deceleration, speed, and a variety of other safety metrics. These metrics are combined into a Driving Safety score, which is regularly communicated to teams. In 2023, we reached over 3 million safe miles driven by Crusoe employees since tracking began in February 2022.

Our efforts have helped maintain our Total Recordable Injuries Rate (TRIR) at 1.56 across the entire company, which is a combination of both field and manufacturing operations. We continue striving to drive this metric down in a constant effort to improve overall HSE performance.



Our efforts have helped maintain our **TRIR at 1.56** across the entire company.

# Employee Attraction and Retention

Crusoe's mission, values, and culture helps us to attract the best talent.

## Attracting the Best Talent

In 2023, Crusoe's energy operations expanded domestically and we entered our first international market. We also began scaling Crusoe® Cloud. We bolstered our Cloud team with new talent specialized in software and infrastructure engineering, product, marketing, customer support, and other critical roles. Due to this rapid growth, the number of employees in our San Francisco office more than doubled. Overall, Crusoe's workforce increased nearly 20% across our 10 offices, warehouses, and manufacturing facilities, and in the field.

Our greatest strength is our company culture, grounded in our values, and inspired by our mission and relentless commitment to innovation and sustainability.

A key part of our recruitment approach is seeking out individuals who share this vision. Our culture is a differentiating factor that helps us attract the best talent across a number of industries. We proactively reach out to candidates and leverage employee referrals to build solid pipelines of diverse candidates to fill open positions. Over 20% of our new hires in 2023 were sourced through employee referrals. Our recruiting

approach has enabled us to add specialized talent to contribute to Crusoe's outstanding performance.

## Cultivating Diversity

Diversity is vital to Crusoe's structure. Capabilities, knowledge, and performance are strongest when fueled by a diverse set of perspectives and experiences. While we operate in several traditionally white and male-dominated sectors, the multifaceted nature of our operations and unique company culture have created the space to build an employee population from varied backgrounds across skills, gender, age, race, and ethnicity.

In 2023, we continued to consider diversity in our recruitment strategy and processes to make sure that we not only hire the best talent, but also provide access to career opportunities for individuals in underrepresented groups. To increase diversity in leadership positions, we interview at least one diverse candidate for all positions at or above the Director level. We are committed to having diverse representation at every level and providing equitable pay and access to opportunities.

We are proud of our unique and multifaceted team. Our team members experience extremely varied working environments including oil fields, manufacturing facilities, office, and remote working. Crusoe nurtures a culture of inclusion that attracts and unifies our workforce. We focus on enabling productive work relationships and nurturing empathy and shared purpose across all employees.

Our current focus areas include neuro and gender diversity. As a part of these initiatives, we joined the **Colorado Neurodiversity Chamber of Commerce** and the **Women in Manufacturing Association**. We also support **Girls Who Code**, a non-profit that is working to close the gender gap in technology and share job opportunities through their channels to reach diverse candidates and attract female and non-binary engineers.



"The majority of candidates are educated on Crusoe's mission and values. People who are looking to work in the green climate tech sector seek us out."

**David Schnurr**  
Corporate Recruiter

## Diversity Metrics



- ◆ 20% Women
- ◆ 80% Men



- ◆ 22% Non-White
- ◆ 77% White
- ◆ 1% Unknown



- ◆ 6% Baby Boomers
- ◆ 57% Millennials
- ◆ 24% Generation X
- ◆ 14% Generation Z

\* vs 15.3% Women in Oil & Gas and 36% Women in High Tech

\*\* vs 87.7% White in Oil & Gas and 69% White in High Tech



## Providing Comprehensive Benefits

We recognize and reward our team members' contributions to the business with competitive pay, equity in the company, and a comprehensive benefits package. We offer programs and resources that foster health, wellness, family support, financial security, and development at and outside of work to help us attract and retain the best talent.

Full-time employees scheduled for 30 or more hours per week are eligible to participate in our benefits program, which provides comprehensive coverage for both employees and their eligible dependents. We inform employees of the various offerings available to them through a benefits guide and encourage our team to evaluate all the options presented to select those that are best suited for their needs and those of their families. We regularly communicate with employees about their benefits and share information about how to access and make the most of the benefits that the company offers.

In 2023, we conducted Crusoe's first employee benefits survey, which we plan to repeat on a yearly basis moving forward. Overall, the survey confirmed that a vast majority – 85% – of the employee population is satisfied or very satisfied with Crusoe's benefits package. We are refining and improving our benefits program in 2024 based on the insights gathered through this survey.

Going forward, we intend to roll out new financial wellness benefits to support the personal and professional growth objectives of our workforce.

### Benefits



#### Equity Compensation

- ◆ Stock options and/or restricted stock units offered to all full-time employees



#### Engaging Working Conditions

- ◆ Flexible, hybrid workplace with modernized offices
- ◆ Minimum in-office presence 3 days a week (except for field or manufacturing roles where full-time is required)



#### Insurance

- ◆ Basic Life and Accidental Death and Dismemberment insurance
- ◆ Disability insurance
- ◆ Identity theft protection
- ◆ Pet insurance



#### Family Support

- ◆ Parental leave
- ◆ Dependent Care FSA



#### Health & Wellness

- ◆ Medical, dental, and vision plans that include prescription, and fertility benefits
- ◆ No-cost virtual Telemedicine and Mental Health benefits
- ◆ Wellness benefits including the **Calm app**
- ◆ Health Savings Account (HSA) and Flexible Spending Accounts (FSA)
- ◆ Medical benefit enhancements such as emergency travel assistance and certain generic prescription drugs at no cost regardless of medical plan
- ◆ Option to enroll in voluntary benefits such as Critical Illness, Accident, and Hospitalization insurance
- ◆ Access to discounted fitness membership



#### Additional Benefits

- ◆ Opt-out 401K with a 4% employer match
- ◆ Paid leave (vacation, sick days and bereavement)
- ◆ Commuter benefits (Parking & Transit FSA)
- ◆ Tuition reimbursement
- ◆ Cell phone benefit
- ◆ Employee Assistance Program

# Employee Development

Crusoe invests in our people. We see the potential in all of our colleagues, and we help them reach it by supporting their curiosity and aspirations. We focus on both individual and collective growth and development through Crusoe-curated and external training tools, programs, and resources.

## Supporting Learning and Development at All Levels

Learning is paramount to employee experience and to Crusoe's impact on the world. Across our operations, we provide pathways that offer team members opportunities to develop soft and hard skills, and share experiences to grow in their careers.

Crusoe offers a number of learning and development programs. Certain training sessions are open to all employees while others are assigned based on roles and responsibilities.

All employees are required to take IT security and HSE safety training. Different HSE trainings are assigned based on an employee's job function and range from 5 hours for office positions up to 14 hours for electricians and employees in roles that have higher safety risks. Crusoe's HSE training is in addition to safety-specific training that is embedded in professional education programs such as the Journeyman Electrician program.

Employees also receive emotional intelligence & observable behavior training using a method called DISC (**D**ecisive, **I**nteractive, **S**tabilizing, and **C**autious). This 2.5 hour long training provides employees with insights about their own preferred behavior styles and values as well as those of others around them. Through this training we help employees to approach and respond to situations with increased social awareness and empathy thereby enabling more productive working relationships.

Overall, each Crusoe employee spent a minimum of 25 hours upskilling in 2023, with total hours varying based on an employee's role and responsibilities.

In addition, Crusoe has developed and rolled out several new training programs focused on developing leaders at all levels of the organization. The ALPINE Leadership Program, described on the next page, is our first flagship program.

## Training Hours

Each Crusoe employee spent a minimum of **25 hours of upskilling** in 2023

ALPINE Leadership & Peer Coaching

**9.5 hours**

DISC Training

**2.5 hours**

HSE Safety Training

**5-14 hours**

(depending on job function)

IT Security Training

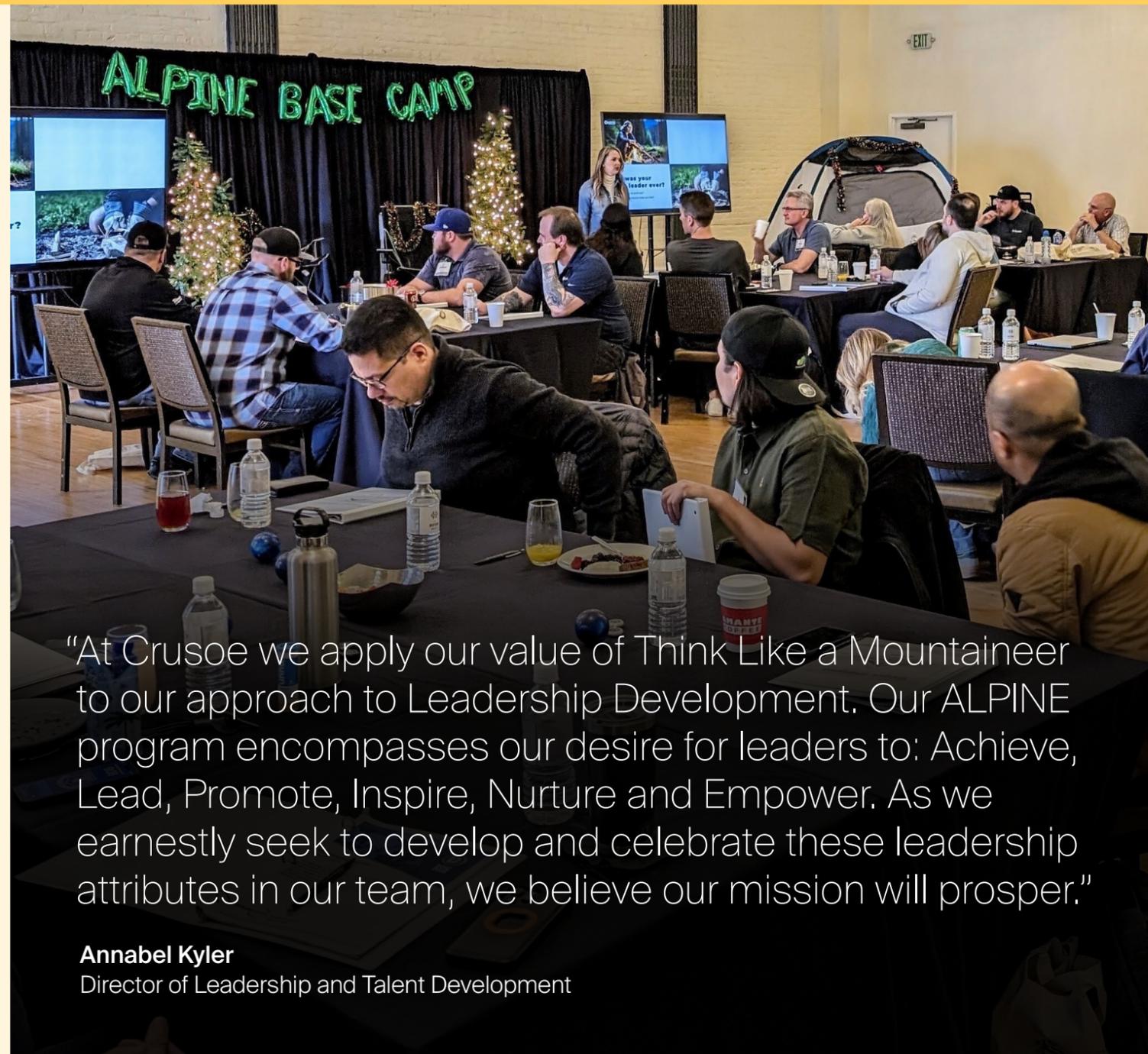
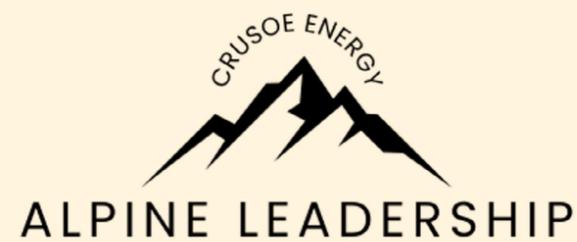
**17.5 hours**



## ALPINE Leadership Program

Crusoe launched the “ALPINE” (Achieve, Lead, Provide purpose, Inspire, Nurture, Empower) leadership training program to build the capabilities of our managers. This program focuses on developing managers to become true coaches of their team members through effective goal alignment and means and modes of communication. Crusoe leaders are required to participate in the year-long program. In 2024, we will launch additional learning opportunities to support employees considering people management or desiring specialized content tracks.

Crusoe leaders are required to participate in this training, and we are currently considering expanding it to more employees. We continue to focus on building out the skills of our leaders and will roll out our “Managers as Trainers” program in 2024.



“At Crusoe we apply our value of Think Like a Mountaineer to our approach to Leadership Development. Our ALPINE program encompasses our desire for leaders to: Achieve, Lead, Promote, Inspire, Nurture and Empower. As we earnestly seek to develop and celebrate these leadership attributes in our team, we believe our mission will prosper.”

**Annabel Kyler**  
Director of Leadership and Talent Development

## Peer Coaching

Crusoe introduced a peer group coaching program to complement the ALPINE Leadership Program that it launched for all managers at the company. Peer group coaching offers managers the opportunity to share best practices and learnings as they strive to apply concepts learned in ALPINE in their day to day work with their teams. These certified-coach facilitated sessions bring together managers for 60-90 minutes monthly to enable continuous, pragmatic sharing and learning in an empathetic environment.

## Cross-Functional Training

Beyond the various skill upgrade programs, we encourage our workforce to train cross-functionally and explore new positions and opportunities internally across the company.

Some of Crusoe's operations are highly cyclical resulting in varying requirements for staffing throughout the year. Employees are invited to upskill and cross-train by participating in "burst assignments" in departments with cyclical needs. In 2023, 27 employees participated in special short-term assignments across 7 states. Besides contributing to key work, employees participating in burst assignments deepen their understanding of Crusoe's business. The program also nurtures a sense of inclusion across our workplaces that is fundamental to our company culture.

In 2024, a group of Crusoe's field operations personnel will have the opportunity to work for periods of time in Iceland and Argentina, representing a first opportunity to travel outside the U.S. for some team members.

## Other Learning and Development Opportunities

As a company deeply committed to innovation and sustainability, we extend employee training beyond job specific knowledge and into the ESG sphere. In 2023, we offered an Ethical Sourcing Training session created by our supply chain team and introduced Lunch and Learns on topics such as recycling and food sustainability.

Furthermore, we support those who pursue higher education and certifications externally through a tuition reimbursement program.

## Expanding Learning and Development Efforts

To support employee learning and development, Crusoe is making major investments in improving our processes and enhancing learning tools and systems.

To raise awareness and to facilitate communication on the upskilling programs and opportunities offered by Crusoe, we rolled out an upgraded employee training platform and dedicated Slack channels.

In 2024, we will roll out a new learning management system for employees and contractors to improve the learning experience and track our progress. This system will serve as a centralized platform for learning and development content at Crusoe. It will support mandatory training, as well as optional development sessions to help team members achieve their professional development goals. This system will also improve our ability to track training completion and monitor the development of our workforce.

## Employee Performance Reviews

Another key component of our employee development program is regular feedback and reviews. Crusoe holds bi-annual performance and career development reviews utilizing a third-party platform, 15Five. Crusoe employees who have been with the company for at least 90 days participate in the reviews, which include a self-assessment, peer reviews, and a manager review.

Measuring our team's performance and offering regular feedback allows us to support employees and their continuous development, ensure an adaptable management environment, and provide tools and resources for success.

Going forward, we are looking to expand the ways in which we assess employee performance, particularly that of people managers. In 2024, we plan to implement an upward feedback survey aimed at supporting managers in developing to become exceptional coaches and leaders. As we roll out surveys successively over time, we aim to define a Crusoe Manager Effectiveness Index to help people managers better understand what it means to be an impactful leader at our company.



# Contributing to the Community

In 2023, Crusoe expanded operations to several new geographical regions. We do not simply operate in these communities – we become a neighbor and a local source of opportunity.

## Investing in the Community

Crusoe is a member of the communities in which we operate, and where our employees live and work. We invest in local communities by creating high-quality, stable jobs and hiring in the vicinity to fill open positions.

Crusoe also contributes meaningful investments of time and funding to local community organizations that focus on the advancement of science, technology, engineering, and math (STEM) or the environment. Demand for tech skills is growing, and advancements in AI and compute will create exciting new jobs and opportunities in the coming years.

We believe that we can have the greatest localized impact by increasing access to STEM education in underserved communities to enable the next generation of innovators, scientists, and entrepreneurs from all backgrounds to create value for society. In 2023, we provided financial support to several nonprofit organizations to increase underserved youth access to digital and STEM education, including, [RRR Computer](#), [Colorado Uplift](#), and [Girls Who Code](#). In addition, we continued our support for the [Denver cohort](#) of the [CS for All Accelerator Program](#).

## Volunteering in the Community

Beyond providing financial support, Crusoe also supports community organizations through corporate volunteerism.

During the 2023 holiday season, our North Dakota teams participated in several volunteer events in the community, including delivering hot, nutritious meals to the homes of senior citizens with the [Williston Council for the Aging](#), a 501c3 charitable organization that provides services for the elderly in the area. They also prepared gift bags for visitors of the Spring Lake Park Holiday Lights Drive, a holiday festival where visitors enjoy holiday lights, displays and events. Additionally, Crusoe partnered with the [Williston Community Builders](#) and sponsored a tree for the annual Festival of Trees, a holiday fundraiser where proceeds go towards local education programs.

In San Francisco, Crusoe volunteers helped [RRR Computer](#) set up and distribute laptops donated to low-income high school students at one of their STEM scholarship events to increase digital accessibility and literacy. Crusoe will continue to encourage volunteerism in the community and will offer employees more opportunities to participate in 2024 and beyond.



"Through corporate volunteerism, we uplift our communities and unlock our fullest potential. By giving our time and talents, we become our best selves, embodying the spirit of growth and excellence."

**Jill Lloyd**  
Director of People

# Awards

Our investment in curating our culture and offering a best-in-class workplace environment was recognized throughout the year.



The Inc  
5000 Fastest  
Growing  
Companies

**#1** in Denver, Aurora  
- Lakewood, CO

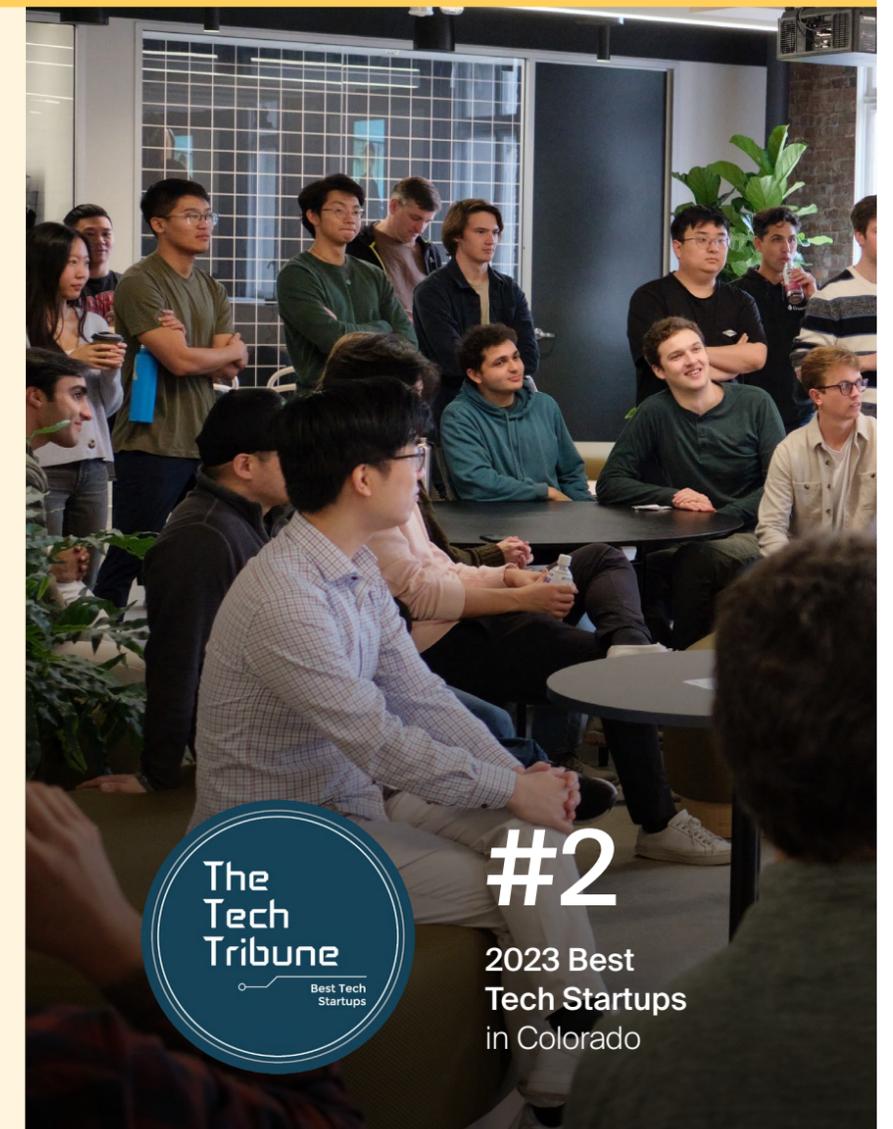
**#1** in Colorado

**#4** in Energy

**#49** overall



Best <b>CEO</b>	Best CEOs for <b>DIVERSITY</b>	Best Company <b>CULTURE</b>
Best Company <b>LEADERSHIP</b>	Best Company <b>CAREER GROWTH</b>	Best Company <b>COMPENSATION</b>
Best Company <b>HAPPINESS</b>	Best Company <b>PERKS &amp; BENEFITS</b>	Best Company <b>OUTLOOK</b>



# Governance

## 2023 Achievements

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Achieved SOC 2 Type 1 and implemented enhanced data security policies and protocols

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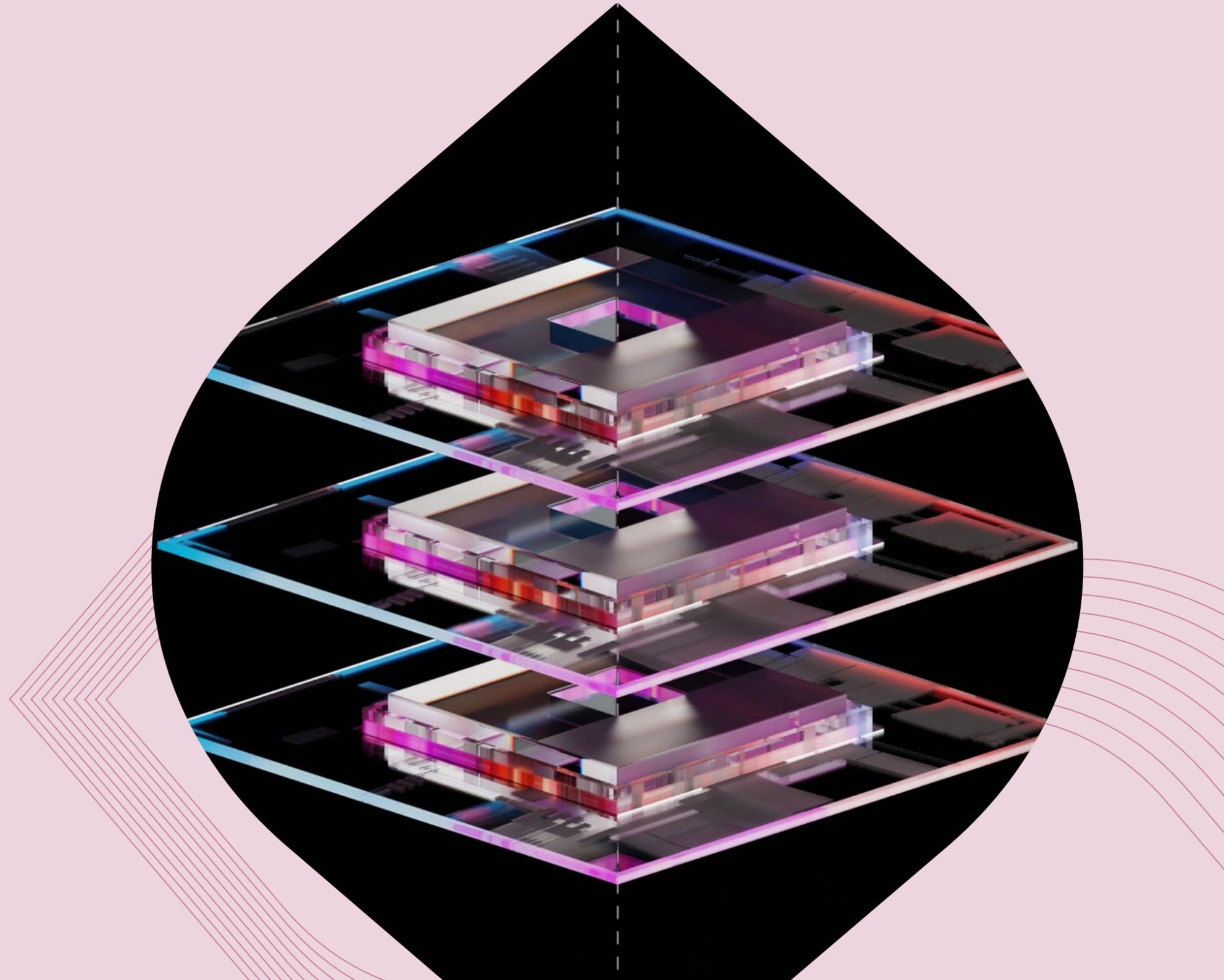
### Enhanced corporate governance

- ◆ Established an Audit Committee and a Compensation and Talent Committee to assist Crusoe's Board of Directors
- 

Collaborated with leading global organizations to promote innovation against climate change

- ◆ Became a member of the [World Economic Forum](#)
  - ◆ Joined the [Global Methane Initiative](#)
- 

Sold our first [Sustainable Bitcoin Certificates](#) to sustainability-focused crypto investors



# Our Governance Structure

In 2023, Crusoe prioritized the establishment of a clear organizational structure and strong internal and external frameworks to support our sustainability efforts.

## Crusoe's Board

As a privately-owned company, Crusoe's Board of Directors includes our co-founders and key investors. Currently, there are eight Board votes split between our co-founders and investors.

Sustainability is a topic regularly addressed at the Board level, particularly during discussions of new projects and capital deployment opportunities. To ensure that Crusoe remains true to our climate-focused mission, the Board weighs the environmental impacts and sustainability attributes of potential projects and ways in which they align with Crusoe's mission.

Our investors include leading climate tech venture funds such as G2 Venture Partners, Lowercarbon Capital, Valor, My Climate Journey, Inclusive Capital Partners, Engine No. 1, and FootPrint Coalition. They hold Crusoe accountable for our ESG efforts by requesting ESG data and updates along with the traditional financial updates.

As the company has grown, so has our committee structure. In 2023, we established an Audit Committee that assists the Board in fulfilling oversight responsibilities for Crusoe's financial reporting process, financial statements, and

system of internal controls, and a Compensation and Talent Committee that assists the Board with executive compensation arrangements, programs, and policies, and administering the company's equity incentive plans for employees.

## ESG Governance

Crusoe has an executive-level ESG Council composed of Crusoe's CEO, CFO, COO, General Counsel, and Senior Director of ESG. The ESG Council makes decisions when ESG-related issues arise and need prioritization or escalation. The Council reviews and approves Crusoe's ESG framework, strategy, and objectives at least annually, and meets regularly to ensure the alignment of Crusoe's progress with our mission and environmental objectives.

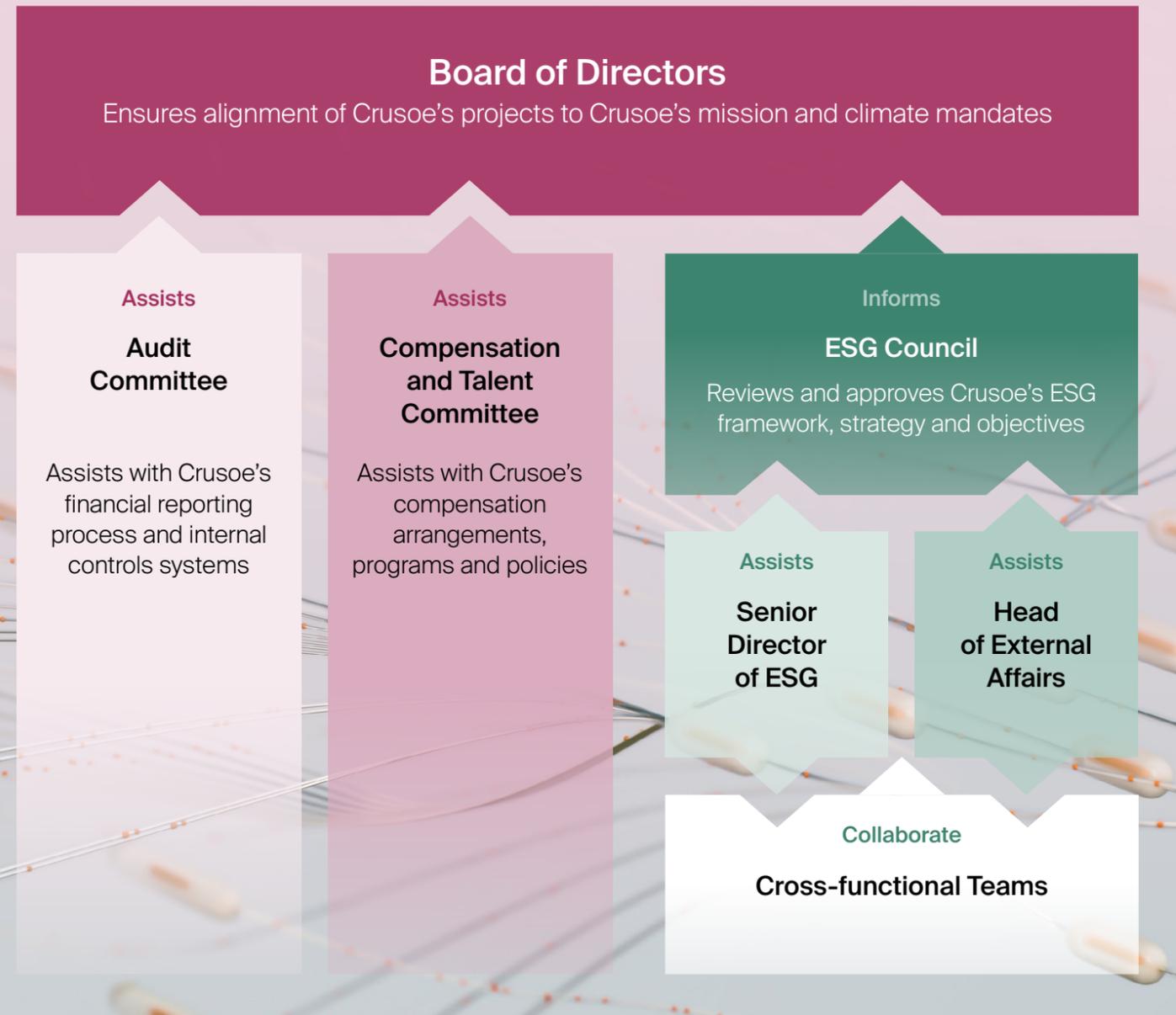
Crusoe's Senior Director of ESG spearheads our ESG activities and works cross-functionally with teams to implement and support our ESG initiatives. Her responsibilities include monitoring, tracking, and reporting on Crusoe's ESG progress and impact, leading Crusoe's annual carbon accounting, managing our carbon credit project portfolio, as well as monitoring the potential impact of emerging sustainability disclosure regulations. Furthermore, she ensures that

Crusoe's ESG principles are embedded in our business decisions and activities.

The Senior Director of ESG partners closely with our Head of External Affairs, who has deep sustainability and policy experience. They work together to implement a robust external engagement and advocacy strategy that encourages the development of supportive public policies promoting methane mitigation and responsible energy use in computing and AI as a part of climate policies at the state and federal levels.

Sustainability is a topic regularly addressed at the Board level, particularly during discussions of new projects and capital deployment opportunities.

## ESG Governance Structure



## Crusoe's Sustainable Project Selection Framework

Our Sustainable Project Selection Framework was developed to guide Crusoe's business decisions. This framework details the ESG criteria for our energy projects to help us stay true to our mission of aligning the future of computing with the future of the climate.

Our investment decisions take into account more than financial returns. We expect our projects to meet a set of minimum ESG criteria under our Sustainable Project Selection Framework. First and foremost, we consider the sustainability attributes and potential ESG impacts of various projects, and their ability to reduce emissions.

For example, the framework requires all Digital Flare Mitigation® projects to reduce flaring by utilizing stranded natural gas that would otherwise be flared by oil producers. Crusoe does not purchase natural gas from operators that have access to sufficient pipeline capacity or can sell their gas to downstream markets. Moreover, we only work with operators that drill wells based on oil economics, which prevents the incentivization of additional drilling for gas.

## Public Policy / Political Engagement

In 2023, Crusoe ramped up our political and policy engagement on a variety of topics material to our business at both the local, state, and federal level. These topics include:

- ◆ The EPA Methane Rule and Waste Emissions Charge
- ◆ The proposed excise tax for energy use as related to mining cryptocurrency
- ◆ Regulation of AI
- ◆ Land use for data centers and bitcoin mining
- ◆ Permitting

Crusoe has engaged Lot Sixteen, a Washington DC-based lobbying firm, with disclosed spend of \$150,000 in 2023.

# External Partnerships

Crusoe has formed partnerships that aim to accelerate climate solutions across the various industries in which we operate.

## The Future of AI

Crusoe is contributing to initiatives and dialogues on the future of AI, with a focus on how to reduce the environmental impact of AI and computing. In 2023, Crusoe joined the World Economic Forum (WEF) to grow our international advocacy and partnerships to advance our mission. In partnership with WEF, Digital Flare Mitigation® was showcased as a viable solution to reduce global methane emissions in **How Crusoe Energy Catches Waste Methane to Power Data Centres** and was featured in the white paper **Innovation & Adaptation in the Climate Crisis: Technology for the New Normal** authored by the Boston Consulting Group. The report provides a look at the technological innovations working to assess climate risk, create solutions to help mitigate climate change, solve infrastructure challenges for a more sustainable future, build resilience to climate change, and respond to disasters. It also outlines the importance of collaboration across the public and private sector to help scale impact of technology solutions in this domain.

Crusoe's CEO also participated in WEF's 2023 Responsible AI Leadership (RAIL) meeting that convened experts to explore ways to shape generative AI so that it can be safe, robust, fair, and equitable for society. Furthermore, Crusoe hosted events during San Francisco and New York 2023 Climate Weeks focused on sustainable AI infrastructure.



## Energy

We engage with multiple organizations focused on reducing flaring and methane emissions. In 2023, we joined the **Global Methane Initiative**, which brings together stakeholders to encourage methane recovery and utilization and ultimately reduce methane emissions.

We also worked with U.S. state-level oil & gas associations such as the North Dakota Petroleum Council, Montana Petroleum Association, Utah Petroleum Association, Texas Oil and Gas Association, and Colorado Oil & Gas Association to advance supportive policies that promote the reduction of flaring and methane.

## Cryptocurrency & Blockchain Technology

We are partners of the **Sustainable Bitcoin Protocol** (SBP), which aims to incentivize the use of clean energy sources in bitcoin mining through the development of a market mechanism. SBP has developed and is piloting methodologies for verifying the use of renewable energy and waste gas for bitcoin mining. They have created a tokenized environmental asset called the Sustainable Bitcoin Certificate (SBC), which can be held alongside bitcoin to ensure an investor's holdings are verifiably climate-positive and exceed their environmental goals. We are also a supporter of the **Crypto Climate Accord**, which focuses on decarbonizing the cryptocurrency and blockchain industry, and engage with industry trade associations like the **Digital Chamber of Commerce** and an early member of the Chamber's Digital Power Network, an arm of the coalition focused on spearheading policy advocacy for digital asset mining and crafting the future of energy policy.

### Case Study



## Partnering to Enhance Bitcoin Mining Sustainability

Crusoe uses a combination of renewable energy and waste gas to mine bitcoin and has been partnering with the Sustainable Bitcoin Protocol to verify its use of sustainable energy in order to receive Sustainable Bitcoin Certificates issued by SBP.

When Crusoe temporarily uses grid electricity at third-party hosting sites, we collaborate with Jasmine Energy to procure RECs in alignment with our sustainability commitment to use clean energy. The use of RECs ensures that claims of renewable energy use are backed by credible, traceable, and transparent evidence.

Jasmine Energy utilizes a blockchain-based platform to meticulously track the retirement of RECs. Their technology further enhances transparency and integrity in the claim of renewable energy use. The use of Jasmine Energy's platform allows SBP to confidently verify Crusoe's use of renewable energy and to issue SBCs to Crusoe, attesting to the sustainable origin of the bitcoins mined by Crusoe. SBCs enable holders of bitcoin to demonstrate environmental stewardship. Crusoe sold its first SBCs to several sustainability-focused crypto investors in 2023.

The collaboration between Crusoe, Jasmine Energy, and SBP exemplifies a forward-thinking approach to resolving the environmental challenges of bitcoin mining. By leveraging blockchain technology for transparency and embracing market-based mechanisms to encourage clean energy consumption, this model paves the way for a more sustainable future for cryptocurrency mining.

# Fostering Compliance and Business Ethics

At Crusoe, we promote compliance and business ethics internally and externally. Our commitment to data privacy and security is unwavering and reflected in our business practices and certifications.

## Code of Conduct

We established Crusoe's Code of Conduct in 2022 to set high standards of integrity, honesty and fair dealings for all Crusoe employees and contractors when acting on our behalf. Our compliance framework also includes policies on sanctions and trade, export controls, anti-bribery/anti-corruption, and anti-boycott to comply with the applicable U.S. laws and regulations. Crusoe employees are subject to annual compliance training.

## Data Privacy and Security

Crusoe places paramount importance on empowering customers with control over their data, ensuring they retain ownership and autonomy. We achieve this by providing Crusoe® Cloud customers with a dedicated environment that is isolated from other customers. This customer-centric approach is woven into Crusoe's legal terms that protect customer privacy and security on Crusoe® Cloud, which are available on our [website](#).

Our commitment to security includes encryption that ensures that data remains confidential and secure, both in transit and at rest. We follow best-in-class security practices in software development, including technical leadership approval for significant changes, peer reviews on all production code changes, and regular scanning against [OWASP Top Ten risks](#).

The principle of least privilege access underpins our access management policies, restricting access to only authorized personnel. Furthermore, periodic penetration testing allows us to proactively identify and mitigate vulnerabilities, reinforcing our defense against potential threats.

We are committed to building a Cloud that both secures customer data and is compliant with industry standard frameworks.

Crusoe has aligned its security program with the NIST Cybersecurity Framework (CSF) and successfully completed a SOC 2 Type I audit in 2023, with plans in 2024 to achieve SOC 2 Type II. Crusoe® Cloud prospects and customers can access our security and compliance artifacts on our recently launched [Trust Center](#).

Crusoe did not receive or identify any substantiated complaints concerning breaches of customer privacy from outside parties or regulatory bodies in 2023.

## Supply Chain Engagement

Crusoe places a strong emphasis on fostering a sustainable and responsible supply chain. We are committed to increasing the transparency of our procurement processes and to working with partners who uphold our ESG values.

Crusoe's Request for Proposals (RFPs) incorporate questions concerning sustainability commitments and practices. We also seek to increase the diversity of our suppliers by including small, minority, veteran, and women-owned businesses in our RFPs. Our RFP process uses a closed bid system to increase confidentiality and transparency, creating equal opportunity for all participants.

Crusoe's standard agreement terms governing our relationship with suppliers include clauses related to regulatory and environmental responsibility and stewardship in addition to fraud, anti-boycott, forced labor, sanctions,

export control, liability, insurance, intellectual property, confidentiality, and safety. Our suppliers are expected to partake in health, safety, and environmental training and to meet environmental restrictions and compliances, including cultural, biological, and wildlife stipulations.

As a part of our commitment to an ethical supply chain, we provide training to our procurement team and non-procurement team members on best practices in engaging with suppliers. Members of the procurement team receive mandatory training in accordance with the requirements under the U.S. Foreign Corrupt Practices Act to engage in responsible and ethical bidding practices, prevent corruption and anti-bribery, and refrain from engaging with non-compliant individuals and companies. Going forward, Crusoe plans to roll out a compliance platform for continued oversight of our suppliers and to enhance relationship building.



# Leveraging Climate Opportunities

Crusoe's business is centered around the capture of climate opportunities.

Capturing climate opportunities and supporting the energy transition is core to Crusoe's business, which is focused on converting wasted and stranded energy into a valuable resource that powers advanced computing. Our energy solutions minimize the emissions associated with energy production as well as the footprint that computing has on the environment.

Crusoe was founded because we saw an opportunity to turn the climate challenge posed by the flaring of natural gas during oil production into a solution that could help address the growing energy demands of the advanced computing sector. We began operating in the U.S., where we deployed our DFM™ technology to oil fields across the Bakken and other basins to harness flared natural gas to power modular data centers.

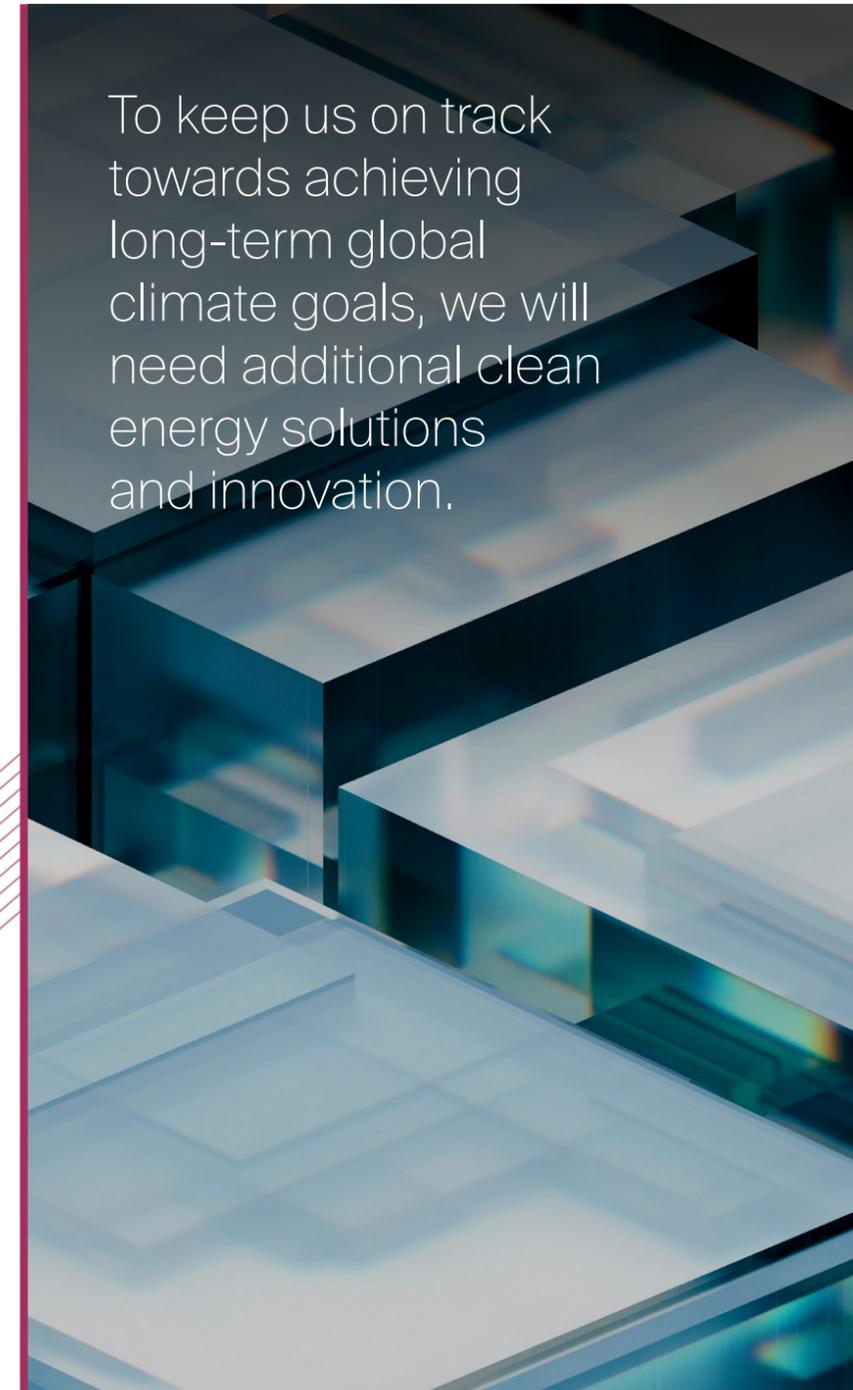
Flaring is a serious global phenomenon that is not limited to the U.S., which presents us with opportunities to introduce our technology to other regions to increase our impact. In 2023, we expanded to Argentina through a technology licensing partnership with Unblock and we continue to explore opportunities in other countries where natural gas flaring is

a major problem. We also expanded our domestic operations, with new deployments in the Uinta Basin in Utah and the Permian basin in New Mexico. Crusoe has initiated plans to commence DFM™ operations in a seventh state, Texas, in 2024.

In addition to reducing the environmental impacts of traditional energy production, we believe in the importance of the clean energy transition to sustainably power the world over the coming decades. We developed our behind-the-meter DRO™ approach to encourage the development of additional renewable generation in the places where it is most cost effective to produce renewable energy, and bring the market for power demand from computing to those locations. This strategy also harnesses the full capacity of existing renewable assets, which are often challenged by negative prices, congested transmission infrastructure, and curtailment. By bringing computing workloads to the source of renewable energy generation, we can access carbon-free energy, reduce the need to curtail renewables, improve the economics of clean energy assets, and reduce transmission and distribution loss.

To keep us on track towards achieving long-term global climate goals, we will need additional clean energy solutions and innovation. Looking ahead, we see the potential for CCUS, battery storage, and the utilization of nuclear and clean hydrogen as well as other sources of methane such as biogas and renewable natural gas as possible new frontiers for Crusoe.

To keep us on track towards achieving long-term global climate goals, we will need additional clean energy solutions and innovation.



# Addressing Climate Risks

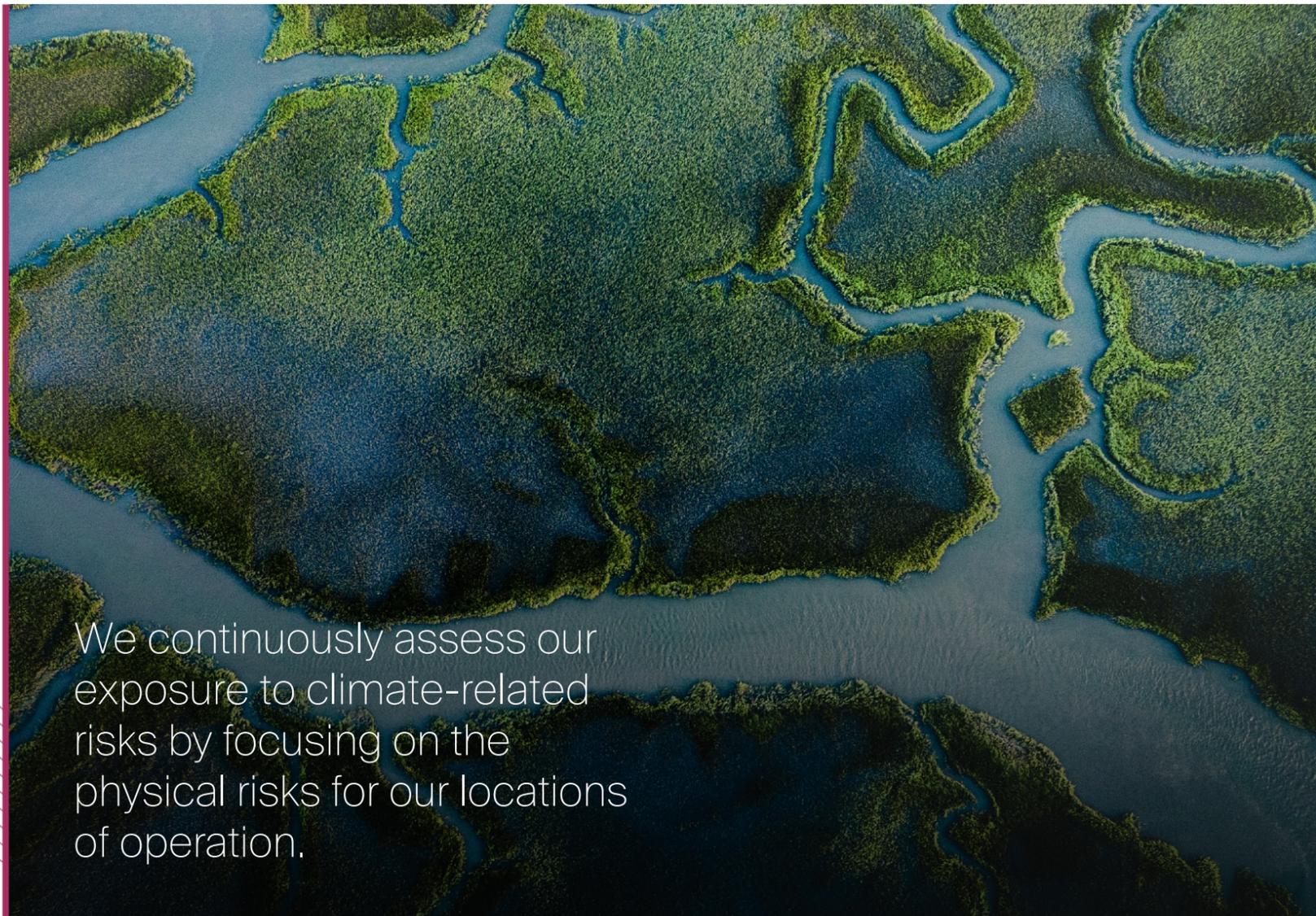
We monitor potential climate-related risks and take measures to prepare and adapt to them.

Like other organizations, Crusoe is subject to the physical effects of a changing climate. As we operate in both indoor and outdoor environments, we continuously assess our exposure to climate-related risks by focusing on the physical risks for our locations of operation. These risks include the physical risks to our employees as well as the potential risks to our facilities and equipment.

Extreme temperatures and weather events in both the winter and summer can increasingly impact our field operations. We developed a range of operating procedures to address and mitigate the potential physical impacts of extreme weather to keep our people safe and maintain effective operations under a broad range of weather conditions.

The climate conditions in our locations of operation are also a crucial consideration when it comes to the design of our equipment and infrastructure. For example, Crusoe's DFM™ systems are designed with building heaters and fans or canopies to enable operations from -20°F (-29°C) to 105°F (41°C).

This operating temperature range can be further expanded by deploying precautions and operational protocols to minimize outages. We equip all our installations with video monitoring and software, which allows us to automatically respond to changes in weather conditions as they arise, as well as alert our operations and field teams whenever further human intervention is required.



We continuously assess our exposure to climate-related risks by focusing on the physical risks for our locations of operation.

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# Appendix



# About Our Reporting

This is Crusoe's impact report, covering calendar year 2023. We prepared this report informed by the GRI Universal Standards. We also utilized other ESG-related frameworks and best practices to guide our reporting including the GHG Protocol Corporate Accounting and Reporting Standard, SASB, TCFD, ISSB, and UN Sustainable Development Goals.

Unless otherwise stated, our reporting covers all facilities where Crusoe has operational control, which includes owned manufacturing facilities, corporate offices, warehouses, and on-the-ground operations. References such as "currently," "so far" or similar expressions reflect information as of Dec. 31, 2023, unless otherwise noted. Some achievements from early 2024 are included in the report to provide the most relevant information to stakeholders. To the extent possible, we determined such information was gathered and reported accurately, and that the underlying assumptions and methodologies are sound.

While certain matters discussed in this report may be significant, any significance should not be read as necessarily rising to the level of materiality even if the word "material" or "materiality" is used in this report.

Certain statements in this report are "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. These statements are based on management's current expectations and are subject to known and unknown risks, uncertainties, changes in circumstances, and assumptions that are difficult to predict and are often beyond our control. These statements are not guarantees of future results, occurrences, or performance.

Actual results and financial outcomes may differ materially from those included in any of these forward-looking statements due to a variety of factors, including, but not limited to, the precautionary statements included in this report, as well as the following factors: global sociodemographic and economic trends, climate-related conditions and weather events, energy prices and technological innovations, client behavior, data limitations and uncertainty, legislative and regulatory changes, and other unforeseen events or conditions. Any forward-looking statements made by or on behalf of the company speak only as to the date they are made, and the company does not undertake to update forward-looking statements to reflect the impact of circumstances or events that

arise after the date the forward-looking statements were made.

Nothing in this presentation constitutes a solicitation, recommendation, endorsement, or offer by any party to buy or sell any securities or other financial instruments in any jurisdiction. You are solely responsible for consulting independent and qualified legal and financial advisors and evaluating the risks and merits associated with the use of any information provided in this report. We expressly recommend that you seek advice from legal and tax professionals. There are significant risks associated with investing in securities, and you may lose money. Your use of any information from this report is at your own risk.

While we have tried to ensure the accuracy and completeness of the contents herein, we cannot offer any undertaking or guarantee, either expressly or implicitly, regarding how correct, complete or up to date the contents of this report are. Our past performance does not necessarily predict future results. We are not a registered investment, legal, or tax advisor. We accept no liability for any loss or damage whatsoever arising out of the use of this report or reliance on the content herein.

We reserve the right to supplement this report at any time or to change or delete any information contained or views expressed herein.



# GRI and SASB Index Table

Framework	Disclosure Code	Disclosure or Reference to Report Section
<p><b>General Disclosures</b></p> <p><b>GRI 2:</b> <b>General Disclosures 2021</b></p>	<p><b>2-1: Organizational details</b></p> <p>a. Organization's legal name b. Nature of ownership and legal form c. Headquarters location d. Countries of operation</p>	<p>a. Crusoe Energy Systems LLC b. Privately-owned company c. Denver, CO d. United States</p>
	<p><b>2-2: Entities included in the organization's sustainability reporting</b></p>	<p>Crusoe Energy Systems LLC, including Crusoe Industries</p>
	<p><b>2-3: Reporting period, frequency and contact point</b></p> <p>a. Reporting period and frequency b. Reporting period for financial reporting c. Publication date d. Contact point</p>	<p>a. Full year 2023, reporting annually b. No public financial reporting as the company is privately-owned c. June 2024 d. info@crusoeenergy.com</p>
	<p><b>2-6: Activities, value chain and other business relationships</b></p> <p>a. Sector(s) in which Crusoe is active b. Crusoe's value chain, including: I. The organization's activities, products, services and markets served; II. The organization's supply chain; III. The entities downstream from the organization and their activities c. Relevant business relationships</p>	<p>a. and b. I and II. <b>Our Mission and Business / Crusoe's Unique Business Approach</b> b. III and c. No other entities downstream or relevant business relationships other than reported above</p>

## Framework

## Disclosure Code

## Disclosure or Reference to Report Section

GRI 2:  
General Disclosures 2021

### 2-7: Employees

a. Total number of employees with breakdown by gender and region

[Our Impact](#) / [Society](#) / [Investing in our People](#) / [Employee Attraction and Retention](#)

### 2-22: Statement on sustainable development strategy

Statement from the most senior executive about the relevance of sustainable development to the organization

[Crusoe in 2023](#) / [Letter from the Founders](#)

## Environmental Disclosures

GRI 302:  
Energy 2016

### 302-1: Energy consumption within the organization

- a. Total fuel consumption from non-renewable sources
- b. Total fuel consumption from renewable sources
- c. Electricity, heating, cooling and steam consumption
- d. Electricity, heating, cooling and steam sold
- e. Total energy consumption in joules
- f. Standards, methodologies, assumptions and/or calculation tools used

- a. Over 5.4 billion cubic feet of natural gas that would otherwise be flared
- b. Not material
- c. Crusoe purchased 460,000 MWh of electricity from the grid
- d. Crusoe generated over 635,000 MWh of power using flared gas
- e. 4,349,000 GJ
- f. The power Crusoe generated is metered and captured in Crusoe's systems. The power Crusoe purchased came from utility and third party invoices

GRI 305:  
Emissions 2016

### 305-1: Direct (Scope 1) GHG emissions

- a. Gross direct (Scope 1) GHG emissions in metric tons of CO<sub>2</sub> equivalent
- b. Gasses included
- c. Biogenic CO<sub>2</sub> emissions
- d. Base year for the calculation
- e. Source of the emission factors and global warming potential rates
- f. Consolidation approach
- g. Standards, methodologies, assumptions and/or calculation tools used

- a., e., f. and g. [Our Impact / Environment / Managing Crusoe's GHG footprint](#)
- b. All gasses
- c. Not relevant
- d. 2023

## Framework

## Disclosure Code

## Disclosure or Reference to Report Section

### GRI 305: Emissions 2016

#### 305-2: Energy indirect (Scope 2) GHG emissions

- a. Gross Location-based energy indirect (Scope 2) GHG emissions in metric tons of CO<sub>2</sub> equivalent
- b. Gross Market-based energy indirect (Scope 2) GHG emissions in metric tons of CO<sub>2</sub> equivalent
- c. Gasses included

- d. Base year for the calculation
- e. Source of the emission factors and global warming potential rates
- f. Consolidation approach
- g. Standards, methodologies, assumptions and/or calculation tools used

- a., b., e., f. and g. [Our Impact / Environment / Managing Crusoe's GHG footprint](#)
- c. All gasses
- d. 2023

#### 305-3: Other indirect (Scope 3) GHG emissions

- a. Gross other indirect (Scope 3) GHG emissions in metric tons of CO<sub>2</sub> equivalent
- b. Gasses included
- c. Biogenic CO<sub>2</sub> emissions
- d. Other indirect (Scope 3) GHG emissions categories and activities
- e. Base year for the calculation
- f. Source of the emission factors and global warming potential rates
- g. Standards, methodologies, assumptions and/or calculation tools used

- a., d., f. and g. [Our Impact / Environment / Managing Crusoe's GHG footprint](#)
- b. All gasses
- c. Not relevant
- e. 2023

#### 305-4: GHG emissions intensity

- a. GHG emissions intensity ratio
- b. Organization-specific metric (the denominator) chosen to calculate the ratio
- c. Types of GHG emissions included in the intensity ratio
- d. Gasses included

- a. 0.49 metric ton of CO<sub>2</sub> equivalent / MWh generated using flared gas
- b. MWh generated using flared gas
- c. Direct (Scope 1), energy indirect (Scope 2 – market-based)
- d. All

### SASB Software & IT Services

#### TC-SI-130a.1

- 1. Total energy consumed
- 2. Percentage grid electricity
- 3. Percentage renewable

- a. 4,349,000 GJ
- b. 41%
- c. 100% of grid electricity is renewable (through purchase of U.S. RECs and via partners using 100% renewable electricity)

## Framework

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### Societal Disclosures

#### GRI 401: Employment 2016

#### 401-1: New employee hires and employee turnover

a. Total number and rate of new employee hires by age group, gender and region

In 2023, Crusoe's workforce increased nearly 20% across our 10 offices, warehouses, and manufacturing facilities, and in the field.

#### 401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees

- a. Benefits which are standard for full-time employees that are not provided to temporary or part-time employees
- b. Definition used for 'significant locations of operation'

Our Impact / Society / Investing in our People / Employee Attraction and Retention

#### 401-3: Parental leave

a. Total number of employees entitled to parental leave, by gender

100%

#### GRI 403: Occupational Health and Safety 2018

#### 403-1: Occupational health and safety management system

- a. Statement of whether an occupational health and safety management system has been implemented
- b. Scope of workers, activities and workplaces covered by the occupational health and safety management system

a. Our Impact / Society / Investing in our People / Employee Health and Safety  
b. 100%

#### 403-2: Hazard identification, risk assessment and incident investigation

- a. Processes used to identify work-related hazards
- b. Processes for workers to report work-related hazards
- d. Processes used to investigate work-related incidents

Our Impact / Society / Investing in our People / Employee Health and Safety

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### GRI 403: Occupational Health and Safety 2018

#### 403-5: Worker training on occupational health and safety

- a. Occupational health and safety training provided to workers, including generic training as well as training on specific work-related hazards

Our Impact /Society / Investing in our People / Employee Health and Safety  
Our Impact /Society / Investing in our People / Employee Development

#### 403-6: Promotion of worker health

- a. Facilitation of workers' access to non-occupational medical and healthcare services, and the scope of access provided  
b. Description of voluntary health promotion services and programs offered to workers

Our Impact / Society / Investing in our People / Employee Attraction and Retention

#### 403-8: Workers covered by an occupational health and safety management system

100%

#### 403-9: Work-related injuries

Our Impact /Society / Investing in our People / Employee Health and Safety

#### 404-1: Average hours of training per year per employee

Our Impact /Society / Investing in our People / Employee Development

### GRI 404: Training and Education 2016

#### 404-2: Programs for upgrading employee skills and transition assistance programs

- a. Type and scope of programs implemented and assistance provided to upgrade employee skills

Our Impact /Society / Investing in our People / Employee Development

Framework	Disclosure Code	Disclosure or Reference to Report Section
<p><b>GRI 404:</b> Training and Education 2016</p>	<p><b>404-3: Percentage of employees receiving regular performance and career development reviews</b></p> <p>a. Percentage of total employees by gender and employee category who received a regular performance and career development review</p>	<p>100%</p>
<p><b>GRI 405:</b> Diversity and Equal Opportunity 2016</p>	<p><b>405-1: Diversity of governance bodies and employees</b></p> <p>b. Percentage of employees per employee category by gender, age group and other indicators</p>	<p><u>Our Impact / Society / Investing in our People / Employee Attraction and Retention</u></p>
<p><b>GRI 413:</b> Local Communities 2016</p>	<p><b>413-1: Operations with local community engagement, impact assessments, and development programs</b></p>	<p><u>Our Impact / Society / Investing in our People / Contributing to the Community</u></p>
<p><b>SASB Hardware</b></p>	<p><b>TC-HW-330a.1</b></p> <p>Percentage of gender and racial/ethnic group representation for:</p> <ol style="list-style-type: none"> <li>1. Management</li> <li>2. Technical staff</li> <li>3. All other employees; efforts to recruit from and develop diverse talent pools</li> </ol>	<p><u>Our Impact / Society / Investing in our People / Employee Attraction and Retention</u></p>
<p><b>SASB Software &amp; IT Service</b></p>	<p><b>TC-SI-330a.2</b></p> <p>Employee engagement as a percentage; non-monetary benefits to improve employee engagement and therefore retention and productivity</p>	<p><u>Our Impact / Society / Investing in our People / Employee Attraction and Retention</u></p>

## Framework

## Disclosure Code

## Disclosure or Reference to Report Section

### Governance Disclosures

GRI 201:  
Economic Performance 2016

GRI 205:  
Anti-corruption

GRI 418:  
Customer privacy

GRI 2:  
General Disclosures 2021

201-2: Financial implications and other risks and opportunities due to climate change

a. Risks and opportunities posed by climate change that have the potential to generate substantive changes in operations, revenue or expenditure

205-2: Communication and training about anti-corruption policies and procedures

418-1: Substantiated complaints concerning breaches of customer privacy and losses of customer data

2-9: Governance structure and composition

[Our Impact / Governance / Leveraging Climate Opportunities](#)  
[Our Impact / Governance / Addressing Climate Risks](#)  
(no quantified impact of climate-related risks and opportunities available yet)

[Our Impact / Governance / Fostering Compliance and Business Ethics](#)

[Our Impact / Governance / Fostering Compliance and Business Ethics](#)

[Our Impact / Governance / Our Governance Structure](#)

