

$\frac{\text{esg & impact report}}{2023}$



Reimagining...

...how we move, power, make and build with technology investments that drive massive impact in curbing global climate change.

HISTORY

Braemar Energy Ventures was formed in 2003 to find, invest in, and scale transformative energytech businesses that contribute to global sustainability and combat climate change.

Over two decades, we have built a track record of impactful business partnerships that are revolutionizing the way people use energy and interact with energy infrastructure.



Braemar Castle was built in 1628 and has a unique significance as the only community-run castle in Scotland. For us at Braemar Energy Ventures, it is the perfect example of standing the test of time, all the while serving an important role in the community.

SHARED MISSION

Our mission is to support teams of individuals rewriting the future of our world with breakthrough climate technologies and business models tackling the global energy transition to net-zero carbon. We commit to a more sustainable, resilient, and equitable global energy system for all stakeholders by backing early-stage companies and helping them scale to transform industry. In addition, we as a firm commit to constantly re-evaluate our own ways of thinking, working and governing ourselves, honoring open mindedness and open discourse as core contributing values.









Braemar has been an impact investor from its inception with the strong belief that the world needs market-driven innovative sustainable energy and environmental solutions that will improve the quality of life and security of citizens of the global community. Using our deep knowledge of this complex ecosystem, we help our portfolio companies build critical partnerships necessary to scale their solutions to meet the challenges posed by the devastating effects of climate change.

BILL LESE

Co-founder and Managing Partner





The Great Energy Transition

The urgency of eliminating carbon emissions is a driving force in the global economy. Climate impacts in 2022 devasted cities, businesses, infrastructure and food systems across the globe with unprecedented force. At the same time, global energy markets took on new significance in 2022 with the shockwaves of the Russian invasion of Ukraine.

Achieving decarbonization will require driving CO₂ emissions out of every sector and reconstructing a clean energy economy. It is Braemar's perspective that this endeavor will be impossible without innovation and new technologies, underpinning Braemar's commitment to investing in transformative solutions that can bend the curve on climate impacts and help solve the world's greatest challenge.

\$23 TRIL.

How much the global economy could shrink by 2050 due to climate change Swiss Re Institute

+7% In global emissions by 2030 at current run rates

-43% Needed to reach global carbon goals in 2030 **UNFCCC**

Catalysts for Innovation

Accelerating commercialization of innovative technologies got a boost in 2022 through U.S. legislation to invest in climate solutions, resilient infrastructure and a more competitive supply chain. United States' federal law, the Inflation Reduction Act (IRA) of 2022 includes the single largest climate investment in American history and will help expand domestic clean energy markets and production.

The Infrastructure Investment and Jobs Act (IIJA) also supports clean energy innovation, including innovation in grid and EV infrastructure and clean electricity. In addition, the CHIPS Act positions U.S. companies to have much greater control over their supply chains to deliver new products and scale in a wide range of sectors including clean energy.

+89% increase in global climate tech investment in 2022 vs. 2021

\$369 BIL.

tailwind from climaterelated programs/ incentives in IRA

PwC

\$6.7 TRIL. invested in the energy

transition since 2004

BNN Bloomberg

Braemar Energy Ventures | ESG & IMPACT REPORT 2023

ESG PROGRAM AT BRAEMAR Working to benefit all stakeholders

We launched our formal ESG program in 2019 when we instituted our first ESG policy.

Since then we have further developed our approach by expanding aspects of our due diligence, ESG governance team, and reporting. Today our program is governed by our current policy, which covers ESG integration into the following broad processes:

EXCLUSIONARY PRACTICE

INVESTMENT ANALYSIS AND DECISION-MAKING

ASSET OWNERSHIP

REPORTING AND DISCLOSURE

ACCOUNTABILITY AND TRANSPARENCY

While our policy is a static depiction of our approach to ESG integration, we live and breathe ESG dynamically on a dayto-day basis. ESG concerns get raised and discussed by our management teams regularly, and we constantly re-evaluate ESG in our portfolio and engage with our portfolio leaders on ESG issues as they arise.



IMPACT & ESG LEADS

Our ESG program is governed by Lori Collins, ESG Leader and Bill Lese, Managing Partner, alongside ACA members Dan Mistler, Partner of ESG Advisory Practice and Devarshi Pandya, ESG Consultant, who oversee all aspects of the ESG program and are responsible for the implementation of our Impact and ESG policy. We have a long-standing relationship with the ACA Group, and as a strategic partner, they have contributed to the architecture of our program since its inception.



LORI COLLINS ESG Leader WILLIAM D. LESE Managing Partner



DAN MISTLER Head of ESG Advisory, ACA Group



DEVARSHI PANDYA ESG Consultant, ACA Group

UN PRINCIPLES FOR RESPONSIBLE INVESTMENT



We believe that transparency is important for our business and all of our stakeholders. Braemar Energy Ventures became a signatory to the UN Principles for Responsible Investment (PRI) in 2019 in an effort to align with best practice approaches to ESG and to help our stakeholders understand the central nature of ESG in our work.

We are encouraged by the growth in UN PRI membership, and we look forward to collaborating with the PRI as a signatory for years to come.

GLOBAL ESG FRAMEWORKS

While we participate in the UNPRI as our main framework for ESG reporting, we also look for opportunities to align with other ESG frameworks relevant to our business, including but not limited to:

- The Task Force on Climate Related Financial Disclosures (TCFD)
- The UN Sustainable Development Goals (SDGs)
- The requirements of the EU's Sustainable Finance Disclosure Regulation (SFDR)

ESG IN OUR PORTFOLIO COMPANIES Prioritizing People and the Environment

At Braemar, we have been engaging with our portfolio companies on ESG and impact related aspects of their businesses for decades.

In the last year, we have taken steps to formalize our portfolio data tracking procedures with the goal of developing a comprehensive and referenceable baseline of ESG metrics for our companies. While we have been engaging with all of our portfolio companies on ESG, we have recently embarked on a more formal program of metrics with a subset of our portfolio, including:



Today, we track the following KPIs in our portfolio:



Gender pay-gap

ESG MANAGEMENT

- Diversity, Equity, and Inclusion Policy
- Employee Satisfaction tracking
- Data Security Policy
- Ecological impacts on surrounding communities
- Hazardous Waste Policy

ESTIMATED GHG EMISSIONS

- Scope 1
- Scope 2
- Scope 3 (Business air travel and employee commute, with the exclusion of portfolio's supply chain emissions)

POTENTIAL GHG IMPACT

- Reduction in tons of CO₂e
- Reduction in tons of CO₂e per employee
- Reduction in tons of CO₂e per dollar of revenue



ESG IN ACTION Case Studies in Impact

CARB®NFREE[™]

To capture 10% of industrial CO₂ emissions globally¹

CarbonFree has developed patented technologies that capture CO₂ from stationary point source emitters and transform them into profitable carbonnegative chemicals without the need for a price on carbon.

SkyCycle and SkyMine create sodium bicarbonate (baking soda), precipitated calcium carbonate (PCC) respectively and other value-added products.

SkyCycle is CarbonFree's secondgeneration technology. Providing a complete carbon capture, utilization and storage "CCUS" solution, solving the high cost of transport and storage infrastructure.

¹ Represents emissions from stationary point source emitters ("PSEs").



SkyCycle has an ultra-low penalty technology providing a carbon negative impact.

Operating since 2016, SkyMine is one of the world's first and largest industrialscale carbon mineralization facilities.

One SkyCycle plant will capture at least:

50,000 tonnes CO₂/year and convert it into 100,000 tonnes of carbon negative PCC

That is the equivalent of:

Taking 10,874 cars off the road 17,301 tons of waste recycled instead of landfilled

9,729 homes' electricity use for one year

Calculated using EPA's GHG Equivalencies Calculator

Carbonfree's carbon mineralization process

SkyMine plant operating since 2016 has demonstrated that it can produce high purity sodium bicarbonate "baking soda" utilizing waste CO_2 from adjacent cement factory.

SkyCycle technology has demonstrated the ability to produce CO_2 negative high purity calcium carbonate from multiple industrial CO_2 sources to support the **\$40B global** addressable market.

SkyCycle technology is ready for commercialization as an on-site carbon capture and utilization "CCU" and "CCS" solutions, and its modular design makes it applicable anywhere and easy to scale.

SKYCYCLE ADVANCED MINERALIZATION

All-in cost per ton of CO_2	Low
Carbon penalty	Low
Capex requirement	Low
Emitter candidate sites	Many
Value of CCU end product markets	Large, high value
Available sequestration sites	Abundant

CARB©NFREE"



Having the support of Braemar Energy Ventures means that our vision of capturing 10% of the world's industrial CO_2 is significantly closer to reality. I'm thrilled with the progress we've been able to make thanks to their investment; we're preparing our technology for worldwide deployment, which could mean significant advancement in the journey to net-zero for the industrial sector.

MARTIN KEIGHLEY

Chief Executive Officer, CarbonFree

-chargepoin+.

Leading Electric Vehicle Charging Network in the World

ChargePoint operates the largest connected network of independently owned EV charging stations operating in 14 countries and makes the technology used in it.

With more than 100,000 independently owned public and semi-public charging spots and thousands of customers (businesses, public agencies, and fleet owners), ChargePoint is the only charging technology company on the market that designs, develops and manufactures hardware and software solutions across every use case.

Leading EV hardware makers and other partners rely on the ChargePoint network to make charging station details available in mobile apps, online and in navigation systems for popular EVs.



Driving the electrification of mobility ChargePoint is delivering on its mission with:

Real-time access to environmental impact data provides

- businesses, fleet managers, multifamily property owners and drivers with actionable information to achieve their sustainability goals
- The first ENERGY STAR® certified EV commercial and residential charging stations on the market
- Expanded access to tens of thousands of additional places to charge through roaming agreements and integrations in North America and Europe.

Collective Achievement

5.0B electric miles driven since 2007

158M Charges delivered to date

+200M gallons of gasoline consumption avoided

Charge Point has avoided greenhouse gas emissions equivalent to:

Planting **21M+** tree seedlings and letting them grow for 10 years

Capturing carbon in **1.5M** acres of U.S. forests

Recycling 57M bags of waste

A leader in North America and paving a way in Europe

210,000+ activated ports

16,700+ activated DC ports

400,000+ ports through roaming reach

Calculated using EPA's GHG Equivalencies Calculator

-chargepoin-



The EV market has been experiencing a boom in growth, and I know we've had a hand in that. We have offered, and will continue to build upon, a robust cloud-based network of publicly accessible chargers that allow EV drivers to communicate with each other. The more opportunities there are to charge, the more confidence people will have to buy an EV, and the closer we will get to the international goals of more electric vehicles on the road.

PASQUALE ROMANO

Chief Executive Officer, ChargePoint



A revolutionary idea to turn trash into green gold

Enerkem produces biofuels and circular chemicals from waste.

Enerkem's disruptive proprietary technology converts nonrecyclable, non-compostable municipal solid waste into methanol, ethanol and other widely used chemicals. Headquartered in Montreal (QC). Canada, Enerkem operates a full-scale commercial facility in Alberta and is currently developing new projects across North America and Europe. Enerkem's technology is a prime example of how a true circular economy can be achieved by diversifying the energy mix and by making everyday products greener while offering a smart, sustainable alternative to landfilling and incineration.



Enerkem Plant In Edmonton, Alberta, Canada

Ecoplanta signs grant agreement with the European Commission under the Innovation Fund

In April 2022, *Ecoplanta* signed its grant agreement with the European Commission to carry out a large-scale project under the Innovation Fund. The non-recyclable waste solution project, *Ecoplanta*, has been recognized for its highly innovative technology and stands out for its contribution to climate change mitigation, making it worthy of the European Commission's support from among over 300 projects submitted.

The *Ecoplanta* project will revolutionise municipal solid waste (MSW) management by using non-recyclable materials rejected by sorting

Enerkem's *Ecoplanta* will produce 237 kt/y of methanol, and thereby recover 70% of the carbon present in the non-recyclable materials.

Based on the Innovation Fund methodology, the project will achieve 3.4 Mt CO₂eq of greenhouse gas (GHG) emissions reductions over the first ten years of operation.

Methanol produced from *Ecoplanta* will be used as a feedstock to produce renewable chemicals or advanced biofuels, cutting GHG emission by approximately 200,000 tonnes each year and reducing waste that would otherwise end up in landfills.

centers to produce circular chemicals and advanced biofuels. The project will use Enerkem's gasification technology and deliver a firstof-a-kind commercial plant for the European market.

Sustainable Industrial Process

Essentially, *Ecoplanta* will accelerate the transition from a linear resource-based economy to a circular economy, which is the need of the hour and one of the most pressing challenges of our time. The Enerkem chemical recycling technology provides a sustainable solution for waste management and directly contributes to the EU's objective of climate neutrality by 2050. The versatility, scalability, and adaptability of the technology as it relates to feedstock and end products will allow Enerkem to flexibly structure projects to the different local contexts of each country.





Enerkem is the first company in the word to produce biofuels and circular chemicals from non-recyclable solid waste at full commercial scale. As the markets for hard-to-abate sectors such as Sustainable Aviation Fuel, marine fuel and circular chemicals are just emerging, Enerkem's technology is ready and strategically positioned to provide solutions to our partners and deploy and secure our projects around the globe.

DOMINIQUE BOIES

Chief Executive Officer, Enerkem

general fusion°

General Fusion is pursuing the fastest most practical path to bringing fusion energy to market

Company is on track to deliver zero-carbon energy to the grid by the early 2030s



General Fusion achieves performance milestones that support its Fusion Demonstration Program goals at power plant relevant scale

In 2022, General Fusion demonstrated plasma energy confinement times, plasma temperatures, and compression system performance that support meeting its goal of 100 million degrees Celsius in the company's integrated Magnetized Target Fusion demonstration.

The facility will be built to 70 percent scale of a commercial machine at the UK Atomic Energy Authority's Culham Campus. Construction is expected to start this year, with operations planned for 2027. The results come as the company celebrates its 20th anniversary. In that time, it has completed over 200,000 plasma shots, achieved 150 patents and patents pending, and grown to a team of more than 200 employees. General Fusion forges ahead on its unique Magnetized Target Fusion technology with the fabrication of an at-scale fusion vessel trial ring

Construction of General Fusion's demonstration machine advanced significantly with the fabrication of an at-scale fusion vessel trial ring by Sheffield Forgemasters.

This critical component will confirm the specifications of the thick-walled fusion vessel, designed to withstand the high temperatures and compressive forces needed to create fusion energy.





General Fusion building a global market for fusion energy with industry leaders

General Fusion announced the formation of a unique Market Development Advisory Committee (MDAC) to guide the development of its commercial fusion power plant.

MDAC members span global markets in need of carbon-free, on-demand power to meet increasingly ambitious net-zero carbon emission policy goals. Many bring extensive expertise in evaluating, deploying, and operating commercial power generation assets.

general fusion°



Commercializing fusion energy is within reach, and General Fusion is on a path to deliver it to the grid by the 2030s. We have the right team, the right technology, and the right strategy to get us there.

GREG TWINNEY

Chief Executive Officer, General Fusion



Sustainable home improvement projects with a bold vision

Renew Financial is the pioneer and one of the nation's leading residential Property Assessed Clean Energy (R-PACE) financing providers for sustainable home improvement projects. The Company has a bold vision to create equitable financial access to a safe, healthy, and sustainable world.

The R-PACE financing model was designed by Renew Financial to enable homeowners to access low-cost, upfront financing for energy efficiency, renewable energy, water conservation, and safety improvements. R-PACE is also a powerful resource that enables state and local governments to meet important sustainability goals due to the program's ability to help local governments advance key policy priorities, such as natural disaster preparation, reduced carbon emissions, higher energy savings, and water conservation.



Renew Financial administers the R-PACE program in California and Florida and has funded to date more than \$1.4 billion in R-PACE projects that have led to greenhouse gas reductions (GHGs) of nearly 1.5 million metric tons, equivalent to removing over 300,000 cars from the road, and savings of over 2 billion gallons of water.

Renew Financial's total GHG reductions for year 2022: 3,613 tonnes CO₂e/year for 6,273 projects

R-PACE has a positive impact on the resiliency of local communities, the environment and the economy.*

323,000+ home improvement projects completed \$15.3 billion in economic impact (gross economic output) \$7 billion in utility savings 32 billion kWh-e in energy saved

PACENation Market Data for R-PACE as of December 31,2022





The movement toward energy-efficient homes is not slowing down. Each day, more and more American homeowners are becoming more intent on conservation and avoiding high energy bills, therefore, they are investing in upgrades geared to reduce their energy consumption or energy loss in their homes. Renew Financial is more committed than ever before to its mission of helping homeowners from all walks of life access affordable home improvement financing through the R-PACE program to meet their home energy efficiency goals, ultimately creating energy-efficient communities.

MARK FLOYD

Chief Executive Officer, Renew Financial



Capturing a generational opportunity at the grid edge

Utilidata is a leading technology company that uses real-time data to manage exponential complexity at the edge of the grid to accelerate decarbonization and better serve customers.

The company's patented technology enables real-time insights and interventions on the electric grid to increase grid efficiency and better detect grid anomalies. The company's smart grid chip is the industry's first scalable distributed AI solution, powered by NVIDIA, using powerful computation at the edge to enhance reliability, increase grid capacity, and more seamlessly integrate clean energy and electric vehicles.





Our contribution in advancing a low-carbon future

Today, Utilidata's grid-edge software delivers **3-5% energy** savings across all electric distribution grid circuits that it operates, which results in substantial GHG emissions reductions. The software also increases the amount of distributed clean energy that can be connected to the distribution grid. The technology is accelerating the transition to a decarbonized grid, which will ultimately have a tremendous climate impact. The company's software solutions will streamline the ways in which EVs interact with the grid, further advancing the transition to electrified transportation, and will enable communities to become far more resilient in the face of climate disasters. Utilidata will enable utilities to take a much more precise approach to forced outages, mitigating the kinds of blackouts that recently plagued Texas and California.

1,248,620 tonnes CO₂e/year for 1676 products

These reductions in tonnes $CO_2e/year$ are equivalent to:*

277,856 gasoline-powered passenger vehicles driven for one year

242,950 homes' electricity use for one year

432,048 tons of waste recycled instead of landfilled

347 wind turbines running for a year





The new energy economy needs to be fair and accessible, and technology has a meaningful role to play. Through our software platform deployed on the grid, we are creating significant energy savings and enabling the cost-effective adoption of distributed energy resources – like solar and electric vehicles – that is accessible and applicable to all.

JOSH BRUMBERGER

Chief Executive Officer, Utilidata



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